

Systemic Changes in the International Monetary System and the Need for Coordination, Cooperation and Enforcement

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The international monetary ‘system’ serves to facilitate significant gains from trade and investment in the international economy. The last 130 years of economic history illustrate that large changes to the basis of such a system, for instance when one key currency is replaced by another, are typically associated significant negative shocks to the global economy. Although these changes have been fairly infrequent, they are of interest presently as the US dollar faces challenges to its hegemony in the next few decades. A long run view helps provide insight here.

This essay will be concerned with how to deal with spillovers during such challenges to the hegemony of key currencies. Better coordination is needed to deal with spillovers which arise in an interconnected world. These spillovers also encompass ‘imbalances’ and the perennially difficult issue of asymmetric balance of payments adjustment which the IMF was intended to ameliorate.¹ This essay focuses less on imbalances and more on the issue of changes to the key currency in the international system. I hope to illustrate that are significant external and systemic effects during such changes and that coordination, consultation and enforcement could limit such negative effects.

In particular, the international monetary system seems to exhibit excess inertia and lock-in in the choice of key currencies due to transition costs and strategic complementarities. My proposal is not to substitute national currencies with an international currency basket like the SDR or a new global money. National currencies (or a set of them) are not any less suitable than other plausible alternative models and alternative models have their own drawbacks and complexities. In place of wholesale reform, I propose that there are several modifications to the governance of the international monetary system that could reduce the negative spillovers in the current system.

These include improved international coordination, consultation and enforcement regarding exchange rate policy. Multilateral action is of course the theoretically endorsed

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¹ Frieden (2009) provides an excellent analysis of imbalances as the key spillover in the international monetary system. Frieden “makes the case for systematic inter-governmental cooperation on international monetary affairs” as I do here for ancillary reasons.

solution whenever policy spillovers exist. So my goal is to demonstrate that such spillovers do exist and then propose remedies.

We are not starting from scratch. This approach has been common--and useful--in monetary unions, but such formal mechanisms that are self-enforcing either do not exist in the realm of exchange rate policy or must be enhanced.² Moreover, while in the sphere of international trade, nations have consented to enforcement by the World Trade Organization, no such consent currently exists in monetary affairs. This is surprising given that the gains from international monetary stability are arguably as important as those derived from open international trade.

To demonstrate the idea, readers could look to mechanisms already in place in the European Union. Outside the EU, the International Monetary Fund (IMF) is the natural habitat for cooperation, but the IMF lacks the capability of dealing with multilateral issues and it also lacks the capacity to enforce its decisions. The articles of agreement, at best, only implicitly recognize spillovers as a problem to be solved. Exchange rate misalignments are perhaps the exception but, even here, enforcement procedures leave much to be desired.

The proposal here is that there should be mechanisms mandating international dialogue between countries issuing a reference currency and individual *or groups* of countries using this reference currency. Consultation would pre-specify actions that would credibly be taken not only in the case of imbalances but where there was *required systemic change* to the currency (-ies) that act as reference currency (-ies) within the system. The status quo alternative--weak surveillance, ad hoc forums for cooperation and non-credible commitment--is likely to yield further instability, large shocks and abrupt systemic changes. The timing of these shocks is usually quite uncertain though quite disruptive and the goal should be to minimize their likelihood and/or to reduce the costs associated with them.

To arrive at these conclusions I survey the historical record on the births and deaths of international currencies, discussing how international monetary arrangements matter and the nature of spillovers in such events. I conclude with a specific discussion of the weaknesses of the current system in the presence of spillovers and recommend a framework for greater stability based on a long run perspective.

Anchor Currency Choice and Stability

My discussion focuses on a particular dimension of international monetary relations: the **decision** about which currency to use as an anchor or reference currency. When several countries choose to peg their exchange rate to the same currency, **blocs** of countries that have fixed exchange rates to each other are created; by creating nominal exchange rate stability, these blocs strongly determine trade patterns and investment flows.³ They also generate their own reserve demand patterns. Further, these choices help

² In the case of monetary unions within quasi-political unions, (e.g., the European Monetary Union or the sterling area post World War II) significant coordination at the international level has taken place. Veyrune (2007) discusses extensive cooperation between France and other nations in the 'franc zone' 1956-2005. In the case of the US dollar and its clients rather less coordination and cooperation has been present.

³ See Klein and Shambaugh (2009) on trade flows and pegged rates and Rose (2000) on trade flows and monetary unions. Historical evidence is presented in López-Córdova and Meissner (2003).

determine invoicing patterns, currency denomination of foreign borrowing, foreign market entry decisions, and expected inflation rates. Monetary and fiscal policy in key currency nations can affect and be affected by policies abroad. Although decisions are taken at the national level, international strategic considerations (i.e., spillovers) are a major feature of the structure of the international monetary system.

A key determinant of national decisions is what other countries--especially trade partners--are doing. The larger the number of significant trade partners using a particular currency, the more likely other countries are to use this currency as a reference. Countries' gains from any particular anchor policy are larger when important trade partners have a similar policy. Research has shown that these *network externalities* help explain the configuration of the international monetary system (Meissner and Oomes, 2008).⁴

A general feature of repeated games of coordination is that history can matter and inefficiencies may arise. Lock-in around a particular set of international arrangements inherited from the past is quite possible. Such lock-in can persist but may be inefficient for many reasons. Changing trade patterns and changes in the policy orientation of reference countries are two possibilities. Absent an internationally coordinated policy to change the system's configuration of pegs, nations may find it individually more beneficial to adhere to a particular exchange rate arrangement inherited from that past. This is true even though they and other countries involved might all be better off in an alternative arrangement. Potential transition costs include capital losses on reserve holdings and loss of network benefits when unilateral changes are made.

One example is the pound sterling which maintained an international role, especially in some of its former colonies, well into the 1960s. Once sterling's demise was negotiated, countries moved in geographically concentrated groups to dollar-based systems in the late 1960s and early 1970s further enhancing trade and capital market integration with the dollar bloc and the United States.

The nineteenth century shows that such changes, if completely uncoordinated, can also give rise to a rapid transformation of the status quo and sudden destabilizing realignments. This occurred in the 1870s when silver, which had been used as much as gold in Europe as a basis for domestic monetary systems up to that point, lost out to gold. Silver depreciated by over 20 percent between 1873 and 1879 (15 percent in 1876 along) while it had traded at a ratio of 15.5 to 1 for the 30 years prior to 1873. The shock further enhanced the difference in borrowing costs between those in and out of the gold system and also further reoriented trade into the gold bloc.

The UK devaluation in 1931 and the US devaluation of 1933 led many other nations to leave the gold standard en masse, a race to secure the limited supply of monetary gold, deflation and extreme exchange rate realignments. Trade collapsed much faster than output in the Great Depression because of numerous barriers to trade that were a cause and consequence of exchange rate revaluations.⁵ The period also witnessed see-

⁴ This is an extension of Optimal Currency Area theory. The size and nature of shocks, labor mobility, currency denomination of debt and the size of financial markets also influence outcomes. In the larger discussion of the appropriate exchange rate regime, these domestic factors matter too. All of these will be left aside here due to space constraints.

⁵ See Eichengreen and Irwin (2009) on why overvalued gold-based currencies were more likely to opt for tariffs in the 1930s.

saw demand for sterling and dollar assets which complicated economic policy in the reserve nations (Eichengreen and Flandreau, 2008).

Countries considering a peg also worry about monetary policy in the country supplying the anchor currency. Although the Triffin Dilemma is not an issue in the float, unexpected inflation in the key nation can lead to capital losses on reserve assets and may affect the desirability of using a currency as a key currency. The US experience of the 1970s and early 1980s illustrate that inflation need not be devastating for key currency status. Rather the amount of trade and the depth of financial markets may also be important determinants of key currency status. Larger trade flows and deeper financial systems are necessary to achieve key currency status.

Issuing countries may also worry about external use of their currencies especially in cases where foreign countries are large enough to impact the monetary sovereignty of the issuing entity. The European Union for example has discouraged adoption of the euro abroad. Non-EMU nations in the EU must abide by various policy limits. Accession countries are discouraged outright from unilateral adoption of the euro. Japan, prior to the 1980s, also attempted to restrain international use of the Yen. For the most part, the US has recently operated a policy of benign neglect toward dollarizers although with China there have been unofficial voices of discontent and preoccupation since at least 2005.

The Japanese yen and the Euro are also examples of how size and low, stable inflation are insufficient to understand how to achieve international status. The protracted financial crisis and economic slump of the 1990s in Japan surely contributed to the lack of further interest in the Yen. But in the 1980s, coordination problems are likely to have existed. Nations already locked into the dollar bloc together might have found the transition costs to a yen bloc prohibitive.

A Long Run View of Systemic Changes of Key Currencies

From its inception in the 1870s, the classical gold standard represented the choices of individual countries acting in an uncoordinated way to arrive at an 'equilibrium' outcome. The wealthier countries of the time found that the incentive to join gold increased as other trading partners joined gold. The gold bloc spontaneously emerged in Europe in the 1870s many years after a world gold-based system was envisaged. Such a bloc was actually first proposed in 1867 at Europe's First International Monetary Conference in Paris where all nations had already agreed they were in favor of a gold-based system. The flip side of gold's rise was silver's demise as a monetary standard in Western countries and eventually in parts of Asia and Latin America.

It has been argued that silver's depreciation vis-à-vis gold from 1873 onwards created a panic and drove countries away from using silver for gold for monetary purposes. In reality, trade and investment patterns and preferences on monetary autonomy were more decisive. The decline of silver was more a symptom of the rapid transformation of monetary regimes in many important countries after 1873. Also, France attempted to maintain silver's price as late as 1876, and it could have done so especially if the US had maintained its use of silver after 1873 instead of abandoning its historic

commitment to bimetallism (i.e., a silver and gold system). However, by 1876, most countries had moved to gold and France realized that monetary coordination might have benefits (Flandreau, 1996) given the new international circumstances. International monetary conferences in 1878, 1881 and 1892 attempted to revive international bimetallism but failed probably because of the vulnerability to Gresham's law under bimetallism. With limited international enforcement, any one country could defect from bimetallism setting up laggards for large capital losses on silver holdings.]

Tellingly, not every country adhered to gold throughout the period. Even in the heyday of gold orthodoxy, nations opted out of fixed exchange rates and altered the shape of the international monetary system. This occurred mainly in the periphery which was not of systemic importance. During emergencies such as wars and financial panics, important nations temporarily suspended gold convertibility. After 1870 this rarely occurred. On the other hand, many smaller, peripheral and less systemically important nations facing balance of payments problems frequently opted for devaluation and subsequent long periods of floats to allow for export growth and rebalancing (Catão and Solomou, 2005). Italy floated from the mid-1880s, Portugal floated from 1891, Spain floated from the 1880s, Austria-Hungary floated from the 1870s, Greece went on and off gold, Japan did not join gold until 1897, Brazil did so only in 1907, and Argentina had numerous spells of floating exchange rates. These national cases illustrate that the contours of the international monetary system depend on international pressures but in part they are also due to domestic forces. Stability of the classical gold standard in the larger core of countries was founded upon credibility and cooperation (Eichengreen, 1992).

Prior to World War I, Britain's pound sterling was the key international currency for financing trade and investment. Britain had steadfastly been on gold since 1821. From the 1870s, sterling's international status was generated by the eminence of London's financial industry and the absolute size of its international trade transactions. It took almost 60 years from 1870 for a serious challenge to the key status of sterling to arise mainly from the dollar.

In 1914 the Federal Reserve was created in the US. One of the aims was to establish the US dollar as an international currency to compete with sterling. Despite important efforts, the requisite absolute economic size, fiscal credibility and relative monetary stability during World War I, the US dollar struggled to attain international status. The dollar competed with sterling throughout the 1920s and 1930s with ups (late 1920s) and downs (post-1933) measured in terms of the value of reserves held in US dollars by the world's central banks (Flandreau and Eichengreen, 2008). In any case it was still gold that mattered for monetary relations in the 1920 and 1930s.

The re-emergence of the gold standard, this time in the guise of a gold exchange standard, was the hallmark of the international monetary system of the late 1920s. Britain's return in 1925 to the gold standard, at the overvalued pre-war parity, signaled the re-birth of the international gold standard. Assets of US and Britain helped to back the monetary liabilities of the rest of the world and gold was supposed to have in turn backed sterling and the dollar. Nations returned to gold in the order that trade patterns, capital flows and domestic concerns would suggest. Those countries most integrated with the gold bloc joined earlier, and as the gold bloc grew, the relative value of the trade-creating benefits of fixed exchange rates increased.

A key problem in the interwar gold exchange standard was insufficient liquidity provision because of limited gold and the convertibility commitment of key nations. This was a precursor to the Triffin Dilemma. The demise of the gold standard occurred when Britain abandoned its peg in September 1931 in favor of a more expansionary monetary policy and reflation. The uncertainty about the pound's devaluation and subsequent floating made sterling reserves become less attractive from 1930, and a similar event occurred to the dollar in 1933 after it was devalued. The 1930s produced exchange rate instability, fractured trade and volatile economic activity.

The Bretton Woods system established a system of fixed exchange rates. Figure 1 shows the percentage of countries using the dollar, German mark, British pound sterling and French franc as reference currencies from 1950 to 2007. Many countries pegged their exchange rates directly to the dollar. However, many countries with convertible currencies were indirectly pegged to the dollar but actually used currencies like the franc, pound or mark as an anchor (Reinhart and Rogoff, 2004). Sterling ceased to be a reference currency in the 1970s. The mark gained slightly in its use after 1971 and the franc held steady. In 1999 the euro replaced the mark and franc. The percentage of countries using the Euro as an anchor has increased only slightly since 1999 hovering around 30 percent whilst roughly 50 percent of countries are attached to the dollar.

The post-World War II data reveal that a world of multiple international currencies is possible and quite natural. Non-systemic nations have, by and large, chosen the exchange rate policy option best suited to their patterns of integration and other constraints. The overall stability of such arrangements suggests that currency blocs represent deep and slowly moving fundamentals. Also international currency status does not appear to be lost easily even with poor policy performance.

Conclusions and Recommendations for the International Monetary System of the Twenty-First century

There is a sizeable amount of stability over the long run in the percentage of countries adhering to any of the several key international currencies. The key international currencies have not changed a great deal in 130 years. In a century and a half, sterling, the dollar and eventually the euro replacing the (Mark/Franc) are the only major key currencies the world has known. What change there has been illustrates that international spillovers in regime choice are crucial in understanding the orientation of the international monetary system.

History suggests that international currency status is neither gained quickly nor lost easily. The dollar's rise, dating from the second decade of the twentieth century, was not solidified until after World War II had altered economic fortunes considerably. The dollar's status was dented but not lost after 1971 when the closing of the gold window emphasized significant uncertainty about future US monetary policy. Also, sterling's demise came in punctuated stages. Despite a major devaluation in 1931 and a loss in reserve shares, sterling partially regained reserve use after 1933 when the nearest competitor, the dollar faltered. The final curtain was drawn on sterling in the late 1960s but it maintained international status for decades after World War II despite several significant balance of payments problems and due to the fact that transitioning away from the status quo involved significant cost and complications. Schenk's chapter illustrates

what role concerted international cooperation—as proposed here---might have played. Cooperation could arguably have alleviated of the fear of capital losses on sterling assets in any number of mutually beneficial ways.

The big picture of stability in arrangements since the 1950s may also hide net gains from coordinated moves to alternative arrangements at the systemic level. What can be done in the face of such lock-in? Can the transitional costs of capital losses on reserves and accumulation of new reserves be avoided or lessened?

Greater formal multilateral coordination regarding monetary and exchange rate policy could help. Typically these problems have been viewed as bilateral or country specific issues rather than systemic, and Article IV of the International Monetary Fund is written in these terms. Forward looking analysis at the outset of a peg between concerned parties (the anchor currency country and all others using such an anchor) could lay out credible contingencies for eventual imbalances and systemic shocks. Coordination amongst nations contemplating a mutually beneficial peg could enhance the network externality benefits from sharing a reference currency. Coordinated simultaneous adoption of a new standard and exit from an old standard could maintain these benefits.

Institutional and permanent insurance mechanisms aimed at compensating involved parties could smooth the losses from transition. The scenario one might imagine here is a dialogue between say China and others in the ‘dollar bloc’ in the early 1990s and the United States. Formal mechanisms that could support the reserve currency after a pre-determined level of reserve accumulation, the point at which a parity change would take place and mutually agreeable principles on who would pay to resolve such imbalances could eliminate considerably the uncertainty surrounding the international monetary system. Of course, credible enforcement mechanisms would have to be agreed at the outset which would minimize ex post allegations about which country should bear the burden of adjustment. Such a mechanism could be extended to a multilateral environment, as it is in Europe, and may even be the more salient case. The success of the Eurozone during the ongoing crisis attests to the benefits of ground rules and ex ante cooperation. Finally there are considerations regarding the impact of market forces. Perhaps these could be compensated for by imposing capital controls, changing trade policy or temporary fiscal and monetary policy measures.

But the main focus of this paper is not imbalances but rather simply changes to the reference currency for a country or a group of nations. Anchor currency countries have an incentive to participate since these ideas could save them from a surprise shock to borrowing costs. This is a very likely outcome when decentralized decision making leads to an attempt to be the ‘first to the exit’ creating a systemic change. It is in the interest of the issuing country to prepare and participate in planning for such situations whether it is a debtor or surplus country.

In addition to an insurance fund akin to an equalization fund, issuing countries could pre-commit to adjusting public borrowing appropriately or using monetary policy to keep yields on assets stable and to avoid sharp rises in borrowing costs. Non-issuing countries could pledge not to engage in a fire sale exit strategy yielding an obvious gain relative to a decentralized and disorderly exit. Since spillovers are part of the problem by definition, enforcement could be made via trade sanctions or other means.

Stability improves economic outcomes and so it is a worthwhile goal. The twenty-first century needs a monetary regime that maintains maximum systemic stability. As integration proceeds apace, such needs will become more urgent.

Larger schemes for new international currencies to replace domestic currencies as the basis of an international system are pipe dreams for now for economic and logistical reasons. For non-systemic players, the world's international monetary system suits the needs of the global economy relatively well. When national choices could have systemic impacts, further formal mechanisms for coordination and enforcement must be created. These can be mutually beneficial and should be strived for in the coming century.

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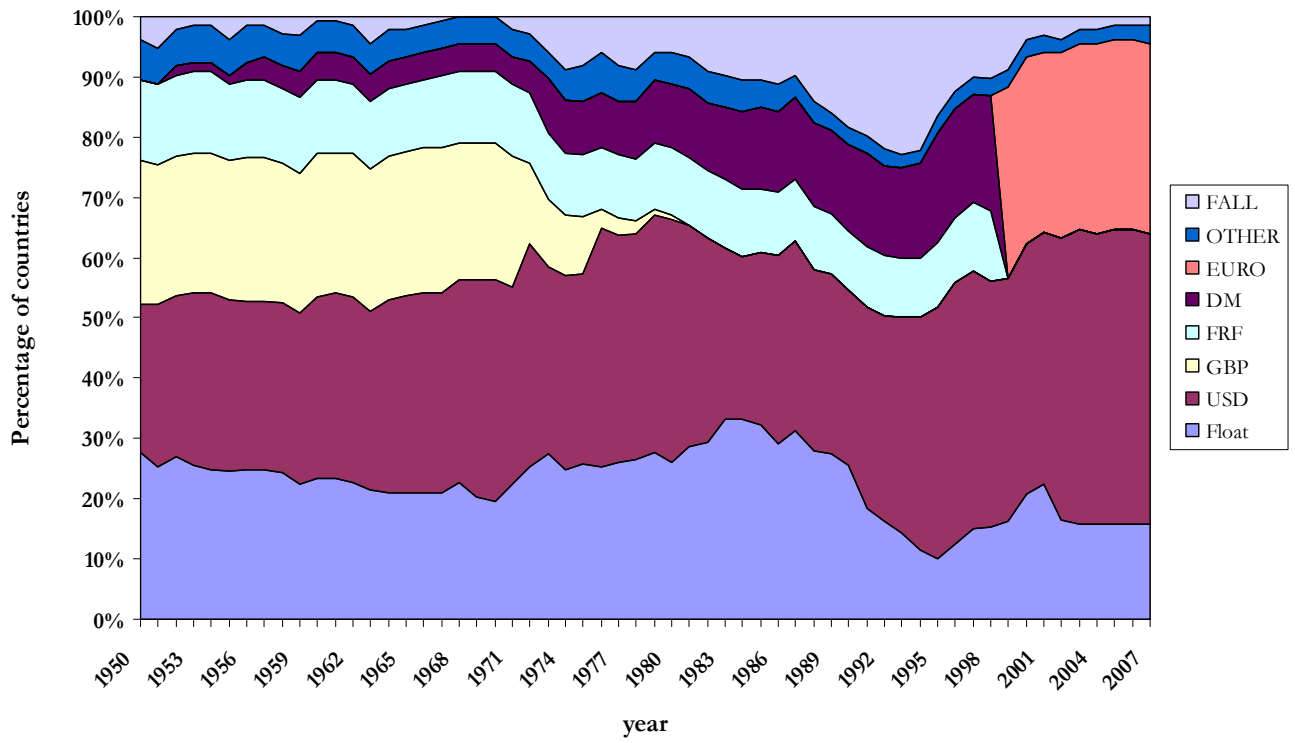
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Figure 1 Anchor Currency Choices, 1950-2007



Notes: Underlying data are from Reinhart and Rogoff (2004) and updates available at <http://terpconnect.umd.edu/~creinhar/Papers.html>. A country has an anchor if it has a de facto peg to the listed currency. The criterion is roughly that nominal exchange rate volatility must be under two percent for a sustained period. See Reinhart and Rogoff (2004) for further particulars.