

Maes, Ivo; Pasotti, Ilaria

Working Paper

Robert Triffin, Japan and the quest for Asian Monetary Union

NBB Working Paper, No. 405

Provided in Cooperation with:

National Bank of Belgium, Brussels

Suggested Citation: Maes, Ivo; Pasotti, Ilaria (2022) : Robert Triffin, Japan and the quest for Asian Monetary Union, NBB Working Paper, No. 405, National Bank of Belgium, Brussels

This Version is available at:

<https://hdl.handle.net/10419/256816>

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.

Working Paper Research

February 2022 N° 405

Robert Triffin, Japan and the quest for Asian Monetary Union
by Ivo Maes and Ilaria Pasotti

Publisher

Pierre Wunsch, Governor of the National Bank of Belgium

Statement of purpose:

The purpose of these working papers is to promote the circulation of research results (Research Series) and analytical studies (Documents Series) made within the National Bank of Belgium or presented by external economists in seminars, conferences and conventions organised by the Bank. The aim is therefore to provide a platform for discussion. The opinions expressed are strictly those of the authors and do not necessarily reflect the views of the National Bank of Belgium.

The Working Papers are available on the website of the Bank: <http://www.nbb.be>

© National Bank of Belgium, Brussels

All rights reserved.

Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

ISSN: 1375-680X (print)

ISSN: 1784-2476 (online)

Abstract

Especially with the Asian financial crisis of 1997-1998, Asian countries have advocated a profound reform of the international financial architecture. Their proposals focused on two main axes: a reform of the global financial system and stronger regional monetary integration in Asia. There are here significant parallels with the ideas of Robert Triffin (1911-1993). Triffin became famous with trenchant analyses of the vulnerabilities of the international monetary system, especially his book *Gold and the Dollar Crisis*. Triffin put forward several proposals for reforming the global monetary system, but he also developed proposals for regional monetary integration. These were very much based on his experience with the European Payments Union, and focused on the creation of a (European) Reserve Fund and a (European) currency unit. In this paper we focus on Triffin's proposals for an Asian payments union in the late 1960s, giving special attention to Japan (in Triffin's time the biggest Asian economy).

Keywords: Triffin, Bretton Woods, international liquidity, regional monetary integration, Asian Payments Union, Japan

JEL Classifications: A11, B22, B31, E30, E50, F02, F32

Authors:

Ivo Maes, Robert Triffin Chair, University of Louvain and Ichech Brussels Management School
e-mail: ivo.maes@nbb.be

Iliaria Pasotti, Consultant at the Intesa Sanpaolo Group Historical Archives
e-mail pasotti.ilaria@gmail.com

The authors would like to thank the members of the NBB redaction committee, the participants of the Bank of Japan workshop "Japan as number two" as well as Jacques de Larosière, Barry Eichengreen, Mariko Hatase, Aiko Ikeo, Yago Kazuhiko, Shin Kubo, Niels Thygesen and Catherine Schenk for comments and suggestions. The usual restrictions apply.

Non-technical summary

Especially with the Asian financial crisis of 1997-1998, Asian countries have advocated a profound reform of the international financial architecture. Their proposals focused on two main axes: a reform of the global financial system and stronger regional monetary integration in Asia. There are here significant parallels with the ideas of Robert Triffin (1911-1993). Triffin was one of the main protagonists in the international monetary debates in the postwar period. He became famous with his book *Gold and the Dollar Crisis*, published in 1960, in which he predicted the end of the Bretton Woods system. Triffin stressed the vulnerability of an international monetary system which was dependent on a national currency for its international liquidity. Triffin put forward several proposals for reforming the global monetary system, but he also developed proposals for regional monetary integration. These were very much based on his experience with the European Payments Union, and focused on the creation of a (European) Reserve Fund and a (European) currency unit. He was also involved in proposals for regional monetary integration in Latin America, Africa and Asia. In Triffin's eyes, these regional and worldwide approaches were complementary, aiming at a new multipolar international monetary system.

In this paper the focus is on Triffin's proposals for an Asian Payments Union. Triffin elaborated most of his proposals for Asian monetary integration in the late 1960s and early 1970s as a consultant for the United Nations Economic Commission for Asia and the Far East (ECAFE). We give special attention to Japan, in Triffin's time the biggest Asian economy. Moreover, Triffin had a special affinity for Japan. He had early contacts with Japan as one of his best friends during his graduate studies in Harvard was Shigeto Tsuru, who became very influential in the postwar period. Triffin's proposals for Asian monetary integration were also discussed at high-level conferences in Japan. Key elements of these proposals were a clearing mechanism, credit facilities and a new currency unit, which Triffin proposed to call the "Asian". However, these plans were less successful than in Europe, notwithstanding certain achievements. The situation in Asia was probably more complex and the diversity in the economic and political situation between countries was much stronger in Asia than Europe. An important similarity between Asia and Europe is that both Japan and Germany, the main creditor countries in their respective region, were often skeptical about monetary integration, fearing close integration with debtor countries. However, in Europe, the Franco-German axis played a crucial role in the integration process. In Asia, such a motor seems to have been missing. Attempts at regional monetary integration only gained momentum after the Asian financial crisis of 1997, which demonstrated the vulnerabilities of the Asian economies. However, they remained more limited than in Europe.

TABLE OF CONTENTS

| | | |
|----|---|----|
| 1. | Introduction | 1 |
| 2. | Triffin's education and first exposure to Japan | 2 |
| 3. | The Triffin dilemma and Triffin's regional approach..... | 6 |
| 4. | The Triffin Tsuru friendship..... | 10 |
| 5. | Triffin's proposals for payments arrangements in Asia | 14 |
| 6. | Conclusion | 24 |
| | Bibliography | 25 |
| | National Bank of Belgium - Working Papers series | 31 |

1. INTRODUCTION

Robert Triffin (1911-1993) was one of the main protagonists in the international monetary debates in the postwar period. He became famous with his book *Gold and the Dollar Crisis*, published in 1960, in which he predicted the end of the Bretton Woods system. Triffin stressed the vulnerability of an international monetary system which was dependent on a national currency for its international liquidity. Moreover, for Triffin, the US balance of payments deficit was not only an economic issue but also a moral one. He was disgusted that the richest country in the world was financed by the poorer countries. Very much like Keynes, he was in favor of a true international reserve currency.

In his aim to reform the international monetary system, Triffin pursued a two-pronged strategy. Ideally, he favored a global reform aiming at the creation of an international currency and an international central bank. But, as he doubted the success of this project, he also developed proposals for regional monetary integration, particularly in Europe. Triffin's plans for regional integration were very much based on his experience with the European Payments Union, and focused on the creation of a European Reserve Fund and a European currency unit. He was also involved in proposals for regional monetary integration in Latin America, Africa and Asia. In Triffin's eyes, these regional and worldwide approaches were complementary, aiming at a new multipolar international monetary system. In this paper the focus is on Triffin's proposals for an Asian Payments Union. Triffin elaborated most of his proposals for Asian monetary integration in the late 1960s and early 1970s as a consultant for the United Nations Economic Commission for Asia and the Far East (ECAFE). There are interesting parallels with recent Asian proposals. Especially since the Asian financial crisis of 1997, Asian countries have advocated a profound reform of the international financial architecture (Kawai 2009). Their proposals focused on two main axes: a reform of the global financial system and stronger regional monetary integration in Asia, very much the Triffin approach.

In Asia, Triffin had a special affinity for Japan. For example, in his autobiography, Triffin (1990) shows eight Asian photos, of which six in Japan (and one in India and China each). Triffin had early contacts with Japan as one of his best friends during his graduate studies in Harvard was Shigeto Tsuru, who became very influential in the postwar period. Japan took then a special place in Triffin's life. He was often in Japan, his main works were translated in Japanese and he contributed articles to influential Japanese newspapers.

Triffin's proposals for Asian monetary integration were also discussed at high-level conferences in Japan.

In this paper we first go into Triffin's education and early career, with a special focus on his relationship with Tsuru. We also give an overview of his analysis of the international monetary system and his involvement with the European Payments Union, the paradigm for his later proposals for regional monetary integration. The key section of the paper focusses on Triffin's proposals for payments arrangements in Asia and the debates these engendered.

2. TRIFFIN'S EDUCATION AND FIRST EXPOSURE TO JAPAN

Robert Triffin was born on 5 October 1911 in Flobecq, a beautiful and unspoilt village in the francophone part of Belgium (Maes with Pasotti, 2021). He came from a modest background. His father was a butcher and he would be the first in his family to study at a gymnasium and university. Referring to Triffin's early years as a turbulent period would be something of an understatement. At the age of 24, the young Triffin had already lived through World War One, monetary and financial turmoil after the war, the Great Depression, the 1935 Belgian franc devaluation and the rise of fascism.

Going to the university in Louvain marked a dramatic break for Triffin, not only in practical terms, but also in terms of *Weltanschauung*, as he became an avowed pacifist. He was very much under the intellectual influence of Albert Einstein, the 1921 Nobel Prize in Physics and a leading anti-militarist, even though he never met Einstein. Einstein also advocated that one should refuse military service. Later, in the 1960s with the Vietnam war, the "draft" would become a highly controversial issue in American society, with Triffin arguing strongly against the war and the military draft.

Triffin shared many of his friends' fascination with Henri De Man's New Socialism. De Man, who had been a professor at the University of Frankfurt, was considered as one of the new theoreticians of socialism in the interwar period. One of his famous works was *Au-delà du marxisme* (Beyond Marxism, De Man 1927). Later, De Man became President of the Belgian Labour Party and launched the idea of "The Plan" to transform the Belgian economy and combat unemployment. It was a reaction against traditional Marxism, rejecting class warfare and collective appropriation of the means of production and exchange. But, De Man

wanted to give the State more leverage to steer the economy. One of his key proposals was the nationalization of the banks.

At the University of Louvain, Triffin followed the courses on money and central banking by A.-E. Janssen and Paul van Zeeland (Maes with Pasotti, 2021). They put strong emphasis on how the monetary system was evolving, with gold gradually being replaced by fiduciary money. Originally, banknotes represented claims on gold and were intended mainly to facilitate large-value payments. At the end of the 19th century, banknotes became more widely established as payment instruments. This large-scale replacement of coins by notes in the monetary circulation led to a growing concentration of countries' stocks of precious metal at their banks of issue (the early central banks). So, the banks of issue became the custodians of their country's gold. Later, Triffin would draw heavily on these ideas, arguing for "fiduciary" money in the international monetary system. These ideas were very similar to those of John Maynard Keynes, who also highlighted how gold was losing its role in the monetary system.

Triffin obtained a degree in Economics in 1935. As a young economist, he was active at the *Institut des Sciences Économiques*. In the interwar period, the *Institut* became the first modern economic research centre in the Low Countries (Maes 2008). The dominant figure was Léon-H. Dupriez, a leading scholar in business cycle analysis. During this period, Belgium, as a small open economy, was badly affected by the Great Depression. It was hit hard by the sharply contracting world trade and falling international prices. This prompted major debates. In the spring of 1934, Dupriez argued that a devaluation was the only solution. In March 1935, Paul van Zeeland, a colleague of Dupriez, was appointed Prime Minister. He immediately devalued the franc by 28%. The young Robert Triffin was responsible for the calculations of the devaluation percentage.

Triffin went to Harvard in 1935. There, he fell under the spell of Joseph Schumpeter and pure economic theory. As he wrote in an autobiographical article, "A few weeks at Harvard, however, sufficed to convince me that what I missed most was an adequate training in pure theory, then taught at Harvard by Professor Schumpeter whose broad culture in that field, and others, was as unique as his class showmanship." (Triffin 1981: 241). At the centre of economic theory, for Schumpeter, was general equilibrium theory. Triffin wrote a dissertation on *General Equilibrium Theory and Monopolistic Competition* (Triffin 1940), under the direction of Schumpeter, along with Leontief and Chamberlin. In this work, he

tried to reconcile imperfect competition theory, which had its origins mainly in Marshallian partial equilibrium theory, with general equilibrium theory. So, Triffin became an authority on imperfect competition theory, a theory that would further shape his perception of international monetary phenomena.

At Harvard Triffin got his first exposure to Japan, as one of his closest friends was Shigeto Tsuru. Tsuru was expelled from high school for his political involvement in a student movement which opposed the military training in school and for organizing a study group on Marxism (quite similar to Triffin's interests in Louvain). In Japan, Marxism became very influential among intellectuals in the interwar period, also in the academic economics profession (and remained so in the postwar period), due to the Great Depression and the "policy of aggression pursued by the ruling clique" (Tsuru 1964, 79). For Tsuru, Marxism constituted a method of analysis, offering historical perspective and a "unifying philosophy" for understanding the origins and characteristics of Japanese capitalism.

In 1931, Tsuru went to the United States to continue his higher education at Lawrence College in Appleton (Wisconsin). After two years he moved to Harvard where he completed his undergraduate studies and then went into the graduate school to major in Economics. As he wrote in an autobiographical essay (1982: 228-229), he was advised by his mentor Gordon Clapp (then the Dean of Students at Lawrence and later Board Director of the Tennessee Valley Authority) to move to Harvard College for his junior year. At that time Harry Dexter White was also at Appleton. Tsuru mentions White but admitted that he missed his "inspirational teaching" because, at that time, he was more interested in Physiology than in Economics (he wrote an essay entitled "Some Neurological Considerations of the Vitalism vs Mechanism Controversy").

Both Triffin and Tsuru stayed at Adams House and, as Triffin recollected, "we struck up an immediate, growing and lasting friendship, and became known with two other Adams House undergraduates [Arthur Schlesinger and Chadbourne Gilpatrick] as the 'Three Musketeers' (who were also four, as any Dumas fan knows)" (Triffin 1976, 65). Both men recognized that their years at Harvard were great for two reasons. Firstly, they had the "most brilliant, original and inspiring professors" of the time, such as Schumpeter, Leontief, Taussig, Haberler and Hansen (Triffin 1976, 67). Secondly, the group of students was

composed of some brilliant aspirants in the profession that created "an unusually stimulating atmosphere of mutual edification" (Tsuru: 1982, 231).¹

Tsuru's research interests differed from Triffin's and he also displayed "a peripatetic propensity" as admitted by himself (Tsuru 1982, 232). While he devoted his doctoral thesis to "Business Cycle Theories and Their Application to Japan" (May 1940), he also carried on his studies in Marxian economics, the subject of his undergraduate dissertation.² Among his most valuable contribution in these years was the *Appendix* to Paul Sweezy's *The Theory of Capitalist Development*, that, according to Samuelson could be considered as "one of the best exposition of Marxian economics for economists trained on Marxian lines" (Samuelson 1976, 56). Tsuru's *Appendix*, relating the steady and expanded reproduction tableaux of Marx to Quesnay's *tableau économique* and to Leontief-Keynes' circular flows, occupies a permanent place in the history of economic doctrines: as proudly remembered by Tsuru, it was mentioned by Schumpeter (1954) in his *History of Economic Analysis*, being the only reference to a Japanese economist throughout the book (Tsuru 1982, 235). Marxian economics remained a major research area in Tsuru's academic work that was then enriched by other topics such as the methodology of economic aggregates, comparative economic systems and institutions and environmental pollution (Tsuru 1982, 240-42; Suzumura 2006).³ His contributions were based on extensive statistical and empirical analysis, an element also typical of Triffin's work.

Tsuru and Triffin shared an avowed pacifism. At Triffin's death, Tsuru wrote to his wife Lois: "I am proud of being able to have counted Robert Triffin as a colleague and close friend not only in connection with the discipline of economic science but also to the pursuit of peace in the world".⁴ As a matter of fact both were actively involved in pacifist campaigns. Among those supported by Tsuru, one organized in 1948 by the Forum on the Peace Problems was considered by him to be the reason for the later investigations he suffered from the US McCarthy Congressional Committee (Tsuru 1982, 243). Yet, as later Triffin recollected, there were also rumors about his leftist sympathies. Triffin - who was repeatedly

¹ Similarly, Paul Samuelson, who was a 'student colleague' in those years, stated in his reminiscences of Tsuru in 1976: "Harvard did much for us. But, as I have had the occasion to say in the past, we did much for Harvard too" (Samuelson, 1976, p. 56).

² The title of the dissertation was: "An Aspect of Marx's Methodology in Economics: 'the Fetishism of Commodities'" (Tsuru 1982, 230).

³ See also Tsuru's bibliography (Tsuru 1993, 182-185) prepared for the Raffaele Mattioli Lectures, that Tsuru was invited to hold at the Università Commerciale Luigi Bocconi in Milan in 1985 and then published by the Cambridge University Press in 1993 (ISHA, fond Banca Commerciale Italiana, Steve papers).

⁴ Letter from S. Tsuru to L. Triffin, March 9th, 1993 (Tsuru Archives).

investigated for national security whenever he took policy assignments with the US Government - recalled that on one of these occasions, he received a letter asking him to explain why his name appeared in Shigeto's little black book of friends: "the letter specified that there was no charge against him, but that he was rumored to have leftist [or Communist?] sympathies" (Triffin 1976, 66).

3. THE TRIFFIN DILEMMA AND TRIFFIN'S REGIONAL APPROACH

Triffin got back to monetary economics when he started working for the Board of Governors of the Federal Reserve System in Washington, from 1942 to 1946, focusing on Latin America. The Triffin missions to Latin America constituted a break with the earlier approaches to international money doctoring. US central bank officials not only rejected the classical liberal policies, but they also "went out of their way to consult with, and learn from, their Latin American counterparts as well as to tailor and differentiate their advice to the specific needs of each country" (Helleiner 2009: 24). Triffin himself emphasised that his aim was to put monetary and banking policy at the service of the "overwhelming development objectives previously ignored in central bank legislation" (Triffin 1981). In these years, Triffin became a close friend of Raoul Prebisch, whom he attracted as an advisor for his mission to Paraguay. Prebisch not only brought a formidable experience as one of the architects of the new Argentine central bank, but Triffin also supported Prebisch during a difficult period in his life (Dosman 2008). Their collaboration continued throughout the 1950s and the 1960s when Prebisch was the Executive Secretary of the United Nations Economic Commission for Latin America (ECLA) and Triffin was consulted as economic adviser of the Commission. This also showed Triffin's excellent networker capacities.

During his time at the Federal Reserve, Triffin wrote a first important essay on the international monetary system, entitled "National Central Banking and the International Economy" (Triffin 1946). Triffin was very critical of the classical theory, which ascribed balance of payments disequilibria to international cost and price disparities. Triffin argued that two types of balance of payments deficits should 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. Consequently, international liquidity was crucial to bridge temporary imbalances.

Later, Triffin went on to elaborate these ideas in *Europe and the Money Muddle* and *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. For Triffin, these were two closely interrelated and urgent questions. 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. In his view, the First World War and the Great Depression had completely changed the role of monetary reserves (Maes with Pasotti 2021). He considered that the universal disappearance of gold coins from active monetary circulation had fundamentally modified the role of central bank reserves. Their main function was no longer to preserve the overall liquidity of individual central banks, “but to permit the financing of short-run deficits in the country's external transactions” (Triffin 1960: 33). 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).

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 (de Larosière 1991). Strongly influenced by the experience of the pound sterling in the 1930s, Triffin's view was that the continued deterioration in the US net reserve position 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).

While Triffin elaborated several proposals for a global reform of the international monetary system, he also advocated, already in the second half of the 1940s, a regional approach. In July 1946, Triffin was one of the first recruits of the International Monetary Fund, as head of the Exchange Controls Division of the Research Department (Maes with Pasotti 2021). Initially he was still very much involved with Latin America. However, his attention would shift more and more to European issues as the reconstruction of Western Europe became the crucial policy issue in the immediate postwar period. Triffin's regional approach was in line with his pragmatic empirical approach, focussing on country specific situations, which he had developed in his Latin American missions. Triffin's growing advocacy of a regional approach toward monetary reconstruction was not very well appreciated at the IMF. In 1948, at his own request, Triffin was appointed to lead the IMF Representative Office in Europe. In this position, he closely followed the negotiations for trade and payments agreements in Europe. In December 1949, Triffin joined the Paris office of the US Economic Cooperation Administration (ECA), which administered the Marshall Plan. In this capacity, he played a key role in both the preparation of the ECA plan that was proposed in December 1949 and the negotiations of the European Payments Union. Triffin was described as "a consummate financial technician, eagerly advancing ingenious and usually successful methods for solving the mechanical problems posed by an automatic clearing system" (Kaplan and Schleiminger 1989: 39).

Already in the fall of 1947, Triffin had written a study, with Raymond Bertrand, analysing the European payments and trade situation (Maes and Pasotti 2018). In this study,

Triffin outlined his first proposal for a multilateral clearing arrangement⁵. Triffin was very critical of the bilateral payments agreements, especially because such bilateral balancing involved discrimination among import sources as well as export markets, distorting European trade. The result was that countries purchased goods from countries with which they had a bilateral surplus or that were willing to grant further loans, rather than making purchases from producers offering the lowest price. The implication was that this bilateralism effectively slowed down Europe's economic recovery.

Triffin proposed then that European countries should create a European Clearing Union. The idea was to replace the different patchworks of bilateral agreements by a multilateral agreement. Payments by the different countries to other members of the Clearing Union would then be paid into the Clearing, "and the country would receive an equivalent balance in the Clearing which it could then use to settle the current account deficits with *any* Clearing member" (Triffin 1947: 4, original emphasis). Triffin further favoured the introduction of an intra-European unit of account, called "European dollar" or "interfranc", to express the balances in the clearing (Triffin 1947: 4). Indeed, for the functioning of both the compensation mechanism and the multilateralisation of net debts or claims, the European Payments Union needed a monetary unit (in which all accounts could be denominated). This was a sensitive issue, as the choice of this unit would also determine the exchange rate guarantee attached to the Union's credit operations (Triffin 1957: 172). The EPU agreement created a special EPU unit of account, initially defined by a gold content equal to that of the 1950 US dollar. In a footnote in *Europe and the Money Muddle*, Triffin claims paternity for this formula and points to its significance for the future of European monetary integration: "my own objective in proposing and defending this formula ... was also to define a form of exchange guarantee that might be used later to encourage a resumption of capital movements in Europe, and a monetary unit that might be adopted in future agreements on European economic integration" (Triffin 1957: 173). Triffin would be actively involved in this process himself.

In the following years, Triffin further advocated the development of the EPU as the most practical way ahead for monetary integration in Europe (Maes with Pasotti 2021). He suggested, firstly, to set up a joint reserve fund, constituted by deposits from the member countries (Triffin 1953: 210). By providing financing in the event of balance of payments

⁵ Triffin 1947, with R. Bertrand, The Unresolved Problem of Financing European Trade, with conclusive remarks by Bernstein, 29 December 1947, Staff Memorandum No. 160, IMFA, CEED, RDM 270821.

difficulties, this fund would avoid countries resorting to policies such as exchange rate adjustments or exchange restrictions. Moreover, it would strengthen the Managing Board's influence on members' policies. Second, he advised wider use of the EPU unit of account in all intra-European loans and investments. This idea was picked up by Fernand Collin, the CEO of the Kredietbank, one of Belgium's most important commercial banks. It would help "restore capital markets in Europe and might provide governments with a far more attractive source of financing than the printing press" (Triffin 1951: 461).

Triffin defended monetary regionalism not just as an essential solution to the internal imbalances of a particular region in the world, but also because of profound imbalances between the different regions. The regional solution of returning to currency convertibility was less risky and brutal than the global approach. Or as he expressed it at a conference in Tokyo in 1968, "worldwide cooperation must be structured" (Triffin, 1968b, 28).

4. THE TRIFFIN TSURU FRIENDSHIP

Tsuru played a pivotal role in the connections between Japanese and American economists in the postwar period (Ikeo, 2011). Tsuru returned to Japan in 1942 and, during the war, he worked for the foreign ministry. In April 1946, as the allies were looking for a competent economist who was fluent in English, Tsuru became an economic adviser to the Economic and Scientific Section (later transformed into the Economic Stabilization Board, ESB) of the Supreme Commander of Allied Powers (SCAP). He was responsible, together with Saburo Okita, for the first Economic White Paper on the Japanese economy in 1947. In Japan Tsuru "brought not only a cosmopolitan attitude but also imported American economic language into the community of Japanese economists and economic officials" (Ikeo, 2000, 149). According to Martin Bronfenbrenner, probably the American economist with the closest connections to Japan, Shigetu Tsuru was, in the immediate postwar period, "the Japanese economist best known in America" (as quoted in Ikeo, 2011: 31).

Thanks also to Tsuru, Triffin's work became very influential in Japan. Both men had re-established contacts at the end of the 1940s, after a period of separation caused by WWII. Both had left Harvard in 1942 when they were at the beginning of their academic career: Tsuru went back to Japan while Triffin joined the Federal Reserve Board in Washington. In 1949, Triffin supported Tsuru's appeal to gather books and journals in the field of economics from his old teachers and colleagues at Harvard to update the library of the Hitotsubashi

University that had been reorganized into a multi-faculty social science university (Tsuru, 1982, 239).⁶ From then onwards they stayed in touch, looking for opportunities to meet whenever possible. They appreciated very much one another's capacities and offered invitations for lectures, chairs and consultancy work. They also supported one another's students.⁷ In January 1957, Tsuru, after being in Harvard for a seminar, was invited by Triffin to hold a lecture on the international balance of payments of Japan at Yale⁸. In 1960, he was, on Triffin's initiative, appointed to the prestigious Irving Fisher Chair.⁹

Triffin visited Japan on various occasions as well. In 1962, after his first journey in the Asian country, he wrote to Tsuru, acknowledging the "thankless job to protect me from misinterpretation and to volunteer yourself for such a dull task."¹⁰ On that occasion the *Asahi*, one of Japan's most important newspapers, organised a debate between them, focused on the impact of European integration on the international economy, especially Japan. For both Triffin and Tsuru, the decline of the economic supremacy of the US and the integration process in Europe was leading to a more "independent" Europe, and, as Triffin stated: "This is a gratifying tendency. It is not commendable that the world is divided by two great powers, with all other countries as their satellites. It is preferable that the United States and other countries maintain their respective policies and exert a favorable influence upon one another."¹¹ Triffin remained in favor of cooperation between the United States and Europe, but he hoped that this "Atlantic organization" would evolve to a worldwide cooperation, also involving Japan.

Tsuru and Triffin agreed that the European common market would help to stabilize the world economy and make trade liberalization easier. Triffin emphasised that, contrary to the predictions of Haberler - who was one of their professors at Harvard - the EEC countries, while pushing liberalization among themselves, would be also willing to adopt liberal

⁶ Triffin wrote: "I shall be glad ... to send you whatever I can. In the meantime I have been contacting some friends and institutions and am trying to interest them in your cause. I hope that some of these leads will prove fruitful" (STA, Letter from R. Triffin to S. Tsuru, May 18 1949). Tsuru had begun to teach at the Hitotsubashi in 1948, after a brief period at the service of the Japanese Government, and remained associated with the university for 27 years until March 1975 when he retired from its presidency (Tsuru 1982, 239).

⁷ STA, Letter from R. Triffin to S. Tsuru, January 21 1957; letter from S. Tsuru to R. Triffin, January 10 1961.

⁸ STA, Letter from R. Triffin to S. Tsuru, November 16 1956, November 29 1956, January 3 1957 and January 21 1957.

⁹ STA, Letter from S. Tsuru to R. Triffin, June 19 1957; letter from R. Triffin to S. Tsuru, January 19 1960; and letter from S. Tsuru to L. Triffin, March 9 1993.

¹⁰ STA, Letter from R. Triffin to S. Tsuru, February 7 1962.

¹¹ "European Common Market and Japan", *Asahi*, January 21, 1962, pp. 16-19, in RTYA, Robert Triffin Papers, Series no. 1, Box no. 9, Folder Triffin-Mission to Japan 1962.

policies toward the outside countries, especially at the request of the United States and Japan. He further suggested that Japan should conclude provisional economic agreements with the EEC and step up the economic unification of Asia with the creation of a Pacific economic community. This latter proposal was very much related to his belief in the evolution of the world economy toward a multipolar system of economic communities, even if Triffin admitted that the economic unification of Asia would be more difficult than that of Europe. As we will see, Triffin himself would be very much involved in the project of an Asian Payments Union in the late 1960s.

Yet, both Triffin and Tsuru recognized that the economic integration of Asia could be more difficult than that of Europe because of the gap between backward countries and advanced countries such as Japan. Both economists admitted that closing the gap required not only economic aid but efforts by all countries to discard protective trade measures, especially those of the wealthy countries towards the industrial products of the backward countries. Triffin went further highlighting the need to improve the international trade structure:

“The formation of a great unified market settles the conflicting interests of nations. The major problems lies in the backwardness of the 'structure'. All countries still maintain absurd governmental system based on old-fashioned nationalism. They are averse to the imposition of restrictions on their sovereign rights. In the field of trade, too, it attracts our attention that the outmoded policy of protection still remains. True, there has been considerable progress toward building world organizations since the end of the World War II. Yet it will take a long time to establish a world government. It is imperative for us to establish adequate structure if we want to settle our present problems reasonably.”¹²

Tsuru and Triffin also discussed the competition between capitalist and socialist countries, a fashionable topic in those years, and very relevant for Japan, as it had to counter the rise of socialist countries in the Asian markets. The issue was also among Tsuru's main research field¹³. Like quite a few economists at the time, Triffin and Tsuru thought the socialist countries were in an advantageous position with respect to capitalist countries because they had a unified price policy. Moreover, Triffin observed that the socialist countries were short of the products that backward countries wanted to export (agricultural

¹² Idem, p. 18.

¹³ For his main contribution in this research field, see Tsuru 1982, 241 and Suzumura, 2006.

and other products of primary industry) while they had an oversupply of producer goods that were needed by backward countries, so, "it [was] very likely ... that the trade between the socialist countries and the backward countries will develop".¹⁴

While Triffin's work was very influential in Japan, Triffin paid scant attention to Japan in his analysis of the international monetary system. Several factors can account for this. Triffin developed his analysis of the IMS during the 1940s and 1950s, when Japan was not an important player in the world economy. Moreover, Triffin's analysis focused on the reserve position of the IMS: gold, dollars and IMF facilities (the two most common tables in Triffin's publications show the composition of reserves in the international monetary system and the United States balance of payments). In these years, Japan did not play an important role in the international monetary system.

On Tsuru's suggestion, Triffin became a correspondent, from the beginning of the 1960s to the *Nihon Keizai Shimbun* (English translation: *Japanese Economic Newspaper*), the most important and widely respected of Japan's daily business-oriented newspapers (Triffin 1976, 66-67). Triffin so contributed many articles to the newspaper, an important channel for propagating his ideas in Japan. They also met when Triffin was travelling in Asia for commitments with the ECAFE (for which Tsuru was economic officer in 1954-1955; Tsuru 1982, 242) and for lectures on central banking at the South East Asia, New Zealand, Australia-SEANZA (where Tsuru also held seminars in 1964 and 1965).¹⁵ In one of these circumstances, in 1968, Triffin travelled with his wife and his son Eric,¹⁶ who recollected the experience:

"I think he [Tsuru] was able to arrange for my father to stay in a very traditional Japanese inn that my father absolutely appreciated. I'm not sure if it was the quiet, the simplicity, privacy or all that and more that contributed to the aesthetics that he loved. I know that his friendship with Tsuru was far greater, but the stays at the inn were indicative of their relationship, and how it made my father feel a special peace there. It was so different

¹⁴ "European Common Market and Japan", *Asahi*, January 21, 1962, p. 19.

¹⁵ SEANZA was an initiative that grew out of a 1956 meeting of central bank governors from the Asia-Oceania region. It was formed to promote cooperation among central banks by providing training courses for central bank staff.

¹⁶ STA, Letter from Triffin to Tsuru, June 13 1968.

than any hotel. I expect that my father's professional work with Tsuru had at least some resonance with the calm focus and serenity found at the inn."¹⁷

5. TRIFFIN'S PROPOSALS FOR PAYMENTS ARRANGEMENTS IN ASIA

The main forum for discussions about monetary integration in postwar Asia was the United Nations Economic Commission for Asia and the Far East (ECAFE). It was established in 1947 in Shanghai with just nine members (six developed countries and only three from the region). With decolonization its membership increased quickly. Regional cooperation in trade and payments was an old agenda item for ECAFE¹⁸. Already in 1948, an ECAFE Working Group of Experts had examined the financial arrangements needed to facilitate intra-regional trade, but the IMF was critical of it, as were also the United States and the United Kingdom, whose currencies were important in regional Asian trade (Odawara 1968: 32).

Japan, which remained under allied occupation until 1952, only became a member of ECAFE in June 1954. That same year already, Japan advanced a proposal for an Asian Payments Union, stimulated by the "bright success" of the EPU (Murano 1968: 32). Japan's first (informal) representative was Saburo Okita, who became chief of the ECAFE's Economic Analysis Section, representing "the able Japanese bureaucracy" (Ikeo, 2000: 148). He would become a great friend of Triffin. In his autobiography, Okita tells that he made his first trip to Europe in 1950. At the OEEC in Paris, he met Triffin, "a world authority on international economics, who was then in the process of establishing the European Payments Union (Okita, 1993: 35). Noteworthy is that Triffin is the only person who is mentioned by name in Okita's account of this European mission. Moreover, in 1954 and 1955, also Tsuru was at the ECAFE. While Okita had left his ECAFE position in Bangkok in December 1953, he continued to be involved in its activities (Okita, 1993: 96). Okita organized an ECAFE conference in Tokyo in 1955, the largest conference in Japan since WWII. He was also at the Bandung conference in the same year. This all marked an economic "return to Asia" for Japan (Metzler 2013).

¹⁷ Mail by Eric Triffin to Ivo Maes, May 23 2021. Eric Triffin then specified that the name of the inn was the Fukudaya (mail by Eric Triffin to Ilaria Pasotti, May 29 2021).

¹⁸ HAEU, Fond Pierre Uri, no. 65, Annex I to the letter from Prok Amranand (chief of International Trade Division of the ECAFE) to Pierre Uri, November 13, 1969.

Tsuru and Okita knew one another quite well. They had already worked together at the foreign ministry during the war and, thereafter, at the Economic Stabilization Board, which was created, at the end of the WWII, on the instruction of the Allied Powers. It was later transformed into the Economic Planning Agency (EPA). They co-authored the well known White Paper on the Japanese economy in 1947 (Ikeo, 2000: 148).

Okita became famous as one of the architects of the Japanese economic miracle in the 1960s. In 1959, Okita, as a member of the EPA, was one of the most important officers in charge of drafting the "Income Doubling Plan" (Ikeo, 2000: 159), that boosted Japan's economic growth in the 1960s. In 1964, he became the Director General of the Japan Economic Research Center (which organized a conference on Triffin's Asian proposals in 1969). During the 1970s, he was a member of the steering committee of the Club of Rome (Okita, 1993: 37-39), which published the famous "*Limits to Growth*" report (Meadows et al. 1972). He was Foreign Minister from 1979 to 1980 and remained very active on the international scene.

The 1960s was the so-called "Decade of development", very much supported by U Thant, the first Asian to become Secretary General of the United Nations. In Asia, ECAFE was active promoting economic growth and progress. In 1966, under its auspices, the Asian Development Bank was established. During the second Ministerial Conference on Asian Economic Cooperation, in December 1965, there was significant concern that trade liberalization in the region might lead to balance of payments imbalances. The conference called then for the constitution of a study group to examine payments arrangements to prevent such imbalances. In August 1967, a seminar was organized in Bangkok on "Financial Aspects of Trade Expansion". The basis for the discussions at this seminar were two studies: one by Joseph Gunn and one by Robert Triffin.¹⁹

We do not know exactly why and how Robert Triffin was asked for this study. However, in these years, Triffin was already a well known expert on regional monetary integration. He was not only one of the "fathers" of the European Payments Union, but he had also developed plans for the United Nations Economic Commission for Latin America (where

¹⁹ HAEU, Fond Pierre Uri, no. 65, Letter from Prok Amranand to Uri, January 23, 1970. For a critical comparison between Gunn's and Triffin's proposals, see "The Foundation Paper on Regional Payments Arrangements for ECAFE Countries", prepared by Ken'ichi Odawara, January 6, 1970, in HAEU, Fond Pierre Uri, no. 65.

Prebisch was then the Executive Secretary) in the early 1950s²⁰ and for the United Nations Economic Commission for Africa in the first half of the 1960s.²¹ Moreover, Triffin had an extensive network in Asia. It is noteworthy that two of Triffin's very best friends in Japan, Tsuru and Okita, were involved with the Economic Commission for Asia and the Far East when Japan had proposed its plan for an Asian Payments Union in 1954²².

In his report, Triffin (1967) developed proposals for payments arrangements within the ECAFE region, emphasizing the creation of a "Clearing House" between the central banks of the countries of the ECAFE region. Over time, he would develop different variants of these proposals. During a conference of the Japan Economic Research Center, he focused on a ECAFE "Reserve Fund" (Triffin 1969). In all his articles Triffin emphasized the trend toward regional monetary cooperation and integration, with Europe and Latin America as clear examples:

"The spectacular success already achieved along these lines by the EEC and Central America (the near quadrupling of intra - EEC trade, for instance, since 1956 and the near sextupling of intra - Central American trade since 1960) is understandably stimulating interest in other areas for similar policies. The acceptance and implementation of trade liberalization commitments, however, have also proved to be closely linked with, and dependent on, parallel agreements on mutual financial assistance and gradual harmonization of internal, as well as external, monetary and economic policies. Such agreements can be negotiated more easily among small groups of neighboring countries than at the worldwide level, and are essential to the survival and success of long accepted goals of regional economic integration." (Triffin 1969: 253)

So, in line with his earlier ideas, Triffin emphasized that, also for Asia and the Far East, trade liberalization was hardly separable from other commitments to financial, economic and political cooperation and mutual assistance. In his view "Some sort of ECAFE Payments Union is likely to prove as indispensable to the success of any ECAFE trade liberalization programme." (Triffin 1967: 37). Triffin's proposals focused on three main elements:

²⁰ It is noteworthy that the Triffin's study was sent, by the UNCTAD Liaison Officer with the ECAFE, to Prebisch (then General Secretary at the UNCTAD) (Letter, August 11, 1967, UNA, Serie S-0552, box 0044, file 0001).

²¹ A selection of these memoranda, prepared by Triffin, has been republished in Triffin, 1966: 478-543.

²² Replying to a request by Pierre Uri for contacts in Japan, Triffin suggested four persons: Okita, Tsuru and two other friends: Toda of the Bank of Japan, and Akira Kojima, a journalist (and later editor in chief) of the Nihon Keizai Shimbun (who would also become president of the Japan Center of Economic Research), HAEU, Fond Pierre Uri, no. 65, Letter from Triffin to Uri, October 8, 1968.

mutual settlements within the ECAFE area, with a Clearing House (Triffin 1967) or Asian Reserve Fund (Triffin 1969);

- short-term credits in the national currency of the countries concerned (of a rather limited size and mostly automatic in character);
- the development of monetary co-operation of a broader type, with also the aim of mutual assistance in the financing of policies for economic development.

For analytical purposes, Triffin divided the ECAFE region into three groups:

- developed: Japan, Australia, New Zealand;
- developing (Eastern): Hong Kong, Malaysia-Singapore, Philippines, Indonesia, Thailand, China (Taiwan), Republic of Korea, Cambodia, Republic of Vietnam, Republic of Laos;
- developing (Western): Iran, India, Pakistan, Ceylon, Burma, Afghanistan.

Triffin observed further that, for most countries, their trade with developed ECAFE countries was significantly higher than with the developing ones. The main exception was Japan, which was mainly trading with the developing countries. For Triffin, this was an important argument to certainly include Japan in any regional ECAFE arrangements.

At the center of the payments union would be a “Clearing House” of the central banks of the participating countries (Triffin 1967). The Clearing House would deal exclusively with its member central banks rather than with commercial banks or the public. Private traders would continue to operate with their own commercial banks, and the commercial banks would continue to clear with their central bank only those operations which could not be cleared directly among them through the market.

The operations of central banks with the Clearing House would not, of course, balance from day to day. Daily transactions with the Clearing House would thus require the maintenance by each central bank of an adequate working balance and/or credit line in its account. For Triffin, it was important that all accounts at the Clearing House should carry some form of exchange guarantee, “at least equivalent to that now enjoyed on alternative reserve investments in major money markets” (Triffin 1967: 44). One possibility was to denominate the accounts in the US dollar. However, in line with his ideas for the European Payments Union, Triffin proposed the creation of a special unit of account, which might be

called “the Asian”. Like the EPU unit it could be defined in such a way as to keep it at parity with whichever member currency that would fluctuate least in the future.

Triffin (1969) further proposed the creation of a ECAFE Reserve Fund, which could be constituted by bringing together a certain percentage of the international reserves of the participating countries’ central banks (Triffin suggested 10%, like as in many of his proposals for a European Reserve Fund). These deposits could be held in the form of interest-earning and exchange-guaranteed deposits with the Reserve Fund.

Triffin admitted that export and import transactions, in general, could be handled by the countries domestic banking systems and international reserve transactions. However, he advanced three reasons in favor of regional clearing arrangements: some trade was still conducted under bilateral agreements, involving settlements in inconvertible currencies; there could be significant foreign exchange savings and higher returns on reserve assets through investing in assets with longer maturities and the elimination of intermediation “profits” of New York and London banks; and it would stimulate closer relationships between the monetary leaders and experts of the ECAFE countries.

Triffin further advocated a monetary co-operation of a broader type, providing for balance of payments assistance and development financing: “The purpose here would be not merely the expansion of mutual trade, but also the strengthening of currency convertibility and stability plus mutual assistance in the financing of soundly based policies for economic development.” Triffin observed that, as of the end of 1966, the ECAFE countries held total gross reserves of \$8 billion. In his view, these countries could, benefit greatly from any arrangement that would enable them to devote a substantial fraction of these reserves to lending and investments within the ECAFE region itself, rather than to “sterile gold accumulation” or to loans and investments to richer countries such as the United States and the United Kingdom. “This should be all the more logical as a large portion of their foreign transactions (about one-third of merchandise trade, but a lesser percentage of other transactions) takes place within the ECAFE region itself.” (Triffin 1967: 48).

Triffin’s proposals were the topic of many discussions in Japan. So organized the Japan Economic Research Center, of which Okita was then the Director General, a conference in Tokyo in 1969, with Harry Johnson as the main discussant. As might be expected, there was a vivid discussion between Triffin and Johnson about the advantages of a payments area.

Regarding the potential for foreign exchange savings, Johnson admitted that the ECAFE countries would be able to raise the earnings on their reserve assets through lengthening the average maturity of their reserves. However, he was skeptical about Triffin's argument of interest rate gains from eliminating intermediation profits enjoyed by New York and London. "The belief that middleman's margins represent an uneconomic and avoidable waste is a fallacy more commonly encountered in relation to farming than to finance; they are, in fact, payments for services which are typically difficult to provide more cheaply by co-operative effort as indeed, much of the history of consumers and producers cooperatives in poor countries tends to confirm." (Johnson 1969: 286).

The main issue in the Triffin-Johnson exchange at the Tokyo conference was Triffin's skepticism about the working of the market economy and his belief that institutional change could put in motion a process of change and growth. This contrasted with Johnson's stronger belief in market forces. Triffin, strengthened by the success of the European experience, believed that the payments union could be a catalyst for further integration. "The main potentialities of the proposed system do not lie in the agreements that are negotiable today between countries distrustful of one another and unused to close co-operation. They lie in the future expansion which concrete experience with initially conservative solutions is likely to trigger over time, in an evolutionary rather than revolutionary fashion." In Triffin's view, based on his understanding of the history of central banking, the clearing functions of the system were even more crucial than the initial credit provisions. "Let us remember that the vast lending powers and policy influence acquired over time by national banking systems have had their historical roots in the clearing facilities which they provided and which attracted to them the deposits of member banks." (Triffin 1967).

Harry Johnson, in line with his free market ideas, was skeptical about Triffin's institutional schemes. He criticized the "strong temptation to believe in the catalytic value of some modest institutional change or financial manipulation, and faith in the power of monetary magic, on the one hand, and in the entrepreneurial powers of central bankers, on the other". Here he also envisioned Triffin, who argued that regional trade liberalization would be bound to fail if it were not preceded by an ECAFE Reserve System. Johnson traced this view to Triffin's distrust in the functioning of the international monetary system. In Johnson's view, there was no evidence for this, as opposed to the contrary view that regional trade liberalization without regional monetary cooperation was perfectly possible "provided that the international monetary system is functioning well and countries are prepared to play

the rules of the international monetary game. I suspect that Triffin is implicitly envisaging a continuing situation of international monetary crisis". And Johnson concluded, "But continuing crises apart, it seems to me that the case for an ECAFE reserve system should rest on its direct financial advantages in economizing on reserves and raising the yield on reserve assets, not on a presumed prerequisites to regional trade liberalization." (Johnson 1969: 287). Triffin could not have agreed more with the basic issue. For him, with international monetary turmoil, countries would use protectionist measures to correct their balance of payments. Regional integration was a way to create an island of relative peace and stability in a world in turmoil. This would also require regional trade cooperation to be backed up by regional monetary cooperation.

For Triffin, Japanese participation was crucial for the success of the Asian Reserve Fund. In his view, for the Asian Reserve Fund to have enough resources at its disposal, it was important that the countries with significant international reserves and with important balance of payments surpluses should participate, especially Australia and Japan.

"Any effective ECAFE credit arrangements will therefore depend primarily upon the participation of the major reserve holders, and particularly reserve gainers, of the region. Viewed from this angle, the participation of Australia and particularly Japan would be highly desirable. They are the two largest reserve holders of the region by far, their reserves totalling at the end of 1966 \$3687 million, or nearly half of those of all the ECAFE countries taken together. They are also the largest reserve gainers of the region, their net reserve gains over the last eight years totalling \$1519 million, i.e. close to 60 per cent of those of all the ECAFE countries."

However, the appetite in Japan for an Asian payments union was not very big. Originally, the plan was mainly supported by debtor countries. As observed by Arthur Paul at the 1969 conference of the Japan Economic Research Center, "Although some Japanese spokesmen have at times expressed mild interest, the official Japanese position has been definitely negative. The American position appears to have shifted from one of indifference to support expressed in very general terms and related to the U.S. policy of fostering regional co-operation." (Paul 1969: 289).

The 1960s were a time that Japan, with strong economic growth and balance of payments surpluses, was becoming more self-conscious. At a roundtable discussion on Triffin's

concept of an Asian Payments Union in 1968 for *The Oriental Economist*, moderated by Okita, Yusuke Kashiwagi, the Japanese Vice Minister of Finance for Foreign Affairs, stressed that Japan needed balance of payments surpluses in order to avoid “stop and go policies”, whereby economic growth had to be curtailed due to balance of payments crises (as was the UK experience in the 1960s). Moreover, he raised the issue of debtors and creditors in the system: “The reality of the matter is that in the ECAFE region there are a few large creditors and a large number of debtors.” (Kashiwagi, 1968: 36). Kashiwagi, sounding very much like a German official in European monetary negotiations, further elaborated on the issue of surplus and deficit countries: “it might appear that deficit countries or aid receiving countries will try to conceive of this new organization as a mechanism to increase the receipt of aid, or at the same time give way to expansive policy beyond their means. Can you be assured that there is enough monetary or disciplinary exercise on the part of the recipient countries? You mentioned you are not considering too much of automatic facilities but more in the sense of discretion, but even so the question is there will be more pressure to increase the volume of aid going to so-called deficit countries.” He then raised the issue that there were already a number of countries in default and that some other countries were very close to being in default. “And it is very hard to start a system at the outset when a number of countries are known to be in default.” Kashiwagi further observed that the degree of trade liberalization within the region was very different and that a transfer of 10% of international reserves was a “sizeable amount”. He concluded, questioning the superiority of Triffin’s regional approach: “There are many problems that can be solved better at the regional level than the global level. But I think some of the problems are easier to solve at the global level and not at the regional level. This question of debtors and creditors within a smaller region may be a more difficult question to resolve. These questions may be resolved better at the world level.” (Kashiwagi, 1968: 37). Here also there is some similarity with the approach of the European central bank governors at the time. When discussing monetary proposals of the European Commission, the governors argued that monetary issues were global issues, not European ones (Maes 2006).

In his reply to Kashiwagi, Triffin argued that a country with a balance of payments surplus had to lend in any case, with or without an Asian Payments Union. The question was to whom and in which form: “Can you attach to your lending through ECAFE as many earning provisions and guarantees against exchange risk or against default as those that are attached to your lending via New York or London?” (Triffin, 1968: 68). In Triffin’s view, his proposals implied that lending via ECAFE would be “more attractive earning-wise and

safer exchange risk-wise and default-wise because the provisions which I included here against default, are such as never existed in any international kind of lending” (Triffin, 1968: 38). In Triffin’s view, an Asian payments union would not only allow surplus countries to lend under more attractive and safer conditions than without a payments union, it would also allow to shift power from New York to the ECAFE.

Triffin’s proposals for regional monetary integration were debated by the ECAFE countries and in the 1960s and 1970s several initiatives at regional integration in Asia were taken. Triffin was very influential in these debates. His ideas figured prominently in an official “Foundation Paper on Regional Payments Arrangements for ECAFE Countries” by Kenichi Odawara²³ and he was tasked, together with Pierre Uri,²⁴ with a follow-up mission to explore the positions of the different countries concerning Asian payments arrangements in the Spring and Summer of 1970.²⁵ As already discussed, his proposals were the topic of high-level conferences in Japan. Triffin is also mentioned in a short (three page) official history of ECAFE (Jolly, 2009). Following these debates, in 1974, the Asian Clearing Union was created. However, its membership was very limited with initially six members, mainly from Western Asian countries: Bangladesh, India, Iran, Nepal, Pakistan and Sri Lanka. In 1977 the five founding members of ASEAN (the Association of Southeast Asian Countries, then comprising Indonesia, Malaysia, the Philippines, Singapore, and Thailand) signed the ASEAN Swap Arrangement, considered as the embryo of an Asian regional safety net arrangement (Rhee et al., 2013), however, it has been criticised as being insufficient during the Asian crisis²⁶.

Asian monetary union came really on the agenda with the Asian financial crisis of 1997. As observed by Tharman Shanmugaratnam, in his Per Jacobsson Lecture, Asian monetary

²³ HAEU, Fond Pierre Uri, no. 65, "The Foundation Paper on Regional Payments Arrangements for ECAFE Countries", January 6, 1970.

²⁴ At that time Pierre Uri was recruited as a consultant by the European Commission for these Asian missions. Like Triffin, he was a member of Jean Monnet’s Action Committee for the United States of Europe. They already worked together in elaborating proposals for a European Reserve Fund in 1957 (Maes with Pasotti 2021: 163). Moreover, like Triffin, Uri was a consultant at the ECLA in the second half of the 1950s where he put forward proposals for the regional integration of the Latin American countries (HAEU, Fond Pierre Uri, no. 63).

²⁵ Documents concerning the mission are preserved at the HAEU, Fond Pierre Uri, no. 65 (where there is also the final report drafted in September 1970), 66 and 67.

²⁶ Triffin is also thanked in the Preface of Kiyoshima Kojima’s 1971, *Japan and a Pacific Trade Area*. Kojima played a prominent role in genesis of the Pacific Free Trade Area. Kojima, a professor at Hitotsubashi University, was one of the translators of Triffin’s *Gold and the Dollar Crisis* into Japanese. He was also suggested by Triffin to an official of the FAO as a "Japanese expert", who was working on international liquidity problems and development financing, Letter from Triffin to D. Goseco (FAO), October 21, 1964 UNA, Serie S-0552, box 0032, file 0004 (see also Wakasugi, 2010).

union was very much “a metaphor for Asia wanting to manage its own affairs” (Shanmugaratnam, 2006: 3). There was a stringent criticism in Asia of the role the IMF played during the crisis. The perception in Asia was that the IMF, very much under US influence, did not provide enough bridge finance to countries in difficulty and overemphasized moral hazard arguments and structural reforms, in strong contrast with the Mexican crisis of 1994 (Lipsy, 2003)²⁷. In a broader sense, it led to a discomfort with the “Washington consensus”, especially the destabilizing role which capital movements could have (quite similar to arguments made earlier by Triffin, see Maes with Pasotti 2021). Asian policymakers, very much like Triffin, pursued a two-pronged strategy: reform of the global monetary system (especially giving Asia more influence in its governance) and regional monetary initiatives.

However, regional monetary integration in Asia remained more limited than in Europe. When comparing monetary integration in Europe and Asia, one should also observe that not much progress was made in Europe in the 1970s. EMU became an official aim of the European Community with the 1969 Hague Summit.²⁸ However, the implementation of the 1970 Werner Report was not successful, partly because of heavy international monetary storms in the 1970s and the breakdown of the Bretton Woods system. The European monetary union really made progress from the end of the 1980s with the Delors Report and the Maastricht Treaty, leading to the introduction of the euro in 1999.

The issue of why monetary and economic integration in Europe advanced more than in Asia is certainly beyond the scope of this paper. The situation in Asia was probably more complex, especially as several countries had only recently become independent and were very wary about “colonialism”. At the end of his mission with Triffin, also Uri remarked in a report that the situation in Asia was much more complicated than in Europe²⁹. He singled out three main factors: the China situation (for Uri the least important factor. At the time, “China” was represented by Taiwan), the situation in Indochina (the war in Vietnam with extensions in Laos and Cambodia); and the tense relation between India and Pakistan. The

²⁷ In 1997, Japan also proposed the creation of an Asian Monetary Fund, but, given strong US and IMF resistance, it accepted a more IMF-centered and gradual approach, with regional bilateral swap networks (Lipsy 2003). Given high levels of bank exposure and close economic ties, Japan had a strong preference for “liquidity provision” during the Asian crisis.

²⁸ On Jean Monnet’s request, Triffin drew up a proposal for an ERF that was put on the agenda of the summit, via Willy Brandt, who was also a member of Monnet’s Action Committee.

²⁹ “Rapports de Pierre Uri à la Commission des Communautés Européennes sur l’exécution de son contrat d’étude”, July 1, 1970, pp. 4-5, HAUE, Fond Pierre Uri, no. 65.

diversity in the economic and political situation between countries was much stronger in Asia than Europe. An important similarity between Asia and Europe is that both Japan and Germany, the main creditor countries in their respective region, were reluctant towards a process of monetary integration. Both countries feared close integration with debtor countries. However, in Europe, at the heart of the process of European integration was the Franco-German motor. Inside Germany, economic policymakers were often deeply skeptical about plans for European monetary integration, but at crucial moments the chancellors made a choice for European integration, often because of the Franco-German relation (Maes, 2004). In Asia, such a crucial axis driving the integration process, seems to have been absent.

6. CONCLUSION

Especially with the Asian financial crisis of 1997-1998, Asian countries have advocated a profound reform of the international financial architecture. Their proposals focused on two main axes: a reform of the global financial system and stronger regional monetary integration in Asia. There are here significant parallels with the ideas of Robert Triffin (1911-1993). Triffin became famous with trenchant analyses of the vulnerabilities of the international monetary system. Triffin put forward several proposals for reforming the global monetary system, but he also developed proposals for regional monetary integration. These were very much based on his experience with the European Payments Union, and focused on the creation of a (European) Reserve Fund and a (European) currency unit.

In the late 1960s, Robert Triffin was tasked by the United Nations Economic Commission for Asia and the Far East (ECAFE) to examine payments arrangements aimed at facilitating the growth of trade in Asia. In this paper we focused on Triffin's ensuing proposals for an Asian payments union, giving special attention to Japan (in Triffin's time the biggest Asian economy). Key elements of these proposals were a clearing mechanism, credit facilities and a new currency unit, which Triffin proposed to call the "Asian". However, these plans were less successful than in Europe, notwithstanding certain achievements. The situation in Asia was probably more complex and the diversity in the economic and political situation between countries was much stronger in Asia than Europe. An important similarity between Asia and Europe is that both Japan and Germany, the main creditor countries in their respective region, were skeptical about monetary integration, fearing close integration with debtor countries. However, in Europe, the Franco-German axis played a crucial role in the integration process. In Asia, such a motor seems to have been

missing. Attempts at regional monetary integration only gained momentum after the Asian financial crisis of 1997, which demonstrated the vulnerabilities of the Asian economies. However, they remained more limited than in Europe.

Sources

Archives

- Banca Commerciale Italiana, Intesa Sanpaolo Historical Archives (ISHA)
- International Monetary Fund, Washington, DC (IMFA)
- Pierre Uri, Historical Archives of the European Union, Fiesole (Firenze) (HAEU)
- Robert Triffin, Université catholique de Louvain, Louvain-la-Neuve (RTA)
- Robert Triffin, Yale University, New Haven (RTYA)
- Shigeto Tsuru Archives, Institute of Economic Research, Hitotsubashi University (STA)
- United Nations Archives, New York (UNA)

Bibliography

de Larosière J. (1991), "Robert Triffin and the Reform of the International Monetary System." In *Evolution of the International and Regional Monetary Systems. Essays in Honour of Robert Triffin*, edited by Alfred Steinherr and Daniel Weiserbs, London: Macmillan: 135–143.

Helleiner E. (2009), "Central Bankers as Good Neighbours: US Money Doctors in Latin America during the 1940s." *Financial History Review* 16, no. 1 (April): 5–25.

Ikeo A. (2000), "Economists and Economic Policies", in Ikeo A. (eds), *Japanese Economics and Economists since 1945*, Routledge, London-New York, 2000, pp. 143-184.

Ikeo A. (2011), "The American Economist Martin Bronfenbrenner (1914-1997) and the Reconstruction of the Japanese Economy (1947-1952)", CHOPE Working Paper no. 2011-11, June 2011.

Johnson H. (1969), "Comments on Robert Triffin's Paper", *Pacific Trade and Development*, vol II, The Japan Economic Research Center, April: 284-287.

Jolly R. (2009), *From Ecafe to Escap*, UN Intellectual History Project-Briefing Note no. 20, November 2009, 3 pp.

Kaplan J.J., Schleiminger G. (1989), *The European Payments Union: Financial Diplomacy in the 1950s*. Oxford: Clarendon.

Kashiwagi Y. (1968), "Interventions", in *Japan and Development of Asia: on Professor Triffin's APU Concept*, Round Table Discussion, *The Oriental Economist*, Tokyo, vol. XXXVI, No. 697, November 1968: 26-38.

Kojima K., 1971, *Japan and a Pacific Trade Area*, London: Macmillan.

Lipsy P. (2003), "Japan's Asian Monetary Fund Proposal", in *Stanford Journal of East Asian Affairs*, vol. 3, no. 1, Spring 2003: 93-104.

Maes I. (2004), "On the Origins of the Franco-German EMU Controversies", *European Journal of Law and Economics*, Vol. 17, No. 1, January: 21-39.

Maes I. (2006), The Ascent of the European Commission as an Actor in the Monetary Integration Process in the 1960s, *Scottish Journal of Political Economy*, Vol. 53, No. 2, p. 222-241.

Maes I. (2008), "The Spread of Keynesian Economics: A Comparison of the Belgian and Italian Experiences (1945–1970)." *Journal of the History of Economic Thought* 30, no. 4 (December): 491–509.

Maes I. (2013), "On the Origins of the Triffin Dilemma." *European Journal of the History of Economic Thought* 20, no. 6: 1222-1250.

Maes I. and Pasotti I. (2018), "The European Payments Union and the Origins of Triffin's Regional Approach towards International Monetary Integration." *History of Political Economy* 50, no. 1 (March): 155–190.

Maes I. with Pasotti I. (2021), *Robert Triffin: A Life*, Preface by Jacques de Larosière,

Oxford: Oxford University Press.

Meadows D. et al. (1972), *Limits to Growth*, Potomac Associates.

Metzler M. (2013), *Capital as Will and Imagination: Schumpeter's Guide to the Postwar Japanese Miracle*, Ithaca: Cornell University Press

Murano (1968), "Interventions", in *Japan and Development of Asia: on Professor Triffin's APU Concept*, Round Table Discussion, *The Oriental Economist*, Tokyo, vol. XXXVI, No. 697, November 1968: 26-38

Odawara (1968), "Interventions", in *Japan and Development of Asia: on Professor Triffin's APU Concept*, Round Table Discussion, *The Oriental Economist*, Tokyo, vol. XXXVI, No. 697, November 1968: 26-38

Okita S. (1993), *Saburo Okita. A Life in Economic Diplomacy*, Australia-Japan Research Centre, Australian National University, Canberra.

Paul A. (1969), "Comments on Robert Triffin's Paper", *Pacific Trade and Development*, vol II, The Japan Economic Research Center, April: 288-290.

Rhee C., Sumulong L., Vallée S. (2013), *Global and Regional Financial Safety Nets: Lessons from Europe and Asia*, Bruegel Working Paper no. 6, November 2013.

Samuelson P. (1976), "Reminiscences of Shigeto Tsuru", in *Ad Multos Annos! Looking Back and Ahead on Shigeto Tsuru*, Tokyo, 1976: 52-57.

Schumpeter J.A. (1954), *History of Economic Analysis*, New York: Oxford University Press.

Shanmugaratnam T. (2006), *Asian Monetary Integration: Will It Ever Happen?*, The Per Jacobsson Lecture, Singapore, September 17, 2006.

Solomon R. (1977) *The International Monetary System, 1945–1976*. New York: Harper & Row

Suzumura K. (2006), "Shigeto Tsuru (1912–2006): Life, work and legacy", in *The European Journal of the History of Economic Thought*, vol. 133, 2006, n. 4: 613-620

Triffin R. (1940), *Monopolistic Competition and General Equilibrium Theory*, Harvard University Press, Cambridge.

Triffin R. (1946), "National Central Banking and the International Economy." *Review of Economic Studies* 14, no. 2 (1946–1947): 53–75. Reprinted in *International Monetary Policies: Postwar Economic Studies*, no. 7, 46–81. Washington, DC: Board of Governors of the Federal Reserve System, 1947.

Triffin R. (with R. Bertrand) (1947), *The Unresolved Problem of financing European trade*, 29 December 1947, IMF Staff Memorandum No. 160 (with conclusive remarks by Bernstein)

Triffin R. (1951), "The Path from EPU to European Monetary Integration." Reprinted in Triffin R. (1966), *The World Money Maze: National Currencies in International Payments*, New Haven and London: Yale University Press: 450–462.

Triffin R. (1953), "Système et politique monétaires de l'Europe fédérée." *Economia Internazionale* 6, no. 1 (February–March): 207–212.

Triffin R. (1957), *Europe and the Money Muddle: From Bilateralism to Near-Convertibility 1947–1956*. New Haven, CT: Yale University Press.

Triffin R. (1960), *Gold and the Dollar Crisis. The Future of Convertibility*. New Haven, CT: Yale University Press.

Triffin R. (1967), "Payments Arrangements within the ECAFE Region", Report and Recommendations of the Seminar on Financial Aspects of Trade Expansion, United Nations Economic Commission for Asia and the Far East Economic Commission for Asia and the Far East, Bangkok, Thailand, August 1967: 127-187. Reprinted in *Journal of Common Market Studies*, 1967: 35-59.

Triffin R. (1968a), *Our International Monetary System: Yesterday, Today and Tomorrow*, New York: Random House.

Triffin R. (1968b), "Interventions", in *Japan and Development of Asia: on Professor Triffin's APU Concept*, Round Table Discussion, *The Oriental Economist*, Tokyo, vol. XXXVI, No. 697, November 1968: 26-38.

Triffin R. (1969), "International Monetary Cooperation in Asia and the Far East", *Pacific Trade and Development*, vol II, The Japan Economic Research Center, April: 243-283.

Triffin R. (1976), "Reminiscences", in *Ad Multos Annos! Looking Back and Ahead on Shigeto Tsuru*, Tokyo, p.65-67.

Triffin R. (1981), "An Economist's Career: What? Why?, How?", *Banca Nazionale del Lavoro Quarterly Review* 34, no. 138 (September): 239-259.

Triffin R. (1990), "Conversation avec Catherine Ferrant et Jean Sloover." In *Robert Triffin: Conseiller des Princes*, edited by Catherine Ferrant and Jean Sloover (with the collaboration of Michel Dumoulin et Olivier Lefebvre), 9-69. Bruxelles: Ciaco.

Tsuru S. (1964), "Survey of Economic Research in Postwar Japan," *American Economic Review*, Vol. 54, No. 4: 79-101.

Tsuru S. (1982), "A Peripatetic Economist", *Banca Nazionale del Lavoro Quarterly Review*, vol. XXXV, n. 142: 227-244.

Tsuru S. (1993), *Institutional Economics Revisited*, Cambridge: Cambridge University Press.

Wakasugi R., 2010, "Obituary" *The International Economy*, no. 14, pp. 3-9.

NATIONAL BANK OF BELGIUM - WORKING PAPERS SERIES

The Working Papers are available on the website of the Bank: <http://www.nbb.be>.

362. "The origins of firm heterogeneity: A production network approach", by A. B. Bernard, E. Dhyne, G. Magerman, K. Manova and A. Moxnes, *Research series*, January 2019.
363. "Imperfect competition in firm-to-firm trade", by A. Ken Kikkawa, G. Magerman and E. Dhyne, *Research series*, January 2019.
364. "Forward guidance with preferences over safe assets", by A. Rannenberg, *Research series*, January 2019.
365. "The distinct effects of information technologies and communication technologies on the age-skill composition of labour demand", by S. Blanas, *Research series*, January 2019.
366. "A survey of the long-term impact of Brexit on the UK and the EU27 economies", by P. Bisciari, *Document series*, January 2019.
367. "A macroeconomic model with heterogeneous and financially-constrained intermediaries", by Th. Lejeune and R. Wouters, *Research series*, February 2019.
368. "The economic importance of the Belgian ports: Flemish maritime ports, Liège port complex and the port of Brussels – Report 2017", by E. Gueli, P. Ringoot and M. Van Kerckhoven, *Document series*, March 2019.
369. "Does banks' systemic importance affect their capital structure and balance sheet adjustment processes?", by Y. Bakkar, O. De Jonghe and A. Tarazi, *Research series*, March 2019.
370. "A model for international spillovers to emerging markets", by R. Houssa, J. Mohimont and C. Otrok, *Research series*, April 2019.
371. "Estimation methods for computing a branch's total value added from incomplete annual accounting data", S. Vansteelandt, F. Coppens, D. Reynders, M. Vackier and L. Van Belle, *Research series*, April 2019.
372. "Do SVARs with sign restrictions not identify unconventional monetary policy shocks?", by J. Boeckx, M. Dossche, A. Galesi, B. Hofmann and G. Peersman, *Research series*, June 2019.
373. "Research and development activities in Belgium: A snapshot of past investment for the country's future", by S. Vennix, *Research series*, July 2019.
374. "State dependent fiscal multipliers with preferences over safe assets" by A. Rannenberg, *Research series*, July 2019.
375. "Inequality, the risk of secular stagnation and the increase in household debt", by A. Rannenberg, *Research series*, August 2019.
376. "Welfare effects of business cycles and monetary policies in a small open emerging economy", by J. Mohimont, *Research series*, October 2019.
377. "Learning about demand abroad from wholesalers: a B2B analysis", by W. Connell, E. Dhyne and H. Vandebussche, *Research series*, November 2019.
378. "Measuring trade in value added with Firm-level Data", by R. Bems and A. K. Kikkawa, *Research series*, November 2019.
379. "Scrapping the entitlement to unemployment benefits for young labor market entrants: An effective way to get them to work?", by B. Cockx, K. Declercq, M. Dejemeppe, L. Inga and B. Van der Linden, *Research series*, December 2019.
380. "The impact of Brexit uncertainties on international trade: Evidence from Belgium", by E. E. Schmitz, *Research series*, December 2019.
381. "The heterogeneous employment outcomes of first- and second-generation immigrants in Belgium", by C. Piton and F. Rycx, *Research series*, January 2020.
382. "A Dane in the making of European Monetary Union – A conversation with Niels Thygesen", by I. Maes and S. Péters, *Research series*, May 2020.
383. "Multi-product exporters: Costs, prices and markups on foreign vs domestic markets", by Catherine Fuss, *Research series*, June 2020.
384. "Economic importance of the Belgian maritime and inland ports – Report 2018", by I. Rubbrecht and K. Burggraeve, *Document series*, July 2020.
385. "Service characteristics and the choice between exports and FDI: Evidence from Belgian firms", by L. Sleuwaegen and P.M. Smith, *Research series*, July 2020.
386. "Low pass-through and high spillovers in NOEM: What does help and what does not", by G. de Walque, T. Lejeune, A. Rannenberg and R. Wouters, *Research series*, July 2020.
387. "Minimum wages and wage compression in Belgian industries", by S. Vandekerckhove, S. Desiere and K. Lenaerts, *Research series*, July 2020.
388. "Network effects and research collaborations", by D. Essers, F. Grigoli and E. Pugacheva, *Research series*, July 2020.
389. "The political economy of financing climate policy – evidence from the solar PV subsidy programs", by O. De Groote, A. Gautier and F. Verboven, *Research series*, October 2020.

390. "Going green by putting a price on pollution: Firm-level evidence from the EU", by O. De Jonghe, K. Mulier and G. Schepens, *Research series*, October 2020.
391. "Banking barriers to the green economy", by H. Degryse, T. Roukny and J. Tielens, *Research series*, October 2020.
392. "When green meets green", by H. Degryse, R. Goncharenko, C. Theunisz and T. Vadasz, *Research series*, October 2020.
393. "Optimal climate policy in the face of tipping points and asset stranding", by E. Campiglio, S. Dietz and F. Venmans, *Research series*, October 2020.
394. "Are green bonds different from ordinary bonds? A statistical and quantitative point of view", by C. Ma, W. Schoutens, J. Beirlant, J. De Spiegeleer, S. Höcht and R. Van Kleeck, *Research series*, October 2020.
395. "Climate change concerns and the performance of green versus brown stocks", by D. Ardia, K. Bluteau, K. Boudt and K. Inghelbrecht, *Research series*, October 2020.
396. "Daily news sentiment and monthly surveys: A mixed-frequency dynamic factor model for nowcasting consumer confidence", by A. Algaba, S. Borms, K. Boudt and B. Verbeken, *Research series*, February 2021.
397. "A bigger house at the cost of an empty fridge? The effect of households' indebtedness on their consumption: Micro-evidence using Belgian HFCS data", by Ph. Du Caju, G. Périlleux, F. Rycx and I. Tojerow, *Research series*, March 2021.
398. "Low interest rates and the distribution of household debt", by M. Emiris and F. Koulischer, *Research series*, March 2021.
399. "The interplay between green policy, electricity prices, financial constraints and jobs. Firm-level evidence", by G. Bijmens, J. Hutchinson, J. Konings and A. Saint Guilhem, *Research series*, April 2021.
400. "Economic importance of the Belgian maritime and inland ports – Report 2019", by I. Rubbrecht, E. Dyne and C. Duprez, *Research series*, May 2021.
401. "The return on human (STEM) capital in Belgium", by G. Bijmens and E. Dhyne, *Research series*, July 2021.
402. "Unraveling industry, firm and host-region effects on export behaviors of international new ventures and established exporters", by I. Paeleman, S. A. Zahra and J. W. B. Lang, *Research series*, July 2021.
403. "When trust is not enough: Bank resolution, SPE, Ring-fencing and group support" by M. Dewatripont, M. Montigny and G. Nguyen, *Research series*, August 2021.
404. "Bank specialization and zombie lending", by O. De Jonghe, K. Mulier and I. Samarin, *Research series*, November 2021.
405. "Robert Triffin, Japan and the quest for Asian Monetary Union", I. Maes and I. Pasotti, *Research series*, February 2022.

National Bank of Belgium
Limited liability company
RLP Brussels – Company's number: 0203.201.340
Registered office: boulevard de Berlaimont 14 – BE-1000 Brussels
www.nbb.be

Editor

Pierre Wunsch

Governor of the National Bank of Belgium

© Illustrations: National Bank of Belgium

Layout: Analysis and Research Group
Cover: NBB CM – Prepress & Image

Published in February 2022