

Central Bank Currency Swaps and the International Monetary System

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Summary

Central bank currency swaps (CBCS) allow central banks to provide foreign currency liquidity to the commercial banks in their jurisdictions. Since the end of 2007, these swaps have emerged as a *de facto* key feature of the international monetary system (IMS), with the US Federal Reserve (FED) having extensive recourse to them during the financial crisis, and their exploitation by the People's Bank of China (PBOC) to help internationalizing the renminbi. This trend was further confirmed in the second half of 2013 with (i) the signing of two swaps agreements between the PBOC and the Bank of England (BOE) and the European Central Bank (ECB), and (ii) the little remarked decision by six major western central banks including the US FED, announced on October 31st 2013, to make permanent previously temporary swap lines.

Currency swaps combined with the unlimited and exclusive power of central banks to create money can match the volatility of international capital flows. They have proved very effective and extremely helpful during the recent financial crisis. However, so far, central bank swaps have not been associated with conditionality, and are more precarious than alternative institutional arrangements, such as the International Monetary Fund (IMF) or regional financial agreements (RFA). Large scale use of CBCS can render central banks subject to significant counterparty risk.

The huge powers that are bestowed upon central banks as a result of CBCS have triggered questions about the possibility of institutionalizing, and therefore limiting, this new tool. This might be a step too far, since most countries link sovereignty and money creation, and would never agree to have their hands tied. However, in our view, an internationally agreed set of principles would enable a fairer and perhaps more efficient exploitation of this instrument. These principles should include a commitment to transparency. They should encourage long-lasting agreements in order to foster stability, as well as the inclusion of provisions that require commercial banks to soundly manage their foreign liquidity risk. They should also encourage international currency issuers not to unfairly exclude potential CBCS beneficiaries.



1 Introduction

A new international financial instrument emerged during the first decade of the 21st century. This instrument is referred to by the US Federal Reserve as a “central bank liquidity swap” and by the People’s Bank of China as a “central bank local currency swap”. It consists of an agreement between two central banks, at least one of which must be an international currency issuer, to swap their currencies. The central banks party to the swap transaction can lend the proceeds of the swap, against collaterals they deem adequate, to the commercial banks within their jurisdiction, to provide them with temporary liquidity in a foreign currency.

This instrument contrasts with other devices that are used to alleviate stress in the international monetary system, the purpose of which is to replenish the foreign exchange reserves that give credibility to a given foreign exchange policy.

This generation of central bank swaps was initiated and used immediately following the September 11th, 2001 episode which led to severe liquidity shortages in cross currency markets. The 2001 initiative was a joint FED-ECB endeavor, and swaps were used by both parties. They were then extended to bilateral agreements between the FED and the major western central banks.

During the recent financial crisis, from 2007 onwards, the FED, the issuer of the most widely used international reserve currency, became the *de facto* international lender of last resort through central banks currency swaps. Similarly, during the crisis, the ECB swapped euros with other central banks in the vicinity of the Eurozone.

On October 31st, 2013, the temporary swap lines between the FED and five other central banks were made permanent.

While the FED’s swaps occurred long after the US dollar was a well established international currency, China made central banks’ local currency swaps a key feature of its nascent policy aimed at internationalizing of its currency, the renminbi.

These central banks currency swaps (hereafter CBCS) are the latest tool to be used in the lengthy trial and error process to deal with monetary and financial instability that has prevailed since the failure of the Bretton Woods agreements at the end of the 1960s and early 1970s. They are the central banks’ response to a globalized financial world, where there is little or no restriction on the currencies in which global financial intermediaries may borrow or lend, and where central banks can create only one currency but in virtually unlimited quantities.

This nascent instrument has proven efficient during the recent financial crisis. The main question now is whether and how it will complement, compete with, or supersede the existing international monetary and financial arrangements in terms of efficiency, feasibility, and acceptability. The first section of this paper presents the growing currency

mismatches in commercial banks’ balance sheets, and explains how CBCS deal with the resulting foreign currency liquidity risk. The second section contextualizes the recent development of CBCS. The third section characterizes what innovations they bring to the international monetary system, and discusses the balance between stability and risk which may result from their implementation. The fourth and final section compares CBCS with existing arrangements, chiefly the IMF, discusses the need for policy action, and outlines some possible steps that the international community, in particular the G20, should take.

2 Central banks and banks’ currency mismatches in a world of freewheeling capital flows

In financial markets, swaps are a derivative in which two counterparties exchange only the cash flows of both counterparties’ financial instruments, against the instruments of the other party.

In the context of CBCS, foreign currency swaps involve two currencies, and therefore introduce the possibility to make the currency issued by one central bank available in the constituency of the other central bank(s) involved in the swap agreement. Thus, CBCS are more similar to a set of two reciprocal loans than to a financial derivative.

2.1 Commercial banks’ liquidity risk in foreign currency has become a major source of potential financial instability

In the absence of capital flow restrictions, and notwithstanding prudential regulations, commercial banks can borrow and lend in different currencies.

They can borrow in a foreign currency to finance assets that are denominated in the same currency, usually US dollars (for example, the ECB’s Financial Stability Review of June 2011 estimated that the euro area had accumulated USD 3.2 trillion assets denominated in US dollars at the end of 2010) or to finance assets in their domestic currency or some other currency. Therefore commercial banks’ balance sheets are potentially subject to mismatches between the currencies in which their assets and liabilities are labeled. They may choose to source funds in a currency that does not match their assets in order to enlarge their investors’ base, to benefit from cheaper funding opportunities, or for speculative reasons.

The data gathered by the Bank of International Settlements (BIS) on the claims and liabilities of reporting banks in US dollars and euros as foreign currency are a good illustration of such mismatches.

‘Central banks currency swaps (hereafter CBCS) are the latest tool to be used in the lengthy trial and error process to deal with monetary and financial instability that has prevailed since the failure of the Bretton Woods’

Box 1 – Commercial banks' liquidity risk in foreign currency

Commercial banks obtain their foreign currency from two sources. They either use the FX market, both the spot and swap markets, to exchange liquidity in one currency for liquidity in another currency, or are directly funded by foreign investors.

Their direct funding may come from the deposits they collect in this currency, or, and in a much larger proportion, from the wholesale market. Depending on the banks' creditworthiness, funding strategies, and market conditions, foreign funding comes in unsecured (certificate of deposits or commercial paper) or secured form such as repurchase agreements.

The maturity of banks' funding in foreign currencies is usually shorter than their funding in domestic currencies and the maturity of the foreign currency assets they hold. This means that banks need to refinance their foreign currency debt more frequently. For example, the 2011 financial stability report from the Swedish central bank explains that about 55% of Swedish banks' US dollar funding from securities had an original time to maturity of less than 1 year. This applied to some 22% of funding in euros and about 6% of funding in Swedish kronor (Risksbank, 2011).

In times of stress, both funding channels may be disrupted. Investors tend to pull back, and avoid many types of investments, particularly outside their home markets, and banks' access to foreign exchange can be restricted (Risksbank, 2011). For example, the US money market funds (MMF), which are the main holder of Eurozone banks' US dollar debt, can withdraw from further debt purchases. Such a pullback occurred during the Eurozone debt crisis. Estimates from Fitch Ratings indicate that, from May 2011 to December 2011, the 10 largest US MMFs reduced their European bank exposure by 45% (Miu *et al.*, 2012).

Banks that face stresses that limit their direct access to foreign funding can sell assets denominated in foreign currency when market conditions are favorable, which rarely applies in times of stress. They can swap their local currency liabilities into foreign currency liabilities for a fixed period of time by means of FX swaps. Fender and McGuire (2010) estimate that about half of the European banks' dollar funding gap during the 2007-2009 financial crisis was met through FX swaps market. The premium paid to borrow foreign currency through the FX swap market therefore, is an indicator of the premium that banks are willing to pay to borrow, say, dollars rather than euros. Unfortunately, this premium is difficult to track. Miu *et al.* (2012) estimate that the euro-dollar FX swap premium was close to zero before the start of the financial crisis and has become persistently positive since then, with the highest levels coinciding with times of the greatest financial stress. The premium exceeded 200 basis points after Lehman Brothers' bankruptcy, then failed, and then rose again to exceed 100 basis points as the European debt crisis intensified.

Commercial banks' liquidity risk in foreign currency can be mitigated by adequate regulation and supervision of the banking system. In 2011, the European Systemic Risk Board (ESRB), soon to be replaced and superseded by the ECB, issued two "recommendations" to the national supervisory authorities with respect to the US dollar funding of European banks: that they "closely monitor the funding and liquidity risks taken by their credit institutions in US dollars as a specific element of their overall monitoring of liquidity and funding risk" and that they "ensure that banks improve their contingency plans aimed at handling future shocks in US dollar funding markets".

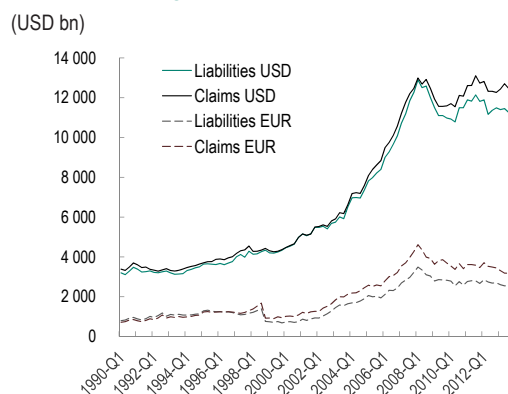
The rationale for the steps to regulate banks' liquidity risk in foreign currency as conditionality for future CBCS, is strong.

* Fitch (Fitch Ratings 2012) estimates that the European banks' share of total US MMF assets were roughly 50%-55% till early 2011. This share was only slightly affected by the 2008 financial crisis but was greatly influenced by the Eurozone crisis. It fell to 35% in early 2012, and to below 30% in late 2012.

They show (Graph 1) a steep increase in the use foreign currencies by international banks in the years preceding the financial crisis. At an aggregate level, the gap between assets and liabilities in US dollars as foreign currency started to widen in 2003 and accelerated after a short remission at the peak of the financial crisis.

For most of the period, the mismatch between the claims and the liabilities in euros as a foreign currency of the reporting banks, has been larger than the mismatch in US dollars as a foreign currency although the total amounts have remained at lower levels.

Graph 1 – BIS reporting banks' claims and liabilities in USD and EUR as foreign currencies



Source: BIS.

If well managed, the currency mismatch in commercial banks' balance sheets is mitigated by currency swaps and options which themselves generate a counterparty risk.

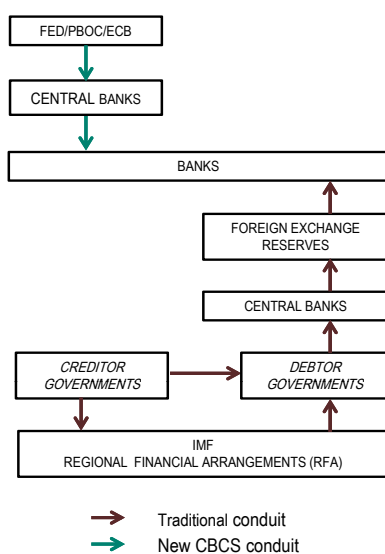
In addition to the risk resulting from the residual currency mismatch, commercial banks' that are funded in foreign currencies face a risk that derives from the maturity mismatch between their foreign currency assets and their foreign currency liabilities.

Since domestic central banks cannot create liquidity in foreign currency, the liquidity support they can provide in the absence of currency swaps is limited to the supply of domestic liquidities that commercial banks can swap on the FX market.

2.2 CBCS are contractual setups that deal with commercial banks' foreign liquidity risk

CBCS allow for direct lending of foreign liquidities by central banks to domestic commercial banks in a world where there is no or little restriction on the currencies in which global financial intermediaries may borrow or lend, and where central banks can create only one currency but in virtually unlimited quantity. CBCS have become a new conduit for the regulation of international financial flows that add to the already existing layers (reserves accumulation, RFAs, government to government loans, the IMF) as illustrated in Graph 2.

Graph 2 – International liquidities provision in time of crisis



Compared with other channels, CBCS embed a radical institutional innovation: they replace institutional arrangements by contractual relations.¹

This contractual approach contrasts with the many initiatives undertaken between the Second World War and the mid 2000s. During these 60 or so years, it was considered that institutional frameworks were necessary to foster international monetary stability – the ultimate institutional set up being the single European currency.

Contracts introduce the idea of a decentralized and contingent process of direct negotiation between a limited number of parties. Contracts also are time limited. Finally, it is generally easier for one of the parties to withdraw from a contract than from other types of institutional setup.

The possibility enabled by swap agreements for central banks to lend a currency issued by another central bank, proved very efficient when non-US commercial banks were unable to access the interbank dollar market while the FED was keen to avoid taking risks on their US subsidiaries.

CBCS enabled the transfer of counterparty risks to the central banks of the countries hosting the headquarters of these banks. No doubt, these facilities provided much needed relief during the financial crisis (Goldberg, 2010).

3 CBCS emerged with the financial crisis as an alternative way to manage the international monetary system

CBCS as they are known today, emerged as a result of the 2007-2009 financial crisis. They are the international twin of the huge resources that central banks have realized they can mobilize to deal with their domestic crises.

(1) Government-to-government short term loans are contractual arrangements but in most cases, accompany intervention by an international financial institution.

In the case of the US, there were two related aims: to substitute for markets that became unable to provide banks with liquidity in foreign currency, and – more broadly – to shield the US economy from financial instability that might result from liquidity shortages and their consequences, in the context of the US dollar as the dominant international currency.

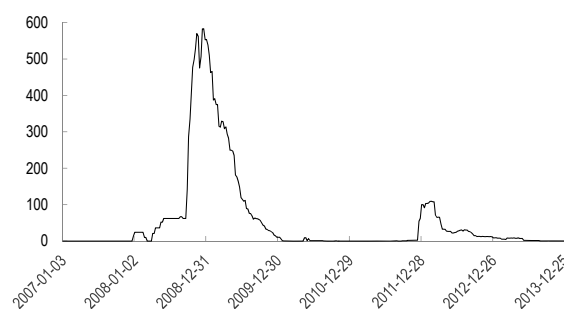
China’s objective in exploiting this tool is to foster internationalization of the renminbi and eventually to escape the domination of the US dollar.

3.1 The US Federal Reserve Swaps aim at shielding the US economy from financial instability that might result from the international use of the US dollar

There was an unprecedented wave of central bank swaps during the 2007-2010 crises. These swaps gave international banks access to US dollar liquidity facilities at a time of huge stress.

In late 2007, at the onset of the financial crisis, the US FED assumed the *de facto* role of almost global lender of last resort. Between December 12 2007, and October 29, 2008, its board authorized temporary dollar liquidity swap arrangements with 14 foreign central banks.² The FED’s central bank liquidity swaps peaked at USD 580 billion (Graph 3) during the last months of 2008 – almost four times the total outstanding IMF credit, at its peak, three years later. These swap agreements carried no conditionality. They expired on February 1, 2010. In May 2010, in response to the re-emergence of strains in the short-term dollar funding markets, the dollar liquidity swap lines between the FED and five foreign central banks³ were reactivated. Graph 4 depicts the likely use of these swaps by the ECB, showing two periods of sharp increases in the ECB’s liabilities to non residents

Graph 3 – FED’s Central Bank Liquidity Swaps (bn USD)



Source: Federal Reserve.

(2) The FED established swap arrangements with the Reserve Bank of Australia, the Banco Central do Brasil, the Bank of Canada, Danmarks Nationalbank, the BOE, the ECB, the Bank of Japan, the Bank of Korea, the Banco de Mexico, the Reserve Bank of New Zealand, the Norges Bank, the Monetary Authority of Singapore, the Sveriges Riksbank, and the Swiss National Bank.

(3) The ECB, the BOE, the Bank of Japan, the Bank of Canada and the Swiss National Bank.

(presumably the FED) and corresponding movements, though at a higher level, of ECB's claims on residents in foreign currencies which peaked at Euros 330 billion at the end of 2008.⁴

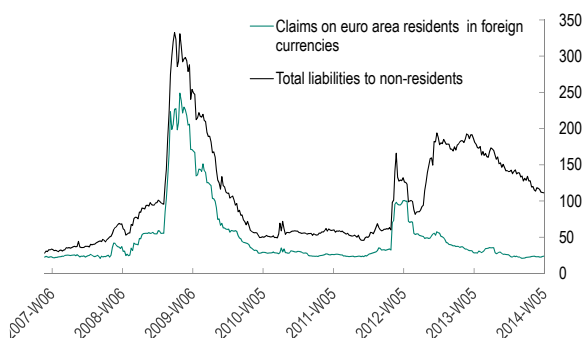
On October 31st 2013, the six central banks decided to make these temporary swap lines permanent. This announcement went virtually unnoticed. The stated aim of these new facilities was to foster financial stability.⁵ They carry no conditionality. Other foreign exchange swaps, not involving the FED, took place during the crisis, although the details are not readily available. Rhee (2013) suggests the ECB's local currency swaps during the crisis were "extraordinary modest".

This swap policy had a little known precedent in the period immediately following the 9/11 attack on New York City (Bourgeon and Sgard 2012). The attack resulted in breaks in the payments circuits between US and non-US banks. In order to avoid turmoil and possible systemic crisis resulting from a US dollar shortage in non-US banks, it was decided that the FED would swap US dollars against currencies issued by the central banks of Canada, England, and the ECB, to a total amount of USD 90 billion. The central banks in their turn would lend these dollars to the banks in their jurisdiction. These swaps lasted for 30 days (Kos, 2001).

Fleming (2010, p. 3) comments that "In addition, from the 1960s through 1998, the FED had standing FX swap lines with several central banks, but their purpose was to provide currency for FX market intervention rather than to provide money market liquidity. Most of these older swap lines were phased out by mutual agreement in 1998, although Canada and Mexico retained small swap lines under the auspices of the North American Free Trade Agreement".⁶

Graph 4 – ECB Claims on residents in foreign currencies and liabilities to non-residents

(Euro bn)



Source: European Central Bank.

(4) These data show that the ECB continued to borrow from non-residents but not from the FED – while not using these liquidities to refinance the European banks.

(5) It is interesting that it took roughly 60 years for the Eurodollar market to benefit from a lender of last resort while the "euro RMB" has enjoyed this luxury from its inception.

(6) Papadia (2014) also mentions these earlier swaps that remained unexploited for many years and eventually disappeared.

3.2 The People's Bank of China swaps are designed to foster internationalization of the renminbi

Unlike the swaps signed by the FED, the myriad of swap agreements signed by the Chinese central bank, the PBOC with other countries' central banks are not a reaction to an emergency situation. Rather they are one of many dimensions of a long term policy aimed at internationalizing of the renminbi.

So far, the PBOC has 24 active local currency swap agreements (including one with Hong Kong) amounting to a total of RMB 2.71 trillion or approximately USD 420 billion (see Table 1).

Official communication by the central banks on these swaps is often minimal with only the amount, maturity of the

Table 1 – List of People's Bank of China currency swap agreements

(as of August 26th, 2014)

Earliest agreement	Economic partner	Max. value in foreign currency (including extensions)	Max. value in RMB (including extensions)
2008	South Korea	KRW 38 trillion	360 billion
2008	Malaysia	MYR 90 billion	180 billion
2008	Singapore	SGD 60 billion	300 billion
2009	Hong Kong	HK\$400 billion	490 billion
2009	Belarus	BYR 8 trillion	20 billion
2009	Argentina	ARS 38 billion	70 billion
2010	Iceland	ISK 66 billion	3.5 billion
2010	Indonesia	IDR 175 trillion	100 billion
2011	Mongolia	MNT 4.4 trillion	15 billion
2011	Kazakhstan	KZT 150 billion	7 billion
2011	Uzbekistan	UZS 167 billion	700 million
2011	Pakistan	PKR 140 billion	10 billion
2011	Thailand	THB 320 billion	70 billion
2011	New Zealand	NZD 5 billion	25 billion
2012	Turkey	TRY 3 billion	10 billion
2012	Ukraine	UAH 19 billion	15 billion
2012	United Arab Emirates	AED 20 billion	35 billion
2012	Brazil	BRL 60 billion	190 billion
2012	Australia	AUD 30 billion	200 billion
2013	United Kingdom	GBP 21 billion	200 billion
2013	Albania	ALL 35.8 billion	2 billion
2013	Hungary	HUF 375 billion	10 billion
2013	European Union	EUR 45 billion	350 billion
2014	Switzerland	CHF 21 billion	150 billion

Source: Central Bank websites.

agreement, and rather fuzzy justifications being made public.⁷ Commentators often refer to these swaps as symbolic exposure of central banks to a rising economy, laying the ground for future more substantial monetary relations between China and the rest of the world.⁸

In 2013, four central banks, the BOE, the Monetary Authority of Singapore, the Reserve Bank of Australia and the ECB were more transparent. They publicized the fact that they might use RMB sourced through their swap agreements with the PBOC, as a backstop liquidity facility for eligible financial institutions in their jurisdiction. The Reserve Bank of New Zealand hinted at this possibility as early as 2011.

4 CBCS are a powerful new conduit for the regulation of international financial flows but they have some shortcomings

CBCS combine use of contracts and the unlimited money creating power of central banks, to create a powerful tool to regulate international financial flows. However, this tool has some endogenous limitations.

4.1 CBCS bestow central banks with incomparable influence and flexibility over the regulation of the international monetary system

Over the past seven years, the major central banks have shown that they can act swiftly and creatively and can leverage their money-creating power to manage massive and prompt interventions in money markets. CBCS are one of the many instruments they used to cope with the crisis. CBCS were enabled by the power of central banks to create money combined with their legal capacity to sign international agreements. Independent central banks, such as the FED and the ECB, do not need approval or ratification to sign such agreements. It can be presumed that the PBOC swap policy is supervised and approved by the Chinese political authorities.

Until recently, development of CBCS might have appeared to be the result of exceptional and temporary circumstances. However, it seems that a decentralized network of freely agreed and revocable contracts among international currency issuers, and between the latter and other central banks, is

'Since they are contractual arrangements, CBCS are more flexible but also more fragile and reversible than their institutional counterparts.'

(7) This refers to standard sentences such as "The two sides believe that this renewed arrangement will help promote investment and trade between the two countries and safeguard regional financial stability" and "For the purpose of promoting bilateral financial cooperation, facilitating bilateral trade and investment, and safeguarding regional financial stability" see Siregar (2013 Table 3 pp. 8-9).

(8) See for example, "People's Bank of China in swap deal with European Central Bank", South China Morning Post, Friday, 11 October, 2013.

emerging as a new and permanent feature of the international monetary system.

The establishment of permanent swap facilities between major western central banks (including Japan's) speaks for itself.

In the case of China, it might be assumed that central banks swaps would be used only to compensate for the capital controls that still obstruct capital flows in and out of China. Indeed, China has embarked on a Long March towards internationalization of its currency while simultaneously deeming it too early to remove its capital controls. The accumulation of official foreign exchange reserves in RMB is impossible, and international commercial banks have no direct access to the mainland interbank market. In this respect, central banks swaps can be seen as a temporary – and mostly symbolic – step.

However, the recent extension of PBOC swaps to major non-Asian central banks, and the announcement that the RMB can be lent to commercial banks increase the odds that this feature of the RMB internationalization strategy will be made permanent.

There is another argument along these lines. Central bank creative thinking and a feeling of power, have been unleashed by the recent financial crisis. Central banks are the only institutions able to expand and retract their balance sheets quickly to match the volatility of international capital flows. As Truman (2013) puts it: "only central banks have the balance sheet leverage to respond to volatile capital flows on the necessary scale."

4.2 Compared to alternative arrangements, CBCS have their own limits

CBCS emerged from the first decade of the 21st century as a complement, but also an alternative to other international monetary arrangements. The most formal and institutionalized among the latter is the set of powers, rules, institutions and resources that are embedded in the IMF. The international monetary system also includes other layers, mainly: the unilateral foreign exchange reserves accumulation, RFAs, and purely government-to-government loans.

Since they are contractual arrangements, CBCS are more flexible but also more fragile and reversible than their institutional counterparts. Contracts can be reconsidered when their time limit is reached. Contractual parties are usually freer and more prone to behave in an opportunistic manner than parties to an institutional arrangement.

For example, one of them might not abide by its pledge to provide its currency. This contrasts with the situation where the currency provider is a third party institution. In this latter case, the relations between the authorities of the borrowing country and the ones that finance this institution are somewhat more distant.

Moreover, central bank swaps give international currencies issuers the possibility to pick and choose among potential counterparties for reasons that are not necessarily financial but might be strategic or political. Though this issue is hotly debated, one could reasonably think that in international institutions, the game is more collective. In this respect, a multinational body may better serve the superior interest of the world's monetary and financial stability than a network of contractual agreements.

In addition, as far as we know, central bank swaps do not include surveillance, and conditionality is limited to the use of the proceeds of the swaps (see Federal Reserve Board 2008) not the economic policy as in the case of IMF facilities.

Finally, the swap agreements carry two tier counterparty risks that so far have not been formally addressed. The first risk is that commercial banks borrowing an international currency from a central bank that has not issued this currency cannot repay it. The second risk is that the central bank cannot settle the swap when due.⁹

5 The G20 should make CBCS and the existing international monetary arrangements more complementary

At a time of financial globalization with a steep increase in the volume and volatility of capital flows, the ability of central banks to act swiftly, and the virtual absence of a limit on their money creating capacities, contrast with the limitations and difficulties faced by more institutionalized solutions, chiefly the IMF. The challenges that CBCS pose to these institutions must be acknowledged, discussed and mitigated to the extent necessary in the interests of world financial and monetary stability. The G20 seems to be appropriate in this respect.

5.1 CBCS challenge the IMF and the other existing international financial agreements

The IMF has a long history of reinventing itself since the course of international monetary history challenged its *raison d'être*. It was created in 1944 by the Bretton Woods agreements, in order to manage a fixed (but adjustable) exchange rate system. This system collapsed in 1971, and following a decade of soul searching, the Fund oriented the bulk of its resources in the 1980s towards external adjustment of developing countries facing debt crisis. In the 1990s and early 2000s, the IMF played an active – though very controversial – role in the many rescue plans aimed at alleviating the balance of payments crises in Latin America, Asia, Russia, and Turkey.

(9) In the conversation that took place during the FOMC meeting on October 28-29, 2008, the possibility that the FED might seize the reserve assets of emerging countries that benefited from swaps in the case of default, was discussed but not approved (Federal Reserve Board 2008). In the same meeting, the FED's staff and the then Chairman Bernanke advocated that the IMF would be able to provide financing to needy emerging economies that did not benefit from FED swaps, though its overall financing capacity was limited to roughly USD205 billion.

However, the IMF was taken by surprise by the 2007-2009 crisis. Its outstanding credit which had peaked at a close to USD 100 billion in 2002, had plummeted. In 2006-2007, after an unprecedented rate of financial globalization development in the previous years, the future of the IMF was being questioned, and the decision was made to downsize its staff.

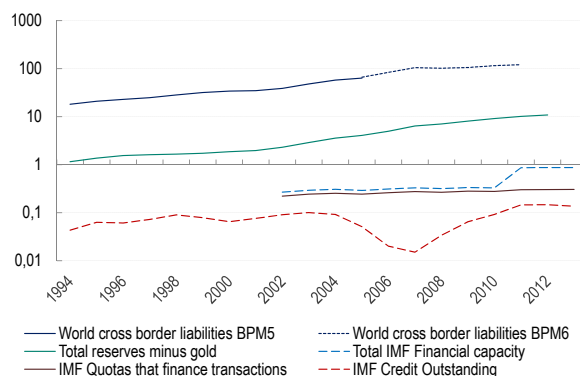
The Fund reacted swiftly to the crisis. On the asset side, it adapted its facilities to foster their crisis prevention and to make them less stigmatizing. The IMF was further led to commit a significant share of its financial resources to the management of the Eurozone crisis, with controversies on this policy erupting within its own ranks (International Monetary Fund, 2013). Overall, actual IMF credit outstanding peaked at close to USD 150 billion in 2011 and 2012. On the liability side, loans from member-states to the IMF proved a flexible tool in order to quickly increase IMF funding. However, no permanent increase in the IMF's sources of finance – the quotas – has been secured. The quota increase that was decided at the Seoul Summit in October 2010 has not yet been – and may never be – ratified by the US Senate, despite repeated calls from the international community, including at the end of every meeting of the G20 leaders or ministers of finance and central bank governors since.

Despite these efforts, the IMF's financial strike force though significantly increased remains limited, as shown in graph 5. In addition a non trivial share of its nominal resources cannot be mobilized (Destais, 2013). The 2007-2009 crisis and the Euro crisis show that the IMF might again be required to finance developed countries, and the size of the large emerging economies and their opening to the rest of the world would require very huge resources were they to come mostly from the Fund.

These limitations stem from two major factors:

- Contrary to what Keynes wished, the IMF was not granted the power to create an international currency at its inception, and like any non-banking financial intermediary, the IMF must balance its commitments with its external resources (which consist solely of member states' funding commitments,

Graph 5 – Financial globalization and the IMF financing capacity (Trillion USD Logarithmic scale)



Source: Federal Reserve..

whether quotas or loans – the IMF is not permitted to borrow on markets). The Fund can only lend money to treasuries or similar fiscal agencies, usually through their central banks;

- Though more flexible than most institutions, the IMF remains an international institution with long and complex procedures that must be followed meticulously to change lending policies and – even more – to increase its resources.

5.2 G20 should promote a more transparent use of CBCS

Since 1971, redesigning and re-establishing a centrally regulated international monetary system has proven too ambitious a project. Successive attempts have failed to achieve a minimal consensus on an institutional design that would match the interests, and meet the agreement of all key parties. In particular, the projects that would have given a greater role to the IMF such as the creation of a substitution account under its auspices in the late 1970s, or the ideas circulated by various Chinese and French authorities and academics during the recent financial crisis that would have given a greater role to the Special Drawing Rights (SDR), have fallen short.

Countries and, above all, their central banks have never been willing to have their hands tied through any sort of money creating process that was beyond their control. They have kept the IMF (and to our knowledge, the Bank of International Settlement – BIS, and any of the RFAs) away from CBCS, whereas they could have chosen to promote multilateral swaps within these agreements.

Prior to the Seoul Summit, in November 2010, the Korean Presidency tried to devise a framework of global safety nets that would encompass RFAs as well as the central bank swap agreements, and which it proposed to institutionalize. Given the resistance it met, Korea shifted its focus to strengthening the IMF lending toolkit (Rhee, 2013). Further work was done on RFAs, especially in light of the IMF experience with Europe, and since the Cannes summit in 2011, the G20 leaders and the G20 ministers of finance have focused on the relationship between RFAs and the IMF. Currency swap agreements per se, so far have not been mentioned in their statements.

The G20 leaders and the G20 ministers of finance and central bank governors have repeatedly call for “cooperation” and a “flexible and voluntary dialogue” between the IMF and Regional Financing Agreements”, presumably referring mostly to Europe and Asia. None of its communiqué mentions the PBOC’s, the FED’s or any other swap agreements.

CBCS represent an additional step towards a more informal way to manage the international monetary system. This path seems ineluctable given the reluctance to give up any form of monetary sovereignty.

Two recent papers advocate for the coordination of central bank swaps at the international level. Ed Truman (2013) proposes the setting up of a global central bank swap network with three keys to unlock it: the IMF, the central banks as a group, and each pair of central banks. Rhee and co-authors (2013) deem that the fact that “swap lines remain the guarded prerogative of national central banks [...] creates important risks for the system as a whole. [...] To limit those risks, there is a need for a real coordination effort of those bilateral swap lines into a globally coordinated, predictable and consistent framework [...] The BIS for instance could be an effective institution to play this coordinating role.”

Any form of institutionalization of central bank swaps inevitably limits the prerogatives of the national central banks. Therefore, any attempt to do so is likely to trigger strong opposition from these latter especially in countries that are in a position to provide reserve currencies to the rest of the world.

Overcoming these resistances might be desirable but does not seem possible – at least in the short or medium term.

Furthermore, the flexibility with which central banks currently can act is a very desirable feature because it allows them to act swiftly and to tailor their support to the specificities of each situation.

Soft law might be a more modest yet perhaps a more realistic and effective way to encourage the emergence of an international public order in this field. Guidelines should be agreed among central bank governors, with the support of the G20.

The content of such guidelines needs more discussion but, in our view, should include:

(i) The creation (or, if it exists, the publication) of a repository of central bank swaps at the IMF or at the BIS;

(ii) Provisions to prevent the unfair exclusion from the benefits of these swaps. Barring some countries from the benefit of CBCS is legitimate either in the interests of international public order (e.g. In case of international sanctions or if G20 approved policies such as the ones on money laundering and tax evasion are not properly implemented), or because the counterparty risks are deemed excessive, or because other sources of international liquidities such as the IMF or RFAs are available and more appropriate. It also seems inevitable with

respect to geopolitical considerations. Self-restraint should however apply;

(iii) The idea that these swap agreements should have a minimum degree of stability over time, to help to make the international financial environment predictable;

(iv) Since these swaps are ultimately meant to provide foreign currencies to commercial banks, these agreements might be used as a lever to promote the sound management of banks’ liquidity risks in foreign currency through domestic and international standards.

‘Soft law might be a more modest yet perhaps a more realistic and effective way to encourage the emergence of an international public order in this field.’

6 Conclusion

Whereas the IMF is limited by its institutional constraints, and the RFAs are restricted by their own geographical, institutional, and policy limitations, currency swaps between central banks will probably play a growing role as a financial instrument to allay or prevent financial instability but also as a strategic tool to assert the role of current or aspiring global currencies issuers. Currency swaps are quickly becoming an additional layer of an already multilayered global safety net (Rana, 2012)

where the key players are the issuers of the reserve currencies. This situation gives the global issuers the possibility to deny access to international liquidities on non-economic grounds, be they legitimate or not, and to arbitrage between their own interests and the superior interest of the world's financial stability. Searching for a first best solution in which these swaps could be smoothly integrated within a coherent international monetary system is likely to lead to a deadlock. However, there is room for improvements to which the G20 could contribute positively through policy recommendations to its members.

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