Regional Financial Arrangements in the Global Financial Safety Net:

The Arab and the Eurasian Fund

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Abstract

The so called global financial safety net provides backstop during financial crises. The three elements of the global safety net – the IMF, regional financial arrangements and bilateral swap agreements – underwent substantial changes since the global financial crisis. How do these changes influence their use? What role do RFAs have in the safety net? The article analyses these questions by examining timeliness, volume, and policy conditionality of liquidity provision of each element. We compiled a data set of 50 RFA member countries between 1976 and 2015. Case studies on the Arab Monetary Fund and the Eurasian Fund for Stabilization and Development deepen our institutional analysis of the governance mechanisms of regional funds. We find that today's global financial safety net produces inequalities in emergency liquidity provision. RFAs make the safety net safer only for small members in terms of volume – about one third of the countries in our sample find sufficient liquidity regionally. The experience of AMF and EFSD demonstrates that intra-regional asymmetries of RFAs play a contradictory role: while participation of large economies leverages liquidity provision, at the same time it creates difficulties for the governance of the regional body.

1. INTRODUCTION

Financial systems are indispensable to the functioning of modern economies. However, they also bear the risk of instability and crises, as historical experience shows. Especially since the global financial crisis of 2008 (hereafter "the financial crisis"), the volume and volatility of global capital flows has increased. Volumes and volatility of transnational financial flows have triggered substantial changes in the nature, size, and use of the existing system of financial institutions and conventions that governs these international financial flows and international financial stability. This system is also called the global financial safety net (hereafter "the global safety net"). It is defined as the 'set of financial resources and institutional arrangements that provide a backstop during a financial or economic crisis. The safety net is a form of insurance against crises that affect a country's external payments.' (Hawkins et al., 2014: 2).

While this definition holds in theory, the subsequent analysis shows that the elements of the global safety net are not equally accessible for all countries. Hence, not all countries can equally draw on insurance mechanisms in the case of a balance of payments crisis in the so called global financial safety net. Consequently, in her contribution to this special issue, Grabel (2019) terms the parallel existence of regionally adapted financing mechanisms 'productive incoherence' of individual approaches to adequate means of emergency financing.

The global safety net has gained additional options and complexity over time. The global element is the International Monetary Fund (IMF) as one of the founding institutions of the post-WWII global monetary order of Bretton Woods. Partially due to the problems associated with the IMF, since the 1970s regional financial arrangements (RFAs) have been created in different parts of the world. Lately, with the turmoil of the financial crisis, bilateral liquidity support through swap lines, which are mutual credit contracts between central banks, emerged.

Hence, instead of constituting a first-best coordinated mechanism of the different elements, today's global safety net consists of three uncoordinated elements – the IMF, bilateral swap lines, and RFAs – each of them following its own logic (Grabel, 2019). Recent attempts to coordinate these options at the global level have failed so far (Helleiner, 2014; Volz, 2016; Ocampo, 2018).

We find that economic literature mainly concentrates on the analysis of single elements or provides a rough overview of all elements (i.e., Aizenman/Pasricha, 2010). Certainly, the IMF is the most analysed institution in this context (i.e., Grabel, 2011; Dullien et al., 2018). There are also several studies on regional financial arrangements (RFAs) between developing countries and emerging market economies (EMEs), but among these, the Arab Monetary Fund

(AMF) and the Eurasian Fund for Stabilization and Development (EFSD, before known as the EURASEC Anti-Crisis Fund) have received little attention. Further, only few scholarly contributions provide a systematic comparative perspective on all elements of the global safety net (i.e., Volz, 2016, IMF, 2016a). Mostly, studies concentrate on the comparison of one or two elements, asking, for instance, if regional financial mechanisms serve as a substitute for or as a complement to the IMF (i.e., Henning, 2002; McKay et al., 2011).

The article aims at increasing our knowledge about analysing the use of RFAs in comparison to the other currently existing elements of the global financial safety net, i.e. the IMF and bilateral swap lines. We ask what drives the choice that countries make when drawing emergency liquidity from one of these three elements of the global safety net in times of crisis. We are interested in the role that RFAs play in the safety net and how changes in the global safety net since the financial crisis have influenced the use of RFAs by EMEs and developing countries.

We compile a data set on the member countries of four RFAs that have been founded in two different phases: the Latin American Reserve Fund (FLAR, Fondo Latinoamericano de Reservas) in South America and the Arab Monetary Fund (AMF) in Northern Africa on the one hand; and the Chiang Mai Initiative Multilateralization (CMIM) in Southeast Asia, and the Eurasian Fund for Stabilization and Development (EFSD, former EURASEC Anti-Crisis Fund, ACF) in Asia and Eastern Europe on the other hand. While the former have been founded in response to capital flow volatility and debt crises in the 1970s and 1980s, the latter have been founded more recently in response to regional and global financial crises in the 1990s and 2000s.

In its institutional analysis, the article focuses particularly on the cases of AMF and EFSD because they represent each a case of the respective generation of RFAs. Further, the cases of FLAR (e.g., Ocampo, 2006) and CMIM (e.g., Grimes, 2015) have been studied to some degree; while to the AMF and the EFSD have received almost no scholarly attention, to our knowledge.

For the members of these four regional bodies, we analyse all cases either in which a financing program was agreed on with the RFA or the IMF, or in which a swap agreement[2] with a foreign central bank was concluded. Hence, a case is the occurrence of a loan or swap agreement. We do not analyse whether a financing agreement was drawn on or not. For each case, we ask which other options were available and examine the institutional design regarding timeliness, volume, and the existence of policy conditionality connected to each option of liquidity provision. Based

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[2] Swap arrangements are counted only once despite their reciprocal character (see 4).

on the annual IMF, World Bank, regional and country-level data, we construct a dataset with 386 cases of 50 RFA member countries since the beginning of their membership between 1976 and 2015.

Our analysis departs from theoretical underpinnings of balance-of-payments crises models. At the same time, we are aware that the decision about where to request emergency funding may be driven by multiple factors that require analysing competition and complementarity in the use of RFAs and other elements of the global safety from another perspective (see Henning, 2019). We include aspects, such as power asymmetries and ownership as far as possible in our analysis of the governance structure of the regional mechanisms.

We organize the text as follows: in the following second section, we derive the criteria for our analysis from balance-of-payments models; in the third section, we analyse the role of the RFAs within the global safety net, including a systematic comparative analysis of the AMF and EFSD with other existing RFA. In part four, we empirically compare the options available for drawing on emergency liquidity for our set of countries and analyse the governance mechanisms of our two case studies. Section five concludes.

2. THEORIZING LIQUIDITY PROVISION OF THE GLOBAL FINANCIAL SAFETY NET

In this section, we refer to standard economic theory in three generations of balance-of-payments crisis models. Interestingly, they serve well to deduce analytical criteria for the comparison of the use of different elements of the global safety net.

The concept of the financial safety net as an insurance requires defining when and under what conditions this insurance can be drawn. Two risks emerge: first, the potential abuse of the insurance as a substitute for domestic policy reforms in case of financial crises and second, the risk of losing the credit for the insurer if the borrowing country is not able to repay. Both issues are treated in several generations of models for balance-of-payments crises. Central to these models is the idea that there is a limited stock of an asset, which is depleted by either policy errors or investors' flight, or a combination of both.

The first generation of balance-of-payments crises 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. In this case, public debt is unsustainable (Krugman, 1979). Translated to the question of financial crises resolution, external liquidity provision aims at limiting the

fallout to the real economy. Since the cause of the default is an unsustainable fiscal stance, any liquidity provision from outside has to be conditioned to an adjustment program to achieve a rebalancing of public finance and to prevent moral hazard.

In second-generation models, the mechanism is different (i.e., Obstfeld, 1996), which do not necessarily assume a clear-cut policy failure as the starting point. The second-generation models include the possibility of multiple equilibria for countries with economic policies that are not clearly unsustainable. This setup leads to the possibility of a self-fulfilling debt or fiscal crisis, as Cole and Kehoe (1996) have shown. The logic here is simple: whether an entity with a moderate, yet not extremely high level of debt is able to service its debt depends on the expectations of market participants. 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 stabilize in the "good" equilibrium and a self-fulfilling crisis is thus no longer possible. Timeliness and sufficiency of liquidity provision are key criteria for successful intervention of the third actor to reduce financial vulnerabilities.

Third-generation models of financial crises (i.e., Corsetti et al., 1998) have emerged in the context of emerging-market crises during the 1990s. In addition to second-generation models, the third generation of balance-of-payments crises models underlines the intertwined nature of banking and currency crises (Kaminsky/Reinhart, 1999) and hence links the negative consequences of international debt and domestic financial crises. They signal the relevance of smooth and decisive action to stop these crises in terms of timely and sufficient external liquidity provision to prevent spill-over to the real sector and to other countries. If the involvement of the third-party actor has to be bound to conditionality, it is again an empirical question what triggered the capital outflows and the financial crisis: domestic policy failures or the changed perception of investors due to external shocks, such as a crisis in a neighbouring country?

In all types of balance-of-payments crises in emerging-market and developing countries, the third actor must come from outside the country. Domestic institutions, such as the central bank of the country under stress or an emergency fund at the domestic level, cannot tackle the lack of liquidity.

The second risk for all elements of the global safety net as an insurance is the risk of loss of the provided funds. Thus, it is key for the third-party 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 therefore means that the postponement of the insolvency leads to increased costs (cf. Dullien et al., 2018).

Insights of the three generations of balance-of-payments theory reveal the importance of three criteria: conditionality, timeliness and sufficiency of the provided financing volume. The following sections compare the use of the three elements of the global safety net based on these criteria.

3. REGIONAL LIQUIDITY PROVISION IN THE GLOBAL FINANCIAL SAFETY NET

This section provides a brief overview on the current stance of IMF, swaps and particularly of RFAs in the global safety net with regards to the three criteria for liquidity provision elaborated in section 2.

3.1 The Global and the New Bilateral Element: IMF and Central Bank Currency Swaps

The International Monetary Fund (IMF), founded with the Bretton Woods system, became the trouble-shooter and guardian of creditors' interests in an unregulated global monetary "non-system" after the breakup of the system in the 1970s (Williamson, 1976, Ocampo, 2018). Especially with the liberalization of capital accounts in EMEs, requirements changed: the speed as well as the volume of liquidity provision became increasingly important. IMF borrowing conditions for countries asking for support became a highly disputed issue especially during the 1990s. Furthermore, the IMF's governance system has constantly been criticized for overly favouring advanced economies in the decision making process, despite some minor progress through the most recent quota reform (IMF, 2016b).

In reaction to changed global circumstances and critique especially in the context of a series of EME financial crisis, the IMF overhauled its financing facilities (IMF, 2014)[3]. The much criticized *ex-post* conditionality was dispensed in a series of newly introduced credit lines such

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[3] For a more extensive analysis of the institutional innovations of the global and the bilateral element of the global safety net, see Mühlich/Fritz 2018.

as the Supplemental Reserve Facility in 1997, the Contingent Credit Line in 1999, the Flexible Credit Line in 2008, and the Precautionary and Liquidity Line in 2011 (IMF, 2009; 2014; 2016a). The *ex-ante* conditionality also implies quicker disbursement, as there is no time required for the negotiation of the terms.

Regarding the timing of liquidity provision, which had been criticized for being too slow, the IMF introduced the Emergency Financing Mechanism already in the mid1990s.

Regarding the critique that its credit volume was not sufficient to address major crises, the IMF multiplied its funds after the financial crisis. In addition to quota resources and multilateral borrowing arrangements, bilateral borrowing arrangements were set up. By end-2017, the IMF had about $295 billion readily available for new non-concessional lending compared to $127.3 billion in 2007 and $149.5 billion in 2010 (so-called forward commitment capacity; IMF, n.d.a). The Fund's current total resources stand at about $986.9, compared to about $500 billion by end-2007 (ibid.). Before the IMF's quota reform in 2016, a member country could borrow short-term up to 200 per cent of its quota annually and 600 per cent cumulatively.

Bilateral central bank currency swaps – swaps, swap agreements, or swap lines – are bilateral arrangements for short-term liquidity provision between the central banks of two countries. They gained momentum in response to the financial crisis for short-term emergency financing.

In contrast to the institutionalized forms of short-term liquidity provision of the IMF and the RFAs, bilateral currency swaps are a non-institutionalized and highly discretionary policy instrument. McNamara (2016) categorizes bilateral swaps as a new form of market-led regional financial governance in contrast to the IMF and RFAs as state-led (global and regional) monetary governance. Swap lines are the timeliest short-term financing mechanisms provided in the global safety net. Once a swap line is agreed upon between the two contracting central banks, liquidity can be drawn immediately, denominated in the currencies agreed upon.

So far, only advanced economies and selected EMEs offer central bank currency swaps. The Federal Reserve Bank of the US (FED) initiated the current swap boom by starting bilateral swap agreements over a very short term with 14 central banks of advanced and emerging economies in response to the financial crisis. In 2013, several advanced economies' central banks agreed to make the swap agreements permanent.[4]

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[4] Systematically researching swap agreements turns out a difficult endeavor since information and data about the offer and particularly the actual use of swap lines is only partially available to the public.

Usually, no policy conditionality applies to swap lines: "Central bank swaps do not include surveillance, and conditionality is limited to the use of the proceeds of the swaps … not the economic policy as in the case of IMF facilities" (Destais, 2016: 2261). Instead, nation-specific motives of the swap-offering central banks determine which countries are offered a swap line (see section 4).

3.2 Regional Financial Arrangements

A key motive for creating RFAs for developing countries and EMEs has been the lack of adequate short-term liquidity provision on the global level. In this vein, Eichengreen (2007: 9) argues that 'in the absence of a global fund, the insurance in question could be provided by a regional pool of reserves.'

 An RFA is understood here as an agreement by a group of countries to provide each other with short-term financial support in case of balance-of-payments problems either through reserve pooling or through a regional swap network (see e.g., Mühlich, 2014). Member countries regionally determine the design of enforcement and conditionality criteria. Hence, RFAs differ with regards not only to their volume and timeliness of liquidity provision but also with regards to their conditionality criteria and surveillance mechanisms (Grabel, YEAR of special issue).

While RFAs have always been an alternative to a missing global mechanism designed to achieve macroeconomic stability and development, the specific motivation to cooperate through the regional sharing of liquidity has changed over time. We observe two different phases: First, the irregularity of capital inflows after the end of the Bretton Woods system drove regional institution building. The oil price boom in the early 1970s provided the economic and political context of the foundation of the Arab Monetary Fund (AMF) (Corm, 2006). Excess liquidity in the oil-rich member countries should be redistributed in the region countries with balance-of-payments difficulties. The Latin American Reserve Fund (FLAR) was founded as a regional self-insurance mechanism during the 1980s, in the face of the evolving Latin American debt crises of the 1980s. Second, both, the series of financial crises in emerging economies at the end of the 1990s and the financial crisis with its spillovers to EMEs led to the perception that independent regional crisis prevention was needed to avoid inadequate conditionality by IMF programs. It is in this context that the Chiang Mai Initiative (CMI) was launched, and later multilateralized and strengthened in terms of volume and institutional design to today's Chiang Mai Initiative Multilateralization (CMIM) (Grimes, 2015).[5] Similarly, the Eurasian Fund for

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[5] While the CMIM has no paid-in capital since it was initiated as a network of bilateral swap arrangements, it turned into an institutionalized regional financial arrangement that requires more commitment than an ad hoc swap arrangement.

Stabilization and Development (EFSD) was set up by former Soviet Union members in response to global financial volatility in and after the financial crisis. At its foundation, the Russian Finance Minister, Alexei Kudrin defined it explicitly as an alternative to augmented IMF funding:

> This fund will be a kind of replica of the International Monetary Fund and the European Bank for Reconstruction and Development. As we know, the IMF provides credit stabilization globally, while the EBRD grants loans for investment projects. It should be noted that Russia has refused to increase the amount of its contribution to the IMF, which would have been used to grant loans to stabilize countries in need around the world. Instead, it creates a regional fund to help its neighbors and allies. (https://en.wikipedia.org/wiki/Eurasian_Economic_Community)

Compared to the volume the IMF commands, regional funds obviously provide a comparatively smaller insurance framework. The longest standing RFAs, the AMF and the FLAR, have a small volume of about $3.8 billion and $3.9 billion subscribed capital, respectively. At the time of their founding, much smaller borrowing volumes were required. In contrast, more recently founded RFAs were set up in response to the East Asian and to the global financial crisis and were hence initially equipped with a higher volume. The CMIM stands out with the largest (pledged) volume of $240 billion. The volume of the EFSD is about $8.5 billion subscribed capital.

Whether an RFA's volume is sufficient for a member country in times of crisis depends, among other factors, on the relative size of this member country within the RFA. The more economically asymmetric an RFA in terms of economic size of its members, the larger the benefits in terms of volume since larger economies are able to contribute comparatively higher shares to the fund. We characterize the RFA member countries as "large" or "small" not based on sheer GDP measure but depending on their relative liquidity need in case of a balance-of-payments crisis. To assess the sufficiency in terms of volume of a regional fund, we consider a country's respective access limits in the regional fund compared to its IMF access limit.[6] The average share of a country's RFA access limit compared to its IMF access limit is 80.5 per cent.

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[6] As our analysis includes data until 2015 only, we examine the countries' decision for one of the elements of the global safety net based on their IMF quota and access limits before the implementation of the 14th General Quota Review started in 2016.

We determine a country as small if its regional access limit is higher than or equal to 80 per cent of its access limit at the IMF.

Alongside the absolute volume of a regional fund, the patterns of its use determine if funds are sufficient. Heterogeneous macroeconomic policy stances or business cycles of the member countries are beneficial to regional reserve pooling since the participating countries' demand for liquidity differs in time and volume (Imbs/Mauro, 2007). The AMF is characterized by asymmetry between two groups of countries: net oil importers and net oil exporters. The purpose and design of the AMF is partially based on such asymmetry. In contrast, in EFSD, a single country, Russia, stands out in terms of economic size. Hence, simultaneous withdrawals from the respective fund are unlikely in each region for different reasons.

A key argument often brought forward as an advantage of regional funds is that, compared to the IMF, they can be easier and more rapidly accessed than the Fund's resources. The average response by AMF is quick. A lean decision structure allows rapid response to loan requests. FLAR is also known for its timely response to loan requests. Rosero (2014: 82) reports 28 days on average. The available documentation of the hitherto five loan disbursements by the EFSD suggests rather long time spans between a member country's request and approval. Once approved, financial credits are disbursed within an average time of 24 days. Internal decision time is quicker the lower the loan amount. For example, EFSD needed one month to respond to Tajikistan's $70 mill. loan. In contrast, negotiations with Belarus about its second $2 bill. loan took more than a year. In the case of CMIM, an assessment is difficult since the mechanism has not been used so far. However, the fact that borrowing above 40 per cent of quota requires the existence of an IMF program can be expected to cause delay in decision-taking.

Regional arrangements enable regionally adapted means of policy response rather than "one size fits all" solutions as is the case on the global level (Grabel, 2019). However, the more asymmetric the region, the more difficult it is to design conditionality and enforcement mechanisms that would satisfy each member country's needs. FLAR does not impose conditionality at all: Country policy papers are requested upon loan disbursement but hitherto, they have always been accepted and FLAR shows a redemption rate of 100 per cent. In the case of FLAR, there is an understanding in the literature that the sense of ownership is able to replace the need for strong lending rules (i.e. Ocampo, 2006). All other RFAs of our sample condition credit lines on the implementation of a reform program. Enforcement mechanisms vary in their strengths between RFAs. The first generation of RFAs, AMF and FLAR, offer a fast track credit line with lean decision structure for a limited amount of emergency financing. Apart from the

fast track line, AMF offers its credit lines conditioned to a reform program whose implementation is enforced by the fund. EFSD essentially provides only one line of credit for emergency financing that requires a reform program whose implementation is rigorously enforced for disbursement decisions. Furthermore, a borrowing country may not be in arrears either with the EFSD, any of its member countries or any other international institution. In the case of Belarus, disbursement of the sixth credit tranche has been postponed due to the country's failure to fulfil the conditions (EFSD, n.d.b). In contrast, CMIM links its liquidity disbursement for withdrawal of funds of above 40 per cent of a member country's quota to the existence of an IMF program. In the case of CMIM, high asymmetries in terms of economic size between Japan and China on the one hand and countries such as Cambodia or Vietnam on the other hand render a decision on regional solutions for mutual surveillance and conditionality difficult (i.e., Grimes, 2015; Kawai/Park, 2015). The region aims at precluding moral hazard issues by linking the regional fund to the global oversight function of the IMF.

4. REGIONAL FINANCIAL ARRANGEMENTS IN THE GLOBAL SAFETY NET

We analyse the three elements of the global safety net in a comparative perspective, based on the empirical analysis of RFA member countries' choices between the three options in times of financial stress.

The use of the three different elements of the global safety net underwent substantial changes over time. Figure 1 shows that where a RFA of our sample exists since the end of the Bretton Woods era, it has been used frequently. RFA use reached its peak during the 1980s debt crises in developing economies. Overall, RFAs have been used more often than the IMF, in total 226 times, whereas the IMF has been used 117 times.

Figure 1 here

When looking at the volume disbursed by each of these elements in Figure 2, the picture changes considerably. First, while the RFAs' financial support still came close to the IMF in terms of volume during the 1980s and 1990s, it later has turned rather irrelevant from a global perspective.

Second, the financial crisis marks a major turning point in the global safety net. Bilateral swap agreements provide by far the largest financing volumes. The total financing volume of existing swap agreements with the RFA member countries of our sample is about $876.7 billion, of

which 98 per cent were concluded in or after the financial crisis. The agreed swap amount was thus about 16 times higher than the volume of IMF programs during that time. Swap agreements were also used about twice as much as the IMF between 2008 and 2015. In terms of volume, RFAs played a minor role in response to the financial crisis with a total financing volume of $4.9 billion, but with 38 uses, RFAs were requested more often than the IMF. [7]

Figure 2 here

Hence, since the financial crisis, swaps have replaced RFAs as the most used option for short-term financing in the global safety net. The IMF's role decreased, too. What explains this puzzling picture?

4.1 The Global and the New Bilateral Element: Can an irregular provision of bilateral currency swaps outplay the IMF?

Despite the substantial reforms of the IMF's lending terms, volumes, and conditionality analysed above, the newly introduced and reformed non-conditional facilities were not been frequently used by its member countries.

The reform of conventional support with ex-post conditionality also does not seem to be very successful. While the Fund's support after 2008 was requested only 22 times, RFAs assisted member countries 37 times, and swaps accounted for 40 arrangements in this short time span. Even if we do not analyse the decision-making process, our analysis of countries' choices confirms the findings in the literature. First, compared to the other elements of the global safety net, policy conditionality – whether applied *ex ante* or *ex post* – prevents many member countries from using the Fund's resources, in case they have alternatives available (i.e., Grabel, 2011). Second, the IMF is still slower than other sources of emergency financing. The Emergency Financing Mechanism, applied during the Asian crisis and in selected Asian, European, and Eastern European countries during the financial crisis, still was criticized for being too slow (Alabi et al., 2011). Third, as mentioned above, despite the significant enlargement of its overall financing capacity, swaps have a substantially larger volume and are used more.

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[7] A more detailed analysis of the complementary and substitutive use of the elements of the global safety net can be found in Mühlich/Fritz, 2018.

Since 2008, swaps have been responsible for about 93.7 per cent of total liquidity provision of the three elements of the global safety net in our sample. They currently represent the major source for emergency financing and the major innovation of the global safety net. With 24 agreements with a total volume of about \$417 billion, the PBOC accounts for the majority of swap lines.

Scholars have mixed views on the effects of swap agreements on the global financial and monetary system, mainly due to their selectivity (Destais, 2016; see also Aizenman/Pasricha, 2010). Their provision is subject to the decision of the economically stronger "offering" country. Aizenman et al. (2011) find that close financial and trade links explain the offering of swap lines since they make financial stability of the "receiving" country relevant for the former. In the case of China, the main objective is to maintain and increase trade ties (Garcia-Herrero/Xia, 2013). Additionally, China exploits swap lines for the internationalization of its currency. Since foreign exchange reserve accumulation in Chinese renminbi (RMB) is impossible, central banks swaps can be seen as a "temporary – and mostly symbolic – step" (Destais, 2016: 2261). Out of the 37 swap agreements between developing countries and emerging economies in our sample, 20 have explicitly been agreed upon to prevent or respond to a crisis, while 17 have been concluded for other reasons, according to media reports.

As far as the little information available suggests, few swap lines have been actually used, including those related to crisis prevention or resolution. Hence, the sheer existence of an immediately available swap line is expected to have a positive signalling effect (see section 2).

4.2 The Role of Regional Financial Arrangements: AMF and EFSD

Which factors determine the use of the RFA in each region? Even if RFAs by far account for the lowest overall volume, we find that about one-third (16 out of the 50 countries in our sample) have a regional access limit that is equal to or more than 80 per cent of their IMF access limit. This is defined as short-term accessible 200 per cent of their quota per year before quota reform in 2016 (see 3.2). Hence, while one third of the countries in our sample finds sufficient emergency financing regionally, about two third of the RFA membership cannot count on their regional fund in terms of volume. This concerns particularly emerging economies with larger economies and higher financing requirements (see also IMF, 2016a).

The actual use of RFAs depends not only on the provided financing volume but also on policy conditionality: if the latter imposes too harsh conditions or relates to the IMF, member countries hesitate to use the RFA. Apart from conditionality and volume, timely lending in case of

financial emergency plays also a significant role (see section 2). In the following, we analyse AMF and EFSD based on these criteria.

4.2.1 The Arab Monetary Fund

The AMF[8], founded in 1977 within the framework of the League of Arab States, is the most frequently used RFA in our sample. Until 2015, the AMF has been used 174 times by the 22 member countries. At the same time, the average drawing volume is very small, about $11 million (see Figures 4 and 5). After the financial crisis, the average lending volume of the AMF doubled to about $20 million. The smaller countries, some of which are oil importers such as Djibouti or Mauritania, make frequent use of the AMF, whereas the larger and oil-exporting economies, such as Saudi Arabia or the United Arab Emirates, did draw only a few times or not at all on the AMF so far. In the 1980s, with high oil price volatility, the fund was used more intensively, also by larger economies, than in more recent years, but continues to be in use. The AMF 'survived the sharp downturn in oil prices during the 1980s and 1990s …. Although the sharp upturn in oil prices beginning in 2000 led to an increase in funding, funding did not return to the levels of the second half of the 1970s and early 1980s' (Corm, 2006: 291).

The AMF is managed by a Board of Governors and a Board of Executive Directors. Each member country holds a fixed amount of 75 votes plus additionally one vote for each share held. Decisions are taken by absolute majority (IMF, 2013). Out of the eight seats in the Executive Board, three are single seats held by the largest member countries Saudi Arabia, Algeria, and Iraq (see table 1). Together, they hold about one third of the voting power (McKay et al., 2011).

Table 1 here

AMF provides very flexible emergency credit lines to its members. Except two non-conditional fast track facilities, the lines of credit include the agreement on a stabilization or structural adjustment program if lending volumes exceed 100 per cent of the quota of a member country (see table 2). Disbursements are conditional on the fulfilment of the agreed program. The time to disbursement is comparatively short. More than one third of all 174 drawings was made from the fast track facilities until 2015.

Table 2 here

The macroeconomic stance of the member countries is very heterogeneous, ranging from rich and stable oil exporters to very poor and developing economies partially dealing with economic

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[8] See http://amf.org.ae/en.

crises (see table 3). For some of the very small countries like Somalia and Sudan, AMF can provide similar volumes to the IMF drawing rights. At the same time, for the largest member countries, the fund is too small.

Table 3 here

Compared to the access limits of the IMF, the borrowable amounts in AMF are insufficient for the majority of the members, except for two of the smallest member countries, Somalia and Sudan. Figure 3 shows the relative size of each AMF member country. For the majority of AMF members, their regional fund does not offer sufficient financing amounts.

Figure 3 here

Apart from the fact that the relatively small amounts provided by the AMF may require most member countries to additionally draw on other means of emergency liquidity, the AMF requests member countries to withdraw their reserve tranche from similar regional or international organizations before drawing on AMF resources. This is reflected in an intense parallel use of AMF and IMF during and after the Arab spring in 2011. Hence, in times of crises, IMF and AMF programs seem to go hand in hand with their respective advantages in terms of timeliness (faster in AMF), volume (higher in IMF), and conditionality (lower in AMF). In all, we observe the parallel use of AMF and IMF facilities in one fifths of all drawings, which is more frequent than in other RFAs.

Recently, Qatar and the United Arab Emirates, who had used neither the RFA nor the IMF before, have entered swap agreements with the PBOC with more than twice the volume of their access limit at the IMF.

Figure 4 here

Figure 5 here

4.2.2 The Eurasian Fund for Stabilization and Development
The EFSD[9], since its foundation in 2009, has been used increasingly by the smaller member countries with an average borrowing amount of about $0.7 billion (see Figures 7 and 8). Compared to their IMF access limits, three of the six members find a sufficient financing

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[9] EFSD was until 2015 known as the Anti-Crisis Fund of the Eurasian Economic Community (ACF). The fund has been renamed because the Eurasian Economic Union (EAEU) was established as a successor of the Eurasian Economic Community (EAEC or EurAsEC). In accordance with the protocols, the EurAsEC Integration Committee did pass its functions of the fund's secretariat to the EDB.

volume in the regional fund (see table 4). Additionally, EFSD member states can reallocate access limits to another member state if needed (EFSD, n.d.c), as realized in the case of the first financial credit to Belarus by Russia (see below). Hence, for the smaller member countries, the EFSD could substitute the IMF in terms of volume of funding, while especially for Russia the quota would be far too small to tackle a crisis.

While in terms of economic size the EFSD is clearly dominated by Russia, in macroeconomic terms the members are less divergent. As former members of the Soviet Union, all of them demonstrate a low degree of productive differentiation, and most of them are heavily dependent on natural resources exports, with high external deficits and debt levels.

Table 4 here

Provision of financial credits for emergency liquidity and budget support is attached to conditions on structural adjustment (see table 5).[10] The above-mentioned case of the suspended payment of the last tranche of the financial credit to Belarus shows that EFSD has strong enforcement mechanisms.

Table 5 here

Its funds are managed by the Eurasian Development Bank (EDB) whose member states are the same as in the EFSD. The Russian Ministry of Foreign Affairs acts as the fund's depository. The EFSD decisions are taken in the Council that consists of the finance ministers of the member states. Russia, that counts for 85 per cent of the region's GDP, holds the absolute majority with a share of about 88 per cent of total capital (see table 6, figure 6). Even if we did not find information on voting mechanisms and its regional distribution, we can assume that Russia holds an absolute majority in voting power and can thus be expected to have veto power. Lending decisions are based on the perceived urgency of a country's financing needs as well as country's creditworthiness and long-term debt sustainability.

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[10] See https://efsd.eabr.org/en/. The fund disburses financial credits and investment loans. Financial credits are intended to finance budget deficits, support in case of balance of payments problems, or stabilize national currencies. Investment loans are intended to finance interstate investment projects. Our analysis only includes financial credits.

Table 6 here

Figure 6 here

Until today, the EFSD has disbursed five financial credits, two to Tajikistan in 2010 and in 2015 ($70 million and $40 million), two to Belarus in 2011 and in 2016 (about $2.5 billion and $2 billion), and one to Armenia in 2015 ($300 million) (see figures 7 and 8).

We find multiple use of all options of the financial safety net in the Eurasian region. Except the Kyrgyz Republic, all member countries are partner to a swap agreement with China. EFSD member countries have made parallel use of the RFA with swap agreements in a number of cases. In fact, the case of Belarus is the only case in our sample in which a country successively combined all three elements of the global safety net: The EFSD credit disbursement of about $2.5 billion in 2011 was preceded by an IMF Stand-By Arrangement in 2009 of about $2.3 billion, which was topped up by a swap line with the PBOC of about $3 billion (Reuters, 2009). In 2015, Armenia, Belarus and Tajikistan received the first or full tranches of the respective financial credit in parallel to the signing of a swap agreement with China and hence made use of both short-term financing elements of the global safety net at the same time.

Hence, while EFSD was expected to at least partly substitute IMF lending, as mentioned above, it turns out a complement to the latter as well as to swap arrangements. In contrast to AMF, we assume this complementary use of the three options not to relate to the borrowing amounts of the EFSD but to the governance structure of the EFSD: borrowing countries seek other emergency financing sources to avoid putting themselves under the solely control of the regional decision-making structure.

Figure 7 here

Figure 8 here

5. CONCLUSION

We find that not only the complexity of the global financial safety net increased considerably with ever higher volatility of capital flows and financing needs of vulnerable EMEs and developing countries. Also, the fragmentation of the GFSN was augmented due to its uncoordinated nature Today, it perpetuates old hierarchies in terms of access to emergency financing that especially the IMF has been criticized for, and new hierarchies are created

through the selective and irregular provision of swaps and the lack of coverage for larger member countries by their RFAs. We empirically examined the patterns of use of the three elements of the global safety net based on the three theoretically deduced criteria of adequate response to financial crises: volume, conditionality, and timeliness of liquidity provision. Our case studies of the AMF and the EFSD show that volumes, timeliness and conditionality are interdependent and further, that governance structures play and important role, too.

First, EFSD represents the younger generation of RFAs that has adapted to higher lending volume requirements in a context of globally liberalized and large capital flows. EFSD as the most recent RFA is able to offer at least half of its member states sufficient emergency liquidity, following our criteria. In contrast, in the eldest existing RFA AMF, that represents the elder generation of RFAs, the respective fund's total volume as well as disbursement volumes are much smaller but more frequently drawn on. Member countries of the AMF increased their number of drawings after the financial crisis and hence used the regional option as a response despite its relatively small disbursements.

Second, timeliness of liquidity provision is relevant in the decision for either of the elements of the global safety net. AMF offers a speedy decision making process that allows a frequent drawing of the fund. In contrast, EFSD was founded to respond not only to emergency but also to investment financing needs and does not provide any fast track loan decisions. Longer time spans for approval, however, seem not to have hindered the use of EFSD.

Third, the role of conditionality turns less relevant as an inhibiting factor when looking closely to AMF and EFSD: both mechanisms make liquidity provision dependent on specific conditionality and reform programs. In the case of EFSD, just as in the case of CMIM, the pronounced asymmetries between the member countries are related to the stricter loan disbursement requirements. RFA member countries apply higher and stricter conditionality and enforcement the more uneven the membership is. In contrast, in AMF, just as in FLAR, no big country dominates. In AMF and FLAR, conditionality is less extensive.

Our analysis also shows that other factors beyond the analysed lending criteria exist; we find the intra-regional asymmetries and the governance structure of RFAs particularly important. Attenuate power asymmetries such as in the EFSD, where Russia is clearly dominant as a member, may encourage borrowing countries to contain dependency on the regional mechanism. In EFSD, the member countries diversify their emergency financing to the global, regional and bilateral element of the global safety net, so that the dominant RFA member country cannot alone decide upon their financing decisions and reform path. At the same time,

economic asymmetry encourages regional cooperation. The governance structure of AMF is designed explicitly for emergency financing of mostly non-oil exporters in the region. Major oil exporting economies have a larger say in the governance of the mechanism, but make little use of it.

What do these findings imply in general for RFA member countries in the current global safety net? Based on our analysis of available options and their lending criteria, we identify three different groups of countries that are faced with different challenges in the current global safety net:

First, there is a small group of privileged countries, who can find sufficient and timely emergency liquidity with all three elements, including their RFAs, and who thus have free choice. Less than a fifth of the RFA member countries can avoid conditionality or the stigma effect of IMF lending by drawing on a bilateral swap agreement. These countries are exclusively members of the EFSD or of the CMIM. We hence find the global safety network a regionally scattered one. However, even for these countries, the extraordinarily voluminous swaps bilateral swaps are no reliable source for the future, due to their discretionary character.

Second, around one third of the countries in our sample, mainly FLAR and CMIM members, find sufficient financing volumes in their RFA. We hence find the little attention given to RFAs in the literature when analysing the global financial safety net to underplay their role for smaller economies. Most of them have no swap available. Hence, they can choose between their regional fund and the IMF.

The third group, however, which accounts for around half of the countries in our sample and applies to most of the AMF and part of the CMIM and FLAR countries, finds itself in the miserable position of being too big for their regional fund, and too irrelevant for potential swap partners. The IMF, a second-best institution in terms of its lending terms compared to other choices, remains their main or only option.

Summing up, we observe an increased fragmentation and de-institutionalization of the uncoordinated elements of the global safety net that further fuels global inequalities in financial stability provision.

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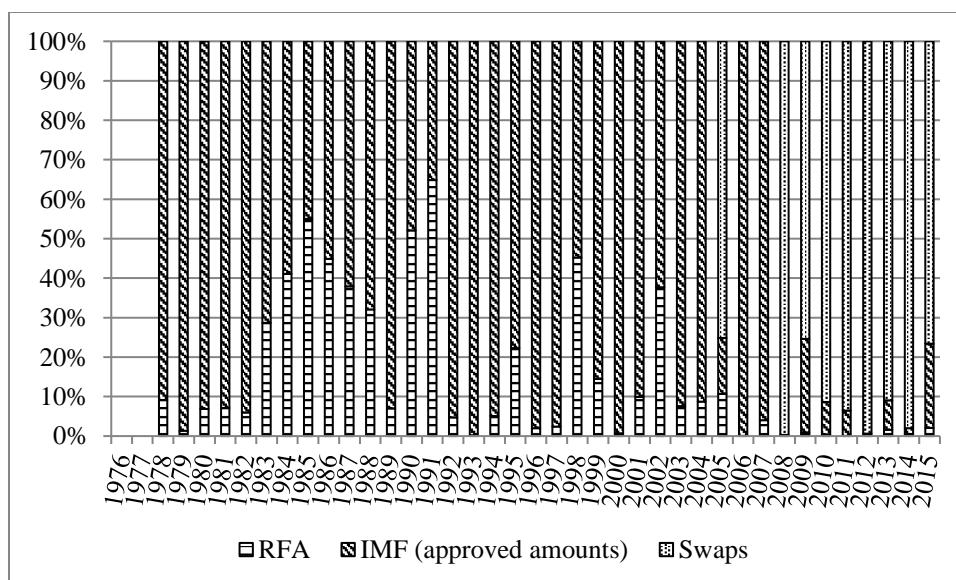
Figures

*Figure 1. Number of Agreements with IMF and Regional Arrangements, and Swap Agreements*
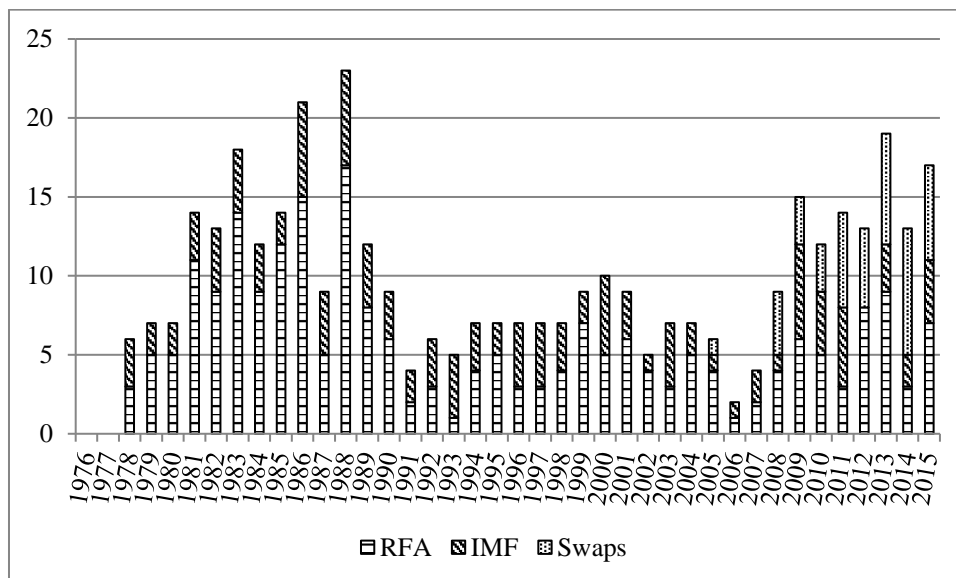
Sources: Authors' compilation based on IMF n.d.b; FLAR, AMF, and EFSD websites and Annual Reports; central bank websites; Garcia-Herrero/Xia 2013; Destais 2016; Eichengreen/Kawai 2014; Hill/Menon 2014; various media reports.

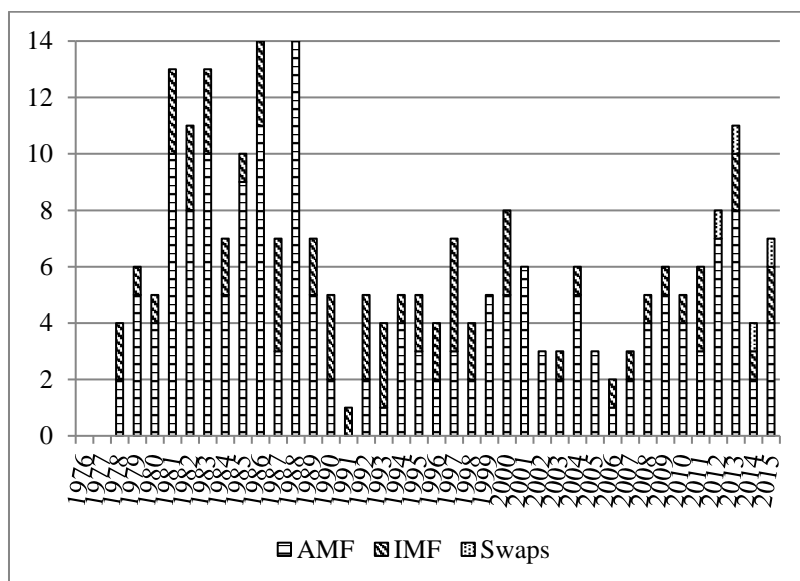*Figure 2. Share of Volumes of Agreements (in %)*

Sources: Authors' compilation based on IMF n.d.b; FLAR, AMF, and EFSD websites and Annual Reports; central bank websites; Garcia-Herrero/Xia 2013; Destais 2016; Eichengreen/Kawai 2014; Hill/Menon 2014; various media reports.

Figure 3. Relative Size of AMF Members
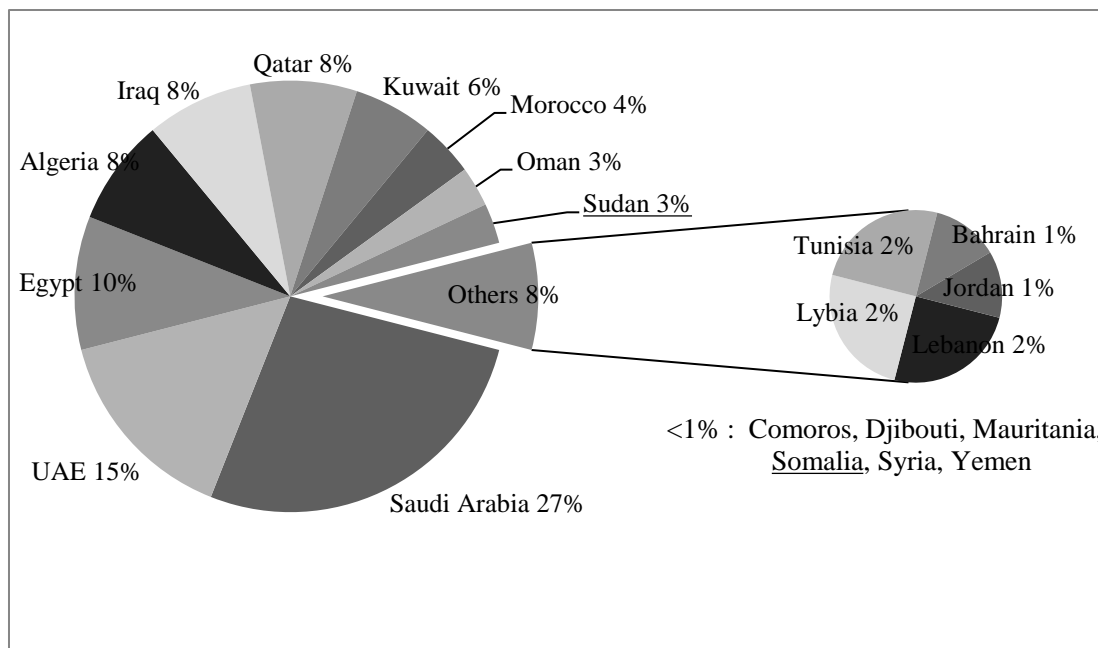
Source: World Development Indicators 2015. Note: Countries that find sufficient financing volume in AMF are underlined.
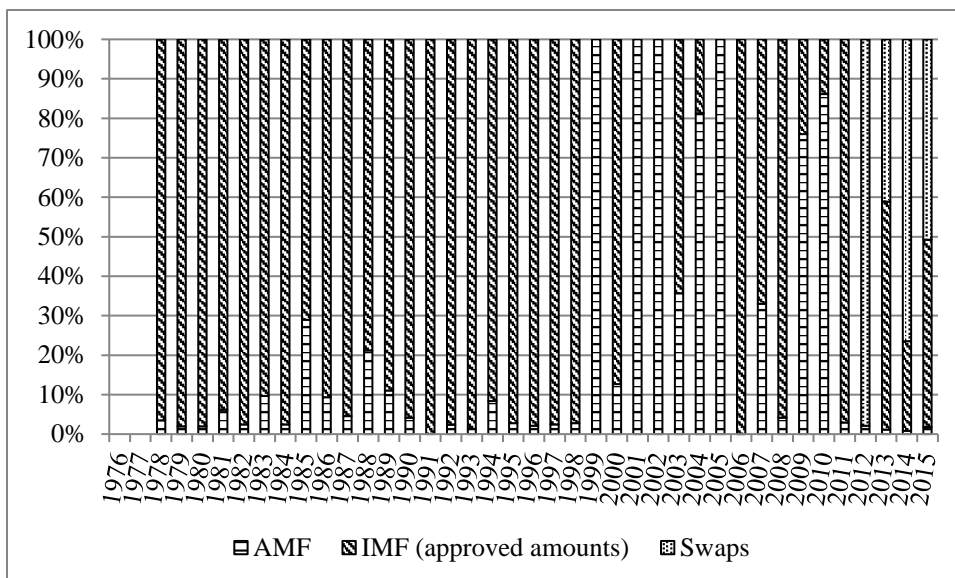
Figure 4. Number of Agreements by AMF Members

Sources: Authors' compilation based on IMF n.d.b; AMF 2015; Garcia-Herrero/Xia 2013; Destais 2016; Eichengreen/Kawai 2014; various media reports.
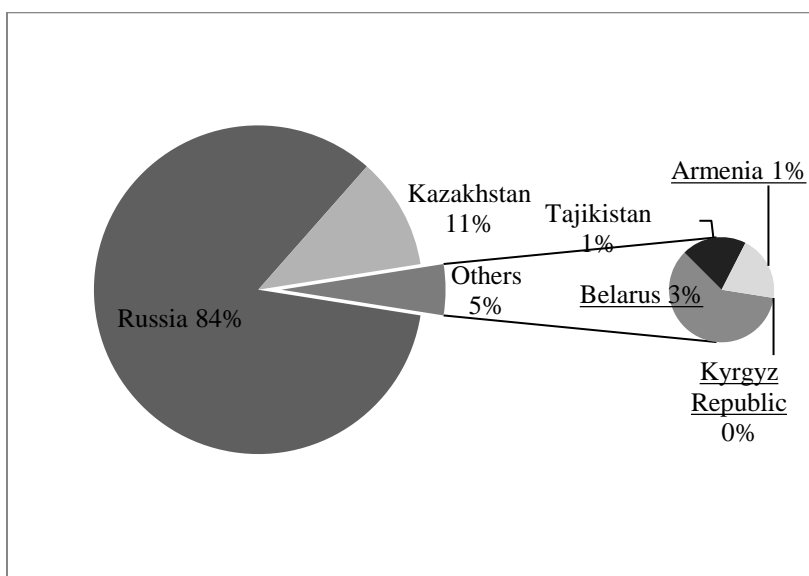
Figure 5. Share of Volumes of Agreements for AMF Members (in %)
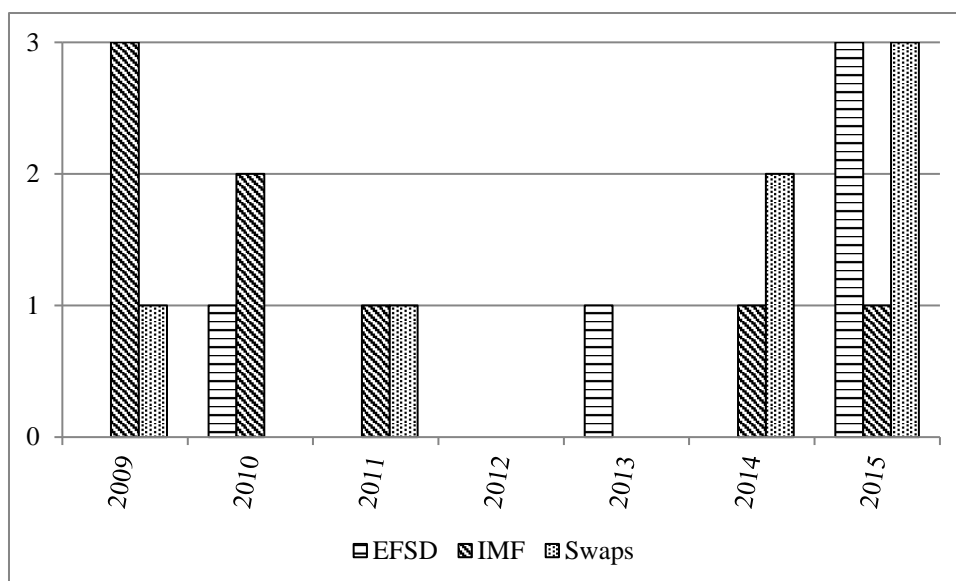
Sources: Authors' compilation based on IMF n.d.b; AMF 2015; Garcia-Herrero/Xia 2013; Destais 2016; Eichengreen/Kawai 2014; various media reports.

Figure 6. Relative Size of EFSD Members

Source: World Development Indicators 2015. Note: Countries that find sufficient financing volume in EFSD are underlined.

Figure 7. Number of Agreements by EFSD Member Countries

Sources: Authors' compilation based on IMF n.d.b; EFSD n.d.a; Garcia-Herrero/Xia 2013; Destais 2016; Eichengreen/Kawai 2014; various media reports.

Figure 8. Share of Volumes of Agreements for EFSD members (in %)
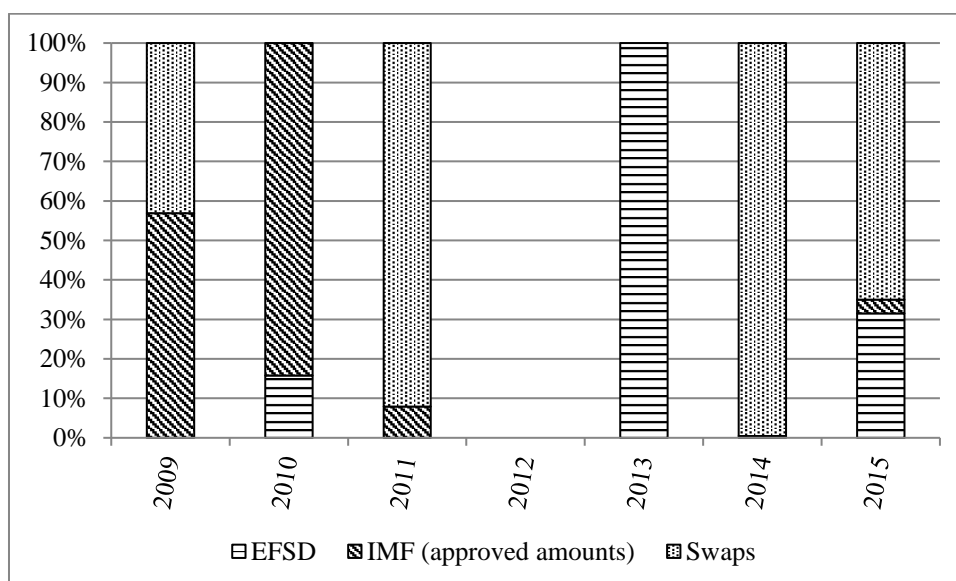
Sources: Authors' compilation based on IMF n.d.b; EFSD n.d.a; Garcia-Herrero/Xia 2013;

Destais 2016; Eichengreen/Kawai 2014; various media reports.

Tables

Table 1. AMF Capital Structure

Country	Subscribed Capital (mill. USD)	Paid-in Capital (mill. USD)	Paid-in Capital / total Capital (%)	Executive Board voting power (%)
Algeria	491.0	441.8	13.2	12.27
Bahrain	58.0	52.1	1.6	
Comoros	2.9	2.5	0.1	
Djibouti	2.9	2.5	0.1	
Egypt	370.4	333.5	9.9	19.65 (together with Yemen, Somalia, Sudan, Djibouti, Comoros)
Iraq	491.0	441.8	13.2	12.27
Jordan	62.6	56.3	1.7	
Kuwait	370.4	333.5	9.9	
Lebanon	58.0	48.3	1.4	7.07 (together with Syria, Jordan, Palestine)
Libya	155.4	139.9	4.2	
Mauritania	58.0	52.1	1.6	
Morocco	173.5	156.2	4.7	12.87 (together with Lybia, Tunisia, Mauritania)
Oman	58.0	52.1	1.6	
Palestine	24.8	0.0	0.0	
Qatar	115.9	104.2	3.1	6.77 (together with Qatar, Barain)
Saudi Arabia	560.3	504.4	15.0	13.96
Somalia	46.2	38.6	1.2	
Sudan	115.9	96.6	2.9	
Syria	83.6	69.7	2.1	
Tunisia	81.1	72.7	2.2	
United Arab Emirates	222.6	200.3	6.0	15.13 (together with Kuwait)
Yemen	178.5	154.6	4.6	
Total	3,780.0	3,353.0	100	

Source: AMF 2016.

Table 2. AMF Instruments and Terms

Instrument	Duration	Grace / Rollover period	Access limit (% of subscribed capital)
Automatic loan	3 years	1,5 years	75
Ordinary loan	5 years	2,5 years	100/175*
Extended loan	7 years	3,5 years	175/250*
Compensatory loan	3 years	1,5 years	100
Structural adjustment facility	4 years	2 years	175
Trade reform facility	4 years	2 years	175
Oil facility			
without reform program	6 month	18 month	100
with reform program	6 month	18 month	200
Short-term liquidity	6-18 month	2 times renewable	100

<u>**Interest Rates**</u>**:** See AMF n.d.b. **Trade in petroleum excepted from this preferential treatment (Art. 25(b)).**

<u>**Limits of Lending**</u>**: Loans issued to a member over a period of twelve months shall not exceed twice the amount of its paid-up subscription (Art. 21(a)).**

Source: AMF n.d.a; AMF n.d.b; AMF 2016; Rhee et al. 2013: 11; AMF 1976.

Note: * accessible in combination with an automatic loan.

Table 3. GDP, Reserves and Relative Drawing Volumes, AMF Members, 2014

Country	GDP (bill. USD)	GDP growth (annual %)	Reserves (bill. USD)	Access limit AMF bill. USD	Access limit IMF (bill. USD)	AMF/ IMF access limit (%)	AMF access limit/ GDP (%)
Algeria	213.5	3.8	186.4	1.23	5.49	22.4	0.57

Bahrain	33.9	4.5	6.2	0.15	1.11	13.1	0.43
Comoros	0.6	2.1	0.2	0.01	0.05	14.5	1.28
Djibouti	1.6	6.0	0.4	0.01	0.09	8.1	0.46
Egypt	282.2	2.2	14.9	0.93	5.70	16.2	0.33
Iraq	223.5	-2.1	66.4	1.23	4.66	26.3	0.55
Jordan	35.8	3.1	16.0	0.16	0.96	16.3	0.44
Kuwait	163.6	-1.6	35.2	0.93	5.41	17.1	0.57
Lebanon	45.7	2.0	50.7	0.15	0.75	19.4	0.32
Libya	41.1	-24.0	93.6	0.39	4.40	8.8	0.94
Mauritania	5.1	6.4	..	0.15	0.36	40.2	2.99
Morocco	110	2.4	20.4	0.43	2.50	17.3	0.39
Oman	81.8	2.9	16.3	0.15	1.52	9.5	0.18
Qatar	210.1	4.0	43.2	0.29	2.06	14.1	0.14
Saudi Arabia	746.3	3.5	744.4	1.40	27.98	5.0	0.19
Somalia	..	..	..	0.12	0.12	93.3	0.19
Sudan	73.8	3.1	0.2	0.29	0.36	80.3	0.39
Syria	..	..	..	0.21	0.82	25.4	0.52
Tunisia	48.6	2.7	7.5	0.20	1.53	13.3	0.42
UAE	399.5	4.6	78.4	0.56	2.11	26.4	0.14
Yemen	..	..	..	0.45	1.36	32.7	1.18

Sources: World Bank n.d; IMF 2016c; AMF 2016.
Notes: No data available for Palestine; IMF annual access limit is 200 percent of a country's quota.

Table 4. GDP, Reserves and Relative Drawing Volumes, EFSD Members, 2014

Country	GDP (bill. USD)	GDP growth (annual %)	Reserves (bill. USD)	Access limit EFSD (bill. USD)	Access limit IMF (bill. USD)	EFSD/ IMF access limit (%)	EFSD access limit/ GDP (%)
Armenia	11.6	3	1.6	1.1	0.4	307.0	9.51
Belarus	76.1	0	1.7	1.8	1.9	93.8	2.35
Kazakhstan	217.9	4	2.0	2.0	3.2	63.0	0.94
Kyrgyz Republic	7.4	11	2.2	0.3	0.2	102.6	3.44
Russia	1860.6	0	2.1	3.2	36.1	8.7	0.17
Tajikistan	9.2	6	1.8	0.2	0.5	34.9	1.84

Sources: World Bank n.d; IMF 2016c; EFSD n.d.c.
Note: IMF annual access limit is 200 percent of a country's quota.

Table 5. EFSD Instruments and Terms

Instrument	Maturity	Grace / Rollover period	Interest Rate
Financial Credits (FC)			
Stabilization credit (low inc)	20 years	5 years	1-3% (Fixed)
Sovereign loans (middle inc)	10 years	5 years	Floating Rate*
Investment Loans (IL)			

Contracted by an EFSD member state	15 years	5 years	Floating Rate**
Contracted by a Project Company	10 years	5 years	Floating Rate**

* Rate calculated for each six-month interest accrual and equal to the cost of borrowing for Kazakhstan and Russia on international markets. ** For low income countries terms consistent with the requirements of sovereign loans of international financial institutions**.**

Note: Requirement for co-financing by recipient: No less than 20% of the amount of the project.

Source: Rhee et al. 2013; EFSD n.d.e.

Table 6. EFSD Capital Structure

Country	Authorized Capital (mill. USD)	Paid-in Capital (mill. USD)	Share of total Capital (%)	Fund Access Limits* (mill. USD)	% of Access Limit
Armenia	-	1.0	0.04	1,106.7	13.0
Belarus	8	2.0	0.07	1,787.7	21.0
Kazakhstan	503.2	496.8	17.74	2,043.1	24.0
Kyrgyz Republic	0.8	0.2	0.01	255.4	3.0
Russian Federation	4,942	2,298	82.10	3,149.8	37.0
Tajikistan	-	1.0	0.04	170.3	2.0
Total	5.454	2,799.0		8,513.0	100

* Country access limits for the fund resources, established by the EFSD Council proportionately to the countries' GNI per capita

Source: KPMG 2016; EFSD n.d.c; n.d.d.

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