

Maes, Ivo; Pasotti, Ilaria

Article

The legacy of Bretton Woods: Some reflections on Harold James's essay

The Journal of European Economic History (JEEH)

Provided in Cooperation with:

Associazione Bancaria Italiana, Roma

Suggested Citation: Maes, Ivo; Pasotti, Ilaria (2022) : The legacy of Bretton Woods: Some reflections on Harold James's essay, The Journal of European Economic History (JEEH), ISSN 2499-8281, Associazione Bancaria Italiana, Roma, Vol. 51, Iss. 1, pp. 37-51

This Version is available at:

<https://hdl.handle.net/10419/311336>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

The Legacy of Bretton Woods: Some Reflections on Harold James's Essay

Ivo Maes

*Robert Triffin Chair, Université catholique de Louvain,
and ICHEC Brussels Management School*

Ilaria Pasotti

Consultant to Intesa San Paolo Group Historical Archives

As Harold James (2022) puts it very well “Bretton Woods has become a powerful myth about how global collective action problems may be addressed.” Indeed, more than 75 years after the meetings in the New Hampshire mountain resort, Bretton Woods is still very much alive in contemporary debates on the international monetary system and the world order. In current times with populism on the rise, multilateralism under pressure and the threat of trade and currency wars, there is quite a lot of nostalgia for the Bretton Woods period, especially the golden 1960s, marked by currency stability and high economic growth. As James observed, in retrospect, Bretton Woods looked like a solution, not only to the postwar reconstruction, but also to the much broader issue of recasting capitalism after the disastrous interwar period.

It is remarkable how quickly, during the Second World War, attention turned to the construction of a new post-war order. Roosevelt had an optimistic view of cooperation among the victors of the war. His aim was to build a new liberal world order (Van der Wee 1986: 347). The United Nations would become the political pillar of this new cooperative world order. With respect to the economic dimension, the *Weltanschauung* of the Bretton Woods negotiators was shaped by their historical experience. This included both significant successes as well as remarkable failures in international monetary cooperation. The great success story was the so-

called first age of globalization, the open international economy that prevailed from the 1870s until the start of World War One. However, the negotiators were also marked by the striking inability to reconstitute the pre-World War One economic order and by the trade and currency wars of the interwar period. There was a broad consensus that it was imperative to avoid the competitive exchange rate devaluations and trade wars that had marked the 1930s. This vision was eloquently expressed by Morgenthau, the US Treasury Secretary, at the Bretton Woods conference. He emphasized the importance of currency disorders in the downfall of the world economy and world order: “All of us have seen the great economic tragedy of our time. We saw the worldwide depression of the 1930s. We saw currency disorders develop and spread from land to land, destroying the basis for international trade and international investment and even international faith. In their wake, we saw unemployment and wretchedness – idle tools, wasted wealth. We saw their victims fall prey, in places, to demagogues and dictators. We saw bewilderment and bitterness become the breeders of fascism, and, finally, of war” (as quoted in Daunton 2008:3).

To reconstruct an open international economy, then, required an act of synthesis. The openness of the pre-World War I system was desirable, but it needed to be managed, so as to allow for national macroeconomic-policy flexibility. Indeed, World War One had marked a fundamental break in the economic and political order, with the social and political emancipation of the working classes (like significant extensions of voting rights). So, policy space was necessary for socially and politically desirable national policies. On the economic front, the new order after World War Two consisted then of arrangements for orderly finance and trade. The discussions on the monetary issues were concluded at Bretton Woods in June 1944. There was a shrill contrast between the life-and-death struggles of the war, with the allied landing in Normandy, and the sometimes esoteric debates at the Bretton Woods conference. However, at stake in both, was the kind of world order that would take shape in the aftermath of the war (Lamoreaux and Shapiro 2019).

The Bretton Woods international monetary system was based on stable exchange rates and gave a prominent role to the US dollar as an international reserve currency. Moreover, two new institutions were established, the International Monetary Fund (IMF) and the International Bank for Reconstruction or Development (or World Bank). The task of the IMF was to monitor national economic policies and provide balance of payments financing. In order to promote free trade, and to avoid trade wars, the US proposed the creation of an International Trade Organization (ITO). As observed by James (2022) "Keynes did not believe in what might be called the 'globalization paradigm': the theory, elaborated already by Montesquieu and celebrated by Richard Cobden and John Bright as well as by Normal Angell that commerce and commercial inter-connectedness would by themselves bring international peace and order." And while the United States strongly insisted on trade liberalisation, this was not the case for the free movement of capital. Capital controls became then a part of the Bretton Woods system. Moreover, Bretton Woods was part of an interlocking web of political and economic bargains. While the United States enjoyed an "exorbitant privilege" in the monetary area (ease of financing of their balance of payments deficits), it took on a disproportionate share of the defense burden.

In his analysis of Bretton Woods and globalization, James focusses on "Trilemmas". To be complementary to James, we would like to focus on a dilemma, in casu the Triffin dilemma. Robert Triffin was a Belgian-American economist. Educated at Louvain and Harvard, he started working at the Board of the Federal Reserve System during World War Two and was one of the first economists recruited by the International Monetary Fund for its Research Department (Maes with Pasotti 2021). As a professor at Yale University, he was one of the great scholars of the international monetary system in the postwar period.

One of the crucial international monetary issues in the immediate postwar period was "dollar scarcity." After the war, most countries in the world were confronted with enormous damages and a significant dislocation of their productive capacities, the main ex-

ception being the United States. Imports of the United States were then essential to restart their economies, leading to “dollar scarcity” in the world economy. With also the new “Cold War” intensifying, the United States launched the Marshall Plan, which played a crucial role in the revival of the European economies.

In his 1957 book, *Europe and the Money Muddle*, Triffin was one of the first economists to point out that the period of “dollar scarcity” was over. With the growing US balance of payments deficit, the European countries had been able to boost their international reserves, while those of the United States declined. In the book’s conclusions, Triffin emphasized that the enormous improvement in the reserve position of European countries was primarily the result of a vast redistribution of reserves from the United States to the rest of the world. Gold and dollar holdings outside the United States had risen by more than \$12 billion since 1949. However, only \$2.6 billion of this increase came from additions to the world’s monetary gold stock. The overwhelming portion of the increase – nearly \$10 billion – reflected gold losses and increases in short-term liabilities on the part of the United States. Triffin observed the vulnerability of this process: “It is evident that such a movement could not continue indefinitely without eventually undermining confidence in the dollar itself” (Triffin 1957: 297), a clear formulation of the Triffin dilemma.

Triffin further elaborated these ideas in *Gold and the Dollar Crisis*, the book that made him famous. The focus was on international liquidity and the vulnerability of the international monetary system (Maes 2013). His initial focus was on the level of international liquidity in the world economy, but this quickly led to a broader issue, “the vulnerability of a world monetary system whose operation becomes increasingly dependent on one or a few national currencies as major components of *international* monetary reserves” (Triffin 1960: 19, original italics).

In line with the teachings of his professors at Louvain, Triffin took a broad perspective on the evolution of the monetary system (Maes with Pasotti 2021). In his view, the First World War and the Great Depression had completely changed the role of central bank

reserves, with the universal disappearance of gold coins from active monetary circulation. Their main function was no longer to preserve the overall liquidity of individual central banks, but the financing of short-run external deficits. Triffin made a distinction between two types of balance of payments deficits which had to be financed by international reserves. The first comprised reversible deficits, which reflected temporary fluctuations in foreign revenues and expenditures. The second case concerned fundamental disequilibria, calling for corrective action, but for which the adjustment would take time. This implied a need to finance temporary deficits. For someone so deeply affected by the experience of the 1930s, the alternative was gloomy. "In both cases, an insufficient level of reserves will force the deficit country to resort to otherwise unnecessary measures of deflation, devaluation or restrictions" (Triffin 1960: 34).

Triffin was very much marked by the breakdown of the gold exchange standard in the early 1930s. He was concerned by the vulnerability of a gold exchange regime to sudden shifts from one currency to another or from foreign exchange balances into gold. In his view, the growth of foreign exchange reserves during and after World War Two repeated, but on a much larger scale, their similar expansion after the First World War. Foreign exchange reserves had then risen from an estimated 16% of total reserves in 1913 to 38% of reserves in 1928. In Triffin's view, this trend was encouraged by policymakers at the 1922 Genoa international monetary conference. An important reason was a shortage of gold. However, Triffin also strongly emphasized the role of the United Kingdom, "whose very low reserve position was considerably eased by foreign accumulation of sterling balances" (Triffin 1960: 56). The British return to convertibility in 1925 was thus significantly eased by the maintenance of short-term sterling balances by foreign countries in the London market. Triffin argued that the British position was highly fragile as funds could move in and out due to changes in relative interest rates and/or changes in exchange rate expectations. Moreover, the return to gold at the pre-war rate made sterling highly vulnerable on the foreign exchange markets. The financial crisis of the 1930s turned

out to be fatal to the pound. "The final blow came in the summer of 1931, when the development of the world crisis put into difficulties the Credit Anstalt of Vienna, triggering a financial panic which spread rapidly throughout Central Europe and led to further and massive withdrawals of funds from London" (Triffin 1960: 57). The ensuing devaluation of sterling in September 1931 had devastating implications for the global monetary system and international liquidity. It marked both the end of the sterling exchange standard and an implosion of international liquidity. As Triffin described the process, "The conversion of pounds into gold and dollars was accompanied and followed by similar conversions of dollars into gold. The foreign exchange component of the world's monetary reserves was nearly wiped out in the process, except for the countries of the sterling area" (Triffin 1960: 57). This dramatic fall in international monetary liquidity contributed to the Great Depression.

By the end of the 1950s, Triffin was becoming more and more worried about the United States' international reserve position, as the country was losing gold and its foreign dollar liabilities were increasing. Triffin argued that this would undermine foreigners' confidence in the dollar as a safe medium for reserve accumulation. "The time will certainly come, sooner or later", he said, "when further accumulation of short-term foreign liabilities will either have to be slowed down or substantially matched by corresponding increases in our already bloated gold assets. If this were not done on our own initiative, foreign central banks would do it for us by stopping their own accumulation of dollar assets and requiring gold payment instead for their overall surplus with the United States" (Triffin 1960: 63). This was precisely the policy followed by Charles De Gaulle in France in the 1960s, under the influence of Jacques Rueff (Solomon 1977). For Triffin, the conclusion with regard to international liquidity was clear: "further increases in dollar balances cannot be relied upon to contribute substantially and indefinitely to the solution of the world illiquidity problem" (Triffin 1960: 63). So, in Triffin's eyes, the gold exchange standard was not sustainable, leading to his famous dilemma: "The gold exchange standard may... help

in relieving a shortage of world monetary reserves. It does so only to the extent that the key currency countries are willing to let their net reserve position decline through increases in their own gross reserves. If they allow this to happen, however, and to continue indefinitely, they tend to bring about a collapse of the system itself through the gradual weakening of foreigners' confidence in the key currencies" (Triffin 1960: 67).

Triffin did not fear a dollar collapse, but the return of a liquidity shortage and a repeat of the gloom and doom of the 1930s. In his view, the growing inadequacy of world reserves would lead to a "new cycle of international deflation, devaluation and restrictions, as it did after 1929" (Triffin 1960: 70).

Of course, Triffin knew that deflation was not the only solution to his dilemma. Logically, the opposite could also be the case, with inflation as the result. He was very explicit on this in his 1967 testimony to the US Congress: "if foreign countries continue to be willing to take large amounts of gold and sterling in future years it might very well be that ... well, there will be no worldwide shortage of reserves. You might even have inflationary problems in this case" (Triffin 1967: 144). With the experience of the 1930s still fresh in his mind, Triffin was extremely sceptical that the other countries would continue to accumulate US dollars.

So, with hindsight one might argue that Triffin captured very much the debate on international liquidity, framing it in terms of the global liquidity needs for world economic growth. However, Triffin's emphasis on a global liquidity shortage neglected that international reserves are especially of importance to cover uncertainties and risks which are difficult to foresee, when countries are confronted with a severe balance of payments crisis and when there is a need for an international lender of last resort with sufficient resources at its disposal.

Triffin's proposals were widely discussed at the International Monetary Fund (Maes with Pasotti 2021). It is interesting to observe that Triffin's former colleague at the IMF, Jacques Polak, who had become the Head of the IMF Research Department, wrote a note en-

titled, "Triffin's New Law of the Rise and Fall of Reserve Centers". Polak argued that Triffin appeared to have discovered a "new law of the instability of the gold exchange standard with a single dominant center."¹ He contrasted this with the earlier analysis by Ragnar Nurkse (1944) who had focused on the inherent instability of a gold exchange standard based on multiple centers. Graeme Dorrance reacted to Polak's memorandum on the "Triffin Law", largely anticipating the Despres, Kindleberger and Salant (1966) argument that the US dollar had provided international financial intermediary services. In Dorrance's view, the idea of a one-to-one ratio of reserves to foreign liabilities was "founded on a myth."² He believed that international reserve centres could well "operate like banking institutions in that there is no reason for their reserves to be larger than their liabilities". He admitted that the existence of several reserve centers might lead to instability, due to flows of funds between them. However, this might also be a justification for the existence of the IMF, "to act as an international central bank to take care of flows from one center to another."

Triffin so established his reputation as the Cassandra who predicted the end of Bretton Woods. But Triffin was an "optimistic" Cassandra. He believed in a reform of the international monetary system. Like Keynes, he sought a more international solution for the world liquidity problem, a true "internationalisation" of the foreign exchange component of the world's international reserves.

During the 1960s there were long negotiations on a reform of the international monetary system. A breakthrough came in the summer of 1965, which brought what James (1996: 167) described as the "partial conversion to Triffinism" of US Treasury Secretary Fowler. With US external dollar liabilities now exceeding gold reserves, and with serious tensions on the gold market, the United States reversed its position, siding with the proponents of a new international reserve asset called the Special Drawing Right (SDR). After lengthy negoti-

¹ Memo by Polak, 6 July 1960, IMFA, 0 080.

² Dorrance, "Your memorandum on the Triffin Law", IMFA, 0 080.

ations, the IMF countries agreed on the creation of the SDR at their meeting in Rio de Janeiro in September 1967 and the First Amendment incorporated the SDR in the IMF Articles of Agreement in 1969. The SDR was initially defined in terms of gold, but after the collapse of the Bretton Woods system, it was redefined as a basket of major currencies.

Triffin himself had rather mixed feelings about the 1967 Rio agreement. On the one hand, he welcomed the creation of the new reserve instrument, the SDR, as an essential step in the construction of a new international monetary order. But in his view, the fundamental flaws of the system had not been remedied, as the existing reserve assets (gold, dollar and sterling) kept their functions. Triffin's second criticism concerned the distribution of the Special Drawing Rights, which, in his view, excessively favored the developed nations (an issue which is still very much present in current debates about the SDR). Triffin argued that the automatic allocation of the new Special Drawing Rights in proportion to IMF quotas was "indefensible", both economically and morally, as it assigned about one-third of the total to two countries, both among the richest in the world. Triffin was very much in favor of linking the creation of new SDRs to development policies and objectives, "such as national stabilization policies, development financing, etc., including – why not – peace-making activities of the United Nations" (Triffin 1967a: 132).

So, Triffin feared that the United States would revert to deflationary policies to fend off a collapse of the dollar, effectively starving the world of liquidity. However, US policy was dominated by domestic considerations. The Vietnam War and President Johnson's Great Society project further increased pressure on budgetary policy. Consequently, an excessive supply of dollars became the problem (De Grauwe 1989). The world moved then from a dollar shortage to a dollar glut. Inflation, not deflation, became the fundamental policy problem in the ensuing decades. At the end of the 1960s, there was a marked deterioration in the US balance of payments. US gold reserves declined while foreign dollar liabilities increased. As Paul Volcker remarked in his memoirs, "The Triffin dilemma was apparent

for all to see" (Volcker 2018: 64). The spring of 1971 saw massive capital flows from the dollar to the German mark. Fearing inflation, Germany halted intervention and allowed the mark to appreciate. Over the weekend of 13 August, the Nixon Administration suspended the gold convertibility of the dollar. The Nixon Administration's view came clearly to the fore in Treasury Secretary John Connally's famous statement, late 1971, "the dollar is our currency, but your problem". Extensive negotiations culminated in the Smithsonian Agreement of December 1971, comprising a general realignment of parities and a widening of the fluctuation bands. However, the new arrangement did not end the turmoil. On 1 March 1973, the international currency markets were closed again, this time until 19 March. After that, currencies were left to float freely. Officially, this meant the end of the dollar standard as established by the Bretton Woods agreement. But in reality, the dollar held its ground and even extended its influence. World reserves were increasingly expressed in dollars, and the dollar remained important as an intervention currency too. Moreover, the dollar continued to play a dominant role in trade invoicing and the international capital markets.

One might ask the question whether the Triffin dilemma remains valid in this new world of floating exchange rates. Compared to Triffin's times, a significant change is the absence of a global liquidity shortage. The implication is that external imbalances, very much the focus of Triffin's analysis, are no longer a necessary condition for the provision of international liquidity and the expansion of world trade (Bini Smaghi 2012: 105). This is also related to development of well-functioning, liquid and deeply integrated global financial markets. In a world of large capital flows, it is no longer necessary for a country to have a deficit on its current account to become a reserve currency country. Consequently, the financial intermediation function becomes more important. The Japanese yen and the Swiss franc are reserve currencies, even if the countries have persistent balance of payments surpluses (Prasad 2014: 266). Moreover, the euro became the world's second largest reserve currency, even though the euro area typically has balance of payments surpluses. What is important

is the availability of high-quality safe assets. However, Farhi, Gourinchas and Rey (2001) have warned of a “new Triffin dilemma.” In their view, the piling up of US debt might lead to a new confidence crisis and a run on the dollar.

The idea that the United States provides international financial intermediary services has been further elaborated in the recent literature on the IMS. For example, Gourinchas, Rey and Govillot (2017) argue that the US not only enjoyed an “exorbitant privilege”, but also an “exorbitant duty”, especially in times of financial stress. As US external assets are mostly long-term (and denominated in foreign currencies), while its external liabilities are short-term (and in US dollars), the US will, in normal times, earn high returns on its net foreign asset position (the exorbitant privilege). But in times of crisis, when investors flee to safe assets (especially US Treasuries), the US net foreign asset position will drop significantly (exorbitant duty). So, in their view, the US provides insurance to the world, and the exorbitant privilege can be considered as the insurance premium.

The present international monetary system (or non-system as several persons have argued), shows significant deficiencies (de Larosière 2021). With the exception of the United States, the efforts to adjust balance of payments imbalances fall exclusively on deficit countries, not on countries with structural surpluses. But the United States, the richest country in the world, lives on credit and thrives on being financed by others, even the poorest. Moreover, the players in the system are free to choose their exchange rate policy: sometimes they let their currency float, but they can also “manage” this floating, mostly avoiding an appreciation of their currency as it would the competitiveness of the country, leading to increases in their dollar reserves. Furthermore, as argued by Jacques de Larosière, a former Managing Director of the IMF, Bretton Woods brought some form of policy coordination and discipline. Its absence contributes to liquidity creation and the expansion of debt, “the dramatic developments that mark global finance today (i.e. over-indebtedness, excessive and extended dependence on money creation and on low interest rates, exacerbation of financial cycles, etc.) has been

favored by the collapse of the Bretton Woods system in 1971" (de Larosière 2021: xiii). Reform of the international monetary system remains then an important item (Snoy 2021).

As James (2022) emphasizes, policy-makers world-wide are confronted with new challenges, especially digital globalization and climate change. Like all challenges, they also present opportunities, like the idea of an adaptation of the IMF statutes for allowing the IMF to issue an "eSDR" (Ghymers 2020). They will also have an impact of the division of labor among the Bretton Woods institutions. With a growing attention to issues as climate change and inequality, certain observers argue that the IMF is moving on the terrain of the World Bank. For instance, Kenneth Rogoff, a former chief economist of the IMF, wrote an article entitled "Why is the IMF trying to be an aid agency?." He was very critical of the lack of conditionality in recent IMF operations, which is crucial for financial stability and for ensuring that IMF resources "do not end up financing capital flight, repayment to foreign creditors or, domestic corruption". In his view, the IMF should focus on its core surveillance functions, "the IMF is not the World Bank, which really is an aid agency" (Rogoff 2022).

When discussing the future of the international monetary system and the world economic order, one should not neglect the geopolitical situation. As already mentioned, Bretton Woods was, with the withdrawal of the Soviet Union, part of a Western bargain in the cold war. These days, the geopolitical situation is certainly more complex as we are living in a more multipolar world, which is often more opaque and less predictable. In this "world of mounting disarray", great power rivalry is on the rise (Haass 2022). The old antagonism between the United States and Russia is still on the agenda, with Ukraine taking a special place these days. It is interesting to note that Russia can play such an important geopolitical role, even if its GDP is only about the size of Spain's. Moreover, US-China rivalry is of growing importance. As observed by Martin Wolf (2021), these are very different countries, "one a centralised despotism, the other a crumbling democracy." Several observers talk about a Thucydidean world, in which the United States, the hegemon, is

faced by China, perceived as an increasingly powerful and assertive challenger.

United States global leadership has also been hampered by a growing disarray inside the US. Political polarisation is at an historic high and the threat of political violence is growing. More generally, democracy is in retreat and nationalism and populism are rising, also in other high-income countries. Several factors can account for this decline in trust, both in the idea of an open world economy and in the people and institutions that manage it: deindustrialisation, rising inequality, the slowdown in productivity growth and the ravages of the financial crises of the 21st century (Wolf 2019). China's confidence was boosted during the last decades by a strongly growing economy and, according to certain measures, it has already surpassed the US economy. However, China only accounts for 6% of the IMF quota, compared to 17% for the United States. More and more, China wants to brand itself as the leader of the global south. In pursuing its ambitions, China can draw on its, unusual, dual status as both a developing economy and a superpower.

A sharp contrast between today's emerging cold war and the earlier one between the US and the Soviet Union, is that China is deeply integrated in the global economy. The United States faces a choice between accepting a stronger Chinese position in international institutions, like the IMF, in order to encourage Beijing to "stay in the game" or refusing to acknowledge China's rise with the risk that China would develop its own path, like the Belt and Road Initiative (Luce 2021). Economic and ecological interdependence reduce certainly the probability of a real cold war as both countries have clear incentives to cooperate. However, miscalculations are always possible and, as observed by Nye (2021), some see the danger of "sleepwalking" into catastrophe, as happened with World War One (Clark 2012). Whether the world's institutions are robust enough to cope with the contest for primacy between the two great powers will be a crucial challenge. More generally, the fundamental question remains the provision of core public goods for humanity: prosperity, peace and protection against planetary disasters, such as climate

change or serious pandemics. Global co-operation is indispensable for this, the alternative is gloomy. Back to Bretton Woods?

Bibliography

- BINI SMAGHI L. (2012), "The Triffin Dilemma Revisited", in J-C. Koeune, A. Lamfalussy (eds.), *In Search of a New World Monetary Order*, Peter Lang, Brussels, pp. 101-112.
- CLARK C. (2012), *The Sleepwalkers*, Penguin, London.
- DE GRAUWE P. (1989), *International Money: Post-war trends and theories*, Clarendon Press, Oxford.
- DE LAROSIÈRE J. (2021), "Preface", in Maes I., with Pasotti I., *Robert Triffin: A Life*, Oxford University Press, Oxford.
- DAUNTON M. (2008), "Britain and Globalisation since 1850: III. Creating the World of Bretton Woods, 1939-1958", in *Transactions of the Royal Historical Society*, Sixth Series, Vol. 18, 142, Cambridge University Press, Cambridge.
- DESPRES E., KINDLEBERGER C.P., SALANT W.S. (1966), *The Dollar and World Liquidity. A Minority View*, Brookings Institution Reprint, no. 115, Washington, DC.
- FARHI E., P-O. GOURINCHAS, REY H. (2011), *Reforming the International Monetary System*, CEPR, London.
- GHYMERS C. (2020), *The emerging revolution of digital currencies*, RTI Paper no 12, Centro Studi sul Federalismo, Torino, July.
- GOURINCHAS P-O., REY H., GOVILLOT N. (2017), *Exorbitant Privilege and Exorbitant Duty*, IMES Discussion Paper Series, 10-E-20. Institute for Monetary and Economic Studies, Bank of Japan.
- HAASS R. (2022), *A world of mounting disarray*, Project Syndicate, January 6.
- JAMES H. (1996), *International Monetary Cooperation since Bretton Woods*, International Monetary Fund, Washington.
- (2022), "The legacy of Bretton Woods", in *Journal of European Economic History*.
- LAMOREAUX N., SHAPIRO I. (eds) (2019), *The Bretton Woods Agreements*:

- Together with Scholarly Commentaries and Essential Historical Documents*, Yale University Press, New Haven.
- LUCE E. (2021), "World Bank and IMF face fight for survival during US-China rivalry", in *Financial Times*, October 13.
- MAES I. (2013), "On the Origins of the Triffin Dilemma", in *European Journal of the History of Economic Thought* 20, no. 6, pp. 1222-1250.
- MAES I., with PASOTTI I. (2021), *Robert Triffin: A Life*, Preface by Jacques de Larosière, Oxford University Press, Oxford.
- NURKSE R. (1944), *International Currency Experience*, League of Nations, Geneva.
- NYE J.S. JR. (2021), "What could cause a US-China War?", in *Project Syndicate*, March 2.
- PRASAD E.S. (2014), *The Dollar Trap. How the U.S. Dollar Tightened Its Grip on Global Finance*, Princeton University Press, Princeton.
- ROGOFF K. (2022), "Why is the IMF trying to be and aid agency?", in *Project Syndicate*, January 3.
- SNOY B. (2021), *Reforming the international monetary system. More urgent than ever*, mimeo.
- TRIFFIN R. (1957), *Europe and the Money Muddle: from Bilateralism to Near-Convertibility 1947-1956*, Yale University Press, New Haven.
- (1960), *Gold and the Dollar Crisis. The Future of Convertibility*, Yale University Press, New Haven.
 - (1967), "The International Monetary Problem after Rio, New Plan for International Monetary Reserves", in *Hearings*, 90th Congress of the United States, 1st Session, Part 1, November 22, Government Printing Office, Washington, U.S., pp. 128-157.
- VAN DER WEE H. (1986), *Prosperity and Upheaval: The World Economy 1945-1980*, Viking, New York.
- VOLCKER P.A., HARPER C. (2018), *Keeping at it - The quest for sound money and good government*, Hachette Book Group, New York.
- WOLF M. (2019), "Martin Wolf on Bretton Woods at 75: global co-operation under threat", in *Financial Times*, July 10.
- (2021), "How can we share our divided world", in *Financial Times*, November 3.