Lorenzo Bini Smaghi: The Triffin dilemma revisited

Speech by Mr Lorenzo Bini Smaghi, Member of the Executive Board of the European Central Bank, at the Conference on the International Monetary System: sustainability and reform proposals, marking the 100th anniversary of Robert Triffin (1911–1993), at the Triffin International Foundation, Brussels, 3 October 2011.

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Introduction

The intellectual heritage of Robert Triffin begins with the relevance of his "dilemma" to our days. We still have a situation in which one national currency – the US dollar – serves as the main international currency. It remains at the heart of the international monetary and financial system (or IMS). And we still have a fundamental tension between the currency demands of rapidly growing economies, the domestic policy incentives of reserve issuing/holding countries, and global economic and financial stability: in Triffin's words, the system remains "highly dependent on individual countries' decisions".

This tension – the Triffin dilemma – was linked to the specific modalities of the gold-exchange standard in 1960, when his *Gold and the dollar crisis* was first published. Today we are in a much more flexible system, where the demand for global liquidity can be more easily accommodated. But even if the mechanics have changed, the dilemma is still valid if we capture its essence and formulate it in broader terms, as I will do in the first part of my comments today. In second place, I will briefly recall how the dilemma came into being and was addressed in Triffin's times. This will allow me to better identify the main differences and similarities compared with our times, which will lead me to conclude that it is indeed correct to talk about a "Triffin dilemma revisited". Finally, I will look ahead and ask whether and how it is possible to escape the dilemma today.

My main policy conclusion is that we need a number of incentives for the major reserve issuers and holders so as not to cause negative externalities for other countries, thereby helping to ensure global stability.

1. Triffin dilemma: a general formulation

Each international monetary and financial system has to rely on one or more international currencies in order to allow economic agents to interact in the global economy by using such currencies as a means of payment, a unit of account or a store of value. When these international currencies are also domestic ones, the supply of global liquidity stems from one or more "core countries". And when the core countries operate as a monopoly or quasi-monopoly, over time they tend to take advantage of other countries' high dependence on their domestic money. By exploiting this "exorbitant privilege", the core countries develop policy incentives to accommodate shocks (e.g. the financing of a war) or growth models (e.g. based on over-consumption) that can ultimately be sustained only if the rest of the world unconditionally demands their own liquid, safe assets. However, when policies become too short term-oriented and inward-looking, they tend to produce negative spillovers on the rest of the world (e.g. inflationary pressures or an environment with relatively low yields) and over the longer run may, if there are no rebalancing measures, prove unsustainable and impair the smooth functioning of the IMS.

For some time (or even a very long time), however, this behaviour does not jeopardise the international status of the core currencies. This is not only because there are no alternatives,

but also because certain systemic countries in the rest of the world have in the meantime developed incentives to increasingly demand assets denominated in the core currencies. Such countries in the "IMS periphery" tend to pursue growth models that match, with opposite sign, those of the core countries and may likewise produce negative externalities: think of the current account surpluses and reserve accumulation, which conflicted with the IMS rules during Bretton Woods times and which contribute to excessively low yields and trade distortions at the present time.

Hence the tension, which can sooner or later become a genuine dilemma involving short-term domestic policy incentives in the key reserve issuing/holding countries on the one hand, and the longer-term stability of a given international monetary and financial system on the other.

Given this general formulation, however, there is no single way to address the tension here. And indeed many different types of IMS have existed over time. In Triffin's day, some set stringent rules on the system's adjustment and on the availability of global liquidity, as I will recount in a minute. Others, as at present, have instead made it easier to create global liquidity and to finance imbalances while neglecting the system's longer-term stability – an issue which I will discuss later.

2. Triffin dilemma in Triffin's times

During the Bretton Woods system, the dollar was *the* international currency, and the international currency was mainly needed as a means of payment and a unit of account to purchase foreign goods. Given largely closed capital accounts and underdeveloped financial markets, the store of value function was limited, and mainly related to the need to cover any temporary shortage of dollars to import goods from abroad. The other key features of the system were fixed exchange rates vis-à-vis the dollar, the gold convertibility of the dollar, and a mechanism of adjustment of imbalances based on a symmetrical correction of domestic absorption and relative prices in the relevant countries. However, there was no mechanism to impose symmetry in the adjustment process, and adjustment through exchange rate realignments was possible, although it rarely happened.

When the Bretton Woods system was launched, in the second half of the 1940s, the huge economic gap with the United States made it difficult for other countries to acquire dollars without US help. By the end of the 1950s, however, the global shortage of dollars was over, thanks to rising dollar-denominated exports. This was welcomed since it implied that countries no longer needed American assistance to obtain dollars in order to address post-war economic problems. Yet it was not entirely good news, as Triffin realised. Countries such as Germany and Japan had indeed started accumulating large current account surpluses and, therefore, dollars in the form of rising official reserves. This implied an accumulation of US monetary liabilities vis-à-vis non-residents. The problem was that the supply of such liabilities by the United States at a fixed exchange rate was elastic to the growing demand, but the American commitment to supply gold upon request at an equally fixed price was not.[1]

Already by the early 1960s, US monetary liabilities towards non-residents exceeded US gold holdings. Hence the dilemma, which in Triffin's day took the well-known, specific shape: if the United States refused to provide other countries with US dollars, trade would stagnate and the world economy would eventually be trapped in a deflationary bias; but if the United States provided an unlimited supply of dollars, the confidence that it would convert them into gold would erode confidence in its international currency.[2]

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1 See, for example, Eichengreen 2011.

2 See Triffin 1960.

The dilemma could, however, be formulated in more general terms. Given the BW rules, there were domestic policy incentives in the key reserve-issuing and holding countries not to comply with these rules, at the expense of the system's sustainability. This is mainly because using the exchange rate as an alternative rebalancing tool was always a temptation which, especially in case of large shocks, offered a politically more palatable option than lengthy and costly domestic adjustment. At the end of the 1960s, the largest of all shocks – the Vietnam War – was financed by the United States with expansionary policies that resulted in high inflationary pressures and took no account of global monetary stability. As a result, the US dollar-denominated reserve assets lost 40% of their purchasing power, thus making the creditors to the United States increasingly reluctant to finance the war by accumulating reserves denominated in dollars. The system eventually collapsed, as Triffin had predicted: faced with the dilemma, the system's core country preferred not to maintain its commitment to keep the value of the dollar in terms of gold, but rather to pursue its internal needs while providing the other countries (which were not adjusting either) with its reserve currency.

3. The dilemma today: What has changed? What is still valid?

What has changed since Triffin's times? Well, the way in which the IMS works and thus the modalities through which the dilemma operates have changed considerably; but the fundamental tension between short-term domestic policy incentives and the stability of the IMS has not. Hence the Triffin dilemma is, in its essence, still alive and well.

3.1 What has changed?

There have been three major changes.

First, we have learned that the BW rules were too stringent. Over the past 40 years, a new informal IMS has been developing which has turned out to be much more elastic in nature than the previous ones. The dollar no longer needs to be "as good as gold"; exchange rate adjustment has become an important element in the rebalancing toolkit; and the IMS has been adapting to the different economic conditions and policy preferences of individual countries. In particular, the exchange rates of all advanced economies and some emerging economies are now freely floating, whereas a new dollar area encompassing systemically relevant creditors has emerged, thus making the IMS an hybrid floating/fixed system.

Second, a new globally important currency, the euro, has appeared on the stage. This has had important consequences, but has not meant a shift to a genuine duopoly in the supply of international currencies. While the euro has become a credible alternative to the dollar, this has had little impact on the dollar's centrality in the IMS. In particular, the exorbitant privilege remains largely the dollar's attribute. To be sure, it is undeniable that the very low yield spreads associated, until approximately 2008, with the debt of certain European countries were mainly a by-product of the "privilege" of being part of the euro area. And it is also true that this was one of the factors that contributed to underestimating the crucial importance of fiscal discipline and competitiveness in the monetary union. But it is equally accurate that the idiosyncratic negative shocks stemming from such euro area countries in the past two years have led to a major re-pricing of their sovereign risk. This is opposite of what has happened on the occasion of similar negative shocks originating from the United States. The current stability of the exchange rate of the euro is more attributable to the overall good fundamentals of the whole euro area than to any exorbitant privilege.

But the third and most significant change, from a Triffin perspective, is the following: there is no longer a fundamental global liquidity[3] shortage that is intrinsic to the very functioning of

[3] Borio and Zhu (2008) insightfully define liquidity is "the ease with which perceptions of value can be turned into purchasing power".

the system. The accumulation of global external imbalances in today's world should not be seen as a necessary precondition for the provision of global liquidity and the expansion of world trade. Let me explain.

Today, the United States and the euro area are not obliged to run rising current account deficits to meet the demand for dollars or euros.[4] This is for two main, interlinked reasons. First, well-functioning, more liquid and deeply integrated global financial markets enable reserve-issuing countries to provide the rest of the world with safe and liquid financial liabilities while investing a corresponding amount in a wide range of financial assets abroad. The euro has indeed become an important international currency since its inception and the euro area has been running a balanced current account. In a world where there is no longer a one-to-one link between current accounts, i.e. net capital flows and global liquidity, a proper understanding of global liquidity also needs to include gross capital flows.

Second, under BW global liquidity and official liquidity[5] were basically the same thing, but today the "ease of financing" at global level also crucially depends on private liquidity directly provided by financial institutions, for instance through interbank lending or market making in securities markets. Given the endogenous character of such private liquidity, global official and private liquidity have to be assessed together for a proper evaluation of global liquidity conditions at some point in time, and there is no endemic shortage of global liquidity, as the empirical evidence confirms. This is not to deny that temporary shortages can occur, as happened after the bankruptcy of Lehman Brothers in September 2008. But such shortages are a by-product of shocks and boom-bust cycles, not an intrinsic feature of the IMS, and can be tackled with an appropriate global financial safety net.

3.2 What is still valid?

First, there remain factors that create Triffin-dilemma-like pressures on the IMS. In particular, the official sector of several emerging market economies (EMEs) still consistently adds its own demand for safe US assets to the market-based private demand for US dollars. Even when a shock originates from the United States, sizeable and persistent official capital flows to that country seek out the dollar as a safe store of value and a precautionary source of liquidity. As a result, total net capital stemming from EMEs taken as a whole flows uphill to advanced economies (the Lucas paradox), even though private capital continues to flow downhill, as the theory would predict. This would not be a problem if it did not increase the fragility of the US financial system by pushing down risk premia and real interest rates, thereby boosting financial innovation and encouraging upswings in the degree of leverage.[6] But it does increase that fragility.

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[4] It should be noted that in BW times the United States had managed to keep a sustainable current account position. The U.S. current account indeed recorded surpluses (though declining ones after the onset of the Vietnam war) or, at most, minor deficits over the whole BW period. On the capital account side, this was mirrored by large long-term capital outflows from the United States, especially foreign direct investment (FDI) by American multinationals, which were financed with short-term capital inflows in the form of bank deposits and Treasury bills and bonds. The United States was, therefore, acting as "banker of the world", and the accumulation of U.S. net long-term foreign assets was reassuring foreign investors (Eichengreen 2011). However, assuming that capital flow restrictions and underdeveloped financial markets elsewhere in the world would have persisted, the country would likely have soon reached a limit in its ability to engage in maturity transformation in the capital account. Triffin's prediction that the core country would have had to eventually run increasing current account deficits to allow for world trade expansion was, therefore, basically right under the BW rules.

[5] Official liquidity can be defined as the amount of funds that is unconditionally available to settle claims through monetary authorities, mainly consisting of central bank money in reserve currencies and foreign exchange reserves.

[6] See, for example, Caballero 2009 and Caballero and Krishnamurthy 2009.

Three core drivers of reserve accumulation can be identified, in particular:

1. A few surplus EMEs buy dollars as a by-product of a strategy aiming to systematically keep their real effective exchange rate undervalued;

2. Other EMEs with largely open capital accounts, which are exposed to capital flow volatility, purchase dollars to build up precautionary reserves in the event of a reversal of capital inflows;

3. The commodity exporters recycle their current account surpluses into safe dollar-denominated assets.

As in Triffin's day, however, this cuts both ways. The demand for safe assets feeds that exorbitant privilege enjoyed by the United States. This contributes to a weakening of US policy discipline as the country tends to excessively rely on easy credit in normal times and very expansionary macroeconomic policies in times of crisis. The outcome is excessive US indebtedness. The corporate sector was in debt prior to the burst of the dot-com bubble in 2001; so were the household and financial sectors before the eruption of the sub-prime crisis in 2007–08; and the official sector is in debt today.

This leads me to the second valid element of the Triffin dilemma. The IMS is not in a better situation today. The quandary under the BW system – the lack of a credible anchor for international monetary and financial stability – continues to exist. Key issuers and holders of reserve currencies pursue domestic objectives independently of what would best serve the global system and even their longer-run interest. To the extent that these policies pay insufficient attention to negative externalities for other countries and longer-term macroeconomic and financial stability concerns, they tend to produce unsustainable imbalances and fuel vulnerability in the global financial system. In particular, a large body of literature supports the view that a worldwide glut of both liquidity and planned savings over investment – stemming from, respectively, reserve-issuing and reserve- accumulating economies – was a key driver of the hazardous environment at the root of the global financial and economic crisis which broke out in summer 2007.[7]

All in all, as in Triffin's time, there is no a credible mechanism for symmetric adjustment of imbalances at work today, even though we now have more flexible exchange rates, more financial innovation, more capital mobility and more private international liquidity.

4. Is it possible to escape Triffin?

In the event, Triffin was proved right not in the strict sense, but in a broader sense. Short-sighted policies that support unsustainable growth models not only tend to fuel the booms that precede financial crises, but may also, over the longer run, undermine the confidence that is the basis for the reserve asset status of one or more national currencies. Even the more flexible IMS of today may therefore, in this sense, prove inherently unstable.

To obtain the missing link between the policy discipline of major reserve issuers and holders on the one hand and global stability on the other, we need incentives to prevent them from causing negative externalities. And such incentives can only stem from a mix of i) internationally cooperative policy actions, ii) proper crisis responses and iii) structural developments.

First, regarding international cooperation, we have seen significant progress in IMF and regional multilateral surveillance, as well as in G20 mutual policy assessment, in the aftermath of the crisis. Countries have indeed been looking for a platform to exert some influence on those policies of partner countries that were producing negative spillovers – be

[7] See Dorrucci and McKay 2011 for a review of such literature.

they fiscal profligacy, lack of financial sector reform, unconstrained reserve accumulation or the reintroduction of capital controls. To obtain this platform, countries have at the same time to allow their partners a platform to influence their own policies. This is the moment when things might start to change.[8]

Second, experience suggests that cooperative policies, unfortunately, are not enough, and crises do play a part in producing fundamental changes in the system of policy incentives. For instance, it was not until the euro area sovereign debt crisis that EMU's economic governance started to be seriously enhanced – and the list of examples is of course very long.

Third, not only crises, but also longer-term, largely market-driven structural developments may eventually alter the system of policy incentives. One such development could be, according to some, a shift towards a truly multi-polar currency system.[9] In such an IMS, it is argued, there would be credible alternatives to dollar-denominated investments, which in turn would inevitably enhance policy discipline in the United States. Also, a multi-polar currency world would allow for greater monetary policy autonomy in EMEs such as China, which would thus be in a position to better address their imbalances and overheating pressures.

I broadly share the view that a truly multi-polar IMS would imply better policy incentives for stability-oriented policies. But how do we get there? And would a multi-polar currency system be stable, or would a new hegemon eventually emerge, as the United States did in the past century? To deal with possible dollar shortages, Triffin preferred the issuance by a global central bank of a new supranational currency serving as "outside fiat money" and floating against national currencies, which countries would be obliged to accept in international transactions. Wouldn't this be the best pattern to follow?

Conclusion

These questions are very relevant ones, and the responses to them are far from straightforward. Let me, therefore, conclude by just offering a few final thoughts:

- How do we achieve a truly multi-polar IMS? The role of further financial market development, capital account liberalisation and exchange rate flexibility in EMEs is often underestimated in this context. The more progress EMEs make in this direction, the lower their official capital outflows to advanced economies will be. This would progressively reduce the demand for safe debt instruments issued by advanced economies and eventually contribute to greater financial stability worldwide.[10] It would also allow a better channelling of domestic credit to investment and consumption, which in turn would promote growth driven by domestic demand, thereby reducing the incentive to pursue export-led models based on undervalued exchange rates. Such a process would probably be, by its very nature, gradual and driven by a myriad of autonomous and independent decisions by private and official actors. Hopefully this would make possible an orderly transition towards a multi-polar IMS, with the dollar still remaining "first among equals" for a long time. But in the meantime, a lot will, of course, depend on the ability of policy-makers to take the right decisions.
- Would a multi-polar IMS be a stable one? Greater symmetry in financial globalisation would certainly go in this direction. But would economic weight and policy credibility – the other key ingredients for a currency to acquire an international status and start enjoying incumbency advantages – also materialise in such a way

[8] See, for example, Rajan 2010.

[9] See, for example, Angeloni et al. 2011.

[10] See Bini Smaghi, 2007.

that there would be a sufficient number of currency competitors around the table? Once again, the response is to a significant extent in the hands of today's policy-makers.

- Finally, would not a bancor-based IMS, as Keynes was hoping for in the 1940s and Triffin in the 1960s, be the best response? This type of solution had very few advocates in the 1960s – an attitude that has hardly changed 50 years later. I remain very sceptical about the bancor proposal, and not only because of its doubtful feasibility. Indeed, some have said that a supranational currency would need to be kept strong in order not to depreciate against the other major existing currencies. Any weakening would undermine its attractiveness, and hence its function as a reserve asset. However, if the supply of a supranational currency were to be restricted, it might fail to meet demand and so fall short of its function.[11]

As you can see, it is unclear even whether a new supranational currency could solve the dilemma once and for all, or whether the dilemma would simply take on a different form. Given such uncertainty, the Triffin International Foundation may well have to organise another conference in the 22nd century!

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[11] See Landau 2009.

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