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THE INTERNATIONAL LENDER OF LAST RESORT FOR EMERGING COUNTRIES: A BILATERAL CURRENCY SWAP?

O EMPRESTADOR INTERNACIONAL DE ÚLTIMA INSTÂNCIA PARA OS PAÍSES EMERGENTES: UM SWAP CAMBIAL BILATERAL?

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Abstract

This study addresses the following puzzle: why did states in the largest emerging economies (EMEs) in Latin America and Asia not use formal institutions to cope with the 2008 crisis? During the 1990s, these economies used and established regional and multilateral monetary arrangements, but in 2008 they turned to ad hoc bilateral swap agreements as a first line of defence. My argument is that to understand this change in monetary responses one needs to consider demand as well as supply factors. Previous studies have predominantly focused on supply factors, i.e. the presence of willing and able international lenders of last resort. However, these studies have neglected the perspective of EMEs in this arrangement. I argue that their preferences were shaped both by past experience (leading to a political stigma against multilateral institutions) and the growing autonomy and economic importance of their central banks. The paper examines a sample of Latin American and Asian countries (Brazil, Mexico, Colombia, Ecuador, South Korea and Indonesia), analysing how the new patterns of monetary cooperation appeared in two phases: 2008 crisis management (which demonstrated a preference for ad hoc currency swaps) and the post-crisis aftermath (which formalized these swaps into regional arrangements based on networks of bilateral currency swaps). The institutional design of international monetary cooperation is changing towards a more fragmented and multi-currency system.

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1) Introduction: the changing politics and institutional design of international monetary cooperation[*]

Bagehot's (1873) classic definition identifies a *lender of last resort* as an actor willing to provide credit to illiquid, but not insolvent, institutions when no other actor will, at a penalty rate – usually, in times of crisis.[1] At the international level, the main concern is to assure a lender that is *capable* and *willing* to give access to hard currencies in liquidity crises, i.e. a monetary stabiliser (Kindleberger and Aliber, 2011 [1978]: 229-256; McDowell, 2012; Broz, 2013; Lastra, 2015: 540-541). The primary responsibility of an international lender of last resort is to provide liquidity to cope with (or avoid) balance of payment imbalances, allowing smooth adjustments on currency values and, at the same time, precluding those changes not consistent with the country economic fundamentals (Kindleberger and Aliber, 2011 [1978]: 230). In the 1940s, the Bretton Woods Agreements assigned this mission to the International Monetary Fund (IMF), as a formal multilateral institution responsible for providing balance of payment assistance for countries in need.

Given that lenders of last resort play such a critical function, why did the largest EMEs in Latin America and Asia not rely on formal, institutionalised lenders of last

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[1] The foundations for the role of lender of last resort were first set out by Thornton in 1802. For a comprehensive framework of this function, see Lastra (2015: 150-160).

resort to cope with the 2008 crisis? Why did they instead prefer to use ad hoc arrangements?

Interestingly, the management of the 2008 crisis revived international central bank cooperation. The US Federal Reserve (Fed) – the central bank issuer of the most important international currency – was seen to be the international lender of last resort (ILOLR) for the world (Aizenman and Pasricha; 2010; Allen and Moessner, 2010; Moessner and Allen, 2010; McDowell, 2012; Chey, 2012; Broz, 2013). The Fed rescued transnational financial institutions with branches in the US – both banking and non-banking instituted (Baxter and Gross, 2010) – as well as creating swap lines destined to foreign central banks to channel US dollars to financial markets suffering from liquidity shortages.

But what were (and are currently) the ILOLRs for the largest EME countries? What is the nature of monetary cooperation at multilateral, regional and bilateral levels? Under what conditions do the largest EMEs use formal or ad hoc institutions as ILOLRs?

As pointed out by Woods (2010), the first hope in the aftermath of the crisis was that the International Monetary Fund (IMF) could provide a multilateral alternative to the unilateral accumulation of foreign reserves. This would go “to the heart of emerging economies’ confidence in the institution” (Woods, 2010: 56). However, the IMF governance reforms attempted by the Group of 20 (G20) have largely failed (Helleiner, 2014) and the Fund’s new lending facilities (without or with limited conditionality) were not drawn on by the biggest EME countries in the aftermath of 2008 crisis (IMF, 2014). At the bilateral level, the Fed chose only four EMEs for its temporary bilateral swaps agreements (Brazil, Mexico, South Korea and Singapore). Today, the Fed has standing swap facilities only with developed country central banks.

This article aims to overcome a gap in the current research on monetary cooperation after 2008 crisis. Especially on bilateral swaps, most studies are focused on developed countries’ perspectives and choices rather than on EME points of view (Aizenman and Pasricha; 2010; Allen and Moessner, 2010; Moessner and Allen, 2010; McDowell, 2012; Broz, 2013; Henning, 2015).[2] Also, these studies do not address the relationship between the different ILOLRs for these countries, i.e. their “liquidity providers” in times of crisis.

[2] Chey (2012) and McDowell (2015) are exceptions. However, Chey (2012) does not distinguish between the interest of the US and its central bank, the Fed, which tends to diminish the paper’s explanatory power. McDowell (2015) is more focused on EME economic rationalities at the international level (an economic process model) rather than the political and institutional changes at the national level that shape monetary responses to liquidity crisis.

The main objective of this article is to reconstruct the management of the 2008 crisis and its aftermath from the perspective of the EMEs, as well as to identify how the institutional nature of monetary cooperation changed in relation to the 1990s.

Based on the empirical findings, a key contribution of this article is to identify under which conditions the largest EMEs in Latin America and Asia could be expected to establish institutionalized cooperation in the future. In addition, this research tries to identify how the EME decision-making process is impacting the architecture of the International Monetary System (IMS), given their evolving responses liquidity crises.

There are four main conclusions about the politics of international monetary cooperation and its institutional design. First, the accumulation of foreign reserves (unilateral action), boosted by the *fear of dependence*, is leading to *greater monetary independence* for the largest EMEs at the international level. From a purely economic perspective the acquisition of assets in hard currencies as a precautionary policy leads to an outflow of resources from developing to developed countries. Yet politically, the accumulation of reserves gives EMEs alternatives in moments of crisis, increasing their monetary independence. This outcome confounds the expectations of dependency theory, as I will explain later.[3]

Secondly, in explaining EME monetary choices in 2008, issues of power and distributional gains seem to have greater explanatory power than the reduction in transaction costs offered by formal cooperation through international organisations.

Thirdly, the combination of political stigma and increasingly autonomous central banks accounts for the variation in EME monetary responses to the 2008 crisis and its aftermath. EME international monetary decisions have been managed or directly influenced by national central banks aspiring to the same model of cooperation already implemented by developed central banks.

Fourthly, the IMS is becoming not only more fragmented, but also more diverse. Swap agreements have been formalized in hard currencies (i.e. the US dollar) as well as local currencies such as the Chinese Renminbi and the Korean won. This evidence suggests a change in global liquidity denomination and points to the slow but sure emergence of a multi-currency world.

This paper is structured as follows. In section 2, I introduce the puzzle posed by EME responses to liquidity crises and their ILOLR choices. Next, I set up an analytical framework to analyse this puzzle and suggest hypotheses to explain monetary cooperation outcomes in in the 2008 crisis, considering the role played by demand-side factors. I then present the empirical results of my case studies, a sample of Latin

[3] I would like to thank Professor Bob Keohane to bring this theoretical implication to my attention.

American and Asian countries. Finally, the conclusion presents closing thoughts on theoretical and policy implications of this study.

2) The puzzle: the international lender of last resort for emerging countries is not an international organisation?

This study addresses the following puzzle: why did the largest EMEs in Latin America and Asia not use formal institutions, at multilateral and regional levels, to deal with liquidity shortages in the 2008 crisis? Despite the predictability that formal institutions usually assure (or ought to assure), these EMEs preferred to resort to bilateral arrangements on an ad hoc basis. This preference has not always been the case, however. During the 1990s, the biggest EMEs relied on the IMF and other multilateral and regional arrangements to respond to liquidity shortages and cope with their currency crises. The multilateral and regional arrangements were also combined with bilateral agreements (mainly, bilateral loans) with their main economic partners.

That was not the case for the management of the 2008 crisis and its aftermath. First of all, these EMEs relied on unilateral action. From 2000, they exponentially expanded their reserve accumulation of hard currencies and continued to reinforce this policy even after the economic upheaval. Foreign reserves are associated with lower risks of a currency crisis, although this is a very costly policy and its marginal benefits tend to decline at high levels (IMF, 2013).[4]Secondly, when faced with the choice of monetary cooperation, EMEs preferred to resort to ad hoc bilateral arrangements as their first and most important line of defence.

The institutionalist literature on cooperation emphasizes the role of international organisations in promoting public goods even in the absence of a hegemonic actor. For instance, Keohane described the benefits of cooperation as follows: “International regimes – clusters of principles, norms, rules, and decision-making procedures – reduce transaction costs for states, alleviate problems of asymmetric information, and limit the degree of uncertainty that members of the regime face in evaluating each others’ policies” (Keohane, 2005 [1984]: xi). The management of currency crises during the 1990s is an example on how monetary cooperation was possible even with a hesitant American hegemon. For the first time in the IMF’s history, it played an important role as ILOLR for EMEs suffering from capital account, rather than current account, crises (Lastra, 2015: 540).

[4] The accumulation of reserves can also have non-precautionary purposes. Foreign reserves can be used as an instrument for interventions in foreign exchange markets with the aim of promoting trade policies.

From an economic perspective, multilateral monetary cooperation has recognized advantages: (i) risk pooling because of its universal membership; (ii) a countercyclical role, supplementing private markets in times of stress; (iii) good policy signalling with an international seal of approval that catalyses private financing; and (iv) low price because of the *de facto* preferred creditor status (IMF, 2010).

Nevertheless, to deal with 2008 liquidity crisis, the biggest EMEs preferred to resort to ad hoc bilateral agreements rather than to access formal multilateral or regional institutions. In addition, in the aftermath of the crisis, they decided to reinforce or create regional monetary arrangements, even if they were not heavily used in 2008. At the multilateral level, the biggest EMEs changed their course of action: they became creditors and not debtors of the IMF. For instance, several EMEs participated in the New Arrangements to Borrow (NAB) as lenders to the Fund. However, this choice had a specific design: EMEs invested their reserves in temporary agreements with the Fund but kept ownership at their national central banks, i.e. there was no transfer to the IMF in the form of quotas.

There are three main important features of 2008 crisis management in comparison with the 1990s' institutional scenario: (i) for the management of the 2008 crisis, the ad hoc bilateral arrangements had a very different legal structure involving different national actors: rather than loans between governments and their treasuries, these were swap arrangements between national central banks; (ii) at the multilateral level, the IMF was an option systematically avoided even after the introduction of new lending instruments without or with limited *ex post* conditionality – instead, the biggest EMEs became lenders (and not borrowers) at the Fund; and (iii) regional monetary arrangements already in place were not used by most of the biggest EMEs, even if created after the 1990s to supplement the availability of lending at the multilateral level.

Nevertheless, in both the aftermath of the 1990s and the 2008 crisis the same pattern of institutionalisation of monetary cooperation could be observed: the creation or reinforcement of regional agreements based on bilateral swaps between central banks. In the aftermath of the 1990s' crisis, the choice of this institutional design (network of bilateral swaps) may be attributable to the lack of trust between neighbours. Countries could maintain their foreign reserves in the hands of national actors, i.e. their own monetary authorities. This argument is illustrated by the establishment in 2000 of the Chiang Mai Initiative (CMI), an Asian regional monetary arrangement based on swaps, and the failure of the Japanese proposal on the creation of an Asian Monetary Fund that would have pooled resources.[5]

[5] This regional monetary arrangement is formed by the ten members of the Association of Southeast Asian Nations (ASEAN) and Japan, China and South Korea ("plus 3" countries). For a perspective of the Asian

In the aftermath of the 2008 crisis, there is another factor which tends to reinforce this institutional choice: the power of central banks and their preference for keeping their financial role in monetary transactions, instead of delegating this role to an international organisation at the regional or multilateral levels.

McDowell (2012) proposed the concept of "sovereign international lender of last resort" to describe the role of the Fed during the 2008 financial crisis. A sovereign ILOLR has both the capacity to develop this role, i.e. issues the hard currency in demand, and the willingness to assume the financial task of "rescue". The Fed definitely met these criteria and assumed this role during the crisis. However, the Fed was not the ILOLR for all in this crisis. Instead, it selectively chose which central banks could benefit from its swap lines in US dollars.[6] McDowell's emphasis on capacity and willingness of the sovereign ILOLR cannot alone explain the outcomes on monetary cooperation in the 2008 crisis and aftermath.

In an interesting decision in November 1998, the Federal Open Market Committee (FOMC) of the Fed recognized that bilateral monetary cooperation was in disuse, claiming that this was because of the existence of a "well established present-day arrangements for international monetary cooperation". The FOMC decided to allow bilateral currency swaps between the Fed and foreign central banks to lapse after 15 years of abandonment.[7] Nevertheless, 2008 witnessed a revival of central bank cooperation to deal with crisis liquidity not only at the centre of the IMS (those central banks that issue hard currencies), but also in the periphery.

3) Analytical framework: supply and demand sides of the international lender of last resort

regional economic integration as a contested rescaling of economic governance, see Hameiri and Wilson (2015). See also Grimes (2011).

[6] Current research implies that the Fed chose swap partner countries mainly according to the exposures of US bank and the size of the US dollar shortages in big financial centres (Allen and Moessner, 2010; Aizenman and Pasricha; 2010; McDowell, 2012; Broz, 2013).

[7] "Owing to the formation of the European Central Bank and in light of 15 years of disuse, the bilateral swap arrangements of the Federal Reserve with the Austrian National Bank, the National Bank of Belgium, the Bank of France, the German Federal Bank, the Bank of Italy and the Netherlands Bank were jointly deemed no longer to be necessary in view of the well established present-day arrangements for international monetary cooperation. Accordingly, it was agreed by all the bilateral parties to allow them to lapse. Similarly, it was jointly agreed to allow the bilateral swap arrangements between the Federal Reserve and the National Bank of Denmark, the Bank of England, the Bank of Japan, the Bank of Norway, the Bank of Sweden, the Swiss National Bank, and the Bank for International Settlements to lapse in light of their disuse and present day arrangements for international monetary cooperation" (US Fed, FOMC minutes, 17 November 1998, available at: http://www.federalreserve.gov/fomc/minutes/19981117.htm).

This paper draws on Hegemonic Stability Theory (HST) literature (Kindleberger and Aliber, 2011 [1978]) and the idea of regime change and complex interdependence (Keohane and Nye, 2012 [1997]) in its analytical framework. To explain the 1971 cataclysmic shift in the IMS, namely the end of the dollar-gold era and the fixed exchange rate system, Keohane and Nye (2012 [1997]) argue that "the rules of the regime were inconsistent with the underlying power structure" (Keohane and Nye, 2012 [1997]: 135).

I believe that this analytical approach can also explain the change in monetary cooperation after 2008. US economic dominance and its influence in multilateral institutions determined the responses to crisis by the biggest EMEs in the 1990s. The 2000s then saw a change in the balance of these international relations and by 2008 the legal structures were not reflective of this underlying change in economic power. New institutional supports for monetary cooperation thus emerged.

Furthermore, my main argument is that the particular design of these new arrangements reflected central banks' increasing global role. As pointed out by Keohane and Nye (2012 [1997]), "a regime may be altered by the emergence of new norms in other areas of world politics, which are then transferred to the particular issue area" (Keohane and Nye (2012 [1997]: 126). In the issue area of financial market regulation the ideas and norms of cooperation among central bank emerged and strengthened and were then transferred to monetary arrangements in 2008.

After the breakdown of the Bretton Woods system in 1971, central bank cooperation was fostered by the creation in 1973 of the Basel Committee on Banking Supervision at the Bank for International Settlements (BIS). This coincided with the economic process of growing internationalisation of financial and capital markets. From the end of the 1980s onwards central banks cultivated shared knowledge and values on financial regulation through capital requirement agreements ("Basel Capital Accords").

However, in relation to monetary issues, central banking was mainly concerned with internal monetary stability as the primary or exclusive objective in this specific historical period. This prevailing idea determined institutional design during the 1990s and the 2000s for the majority of central banks (Laurens et al., 2009: 157, 242; Duran, 2012; Lastra, 2015: 55-64). The 2008 crisis changed this intellectual paradigm of primacy for internal monetary stability and exposed the non-neutrality of money (Aglietta, 2011; Borio, 2011). Central bank cooperation on monetary issues was revived in the form of currency swaps.

Currency swaps between central banks are not a new phenomenon. During the era of 'Bretton Woods I', there were lines between developed country central banks and the BIS to maintain the stability of the fixed exchange rate regime (Moessner and Allen, 2010: 25-27; Kindleberger and Aliber, 2011 [1978]: 249-250; Coombs, 1976; Hirsch, 1967: 349-353). However, these were later discontinued as a practice and central bank dialogue and cooperation instead concentrated on financial regulation and growing concerns related to cross-border banking activities.

What was new in the 2008 crisis and its aftermath was the rapid proliferation of currency swaps, their large volume (if used to their full extent, with the possibility of outstripping IMF resources), their extension to EME countries and their formalization in hegemonic and local currencies. Currency swaps account for the development of a USD 1 trillion network (excluding the unlimited size of swaps between developed country central banks) and 70 new arrangements between 2010 and 2014 involving more than 50 countries (McDowell, 2015; Henning, 2015). As a comparison, the IMF has only USD 362 billion in quotas in lendable resources and a further USD 885 billion in additional pledged and committed resources. This network of bilateral swaps, including regional agreements based on this structure, can have more economic leverage than the Fund.

Moreover, currency swaps have a unique legal structure. At their heart, they reveal two important characteristics: central bank power, as I will develop in more detail in this study, and sovereignty. These contracts are *committed* resources. There is no *ex ante* transfer to an international organisation. Foreign exchange reserves, or liquidity in local currencies, are kept in national hands until the activation of a swap.

The proliferation of swaps is a symptom of an important change in international monetary politics and institutional design of ILOLRs. To explain this major change, it is important not only to examine the supply-side, but also demand-side factors that currently influence ILOLR functions.

International monetary cooperation: supply side factors

This ILOLR perspective features widely in the current literature about the management of 2008 liquidity crises (Aizenman and Pasricha, 2010; Allen and Moessner, 2010; Moessner and Allen, 2010; Kindleberger and Aliber, 2011 [1978]; McDowell, 2012; Broz, 2013; Helleiner, 2014). Indeed, supply-side factors can explain why institutionalized solutions for monetary cooperation fell short in the crisis. In terms of capacity, both regional and multilateral institutions suffered from flaws in design.

By comparison to the 1990s, the 2008 crisis was too large for regional institutional options for monetary cooperation, and the design of international options at the IMF failed respond to EMEs' needs. Regional arrangements, e.g. Latin American

Reserve Fund (FLAR)[8] and the first version of the CMI, were too small for the EMEs' needs. Attempts to reform and adjust the IMF toolkit to better respond to crisis were too slow to be of use. The crisis hit in October 2008 and the G20 meetings were organized between November 2008 and 2009 to respond to this economic meltdown. The most important IMF board decisions (e.g., the creation of mechanisms without or with limited conditionality) were taken only in March 2009.[9]

At the time of the crisis, the IMF and the regional arrangements did not have well-developed precautionary instruments designed for crisis prevention that could produce the same economic effect as foreign reserves and reduce the probability of contagion. The Special Drawings Rights (SDR), a global reserve asset managed by the IMF, did not have sufficient economic size to respond to EMEs' needs even after the unprecedented allocation agreed by the G20 at the London Summit in April 2009.[10]

Furthermore, the timing for access to foreign currencies at the multilateral and regional levels was not adequate to respond to the immediate demand. There is a lack of automaticity for IMF programmes as well as for existing regional arrangements, which require a *de jure* link with the IMF beyond a certain amount (e.g., the CMI). Despite the low economic cost (IMF, 2010a), the existing institutional arrangements were not adequate in terms of technical capacity.

To understand the patterns in the turn from institutionalized structures of monetary cooperation to ad hoc bilateral arrangements, one must also analyse the willingness of central banks to act as international lenders of last resort in the times of crisis. In the 1990s, central bank cooperation was not an option, not a part of mainstream thinking on international monetary policy with national central banks more concerned with internal monetary stability. In 2008, a "new" global actor, capable of providing hard currency but unwilling to do so in the 1990s, appeared: the Fed.

In the 1990s, only Mexico benefited from the Fed's currency swaps. Yet this swap was on a very small scale in comparison with other monetary arrangements[11] and the swap was comprised by a regional arrangement, the North American Free Trade Agreement (NAFTA). As such, it was the product of a government-political choice rather than a Fed initiative. In 2008, however, new countries besides Mexico benefited from this monetary option: Brazil, South Korea and Singapore. Japan and its central

[8] The FLAR is an international financial organization originally established in 1976, as the *Fondo Andino de Reservas*. Currently, the FLAR members are Bolivia, Colombia, Costa Rica, Ecuador, Paraguay, Peru, Uruguay and Venezuela. It is based in Bogotá, Colombia.
[9] Helleiner (2014) develops a very interesting account of this process.
[10] The SDR is not a currency, nor a liability of the Fund. The SDR is only an official reserve asset that represents an unconditional liquidity destined to the IMF members. It is allocated and not issued by the Fund. They are potential claims on members' freely usable currencies. The SDRs are properly credit lines among all the SDR Department's participants (Lastra, 2015: 449).
[11] In the 1990s, the Fed gave access to a USD 9bn currency swaps to Mexico's central bank.

bank (the Bank of Japan) were also ILOLRs for countries in Asia with US dollar shortages, such as Indonesia and India (Aizenman and Jinjarak, 2010).

The emergence of new willing ILOLRs helps, to some extent, to explain the changing nature of monetary cooperation: from centralized international institutions as counterparties (1990s) towards currency swaps between national central banks (2008 and its aftermath). Yet the IMF and regional monetary arrangements were also available to the biggest EME countries. And the Fund did make reform efforts to address shortcomings in its technical capacity. So why, despite IMF willingness, was there no recourse to its lending facilities by the biggest EMEs in Latin America and Asia, even after reforms were implemented to address technical flaws? To answer this, one needs to consider the demand side of the equation.

International monetary cooperation: demand side factors

The biggest Latin American and Asian countries had bad experiences with IMF programs during the 1990s and the beginning of the 2000s. In these EMEs, the IMF was and still is domestically perceived as a US-led institution with neoliberal approaches and a "one size fits all" political model.[12]

The pervasive perception was that if the biggest EMEs turned to the IMF for help in 2008 the Fund would impose conditions not appropriate for them. Furthermore, these countries felt they did not have political power inside the institution – i.e., other countries would set the conditions. Even the creation in 2009 of the Flexible Credit Line (FCL) and the renamed Precautionary and Liquidity Line (PLL), without or with only limited *ex post* conditionality, was not enough to avoid this political stigma. The demand for the FCL and the PLL was and still remains modest (IMF, 2014).[13] This was also the case for the Short-term Liquidity Facility (SLF) introduced on October 29, 2008.

During the 2000s, driven also by political stigma, the biggest EMEs (e.g. Brazil, South Korea and Indonesia) relied on unilateral accumulation of assets in hard currencies to prevent crisis (i.e. with a precautionary objective), as well as for interventionist purposes related to mercantilist export concerns. The share of global reserves held by developing and emerging economies rose from 28% to 65% between 1990 and 2008 (Aizenman and Jinjarak, 2010). Global reserves rose from a total amount

[12] The Independent Evaluation Office of the IMF offers an account of this perception and the process of "learning from experience" (IEO, 2014: 20-24). However, as pointed by Woods (2006), IMF policies are not only defined by powerful member countries, but also driven by economic ideas and the international organisation's staff (the role of bureaucracy).

[13] Only three countries requested access to the FCL (Mexico, Colombia and Poland) and only one to the PLL (Morocco) (IMF, 2014: 4-5).

of USD 2tn to USD 6,3tn between 2001 and 2014.[14] As Stiglitz argues, since "reserves are mostly held in hard currencies, they also represent a transfer of resources to the United States and other industrialized countries" (Stiglitz 2009: 110). This global monetary system can be characterized by its "inequity-instability link" (Ocampo, 2010).

Dependency theory (Prebisch, 1981 [1949]; Cardoso and Falletto, 1979) would suggest that this flow of resources contributes to the enrichment of wealthy countries at the expense of the periphery and semi-periphery.[15] However, even though the acquisition of foreign reserves represents an economic transfer of resources from developing to developed countries, once the 2008 crisis hit these EME countries had more independence to choose their monetary actions at the international level. Interestingly, this policy of "dependent monetary action" seems to produce greater independence for EME countries, an outcome not predicted by the dependency narrative.

Between 2008 and 2011, 25 Stand-by Arrangements (SBA) were formalized with the IMF with liquidity or precautionary purposes (IEO, 2014). However, SBAs were only signed by EMEs from Europe, very small countries in Latin America (Costa Rica, El Salvador, Honduras, Guatemala, Dominican Republic, Jamaica and Stt Kitts and Nevis), and other countries in Asia and Africa without systemically important financial centres (such as Angola, Mongolia, Sri Lanka, Pakistan). The IMF is the ILOLR for developing countries, but not for the biggest EMEs in Latin America and Asia. These EME countries are using their foreign reserves for political leverage in the IMS.

In the IMF's own analysis of this phenomenon, it draws largely on explanations of political stigma. According to the Fund, "public opinion contributes to a perceived 'political cost' associated with requesting financial assistance from the Fund" (IMF, 2014: 9). Yet, during the 2008 crisis, the IMF appeared to change its tone and, in some cases, its policy. The IMF even advocated in favour of capital controls (IMF, 2010b) and invested in new instruments without *ex post* conditionality. This would suggest that some of the EME concerns about IMF programs had been alleviated.

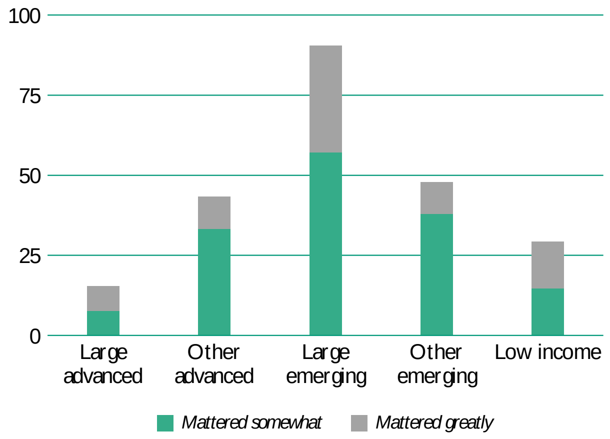
Nevertheless the political stigma remained, seemingly more attached to the Fund as an *organization* rather than to particular financing instruments (IMF, 2014: 42).

[14] Data IMF Currency Composition of Foreign Reserves (COFER). This data does not include China, which classifies reserves as a matter of state secrecy. Economists estimate that China holds almost USD 4tn in reserves and has been cutting back since 2014. See: Japan Times, "Worlds foreign currency reserves falling after hitting peak of 12-trillion", 7 April 2015, available at: http://www.japantimes.co.jp/news/2015/04/07/business/worlds-foreign-currency-reserves-falling-after-hitting-peak-of-12-trillion/#.VUCZXWa89FV).

[15] This could be characterized as a dependent monetary system because "the accumulation and expansion of capital cannot find its essential dynamic component inside the system" (Cardoso and Falletto, 1979: 20).

Historical experience of interactions with the IMF created negative perceptions about the organization as a whole. The fact that countries chose not to draw on the Fund's advice in addition to avoiding its financial instruments reveals the reputation that surrounds the whole organization. This stigma is also associated with the perceived illegitimacy of the Fund's policy solutions. The survey results below (Figure 1) reveal the lack of confidence in the Fund's advice, especially by the largest emerging countries.[16]

Figure 1. How Much Did the Perception That the IMF Had a "One-Size-Fits-All" Approach Matter in the Decision Not to Seek Advice *(Percent of surveyed country authorities)*



Source: IEO.

In addition, as pointed out by the Fund's Independent Evaluation Office (IEO, 2013), the stigma has a regional dimension: it remains particularly strong in member countries in Latin America and Asia and is related to the experience of the 1990s' crisis. Although there are signs of stigma declining in the official sector, "negative perceptions appear to linger strongly among the general public, media, and NGOs" (IMF, 2014: 42).

While political stigma can explain the decision to seek alternatives to the Fund, it does not explain the *institutional design* of the immediate responses to the 2008 crisis by emerging countries, nor the institutionalization of monetary relations in its aftermath.

[16] The category of "large emerging countries" is used by the IEO to refer to 16 countries defined by the IMF as "emerging and developing" with a GDP above U$300 billion PPP.

There is still another factor that can contribute to understanding the changing nature of monetary cooperation post-2008 crisis: the role of powerful central banks.

Central banks' power and their international aspirations tended to influence EMEs' preferences for bilateral arrangements at the global level. The influence of central banks also explains the different design of bilateral arrangements in the 1990s and the 2008 crisis: from bilateral loans between governments (treasuries) to bilateral currency swaps between monetary authorities.

As bureaucracies, central banks operate in the same policy space as Ministries of Finance, with each overseeing particular core responsibilities. Central banks engage in bureaucratic competition to occupy this shared policy space by ensuring that new policies that match their preferences fall within their "territory". The concept of territory, as developed by Down (1967: 212-213), helps to explain the dynamics of competition between these agencies: each tries to maximize its degree of dominance over social action in each portion or 'territory' of the policy space.

The central bank's 'territory' is that policy portion where it substantially controls the expertise and resources required for policy implementation, i.e. the management of foreign reserves and the creation of money. In the monetary domain, Finance Ministers and central bankers are "allocational rivals" (Down, 1967), in the sense that they share common goals but compete over the control of the implementation process. The growing complexity of monetary policy and the well-established network of central bankers made central banks the winners in the dispute for policy options in the period after the 2008 crisis. The "Great Moderation" and the accumulation of foreign reserves empowered central banks and their agents, in EMEs as well as advanced economies. The interests and preferences of these central banks are therefore central to understanding the *outcomes* of monetary cooperation at the international level.

But *how* do central banks shape political outcomes on international monetary cooperation? It is important to assess the impact of central banks at two junctures:

(i) Once a crisis hits, the central bankers are in the driver's seat. They are responsible for the political choices and the banks tend to prefer currency swaps, since they can keep their financial role and have control over foreign reserves, which they manage;

(ii) In a post-crisis scenario, the authority returns to Ministers of Finance. They are responsible for political choices, but rely on central banks' expertise. Powerful central banks reshape the political choices to keep their financial role and retain control over foreign reserves. This tends to reinforce a new design for regional arrangements: from international organizations as the central counterparty towards formalized network of currency swaps between monetary authorities. In this sense, central banks could be considered an epistemic community, sharing values and patterns for action (Haas, 1992; Marcussen, 2009), as well as an "establishing expert" ("*expert instituant*", Castel, 1985) that reshape the political choices and redefine them at the same time.

In both phases, central banks compete for policy to fall into their territories and they shape its institutional design. For this study, I suggest that the degree of EME central bank power is a product of both its political power (certain *de jure* or *de facto* autonomy in relation to central government) and its economic power (the foreign reserves' size managed by them).

Supply and demand factors reshaping international monetary system

In 2008, ad hoc bilateral arrangements formalised by the biggest EME central banks were their first line of defence. The currency swaps between the Fed and EME central banks in Mexico, Brazil, Singapore and South Korea, are examples. The Bank of Japan was also a lender for Indonesia, South Korea and India. Regional alternatives and multilateral institutions were the second best option, at most. It seems that the biggest EME central banks kept their financial role as intermediaries of resources and left the IMF as the primary financial actor only for smaller developing countries (or EMEs in Europe). These same EMEs engaged with the IMF only as lenders for their new facilities, i.e. the New Arrangement to Borrow, rather than as borrowers.

The monetary responses to crisis and precautionary measures are under the control of central banks, while the IMF is perceived – especially by the biggest EMEs – as a space for Finance Ministers. The biggest EMEs, such as India, Brazil, South Korea, Mexico and Russia, are represented at the Fund by their Finance Ministers. The central bank governors are only the alternate representatives.[17]

The possibility of the IMF playing a coordinating role also for central banks was raised in 2010, but failed to make headway (IMF, 2010a: 15-20). That year, the Fund's board of directors refused the staff proposal for a Global Stability Mechanism (GSM).[18] The GSM proposal was quite similar to the role of the Bank for International Settlements (BIS), in terms of coordination, with respect to the first generation of currency swaps in the 1960s (Kindleberger and Aliber, 2011 [1978]: 249-250; Coombs, 1976: 83, 232). When South Korea endorsed this proposal during the 2010 G20 meeting, two months after the Fund's deliberations, it was already a contested

[17] This information was extracted from the IMF website. I considered all the annual reports available from 1989 to 2014.

[18] For more see the public information note issued on September 3, 2010 at: http://www.imf.org/external/np/sec/pn/2010/pn10124.htm

proposition. The debate over the creation of the GSM disappeared from the IMF papers after the end of 2010.

Central banks' global role is changing the institutional nature of monetary cooperation, both at the periphery and the centre of the IMS. In 2013, the Fed, the Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank and the Swiss National Bank jointly announced the creation of a standing network of bilateral currency swaps.[19] At the centre of the monetary system, the IMF has been sidelined in monetary cooperation. The swaps in this standing network are unlimited, revealing the extent and potential impact of this agreement, even if it is a more "flexible" model of cooperation.

The periphery is aspiring to this flexible institutional model of monetary cooperation. For one, this form of monetary cooperation is attractive in that it sends signals to private markets about the financial robustness of their economy since these instruments usually do not impose formal conditions. Further, the EME perception is that bilateral swaps have similar effect as precautionary instruments, such as foreign reserves (IMF, 2013: 9), the preferred model of EME monetary action in the 2000s. Previously existing institutions lacked these precautionary effects: the IMF established its own precautionary mechanisms in March 2009, and the CMIM introduced such mechanisms only in 2012. For the BRICS CRA, it was introduced in 2014, while the FLAR still does not have a precautionary facility.

Eric Helleiner's (2014) argument is that the preference for currency swaps is due to their automaticity. A bilateral swap is more readily accessible than the IMF or regional facilities. However, I would argue that a swap line destined to EME countries is not automatic at all. Those EMEs interested in a swap with the Fed asked for help repeatedly (the Fed declined requests from Indonesia, Turkey and India, and was slow to grant South Korea's).[20] In the 2008 crisis, swap lines were not automatic. At present, only developed banks enjoy the economic effects of automaticity (and unlimited size) in these agreements with the Fed.

An international currency, such as the US dollar, demands an ILOLR that can sustain its status during times of crisis. The Fed exercised this role of ILOLR on the basis of political and economic hierarchies among EMEs. For instance, for Brazil, Mexico and South Korea, the Fed was their main ILOLR. The IMF was only a second source for Mexico. For Ecuador and Indonesia, regional partners and organisations were available as ILOLRs in US dollars. None of these countries, however, was chosen by the Fed to establish a standing bilateral swaps in US dollars – this arrangement was only

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[19] See joint statement at the Fed's website available at: http://www.federalreserve.gov/newsevents/press/monetary/20131031a.htm
[20] See Chey (2012).

secured by the elite of the central banks in developed world (dubbed the "C6" by Perry Mehrling in Bernes et al., 2015). This tends to reinforce the evolving process of a multilayered monetary system.

The Fed's agreements reveal that it is not willing to serve as the ILOLR for all EMEs, although it would be capable. The IMF, although capable and willing, is not demanded by these biggest EME because of demand-side factors. Both reinforce the choice of EMEs in changing their monetary strategy: from US-led institutions (the Fed or the IMF) to regional and bilateral alternatives outside the US influence, constructed based on accumulation of reserves (in hard currencies) or new emergent currencies.

This tends to sustain the status of the US dollar as a negotiated currency until these EMEs can find an alternative (Strange, 1971; Helleiner, 2008; Otero-Iglesias and Steinberg, 2013). The growing number of bilateral swaps in local currencies could reveal a strategy to find such an alternative. The People's Bank of China (PBoC) has almost 30 swaps in Renminbi with different central banks. Central banks from South Korea, Indonesia and Malaysia also have swaps in local currencies. These bilateral swaps create global liquidity in a variety of currencies and contribute significantly to the emergence of a multi-currency world.[21]

Explaining variation in ILOLRs for EMEs

The shifts on the demand- and supply-side help to explain the broad trend in EMEs ILOLR choices in the aftermath of the crisis. However, there is important variation among EME's in their choices. I argue that this variation is determined by a complex interaction between the supply side (the existence of capable and willing ILOLRs) and most importantly the demand side (the preferences of the EMEs determined by past experience and the strength of national central banks). As an original contribution of this study, I focus on the demand side.

Hypothesis 1.1. <u>Past experience (political stigma)</u>. Political stigma associated with institutionalized monetary arrangements, the product of bad past experiences with IMF programs in the 1990s and early 2000s, explains EMEs' preference for ad hoc bilateral swap arrangements. I build on the IEO and Fund's surveys of EME perceptions on political stigma (IEO, 2013; IMF, 2014) and official declarations divulgated by the media on the 2008 crisis' responses by EME countries. This hypothesis predicts that those EMEs with particularly high stigma towards the IMF to be more likely to pursue bilateral swaps over multilateral arrangements.

[21] As already suggested by Eichengreen (2011).

This hypothesis applies differently for regional arrangements. Since regional arrangements usually do not impose conditions or they rely on shared “understandings” among their members, i.e. the EMEs have voice. For instance, the FLAR and the CMI each have unconditional portions not linked to IMF programs.[22]. Since the perceived conditionality is lower, hypothesis 1.1. does not explain the reaction to regional arrangements, but only to the multilateral monetary response.

Hypothesis 1.2. Relevant national actors: central banks. EMEs’ decision to pursue ad hoc bilateral swap arrangements over institutionalised mechanisms is due to the increasing autonomy and importance of central banks, which found cooperation among monetary authorities to be a preferable response to crisis. I measure central bank power in both political terms (the degree of political autonomy in relation to central governments) and economic terms (the size of foreign exchange reserves managed by this agency).

The two hypothesis related to the demand side (H.1.1. and H.1.2.) interact with one another according to the table below. Variation among the largest EMEs can be understood on the basis of the political stigma towards the IMF (low or high) and the central bank’s degree of power to define (or reshape) political choices at the moment of crisis and in the post-crisis period.

[22] The unconditional portion corresponded, at the time of the crisis, to 20% of the total amount that each Asian country could have access through the CMI. For the remaining 80%, the receiving country needed an IMF program formalized prior to the CMI swap activation.

Table 1. EME preferences for monetary cooperation and the outcomes in institutional design for the ILOLRs (H.1.1 and H.1.2)

Relevant national actor	**Immediate responses to crisis**		**Aftermath of a crisis: process of ILOLR institutionalisation**
	Low political stigma towards the IMF	**High political stigma towards the IMF**	
Powerful central banks	Bilateral currency swaps	Bilateral currency swaps	Bilateral swaps and/or regional arrangements based on bilateral swaps
Less powerful central banks	Multilateral responses	Regional arrangements based on international organisation (IO)	Regional arrangements based on IO

4) Case studies: the EME empirical evidence

To test the hypotheses above, I selected a sample of the biggest EMEs in Latin America and Asia according the following criteria: (i) they are classified as "emerging and developing" countries by the IMF based on their level of development;[23] (ii) in the 1990s, they suffered from a capital account crisis and they resorted to some form of monetary cooperation; (iii) in 2008, they choose some form of monetary cooperation to avoid or to deal with balance of payment imbalances (and did not only rely on unilateral action).

The 1990s' currency crises in Latin America and Asia were: Mexico (1994), Indonesia (1997), South Korea (1997), Philippines (1997), Thailand (1997), Brazil

[23] See the World Economic Outlook report available at: http://www.imf.org/external/Pubs/ft/weo/2014/01/pdf/text.pdf. For an analysis on the differences between the IMF, the United Nations Development Programme and the World Bank classifications of development, see Nielsen (2011).

(1998), Ecuador (1998), Argentina (2001) and Uruguay (2001).[24] I excluded Thailand, because in 2008 the country passed through very serious domestic political problems that could distort responses to the 2008 crisis. The Philippines, Argentina and Uruguay did not combine monetary responses to crisis but rather relied on loans destined to specific development projects. Colombia was chosen as a control case. It did not have a past experience with the IMF during the 1990s and accessed IMF funds in 2010 for the first time.[25]

Mexico, Brazil, Ecuador, Colombia, Indonesia and South Korea needed US dollars to respond to liquidity crises ("US dollar shortages") and their responses varied in the combination of their monetary stabilisers, i.e. their ILOLRs. In addition, it is relevant to note that Brazil, Mexico and South Korea are classified by the IMF as three of the 29 biggest, most interconnected economies and financial centres in the world.[26]

The biggest EMEs (Brazil, Mexico, South Korea and Indonesia) chose ad hoc bilateral arrangements rather than formalized and pre-existing monetary arrangements at the regional and/or multilateral levels to respond to the crisis. Ecuador accessed the regional arrangement rather than the IMF, and drew only on its SDR allocations and not on the IMF lending facilities. After the immediate crisis resolution, all these countries, except Mexico, decided to invest more in regional monetary arrangements, even though only Ecuador had relied on a regional response in the crisis.

Below, I describe the monetary responses for each of these countries, comparing the response to the 2008 crisis response to the 1990s, allowing for a later. The countries are grouped in paired comparison based on shared traits, allowing for clearer analysis of ILOLR preferences.

Brazil and Mexico

During the 1990s, both Brazil and Mexico relied mainly on multilateral organisations. Brazil formalized a Stand-by Arrangement with the IMF in December 1998 (equivalent to USD 18bn).[27] Brazil also had access to World Bank (WB) and Inter-American Development Bank (IADB) loans (total of USD 9bn, each USD 4.5 bn)

[24] See the list on page 10 of the IMF Review of Recent Crisis Programs, September 2009, available at: https://www.imf.org/external/np/pp/eng/2009/091409.pdf
[25] Although Chile is a big and important country in Latin America, it used its own foreign reserves to cope with the 2008 crisis (unilateral action) and accessed the IMF only during the 1980s.
[26] These financial centres are subjected to the IMF mandatory check-ups. See the public announcement at: http://www.imf.org/external/pubs/ft/survey/so/2014/pol011314a.htm.
[27] This agreement was renewed in September 2001 (SDR 12bn– equivalent to USD 16bn). Brazil drew on 72% and 93% of the total amount of these facilities, respectively (IMF data). The agreement between Brazil and the IMF in 2002 was attributed mainly to the elections and the transition to the left party (the Worker Party) and is not included in the previous figure.

and to a BIS multilateral guarantee to be gathered from among its members with a total amount of USD 13.1, of which USD 5bn came from the US Exchange Stabilization Fund[28] and USD 1.25bn from the Bank of Japan's swap line.[29] In 1994, Mexico drew on the IMF (USD 17.8 bn), the WB (USD 17.8 bn), the IADB (USD 1.3bn) and on bilateral commitments (total of USD 21bn, including the US Stabilization Fund and the Fed swaps under NAFTA).[30]

In 2008, instead of resorting mainly to support at the multilateral level, both Latin American countries combined reserve accumulation with ad hoc and temporary bilateral swap agreements with the Fed (USD 30bn each). Eight days before the Fed's announcement, President Lula of Brazil issued a special law (*Medida Provisoria 443*), with immediate effect, authorizing the Brazilian central bank to formalize any swap operation with its foreign peers. However, Brazil decided not draw on the Fed's swap lines, instead simply using the arrangements as a precautionary tool. Mexico also had access to the Flexible Credit Line (FCL) of the IMF (USD 70bn), but did not draw on this, only on its agreement with the Fed. For Brazil, there was no regional monetary arrangement in place in the aftermath of 2008 crisis, but Mexico had the possibility of activating swap lines under the NAFTA agreement. It chose not to do so, perhaps because the NAFTA swap lines were not large enough to meet Mexico's needs (only USD 9bn).[31]

In relation to the IMF, it is worth to mention that these countries' SDR allocations to were too small for their liquidity needs. In 2009, a total of SDR 2.8 bn (USD 4bn each) was assigned to Brazil and Mexico. Their bilateral swaps with the Fed, during 2008 crisis, widely outstrip their SDR holdings. Since 2011, Brazil is permanently using 10% of its allocation. From 2010 and March 2015, Mexico used from 2% to 11% of its allocation. The SDR continues not to be a useful source of liquidity for these EME countries.

Mexico is still a part of the IMF FCL agreement and seems to be suffering from the exit stigma (IMF, 2014). In 2011, Brazil considered joining the FLAR (the Latin American Reserve Fund, total of USD 3,6bn),[32] but decided to invest in the BRICS monetary arrangement instead, which was created in July 2014 (total of USD 100bn). In the FLAR, Brazil could only be a provider and not a recipient of resources.

[28] See the Message to the US Congress Reporting on United States Participation in a Multilateral Guarantee of a Credit for Brazil, Administration of William J. Clinton June 15, 1999, available at: http://www.gpo.gov/fdsys/pkg/WCPD-1999-06-21/pdf/WCPD-1999-06-21-Pg1115.pdf. Also, see the account of this event by Henning (1999: 79-80).
[29] Source: IMF data and *Folha de São Paulo* (http://www1.folha.uol.com.br/fsp/dinheiro/fi03129802.htm).
[30] Source: Kindleberger and Aliber (2011 [1978]: 254) and IMF.
[31] http://acf.eabr.org/e/parthners_acf_e/RFAs_acf_e/NAFA_e/ See also: http://www.federalreserve.gov/fomc/minutes/19981117.htm
[32] See the Brazilian Minister of Finance declaration at: http://www.bloomberg.com/news/2011-08-12/south-america-financial-stability-fund-gets-backing-from-brazil-argentina.html

The BRICS Contingent Reserve Arrangement (CRA) is almost a copy of the CMIM, with a very different legal structure compared to the FLAR or the IMF. There is no international organization as central counterparty between surplus and deficit. It is a more "flexible" (although formalised) agreement: a multilateral legal framework for bilateral swap agreements in US dollars between central banks. Central banks retain ownership of their reserves until other monetary authorities request activation of the swap. A Standing Committee is responsible for evaluating these requests.[33] The BRICS' CRA includes a list of reasons that justify non-activation of a swap by a providing party related to the country's "balance of payments and reserve position or by an event of force majeure" (article 15.c, Treaty for the Establishment of a BRICS Contingent Reserve Arrangement – Fortaleza, July 15). In March 2013, the Brazil's central bank formalized a local currency swap with the People's Bank of China (PBoC), but the announcement clearly stated that it is only for trade purposes (up to RMB 190bn and R$ 60bn).[34]

At the multilateral level, both Latin American countries have become lenders to the IMF. Brazil entered into a note purchase agreement of USD 10bn (between 2009 and 2010) as well as formalizing a NAB of USD 12bn (between 2011 and 2015). Mexico also formalized a NAB with the Fund, at a total of USD 7bn between 2011 and 2015, and a note purchase agreement in a total amount of USD 9bn in 2013.

Ecuador and Colombia

Both Ecuador and Colombia are members of a well-established regional monetary arrangement, the FLAR. Ecuador combined an IMF Stand-By Arrangement in 2000 (USD 314 million)[35] with two previous FLAR loans in 1998 (up to USD 493 million). Also, since 1984, Ecuador used its allocations of SDRs (the equivalent of USD 45 million) as a quasi-permanent resource. Colombia only had access to liquidity and contingent FLAR loans in 1999 (total of USD 500 million), but did not request IMF support.[36]

Recently, however, Ecuador chose to only use FLAR loans to cope with the crisis in three instances: 2009 (USD 480million), 2010 (USD 515million) and again in 2014 (USD 618million). It could have asked for access to the IMF's new legal

[33] The BRICS CRA is not yet operative, since it is waiting for an agreement between central banks on how to manage the system. For more details about the BRICS CRA, see its treaty published at Brazilian Ministry of Foreign Affairs website: http://brics6.itamaraty.gov.br/media2/press-releases/220-treaty-for-the-establishment-of-a-brics-contingent-reserve-arrangement-fortaleza-july-15

[34] See the announcement at the Brazil's central bank website: http://www.bcb.gov.br/pt-br/Paginas/bancos-centrais-do-brasil-e-da-china-estabelecem-acordo-de-swap-de-moeda-26-03-2013.aspx. The swap contract is classified as confidential.

[35] Source: IMF data. In 2003, Ecuador concluded another agreement with the IMF (up to SDR 151 mil).

[36] Source FLAR and IMF, country information.

instrument aimed at members with sound economic policies and fundamentals but with some remaining vulnerabilities: the Precautionary Credit Line (PCL), renamed PLL after the IMF review in 2011. But until today, only Morocco has made a formal request to this new facility (IMF, 2014: 4-5).

Nonetheless, Ecuador is currently using the total of its SDR allocation (since 2009, a total of USD 411 million). This suggests that the SDR is useful only for smaller EMEs. Since there is no obligation of reconstitution, this new general allocation in 2009 made the SDR a quasi-permanent transfer to countries like Ecuador.

In turn, Colombia only asked for IMF support through the FCL in 2010 (total of USD 3,28bn expanded to USD 5,4bn in 2013). Mexico and Colombia, traditional US partners, along with Poland, are the only EME countries in the world that have used the FCL and all three still remain attached to the agreement. Colombian SDR allocation, however, is clearly very small for its needs (since 2009, only USD 1bn of which it has used less than 2%). In 2008, it seems that the FLAR had insufficient resources to meet Colombia's needs.

Interestingly, after 2012, FLAR member countries decided to increase their contributions to the fund (from USD 2,3bn to USD 3,6bn) and expand its membership to Uruguay (2009) and Paraguay (2014).[37] Colombia and Ecuador are still investing in this regional fund.

Indonesia and South Korea

In the 1990s, both Indonesia and South Korea relied on formal multilateral responses. Indonesia combined the IMF arrangements (USD 10bn) with assistance from the World Bank (USD 4.5bn), Asian Development Bank (ADB) (USD 3.5bn) and bilateral commitments (USD 22bn). South Korea formalized an IMF agreement (USD 21bn) and drew on support from the World Bank (USD 10bn), ADB (USD 4bn) and bilateral commitments as well (USD 22bn).[38] Among the bilateral arrangements, the role of the US Treasury, particularly the US Exchange Stabilization Fund, is worth mentioning for these countries - up to USD 5bn to South Korea and up to USD 3bn to Indonesia, but neither were drawn down (Henning, 1999: 75-77).

An important political event for Asian countries was the creation in 2000 of the regional Chiang Mai Initiative (CMI). For Asia, it was an important movement towards

[37] For the history of the FLAR, see Ocampo and Titelman (2012).
[38] IMF and Kindleberger and Aliber (2011[1978]).

regional monetary cooperation.[39] The CMI was established as a network of bilateral currency swaps denominated in US dollars (USD 80bn).

In the 2008 crisis, however, Indonesia and South Korea resorted to unilateral action (reserve accumulation) as their main international monetary policy since Asian crisis. When confronted with the choice of monetary cooperation, despite the existence of the CMI with total capacity of USD 80bn at the time and the IMF new facilities in 2009, they preferred to resort to ad hoc and temporary bilateral currency swap agreements with the Fed approved for South Korea (up to USD 30bn) but denied to Indonesia (Chey, 2012). South Korea also had a bilateral swap in US dollars with the Bank of Japan (USD 10bn) outside the CMI framework. This agreement was agreed to expire in February 2015, though.[40]

Indonesia combined (a) the expansion of bilateral swaps with the Bank of Japan (from February 2009, total amount of USD 12bn) on ad hoc basis outside the CMI framework; and (b) a syndicated loan coordinated by the WB with the ADB, Japan and Australian governments (total amount of USD 5.5bn).[41]

South Korean and Indonesian allocations of SDR were far too small to cover their needs. Since the general allocations of 2009, they have USD 3.4bn and USD 2.8bn, respectively. Indonesia is using 11% of its holdings since the allocation and South Korea is using less at about 5% since 2010.

In addition, we must note that South Korea is also acting as lender to the IMF through the NAB (up to USD 9.2bn between 2011 and 2015) and a loan agreement (up to USD 15bn between 2012 and 2015).

Despite the fact that the CMI went unused in the 2008 crisis, Asian countries decided to improve the regional monetary agreement - then renamed as Chiang Mai Initiative Multilateralization - investing in (i) a multilateral framework for bilateral swap lines with a single contractual agreement, (ii) creating a precautionary instrument (inspired by the IMF FCL and PLL) and a regional macroeconomic research office, adding a surveillance pillar to the arrangement; (iii) expanding the total contribution (from initially USD 80bn reaching USD 240bn in 2014); and (iv) decreasing the de jure

[39] For the history of the creation of the CMI and its development (from the Japanese proposal of an Asian Monetary Fund through to the establishment of the CMIM), see Sussangkarn (2011).

[40] See: http://www.businesskorea.co.kr/article/9109/korea-japan-finances-korea-japan-currency-swap-agreement-expires

[41] See the official announcements at:
http://www.boj.or.jp/en/announcements/release_2009/un0904a.htm/;
http://www.boj.or.jp/en/announcements/release_2008/ind0806a.htm/ and
http://www.boj.or.jp/en/announcements/release_2014/rel140110a.pdf . For the announcement of the Indonesian syndicated loan see: http://www.ft.com/cms/s/0/b34b15bc-086f-11de-8a33-0000779fd2ac.html. Also, the Bank of Japan formalized a bilateral currency swap in US dollars with the Reserve Bank of India.

link with IMF programs (from 80% to 70%).[42] These improvements again demonstrated these countries desire for alternatives to multilateral institutions.

Another important development in monetary relations, especially in the region, is related to the policy of Renminbi internationalisation. The PBoC formalized bilateral swaps in local currency with South Korea (Bank of Korea) in December 2008 (up to RMB 180bn, reaching CNY 360bn and KRW 64tn in 2011) and with Indonesia in March 2009 (up to RMB 100bn). These swap announcements make references not only to trade purposes, but also to short-term liquidity facilities.[43]

In October 2013, the Bank of Korea and the Bank Indonesia formalized a local currency swap in the total amount of 10.7tn won and 115tn rupiah to promote bilateral trade and "further strengthen financial cooperation". South Korea has also a local currency swap agreement with the Bank of Malaysia (up to KRW 5tn and MYR 15bn) signed on October 2013, but the references are only to support trade settlement. In February 2014, the Bank of Korea signed a local currency swap with the Reserve Bank of Australia (up to KRW 5tn and A$ 5bn) for trade purposes, but "the agreement can also be used for other, mutually agreed purposes".[44]

What accounts for the empirical variation?

The comparative analysis of the ILOLR for these six countries, the biggest EME in Latin America and Asia, reveals important changes in ILOLR politics and institutional structures in comparison to the 1990s. Table 2 below summarizes the main findings of the empirical research.

[42] See Sussangkarn (2011) and Grimes (2011).
[43] See announcements on the PBoC website and Allen and Moessner (2010). The swap contract itself is unavailable, as it is classified under state secrecy.
[44] See public announcements at the Bank of Korea website (http://eng.bok.or.kr/eng/).

Table 2. Outcomes in EME monetary cooperation: the 1990s and the 2008 currency crisis as well as post-crisis institutionalization

EME Countries	ILOLR in the 1990s	ILOLR in 2008 crisis	ILOLR institutionalization process in 2008 post-crisis
Brazil	IMF, WB, IADB and other bilateral commitments (including, US ESF)	Fed swap	BRICS CRA[45] As lender of the IMF, NAB and note purchase
Mexico	IMF, WB, IADB and other bilateral commitments (including, US ESF)	Fed swap and IMF	IMF FCL "trap"* and NAFTA swaps As lender of the IMF, NAB and note purchase
Colombia	FLAR	IMF	IMF FCL "trap"* and FLAR reinforcement
Ecuador	FLAR, IMF and SDRs	FLAR and SDRs	FLAR reinforcement
Indonesia	IMF, WB, ADB and other bilateral loans (including, US ESF)	Bank of Japan swap; WB; ADB; Australian and Japanese loans	CMIM reinforcement, PBoC, Bank of Korea and Bank of Japan swaps
South Korea	IMF, WB, ADB and other bilateral loans (including, US ESF)	Fed and Bank of Japan swaps	CMIM reinforcement, PBoC, Bank Indonesia and Reserve Bank of Australia swaps[46] As lender of the IMF, NAB and loan agreement

* Exit stigma to be dealt with (IMF, 2014).

Source: IMF, World Bank, Central bank websites, Kindleberger and Aliber (2011 [1978]: 254, 311), Henning (1999: 75-80).

[45] The PBoC swap is excluded because it was officially announced as only for trade purposes.
[46] The Bank of Malaysia swap is excluded because it was officially announced as only for trade purposes.

This table reveals interesting developments. First of all, there is a decreasing role for multilateral institutions as ILOLRs for the biggest EMEs in Latin America and Asia. The IMF FCL "trap" and the very limited role played by the SDR reinforce this trend. The SDR is suffering from its small allocation as well as from the absence of restitution requirements. Ecuador is using the SDR as a quasi-permanent resource rather than as a reserve asset with precautionary purposes. That was not the function originally conceived for this asset (Gold, 1981-1982; Gianviti, 1998). The ILOLR institutional design (i.e. the supply side), can explain this empirical result. The non-recourse to the FLAR by Colombia during the 2008 crisis can also be explained by a supply-side factor, i.e. the lack of technical capability.

Nevertheless, the failure of both the IMF and the first version of the regional monetary arrangement in Asia (CMI) is difficult to attribute only to the their institutional design. Despite the relatively small size of the CMI in 2008, its *de jure* link with the IMF (80% of the amount to be accessed by each Asian country) played a role in reinforcing the factors on the EME demand side. To understand the ILOLR institutionalisation process in the post-crisis period, factors related to the demand side also need to be analysed. But, to investigate the second hypothesis of this study connected to the role of political stigma and central bank governance (i.e. H.1.1 and H.1.2), it is important to add more information.

From Table 2, we know that there are important changes in the institutional design and practice of the ILOLR in comparison to the 1990s: (i) EME countries of this sample are relying more on central banks and currency swaps to respond to the 2008 crisis and to redesign ILOLR for the next economic meltdown; (ii) the regional responses are also changing their nature, i.e. from central counterparties (FLAR) towards agreements on network of bilateral swaps (e.g., the BRICS CRA and the CMIM, bigger in size and economic power of their members); (iii) central bank swaps are not only denominated in US dollars, but also in local currencies, with a growing importance for the Chinese Renminbi; and (iv) the IMF could perhaps be a future alternative as the bigger EMEs are investing as lenders to the Fund, but maintaining their ownership over the reserves, probably waiting for a change in the Fund's governance structure.

My main argument is that the current ILOLR institutional practice and design is a combination of past experience (political stigma towards the IMF) and the growing power of national central banks (summarized by the Table 1, above). The adequacy of the IMF programs was very contested during the 2000s[47] and the politics of reserve

[47] A powerful image of this political stigma is represented by M. Camdessus, managing director of the IMF during the 1990s, standing over the Indonesian President Suharto signing publicly the Fund's agreement in 1997.

accumulation seemed to be the way that EME found to create more independence at the international system.

At the same time that this model of monetary action reinforced international independence for the biggest EMEs, it suggests strengthening of central bank power. Central banks manage this policy at the national level and, consequently, this fact tends to reinforce their role in defining monetary politics. Once the 2008 crisis hit, exchange rate, monetary policies and cross-border liquidity in foreign currencies became closely connected. The power to deal with the crisis was delegated to central banks, including in EME countries.

The EME actions on reserve accumulation could be seen in the table 3, below.

Table 3. EME foreign reserve accumulation during the 1990s and in the post-2008 crisis (in USD billions)

Country	**Indicator**	**1993**	**1994**	**1998**	**1999**	**2008**	**2009**	**2012**	**2013**
Brazil	Foreign reserves	$31,7	$38,4	$43,9	$36,3	$193,7	$238,5	$373,1	$358,8
	GDP	$438	$546	$843	$586	$1.653	$1.620	$2.248	$2.245
	Reserves/GDP	7,2%	7,0%	5,2%	6,2%	11,7%	14,7%	16,6%	15,9%
Mexico	Total reserves	$25,2	$6,4	$31,8	$31,8	$95,2	$99,8	$167	$180,2
	Total GDP	$503	$527	$502	$579	$1.099	$895	$1.186	$1.260
	Reserves/GDP	5,0%	1,2%	6,3%	5,5%	8,6%	11,2%	14,1%	14,3%
Colombia	Total reserves	$8	$8	$8,7	$8,1	$23,6	$24,9	$36,9	$43,1
	Total GDP	$55	$81	$98	$86	$244	$233	$370	$378
	Reserves/GDP	14,4%	9,9%	8,9%	9,4%	9,7%	10,7%	10%	11,4%

Ecuador	Total reserves	$1,5	$2,0	$1,7	$1,8	$4,4	$3,7	$2,4	$4,3
	Total GDP	$18,9	$22,7	$27,9	$19,6	$61,7	$62,5	$87,6	$94,4
	Reserves/GDP	8,1%	8,8%	6,2%	9,6%	7,2%	6,0%	2,8%	4,6%
Indonesia	Total reserves	$12,4	$13,3	$23,6	$27,3	$51,6	$66,1	$112,7	$99,3
	Total GDP	$158	$176	$95	$140	$510	$539	$876	$868
	Reserves/GDP	7,9%	7,5%	24,7%	19,5%	10,1%	12,2%	12,9%	11,4%
South Korea	Total reserves	$20,3	$25,7	$52,0	$74,1	$201,5	$270,4	$327,7	$345,6
	Total GDP	$391	$458	$376	$486	$1.002	$901	$1.222	$1.304
	Reserves/GDP	5,2%	5,6%	13,8%	15,2%	20,1%	30%	26,8%	26,5%

Source: World Bank (GDP: Gross Domestic Product).

Table 3 shows that foreign reserve accumulation was a practice reinforced during and in the aftermath of 2008 crisis. The smallest country in the sample, Ecuador, has the lowest level of foreign reserves in relation to its GDP despite having a dollarized economy. That suggests that the accumulation of foreign reserves is a costly policy and only the biggest EMEs can sustain this model of unilateral action.[48] In addition, Mexico and Colombia might be preparing their economies to exit from the FCL formalized with the IMF.

This study suggests that central bank power is related to its relative (*de jure* or *de facto*) degree of autonomy at the national level (political power) and the size of the foreign reserve under its management (economic power). The combination of both

[48] Furthermore, it could eventually reveal moral hazard since Ecuador can rely on almost automatic and unconditional regional response (and on its SDR allocations). The FLAR affirms in its website that, until now, there was no conditionality for its loans. Measures proposed by the governments were usually accepted. See also Ocampo and Titelman (2012).

might help to predict the outcomes in ILOLR responses (demand side perspective) – tables 4 and 5, below.

Table 4. EME central bank power composite: political and economic perspectives

EME countries	**Central Bank Independence CBI index** (Dincer and Eichengreen, 2010) *From 0 (low level of CBI) to 1 (high level of CBI)*	**Foreign Reserves and GDP ratio** in 2008 and 2013,	**Composite for central bank power**
Brazil	No formal CBI, but de facto independence *Informally independent during Lula and Cardoso government (1999-2010). Dilma Presidency changed this political agreement in August 2011*[49]	11,7% ; 15,9%	+ +
Mexico	0,63	8,6% ; 14,3%	+
Colombia	0,29	9,7% ; 11,4%	-
Ecuador	No CBI *There is no monetary policy* *(dollarized economy)*	7,2% ; 4,6%	- -
Indonesia	0,73	10,1% ; 11,4%	+
South Korea	0,32	20,1% ; 26,4%	+

Source: Dincer and Eichengreen, 2010; World Bank.

[49] The Brazil's central bank is not *de jure* CBI and not reported by Dincer and Eichengreen, 2010. To understand the politics of the Brazilian central bank informal autonomy, see Duran, 2012.

Table 5. EME past experience, central bank power and outcomes for the ILOLR design in 2008 and post-crisis – predicted by this study and actual outcomes (H.1.1 and H.1.2.)

EME countries	**Past experience** *H.1.1*	**Composite for the index of central bank power** *H.1.2 and Table 4, above*	**Predicted outcomes for monetary cooperation**	**Actual outcomes for monetary cooperation**
Brazil	High political stigma	+ +	Bilateral swaps Regional arrangements based on swaps	Bilateral swaps Regional arrangements based on swaps *IMF NAB*
Mexico	Low political stigma	+	Bilateral swaps Regional arrangements based on swaps	Bilateral swaps Regional arrangements based on swaps *IMF FCL* *IMF NAB*
Colombia	Low political stigma	-	Regional arrangement based on IO IMF lending facility	Regional arrangement based on IO IMF FCL
Ecuador	High political stigma	- -	Regional arrangement based on IO	Regional arrangement based on IO *IMF SDRs*

Indonesia	High political stigma	+	Bilateral swaps Regional arrangement based on swaps	Bilateral swaps Regional arrangement based on swaps *Other multilateral institutions (but not the IMF)*
South Korea	High political stigma	+	Bilateral swaps Regional arrangements based on swaps	Bilateral swaps Regional arrangements based on swaps *IMF NAB*

The Brazilian central bank has no legally guaranteed independence and Ecuador is a dollarized economy. However, Brazil's central bank could define the choices on ILOLR mainly based on its economic power (size of foreign reserves) and in its *de facto* autonomy granted between 1999 and 2011 by an agreement between the Presidency and the central bank.[50] South Korea has a central position with low level of political autonomy, but the highest reserve ratio among the EMEs in this sample.

Colombia's preference for regional and multilateral responses (based on international organisations rather than on swap lines) is explained by a combination of low CBI and low levels of foreign reserves, combined with low political stigma towards the IMF. Colombia did not have a previous experience with the IMF in 1990s and is traditionally considered to be a US ally, therefore less reluctant to work with a seemingly US-led IMF. In addition, the FLAR head office is in Bogotá, which tends to expand the influence of this regional institution in this country.

The central banks of Mexico and Indonesia have similar central bank power: a combination of certain degree of autonomy and economic power at the national level, but a smaller size for their reserves if compared to others.[51] However, their ILOLRs

[50] Since the introduction of the inflation targeting system through a Presidential Decree (*Decree* 3088, 1999), the Brazilian central bank has gained independence on monetary policy implementation. During Lula's government, the governor of the Brazil's central bank stayed in power 8 years, an unprecedented event in Brazilian history. For an account of the monetary history in Brazil, see Duran (2012).

[51] Mexico can rely on an implicit US support in times of crisis. US helped Mexico in 1994 (with NAFTA swap lines and a directly US lending through the Exchange Stabilisation Fund) and again in 2008 (trough Fed swap lines outside the NAFTA).

were very different. The comparison between these two demonstrates the effect of political stigma on their monetary choices on ILOLR. Mexico, despite the power of its central bank, combined a currency swap with the Fed (first line of defence) with an IMF agreement. The latter option is likely a consequence of Mexico's low political stigma towards the IMF and its political and economic alliance with the US. Also, Mexico's ILOLR needs were not sufficiently covered by the Fed.

By contrast, Indonesia points the opposite way. It is the only country represented at the IMF by its central bank governor, unlike the other big EMEs in this sample, which are represented by their finance ministers. This arrangement could be expected to bring Indonesia's monetary authority into dialogue with the IMF.[52] However, the political stigma towards the Fund is very high in Indonesia and this blocked its use as ILOLR in 2008, even if the IMF was capable and willing to act as ILOLR. What my model did not predict was the combination of bilateral swaps with other multilateral arrangements. In the Indonesian case, it seems that its economic power was not sufficient to assure a relevant financial size for the bilateral swaps and it needed more sources of financing to cope with the crisis – but the IMF was avoided.

In this sense, even if new IMF instruments were created without conditions and with precautionary purposes (mainly, the FCL and the PLL), the EMEs' past experience and their powerful central banks changed the focus of monetary cooperation towards bilateral swaps and, in the post-crisis period, to the reinforcement of regional structures based on currency swaps.

Nonetheless, the IMF is not completely avoided by the EMEs as a site for monetary cooperation. That was not predicted by my model. Brazil, Mexico and South Korea acted as lenders to the Fund in the post-crisis period. EME countries are still investing in multilateral organisations, but as lenders rather than borrowers. The enduring political power of finance ministers plays a role here. These countries also participated in the creation of the FCL and the PLL at the Fund, even if they did not ask for this support themselves.

Since the IMS institutional structure does not correspond to the shift in economic power, EMEs preferred to also formalise new forms of monetary cooperation at the regional and bilateral levels in the aftermath of the crisis. Especially after 2009, with the failure of G20 reforms on the IMS as well as the launch of the quantitative easing (QE) by the American Federal Reserve with spillover effects (referred to as "currency wars" by the former Brazilian minister of finance Guido Mantega), these EMEs (except Mexico) started to deepen regional and bilateral arrangements, creating

[52] Colombia had very low participation and Ecuador never participated of these meetings. This information was extracted from the IMF website. I considered all the annual reports available from 1989 to 2014.

alternatives to unilateral reserve accumulation. This movement is reinforcing a multilayered monetary system.

The institutional structures are reflecting this movement in politics: from centralised and well-established monetary organisations based on central counterparties at the multilateral level towards flexible but formalised regional and bilateral networks of currency swaps.

Finally, we must note the persistence of a special characteristic of these swap instruments: the bilateral and regional agreements continue to be mainly in US dollars. This reveals the persistent role of this currency as the main reserve asset and means of payment at the international system. At least for the EMEs in this sample, the international economic order is still a quasi-unipolar world (Cohen and Benney, 2014).[53] However, the slow but sure emergence of bilateral swaps in local currencies (PBoC as well as South Korea and Indonesia's swaps) could reveal a tendency to create alternatives. Global liquidity tends to be more diversified.

5) Conclusion: theoretical and policy implications of this study

The ILOLR relationship is not only a matter of institutional supply and design. To understand the variation in outcomes in monetary cooperation in the 1990s and during the 2008 crisis, one must also analyse the demand side of the equation, specifically the point of view of the biggest EMEs.

My empirical research suggests that central banks with a certain degree of political autonomy and high levels of economic power (acquired through the accumulation of foreign reserves) are reshaping the monetary responses of the biggest states in Latin America and Asia. Currency swaps and regional arrangements based on swaps have become the most important institutional form of cooperation between these biggest EME.

Furthermore, this research argues that the politics of foreign reserve accumulation (and its economic consequence in transferring resources from EMEs towards developed countries) had an important secondary effect: it created more independence for the biggest EMEs in the IMS. In fact, EMEs' build-up of foreign reserves in order to avoid vulnerability in an IMS based on currencies controlled by developed country central banks has led to greater room for manoeuvre for EMEs.

[53] For the EMEs of this sample, the Eichengreen (2011) hypothesis is not yet confirmed.

Furthermore, central banks are the main national agents inside these states that are shaping the institutional design of the EME political choices.

The empirical research also revealed that accounts focusing on the institutional design of ILOLRs (the supply side) have low explanatory power to elucidate EMEs' monetary choices in the 2008 crisis and its aftermath. Issues of global power and the international distribution of gains are more important to these biggest countries in Latin America and Asia, even when compared to the cost benefits of using multilateral ILOLRs. The economic and transactional costs of flexible (though formalised) models of cooperation can be high: these arrangements, including networks of swaps, generate more uncertainty about the access to liquidity in times of crisis. The CMIM and the BRICS' CRA, for example, allow a providing party to justify a non-activation of swap. In spite of these costs and uncertainties, these arrangements are the preferred institutional design of monetary cooperation in 2008 post-crisis.

Finally, what are the policy implications of this study? The IMF should consider the effects of past experience as well as the global role of the central banks to rethink its institutional design. The Fund may be most effective if it gives up its financial role in crisis prevention for the biggest EME countries, and incorporates their interests inside the institution, treating them as peers of developed countries. The assignment of the NABs by these EME countries reveals an interest in engagement with the Fund on these terms. It seems that the IMF, as a financial actor, is not suitable today to deal with crisis prevention for these biggest EME countries, but mainly for small countries and those in more serious disruptions. Only in the last case, can its role as imposer of conditions create good signals for markets and also support regional structures in imposing behavioural norms on their neighbours (a difficult task for regional partners). In fact, the IMF should improve the nature of its conditions and not rule them out of its framework.

Most importantly, central bank cooperation re-emerged with force since the 2008 crisis. Monetary authorities gained more credibility and power to build international monetary relations. They are a very important international political actor in this domain. In this new constellation of monetary cooperation, the Fund cannot and should not replace the biggest EME central banks in their financial role. Bilateral swap arrangements, renewed from the past experience of Bretton Woods I, have again become central. This time, however, the swap networks have grown dramatically in size and are not only the preserve of developed central banks, but are also established among emerging powers, including in local currencies. The IMS is becoming even more fragmented and diverse in terms of global liquidity.

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