Banking on Seniority: The IMF and the Sovereign's Creditors

AITOR ERCE*

The programs designed by the International Monetary Fund (IMF) during the Global Financial Crisis have shown more awareness of the importance of domestic demand for the prospects of economic recovery. Yet the IMF has continued to do little about the late payments made by governments to domestic creditors and suppliers. In contrast, the greater protection historically awarded by the IMF to foreign creditors has endured throughout the recent crisis. The article suggests that, in order to adequately balance foreign creditor seniority and growth objectives, the IMF may sometimes need to emphasize equitable burden-sharing across categories of creditors rather than privilege the interests of international bond markets.

Introduction

In June 2004, a resident bank sold a US$2.3 million claim on the Uruguayan government to a nonresident. This resulted in the emergence of arrears with external creditors. As the claim remained unpaid, in June 2006 the new owner made the case that this equated to the emergence of an arrear with external creditors and that the lending into arrears (LiA) policy should be activated. As a result, the claimant requested that the International Monetary Fund (IMF) pressed the Uruguayan authorities to negotiate in good faith the clearing of that arrear. The IMF did so shortly thereafter (Diaz-Cassou, Erce, and Vazquez 2008). Despite the Fund's traditional emphasis on state–creditor relations (Clift and Tomlinson 2012; Broome 2008; Vreeland 2003; Woods 2006) and its recent focus on achieving more private sector involvement when sustainability is at stake (International Monetary Fund 2013) a critical aspect of this relationship, the implicit seniority attached to different creditors by the IMF, remains unexplored. This article focuses on the overlooked consequences of the IMF's differential treatment of foreign creditors, bond holders, and other domestic creditors on the economic recovery of countries under IMF programs.

It is now widely accepted that the Great Recession saved the IMF from its growing precrisis marginality (Grabel 2011). This rejuvenation coincided with surprising policy shifts at the Fund. Older texts on fiscal policy activism were revisited and concerns regarding poverty and inequality found their way back into IMF research and public policy pronouncements. Moreover, the Fund began to challenge the conventional wisdom about capital account liberalization, moving away from orthodoxy in the Fund's policy advice by 2010 (Gabor 2012; Gallagher 2011; Moschella 2012). Surprisingly, despite the criticism the Fund received after its handling of the Argentinean and Russian debt crises, the post-Lehman reforms let the policies guiding the IMF involvement on sovereign debt crisis unchanged. Although post-Lehman crisis IMF programs

*Bank of Spain
The author is Senior economist (on leave) at the Directorate of International Affairs of Bank of Spain.

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began to focus on domestic financial sector stabilization, the way in which the Fund assessed the contributions to be made by the state and its citizens, the creditors of the state, and the official sector maintained a strict asymmetric treatment of resident and foreign claims on the state. The IMF continues to see the relation between the public sector and its bondholders, foreign creditors and domestic suppliers just as before the Lehman crisis.

While IMF members are required to have no external arrears or to clear them in good faith, domestic arrears are included at best as indicative targets.[1] Specifically, in the presence of external arrears with private creditors, the IMF can only lend through the more demanding LiA poilicy. Simultaneously, while domestic arrears might be a program target, the Fund does not seem to deem their removal a priority. By making sovereign bond investors believe in the authorities' commitment to discriminate between creditors, the state's strategy of delaying payments to domestic creditors appears to be just another way of retaining access to international financial markets at the risk of further economic dislocation and a delayed exit from recession.

This article argues that, as it stands, the stance of the IMF vis-à-vis sovereign private creditors may not do enough to prevent what could be called "gambling for redemption" through an excessive reliance on domestic creditors and/or inequitable debt restructuring strategies.[2] When faced with a choice between ensuring the payment of foreign and bond creditors and limiting the economic dislocation caused by domestic arrears, the Fund continues to choose the former without fully understanding the effects of such preference. While the Fund continues to tolerate governments unilaterally borrowing from domestic agents by means of running arrears (Ramos 1998), its official support—the last line of financing for stressed sovereigns—still grants priority to foreign creditors. As regards its stance vis-à-vis the sovereign's creditors, the IMF remained "your grandfather's IMF" (Grabel 2011).

Some signs of change, however small, came in late 2012. Against a gloomy economic background, an article in the *World Economic Outlook* openly argued that the Fund might have been wrong about some of the essential virtues of austerity.[3] The impact of a fiscal tightening on the economy (what economists call *fiscal multipliers*) had been, apparently, underestimated. In a similarly controversial move, the IMF launched an exercise to evaluate its involvement in Greece, with a specific focus on the debt restructuring exercise in 2012. As a result, in April 2013, the IMF issued a critical review of its involvement in Greece (International Monetary Fund 2013). The review called for the design of mechanisms that, in situations where a sovereign is clearly insolvent, deliver early and sufficient debt relief from private creditors. This is remarkable given that debt restructuring is the main tool through which the international financial infrastructure brings creditors to provide debt relief to a sovereign. If it were to occur, it would represent a significant change of stance. One contribution of this article is to discuss how such a leap could be done and what it might need to achieve. Perhaps reflecting this position, the implicit seniority attached to different creditors by the IMF and the effects of such seniority remain unexplored.

To address this gap in research, this article studies the involvement of different sovereign creditors on a relatively large sample of recent IMF programs. The article's findings argue for the need to consider further changes in the IMF's stance vis-à-vis the various countries' creditors. The above-mentioned asymmetry fosters crisis resolution strategies that may further disrupt the economy by placing an excessive burden of adjustment precisely on domestic actors whose resources are critical to economic recovery.[4] The case studies show that, often, the burden of adjustment lies on the nonfinancial sector, which is required to support not only public finances but also to chip in to stabilize the domestic institutions. This private sector (over)burdening is also relevant for the debate on the effects of IMF programs on growth (Binder and Bluhm 2010; Easterly 2005; Vreeland 2003).

In order to deliver insights on the economic effects of the current framework, the article uses data on public payment delays and on several recent sovereign debt restructurings. Using a simple regression framework, the article shows that rising payment delays to domestic residents and suppliers help explain the macroeconomic underperformance observed in IMF program countries.[5] While the article does not provide a comparison of the potential impact of approaching burden sharing in a different way, it does show that the effects of the current approach may be more negative than understood so far. Going forward, the IMF could reevaluate its stance on burden sharing and the role of residence in the resolution of sovereign debt crises, and, if deemed necessary, recommend burden-sharing strategies that facilitate an earlier economic recovery.[6] These findings are also relevant for a growing literature that tries to understand why the fiscal consolidation strategy designed by the G-20 in 2010 failed to produce the expected results.[7]

To make these arguments, the article is organized as follows. First, it introduces the different methodologies used in the article. It then shifts, using a battery of case studies, to exploring how public arrears were treated in recent Fund programs. Digging deeper into the role of domestic creditors, there is a case study assessing how the Fund's stance might have affected the strategies pursued in some recent sovereign restructurings. In the third empirical section, the article studies the relation between public payment delays and economic performance. The analysis closes with policy suggestions and implications.

Methodology

To address the stance of the IMF concerning the different treatment of sovereign creditors and to gain insight into the effects of such an approach, the article relies on both case studies and econometric evidence. In the first two sections, I describe the role of different types of creditors in IMF programs and debt restructuring exercises and the treatment that the Fund gave to arrears with domestic and foreign agents within its adjustment programs. This is done by studying in detail a number of recent programs and restructuring events. In order to address the stance of change-continuity, I analyze both pre- and post-Lehman programs. After describing the role of the various creditors in IMF programs, I focus on the macroeconomic effects of the treatment received by local suppliers, who almost invariably suffer repayment problems.

In order to study the nexus between economic growth and domestic arrears, the article draws on Blanchard and Leigh (2013). I use a simple regression framework to study the extent to which increasing delays in payments to suppliers help explain the *World Economic Outlook's* forecast errors in predicting the dynamics of gross domestic product (GDP) growth and employment. I proxy the behavior of delayed payments using data on other accounts payable, a balance sheet category composed mostly of public pending payments. The data come from the *general government financial accounts* as reported by Eurostat. The analysis shows that considering domestic arrears could enhance the official sector understanding of the dynamic effects of its adjustment programs. The ability of this simple analysis to provide normative answers relies on the nature of the regression. I study the correlation between the error term of a projection and macroeconomic variable. This makes concerns regarding reverse causality less of an issue.[8]

Although the analysis falls short of providing a description of the potential impact of approaching burden sharing in a different way, it shows that the current approach may be significantly more negative than previously thought.

IMF-Sponsored Programs and Public Payment Arrears

Sovereign debt problems have triggered balance of payments crises for centuries, and it is the Fund's mandate to help countries out of such situations. Despite the fact that the Articles of Agreement forbid the Fund from interfering with members' contractual obligations, its stance on the private creditors of program countries has evolved over time. [9] Prior to the 1980s, most sovereign debt problems concerned official flows to developing economies. The debate at that time revolved around the adequacy of creating an institutional body or a set of internationally binding regulations to guide the resolution of episodes of sovereign distress (Raffer 1990). Various proposals gave the IMF a very relevant role in such schemes, although hardly any consideration was given to the role of the private sector.[10]

Indeed, until 1989 all IMF programs required the elimination of external private arrears and the nonaccumulation of new ones during the program period (International Monetary Fund 1999). The idea behind this was to incentivize both sovereigns and private creditors to reach a timely restructuring agreement. But the protraction of the 1980s debt crisis undermined the rationale behind the nontoleration of arrears. Given private creditors' reluctance to engage in constructive negotiations, the policy of lending into arrears (LiA) was introduced as an explicit move to reduce creditors' leverage—a de facto veto over the Fund's lending decisions.[11] The LiA legalized the Fund's lending to countries in arrears to commercial banks, subject to the existence of a discernible negotiation process ongoing. It also allowed for further accumulation of arrears during the program. In 1998, the policy was broadened to encompass bonded debt and a year later the requirements that negotiations be in place were softened.[12] Under the new policy, the Fund considered a state's efforts to be sufficient if it made a good faith effort to reach a collaborative agreement with creditors. A final modification, in 2002, introduced principles to help interpreting the "good faith" criterion.[13]

All in all, in the presence of arrears with external creditors, the IMF's stance hardens in two dimensions. First, *good faith* is included as an additional condition for Fund's disbursements. Second, where arrears remain, the Fund conducts *financing assurances reviews* aimed at determining whether adequate safeguards to protect the Fund's resources are in place. In contrast, neither the LiA policy nor standard programs further specify what the IMF's stance on domestic arrears should be. As reviewed below, conditions on domestic arrears were not systematically imposed and, when they were imposed, they were ineffective and hardly ever met. If anything, domestic arrears have been seen as an way to get financing within the fiscal limits imposed by the adjustment programs. Ramos (1998), in one of the few papers assessing the IMF's stance on domestic arrears, argues that during the 1990s, large domestic arrears had very destabilizing consequences in Eastern Europe.

In order to gauge the implications of the Fund's current stance on the different creditor groups and the lack of a consistent policy addressing the issue of domestic arrears, I reviewed 10 recent IMF programs with a focus on the relevance of payment arrears to residents and foreigners within the Fund's conditionality and monitoring activities. The programs under analysis include Russia (1998), Ukraine (1999), Dominican Republic (2005), Uruguay (2003), Jamaica (2009), Hungary (2008), Iceland (2008), Greece (2010), Ireland (2011), and Portugal (2011).[14] Table 1 provides information on

TABLE 1
Conditionality Regarding Domestic Arrears

	Program Date	Attached?	Met?	Waived?
Russia	1999	No. Mentioned in the LOI	–	–
Uruguay	2003	No	–	–
Dominican Republic	2004	Yes. Indicative target	No	Yes*
Iceland	2008	No	–	–
Hungary	2008	Mentioned on 5th review. No conditions attached	–	–
Jamaica	2010	Yes. Indicative target	No (recurrently)	Yes (recurrently)
Greece	2010	Yes. Indicative target	No (recurrently)	Yes (recurrently)
Ireland	2011	No	–	–
Portugal	2011	Yes. Indicative target	No (recurrently)	Yes (recurrently)

Source: International Monetary Fund.
Note: LOI refers to the Letter of Intent attached to each program review where the authorities detail the economic plan going forward.
*Dominican Republic breached the nonaccumulation of external arrears condition and the program turned of the LiA type.

the existence and fulfillment of conditions related to domestic arrears. The Appendix contains more details of the various cases, including information regarding the size and relevance of the volume of domestic arrears.

Although it is far from being the rule, in some countries the IMF recognized domestic arrears as a serious problem.[15] In such cases, the authorities detailed plans to clear the arrears, though the results were disappointing. Indeed, I did not find a single case where conditions on the removal of domestic arrears were timely fulfilled. Likely reflective of the sovereignty of countries and the nature of their relation with their own residents, if included at all, conditions regarding the clearance and non-accumulation of further arrears to domestic residents were defined as indicative (nonbinding) targets to be monitored periodically. As a result, when the conditions were ineffectively enforced, the IMF resorted to waivers and rescheduled the various program conditions.[16]

A close examination of the euro area (EA) cases revealed a stark difference between, on the one hand, the Greek and Portuguese programs and, on the other, the Irish program. In the former, concerns regarding unpaid debts to residents are clear both from the perspective of the authorities (who presented plans to clear them) and from the perspective of the official sector (which included conditions regarding this variable). Unfortunately, in both cases the authorities failed to meet the targets and the IMF was forced to issue waivers and carry the policy actions into the next review. As a result, domestic arrears increased to a record level of over 2.5% of GDP in Portugal and 6% in Greece. One program recommendation in Portugal and Greece clearly speaks of the seniority attached by the official sector. In these countries' programs, the IMF allowed the authorities to use official financing to reduce outstanding domestic arrears only if such financing was in excess of other financing needs, including bond repayments.

In contrast, in Ireland, the only reference to payment arrears by the public sector comes with the usual all-time-binding limit in the accumulation of private external arrears. Arrears with domestic suppliers were not a concern at any point in the program. The Icelandic program makes no mention either of domestic arrears by the government; the only types of public arrears covered in this program were those with external creditors. In the original Icelandic program, the government had to guarantee foreign bank deposits. Eventually, Iceland revolted against this aim, and foreign depositors (mostly Dutch and British) had to be bailed out by their national authorities (Helgadottir 2013).

In turn, in the Fund's 2008 program for Hungary, the issue of domestic arrears was not mentioned. Only during its fifth review did the Fund note that public payment delays were on the rise. Still, the Fund did not add any conditions to the program to address the predicaments of domestic creditors and suppliers. As detailed in the Appendix, the Hungarian case shows how, by running arrears, the government can meet conditions on fiscal policy set in cash terms.

The analysis of IMF programs for emerging economies presents a similar picture. In its 2010 Jamaican program, the IMF included a condition regarding the nonaccumulation of domestic arrears. Although plans to deal with them were arranged, the program's aim of reducing the volume of arrears was not achieved. In Uruguay (2003), the IMF program did not address arrears to domestic suppliers; despite this, the theme was a matter of intense domestic debate at the time.[17] In the Dominican Republic arrears owed to domestic and foreign creditors also received different treatments. Again, although domestic arrears were a part of conditionality, their inclusion as an indicative target made it a less stringent condition than the one regarding foreign arrears. When, in 2005, the Dominican Republic defaulted on its domestic and foreign creditors, its government presented a plan to clear DR$3 billion in domestic arrears as part of the recovery strategy. The third and fourth program reviews show that after the debt restructuring was conducted, arrears with domestic suppliers remained. Interestingly, similar to what was prescribed in Portugal and Greece, starting from the fifth review of the Dominican program, excesses on financing could be used by the government domestic arrears. In Russia and Ukraine, domestic arrears included public salaries and pensions; on top of debts to suppliers, the Fund discussed the problem but with no real consequences. Ramos (1998) reports the highly disrupting impact for the economy of the high level of domestic arrears in Ukraine and Russia. According to Ramos, domestic arrears in these countries amounted to between 3% and 6% of GDP.

Another relevant finding is the increasing importance granted by the Fund to guaranteeing the stability of the domestic banking system. The pre-/post-Lehman contrast is evident in this regard. The most recent programs (Portugal, Ireland, and Greece, but also Jamaica and Iceland) earmarked loan funds for the financial system and attached specific conditions to the programs aimed at guaranteeing their financial systems' stability.[18] From the perspective of this article, this comes as another significant stance of change. In pre-Lehman programs such as Russia, Argentina, Uruguay, or Dominican Republic, the design of firewalls between the sovereign and domestic banks was much less clearly articulated.[19] While this is arguably a good thing given that the stability of local banks is critical for a sustainable exit from the crisis, it also implies, as exemplified by the Irish case, placing an increasing burden of adjustment on other residents and domestic creditors. Indeed, as domestic banks receive increased attention from the IMF, other domestic creditors often face payments delays. Additionally, as domestic burden sharing tilts toward nonbank creditors, the country ownership of the program can be negatively affected as a result of the increasing social tensions resulting from both the economic dislocation and the perceived preferential treatment of the domestic financial elites.[20]

All in all, the evidence supports the view that the IMF gives less relevance to the accumulation of public arrears with residents, which is viewed as an additional source of financing for the sovereign. This is further underlined by the fact that, whenever included, conditions on domestic arrears are set as (ineffectively enforced) indicative targets and their nonobservance is regularly waived. The next section shows how this asymmetry is reproduced during sovereign debt restructurings.

Pecking Order during Sovereign Debt Restructurings

Does the Fund, by affecting the sovereign's creditor pecking order, incentivize potentially destabilizing restructuring strategies? According to IMF (2013), this is actually the case. In reviewing some recent debt restructurings, (2013) defines the extent of private involvement achieved in recent debt restructurings as "too little too late."[21] This section further explores this issue by focusing on two dimensions of the restructuring strategies deployed in recent debt exchanges. First, it looks at the instruments involved, paying attention to the claim's type and legal origin.[22] Then, the analysis focuses on the nationality of the creditors and the treatment they received.

Although eventually most countries included various debt instruments, many cases show selectiveness at some point. During the early stages of the debt crisis, a selective approach was clearly discernible in Argentina, Ecuador, Belize, Pakistan, Jamaica, Ukraine, Russia, and Dominican Republic. Russia managed to stick to a selective approach and only defaulted on domestically issued bonds and on obligations inherited from the Soviet Union. In Argentina, the authorities tried to discriminate between creditors by phasing the restructuring. However, Argentina defaulted soon after phase I and the restructuring broadened to encompass most of its sovereign debt. In Ukraine, the wave of selective restructurings during 1998–1999 involving specific domestic and foreign instruments only postponed the crisis resolution. The country was ultimately forced to launch a comprehensive debt restructuring in February 2000. In Jamaica, the focus of its 2010 restructuring was on domestic law bonds. The mild haircuts applied were insufficient to restore sustainability, as underlined by the fact that the country underwent another debt restructuring in early 2013. In contrast, Dominican Republic, Ecuador, Belize, and Pakistan tried to limit the scope of the restructuring to specific categories of foreign law (external) debt. In Belize, local law debt was minor; in Pakistan, domestic debt was dealt with through inflation. Originally, Ecuador suspended coupon payments only on past-due interest bonds and Discount Brady bonds, but eventually was forced to carry out a comprehensive restructuring involving also domestic and official debt. Also, in Dominican Republic, some domestic bonds and loans with resident banks were finally restructured. Grenada, Uruguay, and Dominica stand out as cases in which the authorities went at great length to preserve a market-friendly approach during the restructuring process and involved in the exchange most types of public liabilities.[23]

Appendix Figure A1 depicts the degree of intercreditor equity in each case. It compares the structure of sovereign debt before the debt restructuring with the structure of the instruments ultimately involved in the exchange (central column). The last column shows the structure of public debt after the exchange. The similarity between the first two columns speaks of the degree to which the instruments involved in the restructuring align with the actual debt structure, providing insights into the degree to which intercreditor equity was applied.[24]

According to Appendix Figure A1, the most comprehensive restructurings occurred in Dominica, Uruguay, and, to a lesser extent, in Grenada and Ecuador.[25] In those countries, creditors shared the burden of the restructuring quite proportionally to the ex ante debt structure. In spite of the selective approach described above, the Argentine and Dominican restructurings can be labeled as intermediate in terms of comprehensiveness. In turn, the restructurings in Jamaica, Pakistan, and Belize were rather selective, including either only domestic instruments or international instruments. In Jamaica, the focus was placed on domestically issued debt, and in Pakistan and Belize, to varying degrees; domestic instruments were spared from the restructuring.[26]

Creditor Nationality and Gambling for Resurrection

The opening of capital accounts has made it increasingly difficult to align domestic and external debt with domestic and foreign creditors. Still, domestic creditors possess certain attributes that create incentives for the authorities to target them. As residents are subject to the domestic legal framework, the sovereign has tools such as domestic legislation or taxation to encourage their participation in an exchange. Additionally, if the sovereign remains current on its external obligations, it might retain access to international financial markets, especially if investors believe the authorities' commitment to do whatever is required to fully repay external obligations. Finally, restructuring debt held by residents has a direct impact on the economy.[27]

Recent episodes of debt restructuring have featured an extensive involvement of domestic creditors in the restructuring strategy. In the cases of Dominican Republic, Pakistan, and Belize, residents played, to differing extents, a negligible role. In Ecuador, the terms of the restructuring were worse for nonresidents. In Argentina, Ukraine, and Russia, the direction of discrimination is ambiguous. In Argentina, initially, the government only involved domestic creditors by carrying out a semicoercive debt restructuring (mega-swap). Argentina *gambled for resurrection* in an attempt to save the convertibility regime and avoid an external default.[28] After that strategy failed, the authorities focused on restructuring external debt.[29] In Russia, the government defaulted on domestically issued debt. The authorities offered different restructuring terms to residents and foreigners.[30] In Jamaica, after the 2010 restructuring, the government was forced into a new restructuring exercise in 2013, when it took an even more discriminatory approach by focusing on domestic law bonds on the hands of residents. As documented in IMF (2013) a similar path was followed by Grenada and Belize, which recently had to re-restructure their sovereign debt. This tendency to avoid large restructuring exercises, which often leads to a sequence of restructurings and a delayed crisis exit, is what IMF (2013) defines as *too little, too late*.

As regards European debt restructurings under the IMF umbrella, the only example is Greece. While the restructuring was equitable in the sense that included all marketable instruments and did not distinguish creditors by their nationality, the fact that only two bonds were offered led to different haircuts for different creditors (Trebesch and Zettelmeyer 2012).[31] Moreover, the restructuring came after the Greek program was extended and modified. Indeed, at that point the Fund was threatening to stop the program if the government could not find a way to fill the funding gap. As documented by IMF (2013), this foot dragging seriously reduced the potential of the private sector involvement (PSI) exercise to provide substantial relief because by then private exposures had been largely replaced by official funding.[32] Although the Fund supported the original plan, it did not hide its concern that it would be difficult to bring Greece back to a sustainable position without PSI.[33]

With this evidence, the following patterns emerge: prior to an external default, residents are often coerced into the further accumulation of sovereign debt, the acceptance of debt relief or (for suppliers) increased delays in repayment. This clearly happened in Russia, Argentina, Ukraine, Jamaica, and Greece. However, once the sovereign defaults on foreign debt, nonresidents tend to bear the burden of the restructuring. The financial sector's health is key in this sequencing (Erce 2012). Indeed, the Argentine and Jamaican banking sectors were perceived to be able to withstand the restructuring.[34] Instead, in Ecuador and Dominican Republic, given that the crisis was generated by bank problems, the authorities limited domestic banks' involvement in the restructuring. In Belize, domestic debt was low and external debt was mostly held by foreigners. In Russia, a low level of financial intermediation and the public ownership of the main banks may explain the domestic bias. Even Grenada and Dominica, which involved all their creditors in the restructuring, designed specific conditions to guarantee their banks' stability.[35] In Greece, the exposure of local banks to the sovereign led to large public recapitalization due to the losses suffered on the debt exchange.

When a country's debt position becomes unsustainable, the IMF has a role to play in advising the country's authorities on the best course of action to minimize the cost that an unavoidable restructuring has on domestic and international prosperity (Krueger 2002). The case studies suggest that, as debt problems mount, countries tend to "gamble for resurrection" by applying partial measures in order to bridge short-term liquidity pressures. As documented in Erce (2013), in Argentina, Jamaica, and Russia, the authorities tried to alleviate the pressures through voluntary debt exchanges. These countries' experiences illustrate the risks posed by financial engineering operations designed to bridge liquidity pressures at times of heightened vulnerability. These partial measures are often detrimental in the medium term and should be avoided if an early recovery of sustainability is accepted by the Fund as a priority objective for its crisis resolution strategy. This may entail advising countries to adopt a comprehensive approach to restore debt sustainability at an early stage. In particular, the IMF should focus on securing some level of intercreditor equity and avoid discriminatory practices that, as argued below, can have damaging effects on growth.

Arrears and Economic Activity

Whether or not a country can grow out of a recession, it might be argued, is related to systemic factors: external and internal aggregate demand, interest rates, bond market constraints, etc. The statistical analysis below shows that when domestic arrears become sizable, as has been the case in many peripheral countries in recent years, public expenditures may not have the expansionary effect theoretically associated with them. As such, the analysis falls short of providing an illustration of the potential impact of approaching burden sharing in a different way.[36] The scope of this section is narrower; it only aims at pointing out that the current approach to burden sharing may be more negative than currently thought.

In order to study the nexus between economic growth and domestic arrears, the article draws on Blanchard and Leigh (2013). Using a simple regression framework and data from the 2010 World Economic Outlook (WEO), Blanchard and Leigh show that the WEO's errors in predicting GDP growth and unemployment are correlated with the WEO's predicted fiscal consolidation. They argue that this implies that the model behind the WEO's predictions misjudged the impact of fiscal consolidation. According to their results, the effect of cuts in the government's budget on GDP growth and unemployment were underestimated.

Using Blanchard and Leigh's (2013) data and codes, I replicate and extend their estimates.[37] My strategy is to show that: (1) arrears and/or payment delays correlate with the WEO's prediction errors, and (2) adding payments delays to Blanchard's and Leigh's regression improves the model's performance. I find that prediction errors in both economic growth and employment negatively relate to increases in the level of unpaid public bills.

It is not a straightforward task to find information on the extent to which public liabilities beyond marketable financial instruments remain unpaid. Public sector operations can be computed using cash or accrual accounting. In contrast to cash accounting, which reflects expenditures (revenues) actually disbursed (received), accrual measures include the government's full expenditure obligations, including bills that remain unpaid. For this reason I use Financial Accounts data from Eurostat, where accrual data are readily available even they are subject to the caveats discussed below.[39] The general government's financial statements provided to Eurostat include a category defined as *other accounts payable*. This series collects the bills that the government has yet to pay.[39]

Using this data set, I proxy increases in public arrears/payment delays by defining a variable that measures the extent to which the current volume of other accounts payable (as a percentage of the government's total expenditure) departs from its country-specific historic average. Positive deviations imply that either the government is taking on more obligations that are paid with a delay or the degree of delay is increasing. An important caveat of this measure is that includes only the central government and leaves out public entities such as hospitals or local authorities, where anecdotal evidence shows that arrears are more likely.[40]

Appendix Figures A2 and A3 present a visual comparison, using scatter plots, of public payments delays and the WEO's prediction error in estimating GDP growth and unemployment. The graphs also contain the results of an OLS regression of the measure of payment delays on both prediction errors. Both regressions delivered significant coefficients. Next, I ran Blanchard and Leigh (2013) regressions for GDP growth and unemployment with and without the measure of payment delays as an additional control. As reported in Table 2, the regression analysis shows a strong relation between activity and the deviation of pending payments from its mean.

The arrears variable is significantly related to both activity and the WEO's prediction errors. This implies that the relation between arrears and activity (output and employment) is, in reality, different than what the WEO's model suggests. Moreover, as shown in Table 2, when payment arrears are included in the regression, the coefficient on the predicted fiscal adjustment falls both for output growth and for employment, implying that domestic arrears can help explain the failure to predict the weak recovery and subsequent double dip experienced by Europe after 2010.

As I study the correlation between an error term and public arrears, reverse causality is less of an issue. The reason is the following. While GDP growth or

TABLE 2
Fiscal Consolidations, Economic Activity and Payment Delays Econometric Evidence from the Euro Area

	Output Growth		Unemployment	
WEO's FCF	−1.17***	−0.92***	0.91***	0.72***
OAP over TE		−30.7**		23.2*
Constant	1.11***	1.49***	−0.58	0.87**
Observations	11	11	11	11
Adjusted R-squared	0.75	0.86	0.67	0.76

Blanchard and Leigh (2013), Eurostat and author's calculations. WEO's FCF stands for the WEO's fiscal consolidation forecast. OPA over TE stand for the deviation from its mean of other accounts payable (as % of total expenditures). *significant at 10%, **significant at 5%, ***at 1%.

unemployment dynamics can indeed affect the dynamics of domestic arrears, it is not evident how a statistical object such as the predictive error of a model may affect arrears.

The results show a clear relation between public domestic arrears/payment delays and economic activity. This finding has implications for how the IMF deals with crises.[41] It suggests a trade-off between economic recovery and allowing governments to obtain involuntary financing from domestic suppliers and creditors. Additionally, in the debate on fiscal multipliers, these results signal the existence of two types of multipliers that can be dubbed as *cash* and *not-yet-cash multipliers*.[42]

Conclusions and Implications

Although states' indirect financing through the accumulation of arrears with residents can have perverse consequences for economic activity, official IMF support programs continue to fail to address the need for their clearance. Moreover, even when arrears are sizable and the programs include them in conditionality, conditions are ineffectively enforced. The result is a pattern that starts with noncompliance and ends with the provision of subsequent waivers. These issues have been overlooked in scholarship on the IMF's role in crisis resolution so far. This article addresses the gap through two claims.

First, notwithstanding the IMF's recent move toward greater consideration for the sovereign's domestic financial institutions, in practice the Fund continues to privilege foreign creditors at the expense of domestic creditors. The IMF is more aware now of the spillovers that debt crises impose on the financial system, and it tailors its financial assistance programs accordingly. Unfortunately, the cases studied here reveal that other domestic creditors (suppliers) are as unprotected as they have always been. While foreign sovereign creditors can count on the Fund's traditional deployment of disincentives against default, domestic creditors are left to fend for themselves.

The second claim is that this IMF-sanctioned heterogeneous treatment of sovereign creditors can have negative effects on growth. If the key for IMF assistance to restore stability is economic growth, this might imply that the IMF should make a stronger defense of domestic nonbank creditors and try to avoid excessive volumes of domestic arrears. Two policy suggestions follow.

First, restructurings, if needed, should be done early, comprehensibly, and fairly. This implies recognizing the existence of solvency problems early on, involving as many of the creditors as possible, and asking them to contribute in a manner that makes the burden sharing equitable. This recommendation resembles the recent claim that debt restructurings under IMF auspices often came too late and provided too little relief (International Monetary Fund 2013). The case studies suggest that as debt problems mount, countries tend to gamble for redemption by applying partial measures. Such measures are often detrimental in the medium term; they delay the resolution of the crisis, increase the debt burden, or push the domestic financial system into insolvency. The IMF should avoid supporting such measures. In particular, the Fund should focus on securing some level of intercreditor equity and avoid unjustified discriminatory practices.

Second, the Fund could, on a country-specific basis, assess if arrears have the potential to disrupt the economy. In this way, whenever necessary, it could provide better advice to the authorities and try to avoid accumulating pending payments to residents at levels that undermine the chances of recovery.[43] To this end, the usual program ceilings for domestic arrears should be thought out carefully and be given the same treatment as arrears to nonresidents.[44] As such policy could prove difficult to implement, given the countries' reluctance to allow the Fund to interfere in domestic affairs, IMF programs could at least more accurately factor in the impact of the accumulation of domestic arrears when designing financial assistance programs.

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Notes

1. IMF programs define economic-indicative targets whose fulfillment is desirable but not compulsory.
2. It is encouraging that a recent IMF Policy Paper (International Monetary Fund 2013), approved by the Board, calls for reforms along some of the lines presented in this article.
3. <http://www.imf.org/external/pubs/ft/weo/2012/02/index.htm>.
4. Broner et al. (2014) argue that an excessive reliance of the sovereign on domestic sources of financing can crowd out private investment, negatively affecting output.
5. Further research could clarify why the IMF's position as regards domestic creditors has been an instance of continuity. Of relevance here could be research on principal–agent politics at the board level (Clegg 2012), the role of staff research (Ban 2013; Broome and Seabrooke 2012; Chwieroth 2009; Seabrooke 2012), or some combination of the two (Gallagher 2011).
6. Reducing the asymmetry can, by balancing burden sharing, improve program ownership.
7. See Blanchard and Leigh (2013), Corsetti, Meier, and Muller (2012), Auerbach and Gorodnichenko (2012), or Hernandez de Cos and Moral-Benito (2013).
8. While GDP growth or unemployment dynamics can indeed affect the dynamics on domestic arrears, it is not evident how a statistical object such as the predictive error of a model may affect arrears.
9. The articles establish that a crucial element of the Fund's mandate is to provide members with "opportunities to correct balance of payments maladjustments without measures destructive of national or international prosperity."
10. Rogoff and Zettelmeyer (2003) discuss proposals, since the late 70s, on how to resolve sovereign debt problems. See also Woods (2005), Moschella (2012), Clegg (2012), or Lütz and Kranke (2014).
11. Simpson (2006) and Diaz-Cassou et al. (2008) describe the LiA policy and discuss its limitations.
12. This change aimed at reflecting that, given the number of bondholders potentially involved, initiating negotiations for the restructuring of bonded debt is likely to be harder.
13. The principles are: members should (1) engage in early dialogue with creditors, (2) share relevant information on a timely basis, and (3) allow creditors to provide input on the design of restructuring.
14. Countries were chosen to include most recent programs and also pre-Lehman programs where debt programs were pervasive. With this I aimed at having a selection including cases where also foreign creditors to the state had to contribute to the resolution of the crisis.
15. In Greece and Portugal, government initiatives to clear domestic arrears were designed. Although not covered here, Italy and Spain also suffered payment delays as austerity programs were implemented. Also, in these cases the authorities recognized the severity of the problem and designed programs for the clearance of such missed payments.
16. In order to learn about the existence and fulfillment of conditions on domestic arrears I reviewed as many program reviews, letters of intent, and Article IV consultations as available at the IMF's webpage.

17. I thank Gerardo Licandro, from *Banco Central del Uruguay*, for pointing this out.
18. This is reflected in the recent increase in the size of the programs signed with the IMF:
19. Balteanu and Erce (2014) study these (and other) episodes and show that the domestic debt restructuring directly sent the banks into bankruptcy.
20. These dynamics are clear in Europe, where the social tensions created by the adjustment have helped bringing down several governments.
21. Erce (2013), using different episodes, reaches similar conclusions.
22. This dimension refers to whether the sovereign adopts a selective or a comprehensive strategy. Under the selective scenario, the restructuring focuses on specific debt instruments. Conversely, in a comprehensive approach the main debt categories are involved.
23. In Uruguay, international loans, a minor component of total debt, were spared.
24. The table does not provide information on the haircuts suffered by different instruments and creditors. Such information is scarcer and is discussed later in the text.
25. Argentina, Ukraine, Jamaica, and Ecuador featured various restructuring rounds, as did Grenada and Belize, although in these two cases the distance between restructurings was longer.
26. The Greek restructuring also featured selectivity. Most foreign law bonds were not restructured.
27. Given that a large portion of the public debt is often in the hands of domestic banks, restructuring it negatively affects their solvency. On top of this loss, the restructuring can trigger funding withdrawals.
28. *Gamble for resurrection* refers to desperate actions taken by the government in order to try to resolve the problem but that, if unsuccessful, can seriously raise the cost for the economy.
29. In phase I debt held by locals was exchanged for loans. Phase II aimed at nonresidents.
30. According to Diaz-Cassou, Erce, and Vazquez (2008) the terms were worse for residents. However, nonresidents also faced controls restricting the repatriation of cash proceeds.
31. Although at some point the strategy seemed to be to leave the foreign law bonds out of the exchange, there was no stance of discrimination by residence.
32. Remarkably, a few months after the exchange the authorities got further relief through a debt buyback.
33. Indeed, the IMF had to modify its exceptional access policy to be able to accommodate the Greek program (International Monetary Fund 2013).
34. That was an underestimation of the risk of further increasing banks' exposure to the sovereign.
35. The relatively small size of these countries likely facilitated the process.
36. One reason for not having performed an exercise where alternative burden-sharing alternatives can be compared is that, other than in Greece, for those countries for which time series on domestic arrears exist there has been no external debt restructuring.
37. Data and codes are available at <http://www.imf.org/external/pubs/cat/longres.aspx?sk=40200.0>.
38. Data are available for 23 European economies and spans back to 1995. I focus on the euro area.
39. Although the series mainly collect pending payments, they also contain interest arrears, retroactive court decisions, interim dividends, or profits from unreturned banknotes (Eurostat 2013).
40. As a result, payment delays are most likely undermeasured.
41. Given its lender of last resort role and its focus in external issues, countries often accept foregoing growth policies, which can undermine the recovery.
42. The first refers to expenditures actually disbursed and the second to unpaid expenditures.
43. This change may lead to tougher IMF programs, requiring even more fiscal adjustment. Alternatively, programs could become longer, aiming for a more gradual path of adjustment and allowing for higher cash expenditure along the adjustment path.
44. As regards capital controls, the IMF is already pushing to avoid strategies that discriminate according to residence, implying that the Fund may have traction also on this issue.
45. While this is a fraction of output (0.2% of GDP), it was just a first estimate, the tip of the iceberg.

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Appendix

Payment Arrears in Fund-Sponsored Program: Case Studies

This Appendix reviews public payments arrears in 10 recent IMF programs, providing a bird's eye view of the evolution of the Fund's thinking regarding this issue.

Russia (1998). According to Desai and Idson (1997), Russian authorities accumulated large domestic arrears throughout the 90s. Although the government planned to reduce the problem, and discussed approaches to do so with the IMF, attempts at reducing the problem failed. According to Ramos in 1998, public sector arrears amounted to 3% of GDP, with more than a third of that amount due to domestic suppliers. Indeed, the crisis escalated to a point where most domestic debt instruments were restructured, furthering the public sector payment problems vis-à-vis the resident sector.

Ukraine (1999). According to Ramos (1998), in the runup to the conversion to a market economy the government accumulated large amounts of arrears. Public sector arrears were even larger than Russia. Ramos reports that by 1998, payments in arrears amounted to 5% of GDP, with one-third of that with local suppliers. In order to deal with the crisis, the authorities carried out a series of partial debt restructurings during 1998 and 1999 to be followed by a comprehensive debt restructuring in 2000 that paved the way for the country's exit from the crisis. The debt operations included both external and domestic liabilities but differentiated creditors by nationality.

Uruguay (2003). In Uruguay, despite the depth of the crisis and that the debt restructuring also included domestic instruments and creditors, there is hardly a mention regarding the issue of delayed public payments to suppliers in the program reviews. This is so even if, according to Uruguay's Central Bank officials, the issue was debated internally at the time.

Dominican Republic (2005). The original program included conditions on domestic arrears. Indeed, the Letter of Intent (LOI) accompanying the country's request for official financial support highlighted such problem. Although the program requested the authorities a detailed reporting of the stock of public arrears, data were hardly ever made public during the program reviews. The LOI mentioned a government's plan to clear over DR$4 billion of arrears to domestic suppliers in cash and additional DR$2.5 billion using domestic bonds.[45] Unfortunately, as documented in subsequent reviews, not only were the authorities unable to meet the conditions related to domestic arrears, they also failed to prevent the accumulation of external arrears, turning the program into an LiA type. Remarkably, even after a debt restructuring that included external and domestic liabilities, and despite the fact that the initial LOI argued that arrears to domestic suppliers would be settled along with those on bondholders, the third and fourth reviews show that arrears to local suppliers remained unpaid. Moreover, the LOI associated with the fourth review argued that "in case that program-related disbursement exceeds the ceiling for '*Gross* contracting of *budget-support* external debt by the public sector,' the excess financing will be used for central bank recapitalization and repayment of domestic arrears."

Iceland (2008). In Iceland the main problem was that of arrears with nonresidents stemming from the resolution of the big Icelandic banks. The program only referred to delayed payments to residents in the context of the deposits from the closed banks.

Hungary (2008). In the case of Hungary, domestic arrears did not feature as part of the conditionality at any point, in time. Still, as the recession deepened the reviews started to document delayed payments by the public sector. Despite this fact the program continued without the addition of any specific conditions regarding these arrears. According the 2011 IMF's ex post evaluation of the Hungarian program, during 2008 and 2009, deviations between cash and accrual deficit increased to about 1.5% of GDP, reflecting the accumulation of delayed payment to domestic suppliers. Moreover, the evaluation states:

> Quantitative performance criteria on the primary cash balance of the central government were consistently met at each review, although the cash definition left room for payment postponements to meet the target. A shift to an accrual/ESA95 definition would have removed scope for accounting adjustments and thus provided a more accurate representation of the fiscal stance, as well as allowed the same definition for IMF and EU conditionality. (15)

This paragraph reflects the main concerns in this article. Governments can use arrears to meet the conditions on fiscal policy that the IMF generally sets using cash accounting.

Jamaica (2010). The Jamaican program that accompanied the 2010 debt restructuring provides another example of higher priority to nonresidents. The target (indicative) for nonaccumulation of domestic arrears was barely met; as expected, reductions in arrears were not matched by performance. According to the third review of the 2010 SBA, at the end of 2010 the stock of arrears stood at J$23.2 (2% of GDP). Arrears with nonresidents did not accumulate at any point.

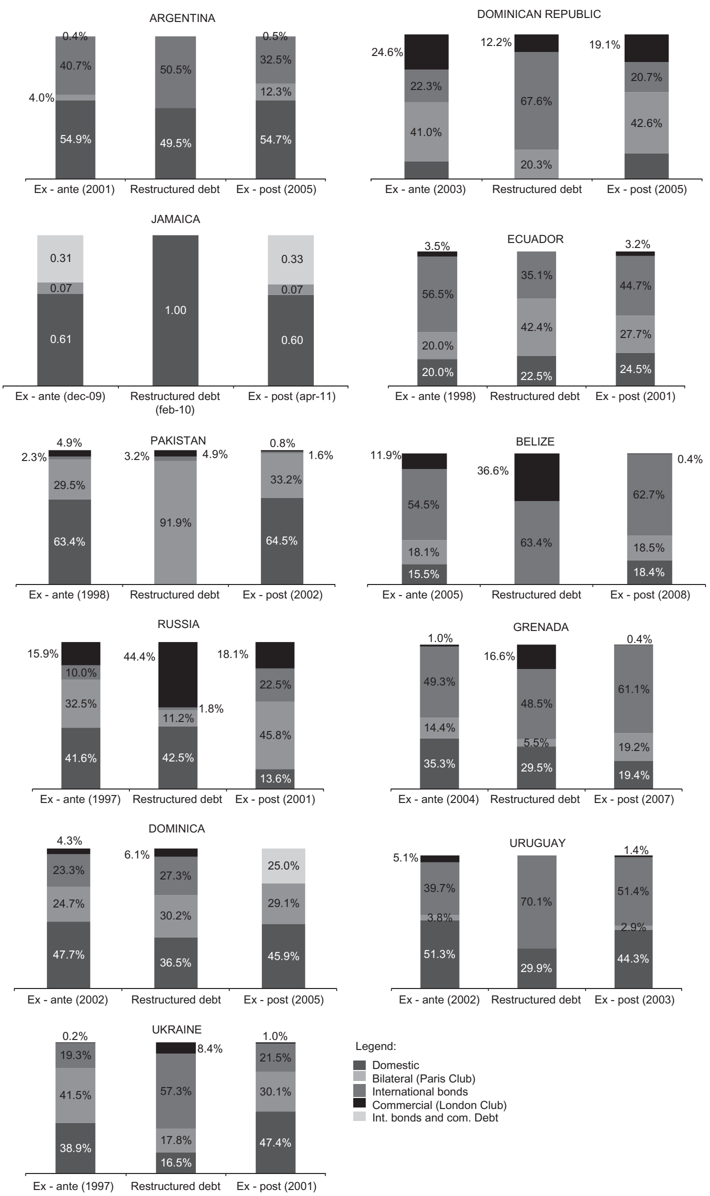
Greece (2010). The two Greek programs with the IMF (2010 SBA and 2012 EFF) included conditions on arrears, both with residents and nonresidents. Again, reflecting the Fund's stance, the condition for external arrears was continuously binding while the one on domestic arrears was indicative. The condition on domestic arrears was breached repeatedly and waivers were granted. The third review of the SBA program reports a breach of the ceiling on accumulation of domestic arrears of 3 billion euros (1.5% of GDP). By the time of the fifth review, arrears were above 6.5% of GDP. Similarly, according to the first and second reviews of the 2012 EFF, cash shortages contributed to a build-up of arrears in 2012.The reported increase on that single year was 0.75% of GDP, bringing the stock to 5% of GDP by October 2012.

Ireland (2011). In the Irish case there is hardly any mention of the issue of arrears with domestic creditors. There was, of course, a condition avoiding any accumulation of external arrears. Ireland just recently exited the official program and public payments arrears have not been an issue at any point.

Portugal (2011). Similar to the Greek case, while the program included an specific recommendation regarding the need to clear domestic arrears, that was the one condition that recurrently was not fulfilled. Indeed the Portuguese authorities managed to carry out part of the plan and paid arrears to hospital suppliers to the tune of 2.5 billion euros in 2011. Despite this reduction on the outstanding volume of arrears, according to the sixth review of the program, the end-2012 arrears outstanding amounted more than 2.5% of GDP.

APPENDIX FIGURE A1

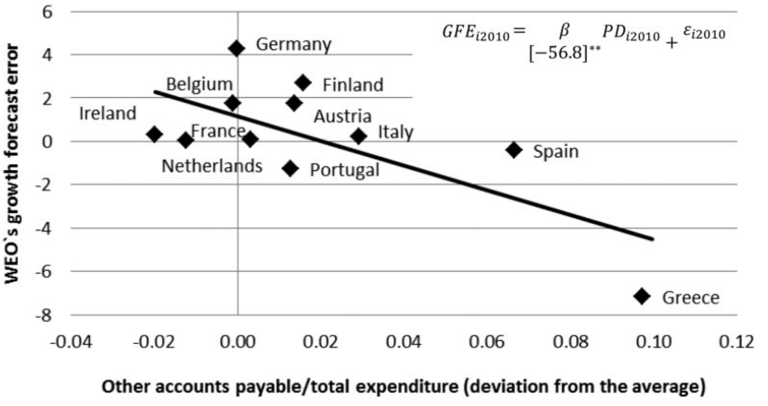
Burden Sharing in Sovereign Debt Restructurings: Who Gets Involved?



Source: Erce (2013). In Dominica, due to the low participation rate (72% at closing of the exchange), the restructured debt represented here (eligible as of end 2003) may not fully reflect the final result. Domestic debt includes arrears. In Belize, commercial debt includes notes, bank loans, and residual old external bond issuances.

APPENDIX FIGURE A2

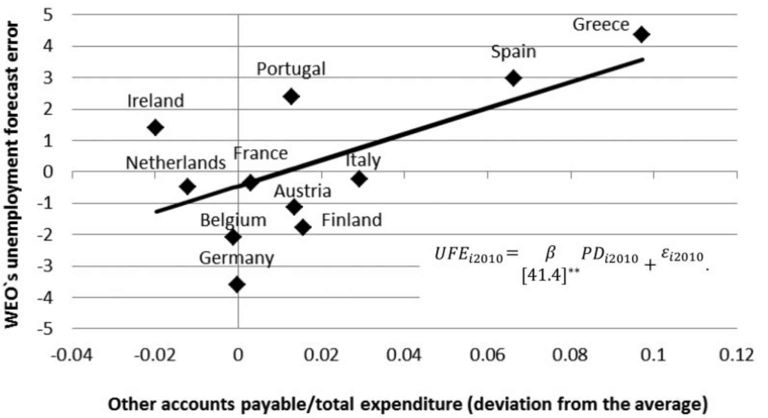
Output Forecast Errors and Payment Delays



Note: The solid line is the outcome of regressing the WEO's GDP forecast error (GFE) against the indicator of payment delays (PD). **Significant at the 5% level.

APPENDIX FIGURE A3

Unemployment Forecast Errors and Payment Delays



Note: The solid line is the outcome of regressing the WEO's unemployment forecast error (UFE) against the indicator of payment delays (PD). **Significant at the 5% level.