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**Working Paper**

## The IMF to the rescue: Did the euro area benefit from the fund's experience in crisis fighting?

Diskussionsbeiträge, No. 2016/20

**Provided in Cooperation with:**

Free University Berlin, School of Business & Economics

*Suggested Citation:* Dullien, Sebastian; Fritz, Barbara; Mühlich, Laurissa (2016) : The IMF to the rescue: Did the euro area benefit from the fund's experience in crisis fighting?, Diskussionsbeiträge, No. 2016/20, Freie Universität Berlin, Fachbereich Wirtschaftswissenschaft, Berlin

This Version is available at:

<https://hdl.handle.net/10419/147009>

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# The IMF to the Rescue: Did the Euro Area benefit from the Fund's Experience in Crisis fighting?

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Discussion Paper

Economics

2016/20

# The IMF to the Rescue: Did the Euro Area benefit from the Fund's Experience in Crisis fighting?

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## Abstract

The paper analyses how the IMF brought its experience gained in emerging market sovereign debt crises in the troika's handling of the euro crisis. We link models of multiple equilibria with the IMF's experience made in Latin American crises in the 2000s. We examine subsequent changes in the IMF's policy guidelines and show that previous insights have been taken in, but applied only with a significant delay and partially against institutional rules and internal advice for the case of Greece. Hence, we argue that the inclusion of the IMF in Europe's crisis fighting did not completely deliver what had been hoped for.

Key words: euro crisis, emerging market debt crisis, IMF, multiple equilibria, sovereign debt resolution mechanism.

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<sup>4</sup> We thank Ricardo Bielschowski, Heribert Dieter, Frank Westermann and anonymous referees for valuable comments.

## ***Introduction***

The euro crisis has brought enormous changes: not only has the European Monetary Union overhauled its governance structure and centralised banking supervision, but the crisis has also marked a sea change for the global monetary system. Having lost most of its borrowing clients prior to the crisis of 2008/9, the IMF gained a new role: not only has it been asked to put together a number of large rescue packages, but it has also been called in to support advanced economies in Europe for the first time since 1977.

Moreover, the IMF's inclusion in the bail-out packages in Greece, Portugal and Ireland was very peculiar for the motivation of the borrowing countries: for the Europeans, it was not primarily the need for funds that led them to ask the IMF to participate in their troika setup (also including the European Commission and the European Central Bank, ECB), but rather the idea to draw upon the IMF's wide experience in designing and implementing rescue packages and adjustment programmes in times of crisis (Pisani-Ferry, Sapir, and Wolff 2013).

In policy circles, this decision has widely been defended and seen as a success. As the former ECB director Jörg Asmussen put it: "It proved right to bring in the IMF. The Fund has unique experience in the design of such programmes. It additionally is a kind of external policeman in Europe who may be able to act with less consideration" (Asmussen 2012).<sup>5</sup>

In this paper, we ask how the IMF brought in such unique experience from assisting economically less advanced economies. In answering this question, we analyse three aspects. First, given the theoretical knowledge about financial crises such as the one in the euro area, what would have been ideal design elements of a resolution approach? Second, to what extent did the IMF incorporate these elements in emerging market programmes in the late 1990s and early 2000s and how were IMF policy guidelines redesigned? Third, to what extent did the IMF manage to transfer this experience to the euro crisis? We analyse these questions by deducing crucial insights for the management of liquidity and solvency crises from three generations of economic crisis literature and comparing such knowledge with the IMF's policy frameworks and applied approaches in emerging markets and Europe. In doing so, we do not aim to inquire about the institutional changes or decision-making processes inside the IMF that may have contributed to policy changes, nor do we analyse policy conditionality in detail.

The remainder of this paper is organised as follows. In the second section, we briefly review the development of theoretical models on financial crises and summarise what the ideal policy conclusions from these models are regarding rescue loans and adjustment packages. In the third section, we compare these policy conclusions with the IMF's policy stance in the most prominent emerging market crises of the past two decades, namely the Argentinian crisis of 2001/2 and the Brazilian crisis of 2002, as well as exploring the insights that the IMF has explicitly drawn from its experiences in these crises. In the fourth section, we subsequently

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<sup>5</sup> Original quote: „Es war richtig, den IWF zu beteiligen. Der Fonds hat eine einmalige Erfahrung im Entwerfen solcher Programme. Er ist zudem wie ein externer Polizist in Europa, der weniger Rücksichten nehmen muss“, (Interview FTD 20.2.2012).

contrast the new policy guidelines based on the IMF's insights from emerging market crises with the approach taken by the troika when dealing with the euro zone countries.

### ***Liquidity vs. Solvency Problems and three Generations of theorising Financial Crises***

The increased turmoil in financial markets since the break-down of the Bretton Woods system in the 1970s has stimulated interest in theorising financial crisis events, resulting in the development of several generations of models for balance-of-payment crises during the 1980s and 1990s. While it is still debated which types of crises (fiscal, banking, competitiveness, etc.) have interacted in the euro area (Shambaugh 2012; Fratzscher 2013) and the classification of past emerging market crisis is far from trivial (Kaminsky and Reinhart 1999 or Laeven and Valencia 2012), some lessons from these models can be applied regardless which crisis elements were actually relevant in the euro crisis.

Central to the models of balance-of-payment crises is the idea that there is a limited stock of an asset (foreign reserves in the case of pure balance-of-payment crisis, and government revenue in the case of sovereign debt crises), which is depleted by either policy errors or investors' flight, or a combination of both.

The first generation of models explains attacks on a currency with a fixed exchange rate by rational expectations, due to inconsistent government policies or flight out of public bonds, thus making public debt unsustainable. For example, when a fiscal deficit raises domestic inflation above the international level, capital outflows will force the monetary authority to give up a fixed exchange rate (Krugman 1979). Interestingly, the capital flight here sets in before currency reserves are exhausted, when investors expect that the path of reserve losses is on an unsustainable path.

Translated to the question of sovereign debt, this model can explain that a fiscal policy putting a country into a position where it will be unable to service its debt in the future would lead investors to stop financing budget deficits already today, hence forcing a government to default. Since the cause of the default in this situation is an unsustainable fiscal stance, an adjustment programme requires a change of existing policies through what is generally known as austerity, namely expenditure cuts and revenue increases. In fact, this adjustment is the most important element of crisis fighting as only such an adjustment can bring countries back to a sustainable path. In addition, if no adjustment path is perceivable because the existing debt stock is already too high, adjustment has to be implemented in combination with a debt restructuring. Liquidity loans can be given to limit the fallout to the real economy.

The mechanism is different in second-generation models (i.e. Obstfeld 1996), which do not necessarily assume such a clear-cut policy failure as the starting point. While countries running a clearly unsustainable monetary or fiscal policy will find themselves in a crisis just as in the first-generation models, the second-generation models additionally include the possibility of multiple equilibria for countries with economic policies that are not clearly unsustainable. As Cole and Kehoe (1996) have shown, this setup leads to the possibility of a self-fulfilling debt or fiscal crisis. The logic here is simple: for an entity with a moderate, yet not extremely high, level of debt whether it is able to service its debt depends on the

expectations of market participants. If investors believe that a country in debt is able to service their claims, they accept lower interest rates and the debt may thus be sustainable. In the case of a sovereign debtor, if investors believe that the state in question might be unable to service the debt, they demand higher interest rates and the debt becomes unbearable, thus leading to a default.

As a shift in expectations can trigger a crisis in these models even without a change in underlying fundamentals, it is difficult to point out one specific reason for a crisis to occur (Krugman 1999).

The catch in these models is that if a third party can guarantee continued access to loans at sensible interest rates, expectations will permanently stabilise in the “good” equilibrium and a self-fulfilling fiscal crisis is thus no longer possible. The action of this third party would help in the avoidance of huge costs for the economy in case of successful crisis prevention. The need for macroeconomic adjustment programmes is much less clear under such a self-fulfilling crisis than under the standard crisis in the first-generation models: of course, a lower debt-to-GDP ratio might make crises less likely, yet, as expectations might have triggered the crisis, they are no necessary condition for solving the crisis. As in some cases, austerity can actually lower GDP in a way that the debt-to-GDP level actually increases (Holland and Portes 2012); accordingly, such programmes should be designed with caution.

Third-generation models of currency crises (Chang and Velasco 2000; Corsetti, Pesenti, and Roubini 1998; Krugman 2003) have subsequently explored how problems in the banking and financial system interact with public debt and currency crises, as well as how they mutually reinforce themselves, signalling the relevance of smooth and decisive action to stop these crises from spilling over to the real sector and other countries.

There are two main concerns about the aforementioned liquidity provision by a third, external actor to stop a self-fulfilling crisis to realise: first, this third party has to be available and capable of providing liquidity in a sufficient amount to turn market expectations; and second, it has to make a clear distinction between a situation of illiquidity and insolvency.

Regarding the first point of liquidity provision, in the case of a domestic banking system with financial contracts denominated in domestic currency, a central bank that is able to act as lender of last resort (LLR) usually exists, as it can emit liquidity in domestic currency without limits. The relevance of a LLR for ensuring monetary and financial stability at the domestic level has been known since the seminal work of Bagehot on the emergence of the Bank of England as the first central bank in the modern world (Bagehot 1873).

Nonetheless, liquidity provision is less simple both in the case of debt denominated in foreign currency and for public debt, and particularly for the euro area. First, for the case of foreign currency-denominated external debt, the domestic central bank is unable to serve as LLR, as it cannot emit foreign currency. The major non-market access to financing is liquidity provision by the IMF, since there is no LLR at the global level (Eichengreen and Hausmann 2005). Second, for the case of a public debtor under stress, there is disagreement concerning the question of whether a central bank should act as LLR, or if this would undermine the main task of a central bank to maintain price stability and create moral hazard on the side of

governments to overspend and expect a central bank bail-out. Overall, the guiding principles of central banking are shifting away from a narrow orientation to price stability, towards achieving the overall goal of financial stability (Blanchard, Dell’Ariccia, and Mauro 2010; Eichengreen et al. 2011). However, one issue of great debate is whether this includes clearly defined efforts to maintain the liquidity of national governments to restore the “good equilibrium” even though dominant market expectations may indicate otherwise (Eichengreen et al. 2011, 24; see also Blanchard 2012). Finally, for the euro area, liquidity provision to national governments through the ECB is constrained by the EU treaties’ rules, which prohibit the direct purchase of government bonds as well as the provision of overdraft facilities. In this respect, the euro area’s national governments’ outstanding debt has features of foreign currency-denominated debt.<sup>6</sup>

Second, it is key for the third actor to distinguish between problems of liquidity and solvency. Insolvent entities are defined as being unable to serve their obligations in the medium and long term, even if provided with additional short-term liquidity. Providing liquidity for an insolvent entity thus means that the postponement of the insolvency leads to increased costs.

For both cases, conditionality has to be tackled in a case-specific manner. In first generation types of crises, liquidity provision or debt restructuring necessarily has to be conditioned towards fiscal adjustment. For second-generation financial crisis events, a careful analysis is needed whether the investors’ panic has been caused by policies that have moved the country closer to an unsustainable financial path, such as structural weaknesses or inadequate financial regulation, or whether the panic has been triggered mostly by external events. Thus, within these models, policy conditionality needs to be tailored towards country-specific conditions, and conditionality cannot substitute for debt reduction in case of an insolvent sovereign debtor. Thereby, creditors may also be able to tackle, at least to a certain degree, the problem of lacking ownership of reform measures by the debtor (Bird/Willett 2004), which might ease the problem of ‘straitjacketing the state’ in delivering public services (Clifton 2014).

### ***How the IMF brought in the Distinction between Liquidity and Solvency Crisis***

These theoretical developments did not leave the IMF untouched; rather, especially the emerging market crises of the 1990s left the IMF exposed to harsh criticism concerning its handling of crises (e.g. Stiglitz 2002) and it became increasingly clear that the Fund faces a threefold theoretical, managerial and financial challenge, to which it reacted with a revision of major approaches and policies.

From a theoretical perspective, it was a challenge that most of these currency crises occurred in a context of market-friendly reforms, especially regarding trade and financial liberalisation. It was rather clear that these could not easily be explained as the consequence of mere and crude policy failures, as in the aforementioned first-generation currency crisis models, and as debt and currency crises in developing countries during the 1980s had been treated in the context of import substitution strategies. Against this background, IMF economists quickly

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<sup>6</sup> Albeit one can argue that this constraint has been loosened by the ECB’s announcement of the Outright Monetary Transactions (OMT) policies under which the ECB is now allowed to buy government bonds of countries being subject to an ESM program.

started to reflect the relevance of multiple equilibria models for this new type of crisis. For instance, in an IMF working paper, Flood and Marion (1996) directly linked these models to the Mexican peso crisis in 1994 (see also Masson 1999). These reflections not only regarded exchange rate issues, but also the question of the conditions under which the IMF should act as a third actor injecting liquidity to re-establish the “good equilibrium” within market expectations.

Not last due to the experience in Argentina where the Fund received heavy critique for its intervention (see part 3.1), the institution started to develop a clear-cut framework to distinguish between illiquid and insolvent entities in terms of intervention in capital account and currency crises, taking on board the above-discussed theoretical insights. In a programmatic paper based on the “Prague Framework” (Köhler 2000), the IMF established a new guideline in which the IMF should systematically differentiate: liquidity crises should be solved by the rapid and sufficient provision of liquidity, while solvency problems should be tackled by debt restructuring, which may not only involve the lengthening of maturities, but also a haircut in terms of reducing the face value of debt.

In a subsequent institutional guideline titled “Assessing Sustainability” (IMF 2002a), the IMF delivered an operational definition of the concepts of liquidity and solvency:

“An entity is solvent if the present discounted value (PDV) of its current and future primary expenditure is no greater than the PDV of its current and future path of income, net of any initial indebtedness. [...] An entity is illiquid if, regardless of whether it satisfies the solvency condition, its liquid assets and available financing are insufficient to meet or roll over its maturing liabilities”, (IMF 2002a: 5)

In the very same document, the IMF recognised that the distinction between liquidity and solvency crisis is rather vague. First, these concepts in fact are blurring: unless solved immediately, a liquidity crisis will lead to rising financing costs and thus an increase in the present value of debt. Therefore, the IMF started applying the concept of debt sustainability, which means compliance with both liquidity and solvency criteria: “Sustainability thus incorporates the concepts of solvency and liquidity, without making a sharp demarcation between them”, (IMF 2002a, 4). Second, it was acknowledged that this concept was far from easy to empirically assess. The present value of debt and debt service are mainly determined by macroeconomic parameters such as the interest rate and the growth rate, and - in the case of emerging markets - the exchange rate, which by definition is endogenous to market expectations on the liquidity and solvency status of the debtor. The IMF concluded that “assessments of sustainability are thus inherently probabilistic and no framework can dispense with their need for making judgements”, (IMF 2002a, 6).

Moreover, owing to financial deregulation, private international capital flows had grown strongly until the early 2000s. Thus, the hitherto applied IMF quota (based on a country’s share in the IMF) that determined the volume of liquidity that a country may draw from the institution was deemed to be insufficient by far. In the end of 2002, the IMF hence established the “Exceptional Access Policy” (EAP), to be applied to: “any lending in which access is



above 100 per cent of quota on an annual basis or above 300 per cent of quota cumulative irrespective of the facility used”, (IMF 2003a, 5).

Based on the considerations about liquidity and solvency issues, this access to large funds was linked to exceptionally strict rules (IMF 2003a, 3–4): First, it should be applied only to exceptional balance of payments pressures; second, and most important, “[a] rigorous and systematic analysis [should indicate] that there is a high probability that debt will remain sustainable”, (IMF 2003a, 4; highlight by the authors); third, the country should have good prospects of regaining access to private capital markets; and fourth, liquidity provision should be backed by a strong programme design and implementation in terms of adjustment policies.

The rather successful credit package to Brazil in 2002 was seen as a justification for the increase in potential lending capacity by the IMF. In a 2006 seminar titled “Who Needs the IMF?”, Kenneth Rogoff labelled the IMF's assistance to Brazil in 2002 as a major turning point in this period:

“Consider, for example, the Fund's risky and creative lending package to Brazil in August 2002 (...). With market access suddenly freezing up and the country on the brink of default, the Fund stepped in with \$30 billion. The Fund's loan arguably helped avert a meltdown that would have slammed global markets from Manila to Istanbul, and forestalled the benign period that emerging market economies have enjoyed the past few years”, (Rogoff 2006).

The insights that the IMF took away from these crisis experiences can thus be summarised in three points: first, make an assessment whether there is a liquidity or a solvency problem, whereby loans should only be made if there is a liquidity problem; second, if there is a liquidity problem, stand-by arrangements should be large enough to dispel any doubts about its volume's sufficiency; and third, only ask for policy adjustments if and as much they are necessary for regaining market access.

A historical analysis of the principles and guidelines of the Fund show that since its foundation, “the concepts, analytical framework, techniques, and methodologies that the Fund staff has developed over the years have almost always evolved out of an immediate practical problem that a member faced”, (De Vries 1987, 16).

Based on IMF documents on the cases of Argentina and Brazil, we first argue that the experiences sketched out in this section had relevant roots in the Argentinian crises of the early 2000s and the Fund's highly criticised involvement (see part 3.1). Second, we interpret the case of swift liquidity provision for Brazil in 2002 (part 3.2) as an immediate application of the newly gained insights. What other authors confirm for the 2010s, namely that the IMF is not what it used to be (Ban and Gallagher 2015), we already find for this earlier period.

### *Argentina*

The IMF had been involved in Argentina since the mid-1990s and saw itself drawn into the deepening crisis in the late 1990s. After the crisis, the IMF's response in the country was seen as highly problematic by both the Fund itself and external observers. Hence, the IMF's

involvement in Argentina led to an intensive reflection and posterior redefinition of its policies.

The background of the Argentinian crisis was its currency board regime of fixed exchange rates, which its government had introduced in the early 1990s to fight inflation. Under this regime, the Argentinian central bank was only allowed to issue domestic currency in exchange against US dollars. Hence, it did not have the ability to conduct counter-cyclical policies and it was not in a position to act as a LLR in case its banks experienced liquidity problems.

While this regime had managed to bring down inflation to single digits in the early 1990s and had increased investors' confidence and hence capital inflows in the first part of the decade, from the onset of the Asian crisis the country started to experience substantial capital outflows. At this point, a continuing inflation differential with the United States eroded Argentina's competitiveness. This problem was exacerbated by the devaluation of the currency of Brazil, Argentina's most important trading partner. As the central bank could not create money, the capital outflows led to a severe credit contraction.

From 1999 onwards, the Argentinian economy continuously shrank to a negative GDP growth of -10.9 per cent in 2002 (see table 1), losing about a quarter of its economic capacity in this period. This was the most severe economic crisis that a non-transition country had suffered in peace times since the Great Depression. The combination of falling GDP and falling tax revenue led to a strongly increase in the debt-to-GDP ratio. At the beginning of 2002, the country declared default on its external debt. Debt restructuring discussions with private creditors were only brought to an end in 2005, where a majority of bond holders accepted longer maturities and haircuts of nominal debt values.<sup>7</sup>

Between 1996 and 2001, the IMF had three financing arrangements with Argentina, one under the Extended Fund Facility (EFF) (1998, which was classified precautionary, and of which no drawings were made) and two Special Borrowing Arrangements (SBA, 1996 and 2000). In early 2000, the IMF aimed to address the deteriorating economic situation in Argentina and the country's lack of access to international financial markets with a SBA of about 7.2 billion USD. This package included harsh austerity: the IMF and Argentina agreed in early 2000 that the government would move the federal budget from a deficit of 2.5 per cent of GDP to balance by "2003 at the latest" (IMF 2000a).

The SBA was raised by 13.7 billion USD in early 2001 while austerity was increased with the memorandum of understanding from December 2000, which now promised an increase in the consolidated public sector primary surplus of *four percentage points* from 2001 to 2005 (IMF 2000b). In addition, the IMF steered an international financing package by public and private creditors: the so-called *blindaje* (shield) amounted to 39 billion USD (IEO 2004, 9). At the same time, in a last and desperate attempt, the Argentinian government conducted a broad

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<sup>7</sup> A minority of institutional debt holders refused this agreement and appealed to US courts, which in 2014 decided that Argentina had to fulfil its obligations, hindering the country from serving its debt with other bond holders that had accepted the restructuring deal. In reaction to the court decision, international rating agencies again declared Argentina as bankrupt, which was mirrored in non-investment grades.

restructuring of domestic public bonds that prolonged bond maturities and should have reduced public refinancing costs. However, interest rates rose in parallel and hence refinancing costs did not decrease. By contrast, expectations of a possible default were further fuelled and capital flight continued. In the autumn of 2001, the aforementioned SBA was augmented again to about 22 billion USD, of which 3 billion USD was supposed to support a possible debt restructuring intervention.

However, the rescue package could not bring Argentina back to international financial markets and capital inflows did not return. The country's payment obligations were enormous, fuelled by increasing risk premiums on international credits, which increased within 2001 from an already high level of 1000 to about 5000 basis points. Finally, by the end of 2001, the IMF cut off its support to Argentina due to missing compliance with the agreed fiscal programme and a lack of market confidence (IEO 2004, 9).

Some voices within the IMF continued to argue that Argentina's unsustainable fiscal policy had been the main problem, most prominently including Michael Mussa, head of the IMF's research department until 2001 (Mussa 2002, 10–12). Had that been true, an adjustment of these policies should have been able to end the crisis and the IMF loans could have been seen as a sensible, transitory provision to ease the adjustment process. Even if public spending was high, this alone could not have caused a crisis of the experienced magnitude.<sup>8</sup>

Nonetheless, there were already indications during the crisis that Argentina had more fundamental problems. A look at the composition of tax income and spending during the crisis period shows that the sharp increase of public-debt-to-GDP ratios (see table 1) was mainly due to increasing public debt service and a shrinking GDP, while the primary balance, i.e. the fiscal balance before debt service, on average showed a slight surplus of 0.45 per cent during this period. Public debt service increased from 10.9 per cent in 1997 to 23.4 per cent in 2001 (Damill, Frenkel, and Rapetti 2012b, 9).

Despite the strong adjustment in the primary balance of the public sector the virtuous circle was never attained. Even worse, the increases in taxes and the cuts in public expenditures reinforced the recessionary trend, thus feeding the negative expectations that prevented realizing the highly anticipated fall in the country-risk premium. Fiscal policy alone was impotent to compensate for the strong macroeconomic imbalances, which laid somewhere else, i.e. in the external sector of the economy (Damill, Frenkel, and Rapetti 2012a, 4).

The major problem for Argentina in serving its debt was less its unwillingness to tolerate the IMF's interventions into domestic policies, which would straightjacket the state (Clifton 2014), but rather its rigid fixed exchange rate regime, together with overall high foreign debt. While the public-debt-to-GDP ratio was not overly high (see table 1), public debt was almost entirely in foreign currency and a depreciation would have strongly increased the debt burden. At the same time, Argentina was unable to generate economic growth at the (overvalued)

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<sup>8</sup> Before the on-set of the crisis, the Argentinean primary balance noted a surplus between 1 and 2 per cent (IMF 2003b). The overall structural budget deficit (including interest rate payments) was below 2 per cent of GDP in 1997 and 1998. Later on, the federal primary balance worsened but improved again. Rather than by excessive public spending alone, economic recovery was put at risk by an extremely high real interest rate level (see table 1). Vulnerability, not only of Argentina, but of emerging markets in general, found its expression in rising risk premia on Argentinean bonds. Interest rates considerably pushed the change in debt (see table 1).

exchange rate of the time. So, under the existing macroeconomic framework, Argentina had to be seen as insolvent.

With hindsight, the IMF also seemed to have reached a similar conclusion rather early in this process. Flemming Larsen, then IMF Director Offices in Europe, stated in 2003: “The IMF should have insisted on the conclusion we reached by 1998 that the fixed exchange rate regime was unsustainable and that the authorities seemed either unwilling or unable to adjust their policies sufficiently to avoid the eventual meltdown”, (Larsen 2003). Nonetheless, he blames national authorities for the continuation of the IMF programmes on this unsustainable course: “Those concerns [of an eventual financial meltdown] were expressed repeatedly but the authorities refused to consider an exit from the currency board arrangement until the change was forced by markets” (Larsen 2003).

A major problem can certainly be found in the rigidity of the currency board arrangement, which provided no orderly exit. In fact, the IMF had not been responsible for introducing this regime in Argentina in the beginning of the 1990s, but later strongly advocated in favour of this rigid version of a fixed exchange rate to stabilise market expectations within multiple equilibria. This rigid exchange rate peg had - among others - produced substantial appreciation of the real exchange rate, sustained by major capital inflows in the pre-crisis period. Consequently, the country had accumulated increasing current account deficits and external debt in foreign currency, which became unbearable and made a change of the currency regime without debt default all but impossible.

However, even if the national authorities insisted on sticking with this regime, it would have been the IMF’s role to stop new lending to a clearly insolvent country. The IMF’s series of liquidity provisions in the years before the default and debt restructuring were assigned based on the assumption that the country was running an unstable fiscal policy that could in principle still be remedied by budget cuts, and they were inconsistent with its previous assessment of the country’s unsustainable debt levels recognised at least behind closed doors.

Insert here: Table 1. Argentina: Selected Economic Indicators

### *Brazil*

In contrast to its handling of the crisis in Argentina, the IMF’s crisis reaction in Brazil in 2002 is generally seen as a success. We argue that it is linked to the rethinking of the Fund’s approach of crisis fighting, reflected in its new framework “Assessing Sustainability”, as well as the introduction of the EAP (even if it only became fully operational in February 2003).

Here, according to the current interpretation, the IMF managed to stop a situation of illiquidity from transforming into insolvency by providing timely and sufficient liquidity provision. In line with the theoretical arguments above and the diagnosis of a mainly expectations-driven crisis, the IMF did not force overly harsh austerity measures on Brazil as part of the package.

In the run up to the presidential elections in October 2002, international investors' fears about economic policy changes in case the leftist candidate Lula would win the elections provoked enormous flight out of the Brazilian currency. Behind this was a deterioration of the public-debt-to-GDP ratio despite substantial austerity policies over the last years. Additionally, at the time of the presidential elections, the neighbouring country – and major trading partner - Argentina had just defaulted on its debt and undergone a maxi devaluation. These events caused contagious capital outflows.

At that time, Brazil's economic situation was ambiguous. On the one side, since the last financial crisis in 1999 and the subsequent abandoning of the pegged exchange rate regime together with a maxi devaluation, GDP growth had recovered in 2000, and the stock of both total external debt (private and public) and public debt (domestic and international) was moderate in relative terms. External debt stocks ranged around 40 per cent of GNI and government net debt was below 50 per cent of GDP in 2001 (see table 2). At the same time, public debt demonstrated a high vulnerability due to exchange rate indexation and because a large part was denominated in foreign currency. Consequently, with capital outflows and a depreciation of the national currency by almost 50 per cent, the public debt level increased relative to GDP.

“The depreciation of the exchange rate as a result of a confidence shock in the run-up to the presidential election in October led to an increase in the debt-to-GDP ratio as a consequence of the revaluation of outstanding exchange rate-indexed and foreign currency-denominated liabilities. Owing to this, and the concomitant monetary tightening, outlays on interest payments increased substantially, leading to a deterioration of the headline budget balance in 2002-03, despite the maintenance of a robust primary surplus”, (DeMello and Moccero 2006, 13).

The IMF did not classify the situation as a case of insolvency but rather as one of temporary illiquidity, with an associated risk of it quickly turning into one of insolvency in case of on-going market mistrust. In July 2002, the IMF stepped in with its – at that time largest ever in SDR terms – loan as a stand-by arrangement of 30.4 billion USD (22.8 billion SDR) over a period of 15 months (see also IMF 2002b). As this amount significantly exceeded Brazil's regular quota of 3.04 billion SDR at the IMF, *de facto*, it was a test of the EAP that was introduced at the IMF in September 2002 and fully operationalised in February 2003 (IMF 2003a, 3). In contrast to other IMF programmes, the IMF did not ask for harsh additional austerity: in the memoranda of understanding from June 2002 and August 2002, the target for the primary surplus in the budget for 2002 and 2003 was only marginally increased from 3.5 per cent of GDP to 3.75 per cent of GDP, reflecting a minimal tightening from the 3.6 per cent achieved in 2001 (IMF 2002a, 2002b).<sup>9</sup>

The case of Brazil demonstrates the difficulties of a proper assessment of a situation of illiquidity with a high probability of debt sustainability. Barry Eichengreen, who had served

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<sup>9</sup> Due to a very high interest rate level for domestic public debt, the IMF agreed to base its negotiations with Brazil not on nominal deficit targets for the public sector, but rather on the primary result, which excludes interest rate payments. When considering the nominal result, which amounted to a deficit of 4-5 per cent in this period (see table 2), it becomes clear that overall fiscal policy remained expansive during this period.

as a key policy advisor to the IMF the years before, publicly argued in defence of the highly criticised institution:

“Brazil in 2002 is a better gamble for the IMF than was Argentina in 2001. It provides the Fund an opportunity to demonstrate that it helps well-managed economies like Brazil while offering only tough love to delinquents like Argentina”, (Eichengreen 2002, 3).

He argued that while the risk of this new credit was high, there was a greater risk of leaving Brazil’s financial needs unattended, ending in a situation of insolvency. Moreover, he suggested that this was not feasible due to geopolitical reasons: “To be sure, if the gamble is lost, the fallout will be severe. But sometimes it makes more sense to gamble, despite the risk of losing, than not to gamble at all”.

The major part of the stand-by arrangement (24 billion USD) was only disbursed after the presidential elections. At the same time, the leftist candidate Lula had committed himself - as an informal pre-condition for the stand-by agreement - in a “Letter to the Brazilian people” to “respect all contracts and obligations of the country”, (Silva 2002, 3)<sup>10</sup>, despite his plans to change the economic model of the country. As a result, within only two months and even before the presidential elections, capital flows went back and the Brazilian exchange rate had almost recovered to its original level.<sup>11</sup>

Insert here: Table 2. Brazil: Selected Economic Indicators

### ***How the troika handled the euro crisis***

Nonetheless, not all of these experiences were taken on board when it came to the euro crisis. Instead, the euro crisis can be seen as an example where first Greece was given liquidity provision without debt restructuring even though it was clearly insolvent and subsequently harsh austerity was applied to countries that had first and foremost liquidity problems triggered by investors’ panic and market uncertainty.<sup>12</sup>

At the onset of the euro crisis, government finances in many euro zone countries were strained due to the negative effects of the global economic and financial crisis of 2008/9. On average, the euro area had a government budget deficit of 6.3 per cent in 2009, with basically

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<sup>10</sup> “Premissa dessa transição será naturalmente o respeito aos contratos e obrigações do país”, (Silva 2002, 3).

<sup>11</sup> However, the decision to refrain from a moratorium and debt restructuring had its price for Brazil. When in power in 2003, the new Lula government not only live up to its compromise to serve its obligations, but also opted for a highly orthodox economic policy to maintain capital inflows. The new government continued the previous pro-cyclical policies and increased the primary budget surplus even above the IMF target to 4.25 per cent (Ministério da Fazenda do Brasil 2003, 9), maintaining this for the next years and keeping real interest rates well above the 10 per cent level. As a result, the Brazilian economy entered into recession in 2003, only restarting growth slowly from 2004, together with the global commodity price boom.

<sup>12</sup> In this section, we focus on liquidity and solvency issues of the governments of the euro member states concerned. In typical balance-of-payment crises, usually also the private sector has liquidity problems. However, in the institutional context of the euro area, liquidity problems of a member states’ private sector are usually solved through the potential provision of emergency liquidity assistance (ELA) through the national central bank in the European System of Central Banks and through the TARGET2 mechanism. In combination, ELA and TARGET2 can bolster capital flow reversals. For details on the economics, see for example Bindseil/König (2011).

all countries having broken the Maastricht treaty's 3-percent-of-GDP threshold. Nonetheless, the public finance situation at that time still did not look overly concerning for most of the member states. Especially Ireland and Spain (which would later be labelled crisis countries) as well as Portugal did not show an excessively high public-debt-to-GDP level.

Insert here: Table 3

### *Dealing with Greece*

The euro crisis begun in earnest in early 2010 when the newly elected Greek government saw itself forced to revise upwards deficit and debt figures. According to updated figures, the 2009 public deficit finally came in at more than 10 per cent of GDP. Given the already high level of Greek public debt of more than 120 per cent of GDP, market participants started to doubt Greece's debt sustainability and yields on Greek bonds started to increase. At the beginning, European leaders were opposed to any rescue package for Greece, although this view started to change when it became clear that market concerns had started to spread to other countries, such as Portugal, Spain, Ireland and Italy.

As recommended by the European Commission, Greece started implementing harsh austerity packages in March 2010, to the magnitude of two per cent of GDP (Pisani-Ferry, Sapir, and Wolff 2013, 139). However, it quickly became clear that Greece would still miss its deficit target by a wide margin. In late April 2010, Greece requested assistance from the euro area member states and the IMF. By early May 2010, the troika (the IMF, the European Commission and the European Central Bank) had put together a 110 billion EUR rescue package, despite warnings that Greece might have serious solvency problems that could not be resolved by the associated structural adjustment programmes.

Despite the foreseen harsh budget cuts, only a relatively mild recession was assumed in the analysis of the Greek debt sustainability. The staff report supporting the programme assumed a reduction of the cyclically adjusted budget deficit from 10 per cent of GDP in 2009 to 2.4 in 2010 and close to balance in 2011, with a resulting contraction of GDP of 4 per cent in 2010 and 2.6 per cent in 2011 before the Greek economy would return to growth in 2012 (IMF 2010). Even with this rather optimistic assumption, the Greek debt-to-GDP ratio was set to peak at around 150 per cent of GDP. Academics at that time already expressed doubts about these assumptions, claiming that these were unrealistically optimistic and that the debt level could easily climb much further (i.e. Dullien and Schwarzer 2010).

As leaked documents by the Wall Street Journal (2013) show a number of IMF's executive directors also internally voiced concerns about the programme, including the representatives from Argentina, Brazil and India. Furthermore, the Swiss executive director, Rene Weber, is quoted from a prepared statement to the board for the May 9, 2010 meeting as stating the following:

“[We have] considerable doubts about the feasibility of the program. [...] We have doubts on the growth assumptions, which seem to be overly benign. Even a small negative deviation from the baseline growth projections would make the

debt level unsustainable over the longer term [...] Why has debt restructuring and the involvement of the private sector in the rescue package not been considered so far?"

Nevertheless, the package was passed by the relevant bodies of the IMF. Yet, it failed to instil investors' confidence and Greece did not regain access to financial markets. Moreover, the Greek economy tumbled much deeper into a recession than originally projected by the IMF and the troika.

Towards the end of 2010, it became clear that the first Greek rescue package would not be sufficient. Hence, in 2011, discussions began about a second Greek bail-out package. At this point, the feeling was that rescue loans alone would not be sufficient for Greece as government debt was now projected to soon approach 200 per cent of GDP. Thus, the EU leaders agreed in October 2011 that there would be a haircut on Greek private sector creditors, which was implemented in 2012, roughly two years after the first provision of liquidity loans from the troika.

However, the debt restructuring pushed through did not have a large effect on the debt level. First, official debt (against both the troika institutions and the European Central Bank, which had by then bought a substantial amount of Greek bonds) was excluded from the debt restructuring. Second, as the debt restructuring depleted the equity capital of the Greek banking sector, the government was forced to provide new funds for the recapitalisation of the banking sector. According to the IMF's (2012a) own analysis, the Greek debt level through the debt restructuring was only expected to fall slightly from 165 to 160 per cent of GDP. The IMF staff wrote (2012a, 3–4):

"The nature of the PSI [(private sector involvement)] operation [...] with the scaling up of official support, [...] greatly increases the rigidity of Greece debt, which may have a bearing on Greece's ability to mobilize new private financing in large volumes and on adequate terms even after the economy stabilizes and economic growth has resumed. [...] Greece's external debt service burden, particularly on short-term maturities, has increased and remains heavy [...]"

The IMF's debt sustainability at that time projected the Greek debt-to-GDP level to hover around 160 per cent until 2014 before only dropping later (IMF 2012a, 6). According to news reports at the time, the IMF's managing director, Christine Lagarde, voiced concerns towards the European institutions that the debt reduction was not sufficient (Financial Times 2012).<sup>13</sup> Nevertheless, the IMF ultimately agreed to extend the programme with the rather limited debt restructuring.

At the time of writing, even this projection has proved overly optimistic. Until 2014, Greece's public debt stock has risen from 130 per cent (2009) to 175 per cent of GDP, which may be a signal that the net debt reduction in 2012 for Greece was not sufficiently high.

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<sup>13</sup> One might claim that the drop in bond spreads after the debt restructuring in early 2012 (see figure 1) indicates that markets also believed in improved debt sustainability. This interpretation is misleading as the yields are on different instruments: The yields prior to the restructuring are computed on the nominal value of original bonds (for which it had already been announced in July 2011 that they would be restructured). Hence, the drop only indicates that the nominal value of the bonds has been reduced.



It is sometimes argued that the Greek government's lack of willingness or ability to implement structural reforms<sup>14</sup> and additional revisions to past Greek data are to blame for the worse-than-projected debt trajectory, rather than mistakes in the initial assessment. While it is true that the Greek administration's ability to implement policies has proved to be poor and that the government's behaviour has probably increased political uncertainty due to a perceived lack of ownership of the IMF programmes and hence has hindered a recovery, it is questionable whether these are the most important factors. Matthes (2015) for example shows that until 2013, Greece had liberalized its product markets since 2008 more than any other EU country, that it had also been on the top of the league among EU countries in the realm of labour market reforms and that the degree of employment protection in Greece by 2013 had dropped below the euro area average, implying that "ownership" as defined by Bird/Willett (2004) as a low probability of implementation might not have been as serious a problem as often claimed. Revisions of debt-to-GDP figures happened mainly prior to the first Greek programme. The IMF's initial debt-sustainability analysis of early 2010 was based on a debt-to-GDP ratio in 2009 of 115 per cent (IMF 2010, p. 38). While this is roughly 10 percentage points lower than the latest available revised estimate for 2009, this gap is not enough to explain the problematic debt sustainability now.

#### *Contagion to other euro countries and diffusion of the crisis in 2012*

Soon after the first emergence of crisis signs and the provision of the first Greek rescue package in 2010, other euro area countries showed signs of contagion. Already in early 2010, spreads for other euro periphery countries rose in parallel to the yields on Greek bonds, albeit remaining at a lower level (figure 1). Right after the first Greek rescue package, spreads for other euro periphery countries fell, although they started to increase almost immediately again. In order to calm financial markets, the Portuguese government announced severe austerity measures in May 2010. With the impact of these measures, the Portuguese economy slid back into recession and GDP started contracting in the fourth quarter of 2010. Consequently, public finances further deteriorated and Portugal saw itself forced to pass new austerity measures, although it did not manage to calm financial markets where spreads on Portuguese bonds continued to increase.

Insert here: Figure 1: Government Bond spreads, 10 years, against German Bunds

Meanwhile, concerns about the Irish banking system (which had been in crisis since 2007) grew. Together with a sharp contraction in economic activity, this further rattled markets and spreads went up, reaching more than 360 basis points by August 2010. After the announcement of restructuring costs for the government of up to 50 billion EUR in September 2010, the government saw itself forced to propose a harsh austerity in package in October 2010 and finally applied for financial assistance from the IMF and European partners in December 2010. With deteriorating economic data and public finances, Portugal followed in April 2011. In both cases, the troika programmes included harsh austerity measures and

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<sup>14</sup> See for example Featherstone (2011) or Visvizi (2014).

significant cuts in the structural budget balance in the form of expenditure cuts and tax increases.

As the European treaties include a “no-bail-out clause” according to which nation states are responsible for their own debts, European leaders were initially reluctant to set up large, permanent rescue structures and the first packages were limited in volume and duration. In fact, it was not before the fall of 2010 that EU leaders agreed to replace the temporary EFSF with a permanent European Stability Mechanism (ESM), which had a lending capacity of 500 billion EUR and was properly integrated into the European treaties.

Nonetheless, even these steps failed to bring down spreads of European periphery bonds decisively. Even countries with a still relatively moderate debt-to-GDP level such as Spain (which had a debt-to-GDP ratio of only about 69 per cent in 2011, almost 10 percentage points less than Germany) saw their spreads towards German bunds further increasing, at some point reaching more than 500 basis points. One of the fears was that the ESM’s lending capacity might be too low, given its volume, should Italy or Spain require assistance. As Giovannini and Gros (2012) pointed out in March 2012, the programmes for the (small) countries of Greece, Ireland and Portugal already amounted to commitments of 490 billion EUR, while the (re-)financing requirements for Spain and Italy over the period of 2012 to 2016 amounted to almost 1800 billion EUR. Consequently, the spreads on periphery bonds continuously climbed upwards again during the spring of 2012, again reaching more than 500 basis points for Italy and Spain in the summer.

At this point, the ECB’s president Mario Draghi gave a widely quoted speech in London, stating that the ECB would do “whatever it takes” to save the euro. Shortly after, the central bank clarified what it meant as a first step: under the term “outright monetary transactions”, it would be willing to buy government bonds of countries that were under an ESM programme and in danger of losing access to financial markets without predetermined limits. This event is now widely regarded as a decisive turning point in the euro crisis, as periphery bond spreads subsequently started to fall and have not strongly increased again to date (Schmieding 2014).

#### *The IMF’s ex post evaluation and its shifting positions*

There are signals - at least behind closed doors – that the IMF’s position within the troika was one of more flexibility regarding the mix of debt restructuring and adjustment policies (see i.e. the European Parliament Report, 2014). In this sense, the IMF’s internal position reflects the shift already realised by Lütz and Kranke (2014), which testify the IMF’s greater flexibility in comparison to European bodies in terms of tackling financial crises in borrowing members such as the Eastern European countries even before the Greek crisis. The IMF certainly transferred to the euro institutions substantial knowledge how to implement liquidity programmes. The euro institutions also could gain increasing knowledge in the understanding of the nature of the euro crisis.

“Finance ministers debating in the Eurogroup and high-ranking officials preparing the meetings increasingly acknowledged that changing market expectations themselves can create crises if they take on the nature of a self-fulfilling prophecy [...]. The insight derived from ‘multiple equilibrium’ models, which the ECB and

the IMF as well as a number of academics and thinktankers used to explain the development of the crisis”, (Schwarzer 2015, 18).

Yet, we argue that this transfer of knowledge was limited. According to the experiences that the IMF had gained in the Latin American crises, Greece should never have received support without a debt restructuring and at least some of the other countries in the euro area should not have been burdened with the harsh austerity for which they were asked. Instead, the kind of liquidity provision as supported by the ECB from 2012 onwards should have been the response from the beginning.

In either case, the IMF loosened its standards during the euro crisis. Rather early in the negotiations on the Greek debt crisis, the IMF correctly identified this as a case of insolvency. In 2010, the country’s debt was already classified as “not to be sustainable with high probability”, (see IMF 2013a, 18).

“The Fund approved an exceptionally large loan to Greece under an SBA in May 2010 despite having considerable misgivings about Greece’s debt sustainability (...). The decision required the Fund to depart from its established rules on exceptional access. (...) The euro partners had ruled out debt restructuring and were unwilling to provide additional financing assurances”, (IMF 2013a, 32).

Despite this, the IMF agreed with its European troika partners to provide liquidity to Greece. In order to make this step compatible with its own regulation, the Fund consequently changed the EAP in 2010.

“The chosen course was therefore to amend the policy to create an exception to the requirement of ‘high probability’ in circumstances where ‘there is a high risk of international systemic spill-overs. Eventually, the planned adjustment proved unfeasible and, despite additional official sector financing on supportive terms, private debt restructuring became unavoidable and was launched in February 2012””, (IMF 2013b, 20).

With this exception for the lending for Greece despite serious doubts of its fiscal solvency, the IMF clearly contradicted its own approaches, which were redesigned after having managed emerging market crises and translated in rather clear-cut frameworks. The IMF itself explains its behaviour with a multiple set of interests in borrower and creditor countries to delay a restructuring of unsustainable debt.

“Authorities are also concerned about a restructuring’s impact on market re-access and spill-over effects on the private sector. In addition, official creditors have sometimes contributed to delays, out of concern that a restructuring would reduce incentives for the debtor country to adjust, force banks located in official lenders’ countries to recognize losses, and trigger market turmoil affecting similarly-situated countries, or to preserve flexibility for the future. Private creditors will also naturally wish to avoid a debt restructuring if at all possible, and will therefore press for a bail-out by the official sector”, (IMF 2013b, 21).

At the same time, the IMF clearly acknowledges that liquidity provision in a case of insolvency is much more costly than a direct debt restructuring effort: “[...] when a debt restructuring is the only option to deal with a liquidity shock or to restore solvency, e.g. in situations where available financing and policy adjustment have been exhausted, delays end up amplifying the ultimate costs”, (IMF 2013b, 20–21). As the IMF has always been repaid, these “ultimate costs” can only refer to adjustment costs and lost output in the respective country.

It was only later that the IMF discussed a new framework (IMF 2013b, 2014) to address cases of illiquidity and insolvency, and redeemed the exceptions made in 2010 for the case of Greece. In addition to this, a third option besides the classification of liquidity and insolvency crises has been introduced for cases that cannot be clearly classified as one or the other. In such cases, a country shall be offered a prolongation of maturities rather than liquidity or debt restructuring. In case of a successful so-called re-profiling, the Fund argues that the creditor’s loss is less than in the case of a restructuring. In case the crisis worsens, a restructuring shall be conducted. Nonetheless, both the concept of multiple equilibria as well as the IMF’s own experience in Argentina and Greece show that such a workaround is associated with much higher costs and a prolonged crisis if a prolongation of maturities does not succeed. The subsequent restructuring is much more costly for both sides and possibly enables creditors delaying the restructuring altogether.

When it comes to the volume of liquidity provisions to other euro area countries beyond Greece, which has long been argued to be insufficient, there are some indications that the IMF was aware that more liquidity might be needed. Indeed, in its September 2011 World Economic Outlook (IMF 2011, 19), about ten months before Mario Draghi’s speech, the IMF stated:

“[The challenge is to send] a clear signal that euro area members will continue to do whatever it takes to preserve confidence in the euro. In the meantime, the ECB will need to continue to intervene forcefully (with suitable sovereign safeguards) to support orderly markets in sovereign debt.”

On July 18, 2012, about a week before Draghi’s speech, Mahmood Pradhan, Deputy Director of the IMF’s European Department and mission chief for the euro area, was quoted in the IMF Survey online with the plea (IMF 2012b):

“The European Central Bank should, in our view, consider more unconventional measures (for instance, quantitative easing) to support financial markets in countries undergoing severe stress.”

Here, it seems that while being constrained by its own limitations of lending, the IMF was desperately trying to push the troika partners towards providing more liquidity by ways beyond the established lending programmes.<sup>15</sup>

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<sup>15</sup> Another interpretation of the IMF’s pledge for debt reduction would be that, being involved as creditor but having preferred creditor status, the Fund’s resources would be insulated from potential losses (Schadler 2014).

## ***Conclusion***

Against the above-described theoretical background of multiple equilibria models that require a differentiated treatment of debt crises depending on the debtor's state of solvency, the chain of events in the euro crisis is rather straightforward to interpret: in Greece, there seems to have been a problem of unsustainable debt levels at the onset of the crisis. Ideally, such situation would have required an immediate and sufficient debt restructuring and some corrective fiscal measures. A correct distinction between illiquidity and insolvency and corresponding behaviour by the troika could have avoided costly delay. In fact, the liquidity provisions by the troika have only succeeded in delaying the debt restructuring and potentially increasing its costs. In the rest of the euro area, an important element seems to have been liquidity rather than solvency problems, as evidenced by the fact that the panic subsided when unlimited liquidity provision through the ECB and the ESM was announced. Here, the problem seems to be that the volume of possible liquidity assistance probably was insufficient in volume until Mario Draghi's announcement. As the models on multiple equilibria describe, only a sufficient amount of liquidity being credibly made available will be sufficient to stabilise expectations in the non-default ("good") equilibrium. By contrast, an insufficient amount of liquidity will not be able to shift expectations and a country will remain in the default equilibrium. The longer that liquidity provision is delayed, the more likely a default becomes, as the high interest rates deteriorate the underlying solvency position of the country in question.

These theoretical lessons, together with practical and painful experience gained in tackling emerging markets' debt crises, had been included into the IMF's framework. One can thus say that the Europeans' hopes that they could benefit from several decades of IMF crisis management experience have only been partially fulfilled, and with large and costly delays. In particular, fundamental insights in the design of assistance packages have been neglected, despite evidence that the IMF staff was well aware that the design of the euro zone troika programmes was against better institutional knowledge. As the policy choices taken against the IMF's experiences have arguably contributed to the depth and duration of the euro crisis, this failure is a serious shortcoming of the troika setup. Accordingly, we confirm the finding of Ban and Gallagher (2015) that these changes are rather slow and uneven.

Yet, one should be careful to put the blame for this on the IMF alone: The IMF was not entirely free in making its decision to join or not to join the programme in 2010. There were serious concerns among European policy makers that a debt restructuring for Greece would lead to contagion to other euro area countries (IMF 2013a, p. 8). EU countries as major shareholders had a disproportionate weight in IMF decision making. While this helps us understand why the IMF acted as it did, it does not change the fact that the outcome was a suboptimal adjustment package with significant costs. Later in the crisis, the lack of dynamism in Greece to overhaul its public administration certainly reduced the political will of the other Euro member countries to offer substantial debt release, as they feared to produce a moral hazard effect on other debtor countries, regardless the fact that Greece was undertaking substantial labour market and trade related reforms.

This prompts a number of questions for future research. One important question would be why the IMF did not push more to apply new approaches that were set up after experiences in emerging markets in the euro crisis. Was it because it was only a “junior partner” in the troika programmes, with the larger share of the funds disbursed coming from European sources? Alternatively, was it due to the political economy of the IMF’s governance structures and the fact that EU countries are among the most important shareholders of the Fund? These sorts of questions would require insights into formal and informal decision-making processes within the IMF, the troika and the relevant governments involved, which exceeds the scope of this paper.

Depending on the answers to these questions, important policy conclusions could be drawn about the future setup of assistance programmes and the IMF. If it was the Europeans’ influence in the Fund that led to these sub-optimal policy designs, this would call for reforms in the IMF’s governance structure. If it was rather owing to the undue influence of the senior partners in the troika, then the IMF should think about refraining from such joint assistance programmes.

Nonetheless, what we can conclude upon is that based on its own and institutionally accumulated and formalised knowledge, the IMF could have performed better in helping the euro members to tackle this crisis, which most probably would have made a difference. Returning to the introductory statement of a former ECB director concerning the role assigned to the IMF within the troika, one might say that the IMF performed better regarding the second aspect, namely the attributed external policeman role, rather than bringing in its own experience.

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## Tables

**Table 1. Argentina: Selected Economic Indicators**

	1998	1999	2000	2001	2002	2003	2004
GDP growth (annual %) (1)	3,85	-3,39	-0,79	-4,41	10,89	8,84	9,03
External debt stocks (% of GNI) (1)	48,06	54,34	53,15	57,37	153,8	132,4	114,3
General government net debt (% of GDP) (2)	n/a	n/a	n/a	n/a	4	6	6
General government gross debt (% of GDP) (2)	31,87	36,30	38,08	44,76	137,72	116,39	106,03
General gov. structural balance (% of potential GDP) (2)	-1,93	-2,57	-2,41	-3,15	0,21	1,91	3,53
Official exchange rate (LCU per US\$, period average) (1)	1,00	1,00	1,00	1,00	3,06	2,90	2,92
Real interest rate (%) (1)	12,55	13,12	9,95	29,12	16,18	7,83	-1,06
Inflation, average consumer prices (% change) (2)	0,93	-1,17	-0,94	-1,07	25,87	13,44	4,42
Current account balance (% of GDP) (2)	-4,04	-3,50	-2,63	-1,17	7,25	5,29	1,69

Source: (1) World Development Indicators, 2013; (2) World Economic Outlook, April 2016.

**Table 2. Brazil: Selected Economic Indicators**

	1999	2000	2001	2002	2003	2004	2005
GDP growth (annual %) (1)	0,26	4,31	1,31	2,66	1,15	5,71	3,16
External debt stocks (% of GNI) (1)	43,15	38,68	43,04	47,68	44,13	34,28	21,98
Internal public net debt <sup>5</sup> (% of GDP) (2)	35,16	36,54	38,85	37,48	41,66	40,18	44,13
External public net debt <sup>3</sup> (% of GDP) (2)	9,38	9,00	9,59	12,99	10,69	6,82	2,33
General government net debt (% of GDP) (3)	41,76	42,83	47,54	49,24	51,67	47,21	46,83
General government gross debt (% of GDP) (3)	53,54	60,31	64,93	64,89	70,44	65,41	67,38
General government net debt (% of GDP) (4)	n/a	47,00	51,49	59,93	54,26	50,19	47,92
General government gross debt (% of GDP) (4)	n/a	65,56	70,05	78,80	73,82	70,08	68,59
Overall fiscal result (4)							
primary	2,92	3,24	3,38	3,55	3,89	4,18	4,35
nominal	-5,28	-3,37	-3,29	-4,17	-4,65	-2,43	-2,96
SELIC rate (% p.y., end of year) (3)	19,04	15,84	19,05	24,90	16,33	17,75	18,04
Inflation, average consumer prices (% change) (2)	4,86	7,04	6,84	8,45	14,71	6,60	6,87
Current account balance (% of GDP) (2)	-	-	-	-	0,756	1,76	1,585

Source: (1) World Development Indicators, 2013; (2) Ipea Data, 2014; (3) Banco Central do Brasil, 2014; (4) World Economic Outlook, April 2016.

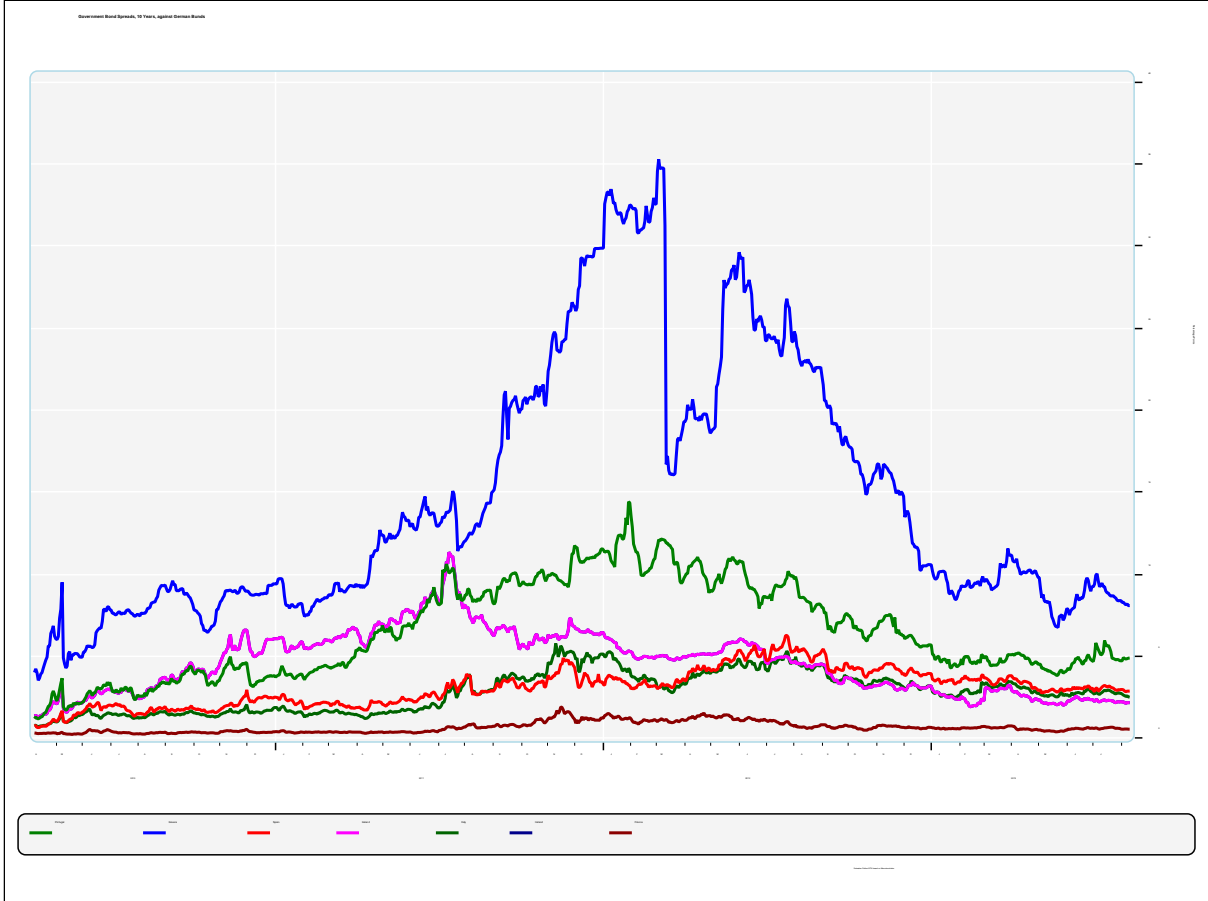
Table 3

Country	Current account balance in % of GDP			Public sector balance in % of GDP			Public debt in % of GDP		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Euro area (12 countries)	-0.5	0,4	0,5	-2,2	-6,2	-6,2	69	79	85
Belgium	1.4	1,0	3,6	-1,1	-5,4	-4,0	93	100	100
Germany	5.6	5,9	5,7	-0,2	-3,2	-4,2	65	72	81
Ireland	-5.8	-4,1	-0,8	-7,0	-13,8	-32,3	42	62	87
Greece	-15.8	-12,5	-11,3	-10,2	-15,2	-11,2	109	127	146
Spain	-9.2	-4,3	-3,9	-4,4	-11,0	-9,4	39	53	60
France	-1.4	-1,6	-1,7	-3,2	-7,2	-6,8	68	79	82
Italy	-2.9	-1,9	-3,5	-2,7	-5,3	-4,2	102	113	115
Cyprus	-15.6	-7,7	-10,7	0,9	-5,5	-4,8	45	54	56
Luxembourg	7.7	7,3	6,8	3,4	-0,7	-0,7	15	16	20
Malta	-1.1	-6,6	-4,7	-4,2	-3,3	-3,2	63	68	68
Netherlands	5.2	6,2	7,7	0,2	-5,4	-5,0	54	56	59
Austria	4.1	2,1	3,1	-1,4	-5,3	-4,4	69	80	82
Portugal	-12.6	-10,1	-10,3	-3,8	-9,8	-11,2	72	84	96
Finland	2.7	2,0	1,4	4,2	-2,5	-2,6	33	42	47
United Kingdom	-3.6	-3,0	-2,8	-5,0	-10,7	-9,6	52	66	77
United States	-4.7	-2,6	-3,0	-7,0	-12,7	-12,0	73	86	95
Japan	3.3	2,9	3,8	-1,9	-8,8	-8,3	192	210	216

Source: Ameco database (2016)

Figures

Figure 1



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