Overcoming the Triffin dilemma today: A plan for a stable international financial architecture

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The Triffin dilemma

More than 50 years ago, the Belgian-American economist Robert Triffin (1911–1993) denounced the dangerous incoherence of the "dollar system", not the general peg-regime against the dollar created in Bretton Woods 1944, but more generally the use of a national currency as the main international reserve currency. His warning was coined the "Triffin dilemma" expressing merely that due to the inner logics of a currency to be a debt-at-sight, any system based mainly on the use of a national currency for supplying international reserve assets to the rest of the world, was doomed to conflicting objectives leading inevitably to generate global macroeconomic instability. The reason is the inescapable dilemma the issuer of this currency faces between either going ever deeper into debt in order to satisfy the growing world demand for liquidity, with the danger that this will undermine its creditworthiness on the one hand, or failing to satisfy this demand by giving priority to its creditworthiness exposing the world to a reserve shortage with a consequent conflictive deflation on the other hand.

The essential message Triffin tirelessly sent to economists and policymakers is that once a national currency is used as foreign reserve by many other countries, asymmetries are resulting that create biases in the policy-mix of the issuer of reserves not only by exempting it from external monetary discipline, but also by provoking significant spillovers on global liquidity conditions, which tend to become suboptimal and unmanageable. He warned that this feature exposes the global economy to unnecessary costly, instability risks. More precisely Triffin viewed these spillovers as symptoms of systemic incoherence, leading him to the conclusion that an International Monetary System based mainly upon a key-currency such as the dollar contains what he called a "built-in destabilizer" i.e. an endogenous generation of global monetary waves that constitute a systemic cause for recurrent global crisis.

In the line of the Keynes plan – which failed to be accepted in Bretton Woods 1944 – he advocated the use of a multilateral currency issued by the IMF, which would not be the debt of any national economy. He proposed a "fully-fledged SDR[3]" as the only way to ensure, with a minimum of loss of sovereignty, the global macroeconomic stability, through a collegial management of international liquidities allowing for a

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[2] IRELAC –Interdisciplinary Institute for relations between the EU and the Latin America and the Caribbean, ICHEC- Brussels Management School

[3] What Robert Triffin had in mind was a genuine multilateral currency issued by the IMF as the ultimate liquidity used as reserves by Central Banks, not the existing SDR, which is not a genuine currency but merely an asset giving limited access to national key-currencies.

symmetrical anchoring of the monetary system, without any inflationary or deflationary bias.

Today this simple message is not yet sufficiently understood – in fact most often not understood at all. The financial aspects of the global crisis, which started ten years ago, were analyzed and mainly understood but the deeper monetary causes of this global crisis seem still to be mainly downplayed or even denied as a cause of the present difficulties. The Robert Triffin International Association (RTI[4]), which is dedicated to the perpetuation of the intellectual heritage of Robert Triffin, launched in 2009 the Triffin 21 Initiative to draw attention to the continuing relevance of the Triffin dilemma: failure to address it was one of the main causes of the global crisis; policy makers overlooked the crucial flaw that the monetary policy stance of the global standard's issuer was not stably anchored but continued to generate significant spillovers upon monetary policies in the rest of the world; if we do not act, we will be condemned to accept blindly pro-cyclical global monetary waves and growing systemic instability with boom-and-bust episodes and their consequent high risks of generating socio-political disorders. Ignoring the persistence and relevance of the Triffin dilemma for getting out of the global crisis would be a major policy mistake.

Analytic background of the Triffin Dilemma

The Triffin dilemma relies upon the combination of: (i) the "redundancy issue" or the obvious fact than with "n" currencies there remain only "n-1" degrees of freedom in the international monetary system, and (ii) the cumulative centripetal force which concentrates – as a result of economies of scale and of network – the demand for international reserve from the n-1 countries upon a single vehicle issued by the nth one. Therefore, only n-1 autonomous policies are feasible and the currency which is best endowed for being demanded as reserve by the n-1 others generates asymmetries for this nth economy issuing it, which in counterpart would have to accept passively to validate the net result of the policy choices of the n-1 other national authorities. This means there is over-determination. Therefore, under these assumptions, the US economy, issuing the dollar, recognized as the best-endowed currency, would have to accept to become net debtor as far as the n-1 economies consider beneficial to increase their external reserves and to hold them in dollar assets. Inevitably this system raises two questions: not only the creditworthiness limit for the entities issuing dollar denominated assets but also the lack of anchor for the whole system since the total issued liquidities are totally demand-driven.

Under the gold standard, before the dollar exchange standard, there was a discipline mechanism because gold – an international currency not issued by a national economy i.e. without being a national liability – used to play the role of the "(n+1)th" currency anchoring the whole system by its natural scarcity. This mechanism presented, however, serious drawbacks: it made the whole system dependent upon mining discoveries and geographical or geopolitical factors; while ensuring external stability, it could not guarantee the stability of domestic activity. Therefore, the most logical way to address the Triffin dilemma is merely to add the missing degree of freedom by creating a "(n+1)th" currency i.e. an additional currency not issued as the debt of a

[4] Robert Triffin International Association (RTI), https://uclouvain.be/fr/facultes/espo/euro/fondation-triffin.html It replaced the previous Robert Triffin Foundation.

specific national economy but by a representative multilateral institution able to regulate credibly its issuance in function of the objective global needs.

It would be difficult to imagine a simpler and more coherent solution. Its logic is the same as the logic that had justified at the national level the creation of national Central Banks for issuing the national most liquid asset required for the clearing among national deposit banks.

There is indeed a contradiction between the unanimous acceptance, for more than a century, by policymakers and economists that, in each country, a central bank must be established above the commercial banks and their continuing almost unanimous reluctance to accept the need for transforming the IMF into an effective multilateral central bank above the national central banks able to add or withdraw international liquidities. At the national level, the move to a central bank entrusted to issue its own at-sight debt for being used as the liquid reserves the commercial banks need, was imposed by the necessity to reduce financial instability which resulted from commercial bank issuances leading to excess of liquid liabilities by individual competing banks. This was in fact a kind of "Triffin dilemma" at national level since it resulted merely from the fact that any non-commodity currency is a debt-at-sight. At the global level, the same kind of systemic risks of instability and spillovers (the Triffin dilemma) calls for the same systemic solution: entrusting a multilateral agency (IMF) to adjust, through issuing or withdrawing, its own liquid debt as a multilateral currency the national banks need as external reserves, upon which they issue their own national monetary bases. The systemic progress would at the global level come from the same monetary principle as at the national level: providing the IMF with a direct mean for regulating global reserve availabilities the same way as any national central bank increases or reduces its at-sight liabilities, i.e. changing the domestic monetary base for regulating commercial bank liquidities without forcing asymmetric commercial bank liabilities changes. Thus, the liquidity constraint among commercial banks must find an equivalent at international level for financing external constraints in a balanced way, preventing the deflationary bias upon global activity inherent to any external adjustment.

Indeed, solving the Triffin dilemma implies not merely to prevent creating too much additional liabilities for the economy(ies) issuing key-currency(ies), but overall to provide a global tool for regulating objectively global liquidities in both directions: preventing the excessive creation of global reserves as much as the occurrence of a global shortage of reserves. The reason to move from an IMS based upon a few national currencies used as international reserves to a single multilateral one is not just for eradicating asymmetries and so-called "exorbitant privileges" that the issuers of reserve currencies would enjoy, but mainly for introducing the missing global lender-of-last-resort making possible a symmetric regulation of global liquidities able to contribute to offset deflationary or inflationary tendencies in effective world demand. The purpose is not to substitute for the US dollar as the efficient technical standard – which remains an objective operational necessity – but to prevent the current system from creating big global monetary waves through asymmetries and spillovers resulting from the domestic US policy-mix, which is unlikely to be able to optimize the world monetary conditions.

Under the present system, in spite of the supposed ability of each country with a floating currency to choose its own domestic stability objective for anchoring its currency, global stability cannot be systemically ensured. The achievement of global stability would require a perfect coordination, which would be utopian. On the other hand, global monetary waves are observed in a real world of increasing policy spillovers, currency substitutions, massive capital flows, fears of floating and exchange-rate interventions – especially in the years 2000s – which created pro-cyclical impacts upon domestic liquidity conditions. The decentralized attempts towards anchoring, relying exclusively upon national policy stances, have been repeatedly proved to be inefficient during the last four decades, as is logical when externalities impede decentralized policies to lead to optimal solution. In particular, when interest rate differentials feed a "carry trade" by borrowing in low interest rate currencies to invest in currency areas with higher interest rates – as it used to be the case in the period 2001–2007 and again especially when the FED had reduced interest rates to virtually zero for several years – there is clear risk to feed a systemic instability.

The Triffin's built-in destabilizer and the origin of the global crisis

The Triffin dilemma provides the intellectual framework to understand why we are currently unable to manage rationally the global monetary liquidities and how the endogenous nature of the world credit-boom has led to the global crisis and is continuing to feed frightening global imbalances. The persistent imbalances continue to expose the world economy to financial instability and at any moment could spark a confidence crisis in the US dollar, which could trigger a sharp adjustment with severe consequences for international trade and economic growth. Contrary to the prevailing opinion among economists, financial deregulation, allowing over-leverage, over-indebtedness and excess of risks, was only a transmission/amplification mechanism but it was not by itself the origin of the crisis. Although financial regulation reforms are necessary, they would not be sufficient to prevent new crises if we are not dealing in parallel with the "built-in destabilizer" identified by Robert Triffin.

Some analytical aspects of this inner destabilizing mechanism of the US dollar system were already presented by C. Ghymers[5] [1986] and R. Triffin[6] [1991]. These aspects are based upon the asymmetry conferred to the US dollar for being the main reserve currency of the system.

This asymmetry – or the destabilizing spillover from the US$ regime, whatever the degree of floating of exchange rates – acts trough two intertwined mechanical channels:

1. Global imbalances do result automatically from the monetary asymmetry resulting from the *lack of external constraint* upon the US economy, which tends to push down the savings rate: external financing is automatically available at an artificially lower interest rate and the dollar tends to be overvalued, which transforms the US into the "*consumer and borrower of last resort*," impeding thus the IMS to fulfill one of its main role, namely to reduce imbalances and to smooth adjustments.

[5] Ghymers, C. "Réagir à l'emprise du dollar", in *L'Ecu et la Vieille Dame*, Aglietta, Michel, Economica, Paris, 1986

[6] Triffin, Robert, "The IMS (International Monetary System…or Scandal?) and the EMS (European Monetary System…or Success?)", Jean Monnet lecture, European University Institute, Florence, Banca Nazionale del Lavoro, *Quarterly Review*, n°179, December 1991

2. Global monetary waves do result automatically from the asymmetric bias introduced in monetary policies by the international status of the $; this bias acts as *a multiplier abroad of the US monetary*, and also indirectly of the fiscal, policy stances, impeding thus the IMS to fulfill its other main role, namely to ensure an adequate degree of global liquidity. The US monetary stance generates automatic liquidity spillovers through two different kinds of links: (i) the conventional mechanism of exchange-rate interventions by the other central banks, which duplicate any excess of US monetary base; indeed, the creation of monetary base abroad as counterpart of the increase in external reserves in dollar is not offset by a contraction of the US monetary base since these dollar assets are not deposited on the FED accounts of foreign central banks but are re-injected into the US economy, for instance through investment in US T-Bills and CD on the markets; (ii) the pro-cyclical movements in capital flows, leverage and spreads, as a result of the dramatic increase in the gross cross-border operations of banks combined to the pre-eminent technical role played by the US dollar in global banking, even when exchange rates are purely floating, as demonstrated by Shin Hyun Song[7] (2012, 2014) and Hélène Rey[8] (2013, 2015): a depreciation of the US $ tends to increase leverage outside the US and vice-versa for an appreciation, therefore creating a new channel of transmission of the FED monetary stance without any central bank intervention.

These two channels are inter-related, forming a mutually supportive process of systemic imbalances, creating additional excess of international liquidity, which in turn worsens the imbalances in a destabilizing and costly cycle. This cumulative process is the "built-in de-stabilizer" of the global economy identified by Triffin as the result from the contradiction of using a national currency as the international one. The US official explanation (Greenspan/Bernanke) of a "*World Saving Glut*" provoked by an exogenous shift in the savings supply by some emerging economies represents a typical myopic analysis which assumes implicitly a perfect symmetry (all the currencies would have the same weight and role) i.e. it denies the existence of spillovers created by the international status of the $; this would mean that for the US policymakers, the US economy would be a passive actor, powerless in front of some emerging economies. On the contrary the two channels explain that neither the Chinese saving surpluses nor the US dissaving should be seen as exogenous but that they are closely linked to the international role of the $. Of course, it seems that the Chinese excessive saving rate could also have domestic determinants like a mercantilist policy of undervaluation of the yuan and financial repression. Nevertheless the reason why these policies could be sustained for such a long time is the dollar system, allowing the almost indefinite accumulation by emerging economies of long-term US bonds, combined with artificially low interest rates also at the long-term end of the US market.

While the first channel, i.e. the lack of external constraint, explains that the asymmetric role given to the US $ tends to exacerbate macroeconomic imbalances increasing the US indebtedness, the second one, i.e. the multiplier effect on global monetary policy, explains the strong spillover generated by the US monetary policy upon global liquidity conditions, and the combination of both channels provides a

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[7] Shin Hyun Song, "Global Banking Glut and Loan Risk Premium", *IMF Economic Review*, Vol. 60, No. 2, 2012.

[8] International Channels of Transmission of Monetary Policy and the Mundellian Trilemma, Mundell Fleming Lecture 2014, IMF Economic Review 2015.

plausible explanation for the dangerous course of the world economy towards a process of crisis amplification, with boom-and-bust episodes, leading to huge losses of global welfare.

Indeed, the cumulative circular causation process appears to be the following:

- The US $ international role implies growing US liquid indebtedness as the counterpart for the accumulation of reserves in $ assets abroad, but the US is not necessarily a net debtor as far as US capital outflows make a counterpart of the $ liquid liabilities: this is the banker's role played by the US, transforming short-term liabilities into long-run assets.
- But the US $ asymmetric role implies also escaping from the external constraint, which means developing a bias towards "easy money" in the form of cheaper interest rates, making fiscal deficits easier to finance and encouraging an excess of absorption over production, i.e. growing macroeconomic imbalances: the US economy is becoming increasingly but painlessly a net debtor (channel 1).
- Facing such a disequilibrium, which promotes imports at the expense of domestic production and drags down activities and jobs in the US economy, the FED tries to keep interest rates as low as possible, stimulating even more the US over-consumption and the external deficits.
- But the monetary spillover (channel 2) amplifies abroad the US monetary expansion as foreign central banks need even more reserves as a self-insurance and/or for resisting to dollar depreciation caused by such a monetary accommodative stance, but doing that means re-injecting the excess of US $ into US liquid assets, lowering further the US yields as well as yields abroad.
- Therefore, the channel 2 amplifies also the effects of channel 1, by creating a vicious circle by which the financing of the growing global imbalances is made possible: the FED feeds in particular the Chinese surplus which absorbs the US T-bills necessary for sustaining this policy stance by a tacit complicity game among these two dominant "players" but under different political objectives.
- This frightening vicious circle of this game of imbalances tends to persist as it appears to be in the mutual interest of both the US debtor and its creditors from some emerging economies; the US domestic growth and employment objectives call for ever more external financing, which the FED is able to feed indirectly through the spillover of its own stances; this in turn allows for more net imports and therefore more accumulation of reserves by the creditors of the US who buy more geopolitical lever upon the US administrations

Although irrational and destabilizing from a systemic point of view, it is fair to acknowledge that these two channels have also fueled the global economy and contributed to spread economic development, first in Europe and Japan in the 1950s and 1960s, and later to the benefit of an expanding number of successfully emerging economies. Nevertheless, this positive result cannot hide the succession of crises the amplitude and extension of which are rising. Our hypothesis is that this growing instability is also the result of the asymmetric process described above. Each time it seems that the positive impacts of the FED policy and spillovers are generating the conditions for the next global crisis. According to our argument, the US "solution" to the present global crisis is probably feeding further disequilibrium, leading to the next crisis, which could burst at any time and create a worse issue.

In spite of the impossibility to draw an exact balance between the benefits and costs of the dollar regime, it is clear that it has not led to a stable world and there is no argument for accepting a dysfunctional SMI, which mismanages world liquidity and provokes cumulative monetary policy mistakes. Since economics are supposed to promote rational policies, there is no excuse for postponing actions that could improve a system that feeds instability and remains dangerously unable to fulfill its official purposes.

The international monetary role of the dollar has developed a pyramid of mutually sustained asymmetries:

1. An asymmetry in the degree of *external constraint*, the US economy being exempted of it as far as US $ assets are demanded abroad for reserve purpose.
2. A subsequent asymmetry in the macroeconomic *policy stances* allowing the US to become the "*consumer/borrower-of-last-resort*," absorbing durably both excesses of output and savings coming from the n-1 economies.
3. An asymmetry in the *costs of financing* both US current account deficits and US fiscal debts, in the form of automatic capital inflows absorbing at lower interest rates dollar denominated liabilities.
4. An asymmetry in the *exchange-rate risks* since the US is able to invoice more than others in its own currency as well as to borrow from abroad by issuing liabilities in its own currency, shifting entirely the risk upon the lenders.
5. An asymmetry *in yields* and *valuation effects*, which reflects one aspect of the exorbitant privilege: the higher return on US assets over US liabilities implies an enormous transfer of resources which allows for lowering the effective increase in the US external debt with respect to the cumulative current account deficits, and therefore prolonging even more the disequilibrium.

These combined asymmetries result from the international role of the US $ and represent indeed an "*exorbitant privilege*," which implies significant transfers of real resources from the n-1 economies to the benefit of the US. According to mere bookkeeping calculations, these net transfers were assessed to be around US $ 1 thousand billion from 2001 to 2007 (Alessandrini and Fratianni 2008[9]). Richard Clarida (2009)[10] also shows that between 2002 and 2007, the US net international liability position was almost unchanged even though the US ran cumulative current account deficits for $3.3 trillion in those five years. Gourinchas and Rey (2005)[11] explained the mechanism of leveraged financial intermediary which is made possible by the international role of the $.

The solutions to the Triffin dilemma

Theoretically, there are two possible solutions to the Triffin dilemma: the first, would be an efficient and equitable coordination between the "n" sovereign monetary policies, even more broadly a coordination of their policy mixes. This to some extent is what is being attempted by the process of multilateral surveillance under the auspices of the IMF. However, experience shows that this process is not only ineffective but

[9]Alessandrini, Pietro and Fratianni, Michele, "Resurrecting Keynes to Stabilize the International Monetary System," Money and Finance Research Group, working paper n°1, Università delle Marche, Ancona, October 2008.

[10] Clarida, Richard, "With privilege comes…?," *Global Perspective*, PIMCO, Sydney, October 2009.

[11] Gourinchas, Pierre-Olivier, and Rey, Helène, "From World Banker to World Venture Capitalist: US External Adjustment and the Exorbitant Privilege," NBER Working Paper, n°11563, August 2005

asymmetric: it carries much more weight in countries that depend on the IMF for financing – generally emerging market or developing countries – while the authorities of countries issuing reserve currencies pay only scant attention to the IMF recommendations. The second would be the decision to allow the IMF, transformed into a global central bank, to issue a genuine multilateral currency against national eligible assets; the purpose of both options would be to make feasible a symmetric regulation of global liquidities, able to contribute to offset deflationary or inflationary tendencies in effective world demand.

It must be observed that – contrary to the official views – the second option might in fact be more realistic than achieving a degree of global governance able to coordinate from the center "n" sovereign policies and to enforce – without sufficient democratic legitimacy or accountability – decisions impacting sovereign states. Indeed, creating a multilateral reserve currency would introduce a more automatic and general "self-constraint" upon the "n" policies with almost no loss of national sovereignty The IMF already exists and is obviously the multilateral body best prepared to manage in a collegial way liquidity creation. Its legitimacy and governance should be strengthened, namely by entrusting final decision-making power to a body comprising ministers and central bank governors, rather than the present Executive Board of senior officials.[12] The Special Drawing Rights (SDR) also constitute the embryo from which a genuine global currency could evolve along the lines proposed in 2014 by a Group of experts assembled by the Triffin International Foundation. Their practical suggestions propose a realistic solution by enhancing the public and the private use of the SDR in order to make it a lever towards a more comprehensive reform of the international monetary system.[13]

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[12] See in particular Michael Camdessus and Anoop Singh, « Reforming the international monetary system – A sequenced agenda » The Emerging Markets Forum, 2016.

[13] Triffin International Foundation, « Using the Special Drawing Rights as a lever to reform the international monetary system », The Federalist Debate Papers N° 1, CESI Einstein Centre for International Studies, 2014.