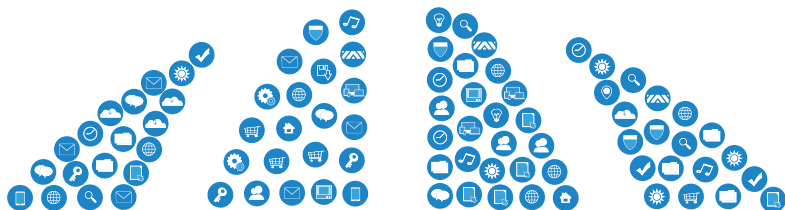


TOWARDS A RENEWED BRETTON WOODS AGREEMENT



Giovanni Tria and Angelo Federico Arcelli

Towards a Renewed Bretton Woods Agreement

Giovanni Tria and Angelo Federico Arcelli

Transatlantic Leadership Network
Washington, DC

Giovanni Tria and Angelo Federico Arcelli, *Towards a Renewed Bretton Woods Agreement*.

Washington, D.C.: Transatlantic Leadership Network.

© Transatlantic Leadership Network, 2020.



Transatlantic Leadership Network
1800 M St. NW #33161
Washington, D.C. 20036-5828
info@transatlantic.org
www.transatlantic.org

Distributed by the Brookings Institution Press

Contents

Foreword	v
Introduction	vii
1. Behind the Quest for an International Monetary Balancing Mechanism	1
2. Towards a Single Currency in Europe	9
<i>From the Delors plan to the euro</i>	10
<i>The Lehman crisis and the response in Europe in the following decade</i>	12
3. The Role of the Dollar and the Option of a New Bretton Woods	17
<i>The 1960s debate on the unsustainability of the Bretton Woods monetary system</i>	17
<i>From the end of the First Bretton Woods to the Second Bretton Woods</i>	19
<i>The Great Financial Crisis and the renewed critique of the dollar's role</i>	21
4. A New Economic Order Coming From the Pandemic and U.S.–Chinese Competition	25
<i>The renewed debate: the dollar after Covid-19</i>	25
<i>The debate on de-globalization</i>	26
<i>The dollar and the digital currencies</i>	32
<i>The combined effect of de-globalization and “dollar weaponization”</i>	35
<i>Future implications</i>	36
5. Conclusion: A New Financial and Economic Perspective to Restore Confidence After the Covid-19 Crisis	39
Bibliography	43

Foreword

Over seventy-five years ago, in the midst of World War II, delegates from 45 countries met in the U.S. state of New Hampshire to define a global monetary system for the postwar world. Those arrangements, forever associated with the New Hampshire town of Bretton Woods, have been challenged on many occasions, and yet their core premise—the U.S. dollar as the anchor currency for the world—remains very much alive today.

In this volume, Giovanni Tria and Angelo Federico Arcelli trace the ups and downs of the Bretton Woods system and tell the story of its evolution from World War II to today. They explain the key mechanisms that drove the system until the United States stopped pegging the dollar to gold in 1971, and how that decision and other developments led to what they call “Bretton Woods II” arrangements. They make the case that the world we know today is so different than the ones that characterized either Bretton Wood I or Bretton Woods II that a new look is required. It may be time to consider a Bretton Woods III.

In the spirit of prompting reflective thinking about the future of the transatlantic relationship within the global economic and monetary system, the Transatlantic Leadership Network is pleased to publish this volume by our two distinguished authors.

Daniel S. Hamilton
President
Transatlantic Leadership Network

Introduction

As World War II raged on, a conference held in Bretton Woods in 1944 paved the way for a new economic world order in the aftermath of the conflict. The conference laid out the architecture of the monetary system to be put in place, pegged to the U.S. dollar and a basket of convertible currencies, and a system of international trade which required new institutions to govern it.

The conference, an early example of the new balance of powers among allies and the growing role of the United States, allowed British economist John Maynard Keynes to launch his ideas about the establishment of a new global reserve currency (the “Bancor”), which was ultimately not adopted. Rather, Harry D. White’s idea to return to a Gold Exchange Standard, based on a central role for the U.S. dollar as the main international reserve currency, was adopted.

The Bretton Woods system was far from perfect, and its flaws and limits would become apparent in the following two decades. By the early 1960s, trade imbalances caused tensions within the group of advanced economies. There were two clashes (in 1963 and 1968) between the advanced economies of the world over the realignment of the U.S. dollar. In the end, given the pressure on the U.S. Federal Reserve System (the Fed) to peg gold against the dollar, the Bretton Woods system was abandoned in 1971-73 after the United States de-pegged its currency from gold. The system gave the United States an advantage; as the owner of the central currency (which was logical after World War II when the United States represented around 50% of the world’s GDP), it was difficult for the other advanced economies to wield influence even after their GDP and share of global trade returned to pre-war levels.

In the 1960s and early 1970s, the thesis of some U.S. economists, in particular those leaning more towards the free market and less keen to

accept a neo-Keynesian state role in the economy, also contributed to the end of the Bretton Woods system. However, the U.S. dollar remained the main international currency, also due to a U.S.-Saudi Arabia deal requiring oil to be traded exclusively in U.S. dollars.

The U.S. dollar did not lose its role, according to classical economics, as a means for payment, unit of account and as a reserve of value. However, the dollar's latter role gradually declined in the following decades, as, for the first time in history, the international monetary system became unpegged from gold. Gold had always been the implicit "guarantee" in central bank vaults for dematerialized money, at the beginning of paper notes, then gradually electronic money. Now the system lacked shared rules. Although the IMF was still in place, there was no framework for it to guard.

Nevertheless, the U.S. dollar gained momentum as the real and only reserve currency, enabling the United States to earn the "exorbitant privilege" as the sole issuer of such currency. This role continues today. It has never been truly challenged, despite the emergence of new "strong" currencies like the euro or new powers such as China. The dollar remains the main "safe asset" in international relations; around three quarters of international currency reserves held by central banks remain denominated in dollars.

In the wake of the 2008 financial crisis and the 2020 recession, which was caused by an unprecedented global health crisis, a debate about the adequacy of the international monetary system is gaining attention. Trade imbalances (particularly between China and the United States) are generating persistent stresses to the monetary system. Unless addressed, they will eventually put at stake the credibility of money as we know it.

In fact, the deficit that the United States continues to finance by issuing new dollars is putting pressure on markets and casts doubts on the long-term sustainability of U.S. dollar centrality.

Three factors deserve to be considered to avoid a future scenario of a currency war, with all its consequences: a) the emerging fragility of hyper-globalized economies and trade (and the Trump administration's view of a possible "decoupling" scenario in the long term); b) technology and the digital divide, which is affecting everything in trade and payment systems worldwide, including the idea of digital currencies be-

yond the control of any central bank; and c) the “weaponization” or the potential abuse of the U.S. dollar by a future U.S. administration. The international payment system based on SWIFT, for example, accords further privileges to the United States alone that can also have geopolitical implications.

Seventy-five years after the debate between John Maynard Keynes and Harry Dexter White about the eventual need for a global reserve currency not controlled by a state (Keynes’ “Bancor”), it may finally be the right time to reconsider a new international deal to ensure stability and prosperity for the international economy.¹

1. We would like to acknowledge that Giovanni Tria is responsible for sections 3 and 4; Angelo Federico Arcelli for sections 1 and 2; the introduction and conclusions are shared. The work includes background research by research assistant Dr. Luca Bonamico.

Behind the Quest for an International Monetary Balancing Mechanism²

Throughout history, international orders have been constructed, contested, upended and dismantled. The current international financial order, which has led the world to a relatively stable system since the end of World War II, was defined at a conference held in 1944 at the Mount Washington Hotel in Bretton Woods, New Hampshire.³ The conference resulted in the creation of a mechanism to govern monetary, commercial and financial relations among members, aiming to be a worldwide order.

The outcome of the conference was the establishment of a set of international institutions tasked with ensuring the stability and well-functioning of the system, namely the International Monetary Fund (IMF), guardian of monetary stability and trade, and the World Bank, primarily focused on development. Both institutions were created in 1945. In the following years the General Agreement on Tariffs and Trade (GATT) gradually became the main forum for trade disputes, and in 1995 it became the World Trade Organization (WTO).

Although in the immediate aftermath of World War II the international system had been strengthened by the creation of institutions and fora in charge of ensuring stability and dialogue, this was not the case in the previous period. The system historically in place, the Gold Stan-

-
2. This section draws from what A. F. Arcelli has been partially published in A. Privitera, A. F. Arcelli (2015). "An historical perspective to current trends in the banking industry in Europe", on *Rivista Bancaria*, 2015, I quarter. Several parts include contributions (the bulk of the notes and annotations to this section) by research assistant L. Bonamico for adjourning the text.
 3. C. P. Kindleberger, (1993). *A Financial History of Western Europe*, Oxford University Press.

dard (later the Gold Exchange Standard)⁴ did not need any permanent institution as it was originally a mere convertibility right of tender notes (bank notes) in a defined amount of gold, or, in a defined proportion, silver; or (for the Gold Exchange Standard) also in defined convertible tender notes of different currencies, in turn accepted by their issuing central bank as convertible in gold or silver.

The system was meant to adjust naturally to changes in the relative market values of the two metals. Indeed, the mint parity could differ from the market relative price of the two metals. When it did, one or the other metal would go out of circulation. For example, if the price of gold in terms of silver increased, no one would want to turn gold into gold dollar coins at the mint. More dollars would be obtained by instead using the gold to buy silver in the market, and then having the silver coined into dollars. As a result, gold would tend to go out of monetary circulation when its relative market price rose above the mint relative price.⁵ This system operated naturally and did not require an institution to manage the circulation of the metals.

In theory, the price stability achieved by the Gold Standard (then Gold Exchange Standard, as for the Bretton Woods mechanism) pegged system could be considered beneficial for trade and the global economy. Nevertheless, what the world had already experienced in late 19th century was the constraint that the availability of gold reserves had on money supply, which meant, essentially, a very limited capability for states to have an active monetary policy (which was needed and possible during wartime only, as the convertibility was suspended) with all its consequences.⁶

The Gold Standard also tended to run the risk of exporting financial crises, a phenomenon nowadays known as contagion. As a consequence, given that countries adhering to gold convertibility were tightly linked

-
4. L. Einaudi (2000). "From the Franc to the 'Europe': Great Britain, Germany and the attempted transformation of the Latin Monetary Union into a European Monetary Union," *Economic History Review* 53 (2), 284–308.
 5. Michael D. Bordo, Robert D. Dittmar and William T. Gavin (2003). "Gold, Fiat, and Price Stability," NBER Working Paper No. 10171.
 6. Kris James Mitchener, Masato Shizume and Marc D. Weidenmier (2009). "Why Did Countries Adopt the Gold Standard? Lessons from Japan," NBER Working Paper No. 15195.

to each other by the fixed exchange rates of their gold parities and, because of the absence of serious impediments to the flow of goods and capital, the transmission of shocks was facilitated between countries, including financial crises.⁷

There is also some empirical evidence that shows that the Gold Standard actually had positive effects on price stability. In Britain and the United States, real per capita income was less variable between 1870 and 1913 than it was thereafter. Although this long, stable period was recorded in the then wealthiest countries, for the rest of the world the Gold Standard did not lead to the same stability. In the 19th and early 20th centuries, the short-run fluctuations in gold prices were partly a result of changes in the global stock of gold, which more than tripled between the 1850s and 1900s.⁸

As the Gold Standard is a monetary system where a country fixes the price of its currency to gold, in this type of system, no single country occupies a privileged position, in contrast to the Bretton Woods system. As an international system, its primary function was to fix exchange rates, or to be precise, narrow the band of fluctuation down to the so called “gold points”, the rate at which it became profitable to import or export gold.

Although the Gold Standard dates back to 1821—when the British Parliament resumed its practice of exchanging currency notes for gold on demand at a fixed rate—it was only after 1871 that countries gradually abandoned silver in favour of the monometallic Gold Standard. In 1868, only Britain, and several of its economic dependencies, were on the Gold Standard.⁹

World events, however, complicated the functioning of the bimetallic system. For example, large gold discoveries increased the supply of gold, decreasing its price and, therefore, increasing the relative

7. Craig K. Elwell (2011). *Brief History of the Gold Standard in the United States*, Congressional Research Service.

8. Richard N. Cooper (1982). “The Gold Standard: Historical Facts and Future Prospects,” *Brookings Papers on Economic Activity*.

9. W. F. V. Vanthoor (1996). *European Monetary Union Since 1848: a Political and Historical Analysis*, Cheltenham. Also, see M. Flandreau (1993). “On the Inflationary Bias of Common Currencies: The Latin Union Puzzle,” *European Economic Review*, North-Holland.

price of silver. This would, on the other hand, put pressure on the fixed exchange rate system. Moreover, silver coins would eventually be removed from circulation.

Some countries responded to these events by producing subsidiary silver coins. These were small silver coins whose metallic value was less than the coin's face value, essentially debasing the coins. Those coins were less likely to be withdrawn from the market and, therefore, were available to support commerce. This enabled states to debase their currencies relative to the other members, meaning that they could include fewer precious metals in their currency and exchange it for the currency of their fellow members, resulting in a profit for them.

The first such instance of currency debasement occurred almost instantly after the Latin Monetary Union was formed.¹⁰ In an attempt to establish the bimetallic system on an international scale, France, Belgium, Italy, the Papal States and Switzerland formed the Latin Monetary Union (LMU) in 1865.

These five founding states agreed to mint their coins according to the French standard, which was introduced in 1803 by Napoleon Bonaparte, and they guaranteed the acceptability of each member's coins in all member states. The standard dictated that while each nation would be allowed to mint its own currency, this currency had to follow a specific set of guidelines. Because it was a bimetallic system, the coins issued had to be silver or gold. These coins could then be exchanged at a rate of 15.5 silver coins to 1 gold coin. These specifications were agreed in order to enhance trade and the flow of goods between the member states.

The Latin Monetary Union¹¹ lasted (theoretically) until 1927.¹² It included all the main Latin-speaking language countries (a group led by

10. Henry Parker Willis (1901). *A History of The Latin Monetary Union: A Study of International Monetary Action*, The University of Chicago Press, Chicago.

11. A. Redish (1993). "The Latin Monetary Union and the emergence of the international gold standard," in M. Bordo and F. Capie, *Monetary Regimes in Transition (Studies in Macroeconomic History)*, Cambridge University Press, Cambridge.

12. Macdonald, James, "A Free Nation Deep in Debt" (<https://2think.org/debt.shtml#:~:text=But%20in%20the%20eighteenth%20century%20it%20was%20commonly,with%20some%20fundamental%20questions%3A%20Why%20do%20governments%20borrow%3>).

France¹³), which agreed to share a bimetallic system where both silver and gold coins could circulate.¹⁴ In addition, free coinage meant that anyone could bring metal to the mint to be coined into gold or silver money.¹⁵

The interwar period, including the long depression that resulted after the 1929 crisis, had already proven that a multilateral scheme based on the Gold Exchange Standard was not optimal, and was only possible given that gold reserves were primarily held in few states' central banks, and, ultimately, unfit to respond to a global financial crisis. During World War I, the Gold Exchange Standard mechanism was suspended. After the war ended, national and international debt became an international issue again as government finances deteriorated to support the management of the war aftermath and the rebuilding of industries.

Clearly the need to suspend the mechanism during a period of war demonstrated a key weakness, and eventual inadequacy to manage the global economy through both good and bad times. It became increasingly apparent that the world needed something more flexible to ensure both monetary stability and the growing international trade.¹⁶

The heavy burden of payment imposed on Germany after the peace treaty led to a monetary crisis around 1920-23 and to even more dire

-
13. M. Flandreau (1995). "Was the Latin Monetary Union a Franc Zone?" in Reis J. (ed.), *International Monetary Systems in Historical Perspective*, Palgrave Macmillan, London. The Union included France, Spain, Italy, Belgium, Switzerland, Papal States and a number of other states over time.
 14. Kee-Hong Bae, Warren Bailey (2011). "The Latin Monetary Union: Some evidence on Europe's failed common currency," *Review of Development Finance*, pp. 131-149. Although the Latin Monetary Union existed on paper until 1927, it effectively ended with the outbreak of World War I in June 1914. In that occasion, the Latin Monetary Union members suspended the open conversion of money to gold, effectively ending what was left of the union.
 15. L. Einaudi (2000). "From the Franc to the 'Europe': Great Britain, Germany and the attempted transformation of the Latin Monetary Union into a European Monetary Union," *Economic History Review* 53 (2), 284-308.
 16. Kenneth Moure (2002). *The Gold Standard Illusion: France, the Bank of France, and the International Gold Standard, 1914-1939*, Oxford University Press.

consequences.¹⁷ As a matter of fact, it was only by 1928 that the Gold Exchange Standard mechanism had been re-established internationally. Its resumption of normal activities lasted for a short time, as the subsequent 1929 crisis and the Great Depression led to the progressive abandoning of the system over the 1930s.¹⁸ World War II, with the return to the same situation of World War I for currencies, seemed to represent the tombstone for an era.

While World War II was still blazing, the United States and Great Britain set about to remake the Wilsonian order, preserving its basic principles while innovating the institutional design. As the only great power to have avoided the destruction of World War II, the United States quickly became the operator of this new order.¹⁹

As the Bretton Woods agreements were a landmark in defining the new architecture of the international monetary system, we should not forget how much the world had changed with respect to the schemes used before and their downfall.²⁰

At the end of World War II, the United States was alone accounted for around 50% of the world's GDP, and this facilitated the definition of a scheme which mirrored the preferred option of U.S. negotiator Harry Dexter White, prevailed over Keynes' idea for the multilateral currency, the "Bancor," which never saw the light of day.²¹

The return of the European powers to pre-war GDP levels, and their subsequent relevant growth in the 1960s, gradually reduced the relative weight of the United States in the world GDP. This global power shift not

17. Ben S. Bernanke (1993). "The World on a Cross of Gold: A Review of "Golden Fetters": The Gold Standard and the Great Depression, 1919-1939," *Journal of Monetary Economics*.

18. Michael D. Bordo, Antu P. Murshid (1999). "The International Transmission of Financial Crises before World War II: Was there Contagion?," Rutgers University. And Barry Eichengreen and Marc Flandreau (1997). *The Gold Standard in Theory and History*, Routledge, London.

19. Paul R. Krugman, Maurice Obstfeld, Marc J. Melitz (2018). *International Economics, Theory and Policy*, Pearson, United Kingdom, Chapter 19, pp. 579-598.

20. Niall Ferguson (2001). *The Cash Nexus: Money and Power in the Modern World 1700-2000*, Basic Books, New York.

21. Michael D. Bordo (1993). "The Gold Standard, Bretton Woods and other Monetary Regimes: An Historical Appraisal," NBER Working Paper No. 4310.

only reduced American hegemony (the U.S. share of global GDP diminished as a percentage of the total) but created the conditions for several changes of the original scheme over time, notably the abandoning of gold convertibility in 1971.

Amidst these dynamics, all commentators recognize that new orders have often followed dark epochs and often institutions need to be reshaped to fit together and become the cornerstone for future construction.²² After World War II, to avoid the turbulence of the Great Depression period, it was decided that exchange rates had to be fixed to the dollar, which in turn was tied to gold. Members of the IMF contributed their currencies and gold to form a pool of financial resources that the IMF could lend to countries in need.²³

The drawback of this system was that there was an inherent asymmetry that eventually led to policy disputes. Moreover, the United States, which occupied a special position within the system, experienced large current account deficits and needed to depreciate its currency. These and other drawbacks led to the breakup of the Bretton Woods system in 1971.

With the end of the Bretton Woods system on August 13, 1971, when the United States decided to end the era of the Gold Exchange Standard, Western European countries were forced to give up the convertibility of their currencies, and exchange rates started to float. In the wake of such change, financial and monetary stability suddenly seemed to be at stake.

As a result, Europe reacted with the Werner plan in 1973. Europe was at a new dawn, trying to find a new equilibrium.²⁴ The birth of the European Monetary System (EMS) scheme focused on the German Deutsche Mark at its core seemed to create such new stability. It developed

22. Michael D. Bordo, Antu P. Murshid (1999). *The International Transmission of Financial Crises before World War II: Was there Contagion?* - Rutgers University.

23. John Maynard Keynes (1943). "Proposals for an International Clearing Union," in Keith Horsefield et al., *The International Monetary Fund 1945-1965: Twenty Years of International Monetary Cooperation, Volume 1*. Chronicle, International Monetary Fund, Washington DC.

24. R. J. Bartel (1974). International Monetary Unions: "The Nineteenth Century Experience", *The Journal of European Economic History*. Also, see Pollard, S. (1981). "The Integration of the European Economy since 1815," *Economic History*.

a new figurative currency, the European Currency Unit (ECU), which remained used as a market reference until 1998. As we saw, this was not the first time in history that Europe aimed to a coordinated scheme for the currencies used in the continent. The first one occurred in 1865 and was known as the Latin Union. But the agreement of 1865 was essentially a scheme based on the common usage of the Gold Standard mechanism.

2

Towards a Single Currency in Europe

After the end of the U.S. dollar-centred Bretton Woods era in 1971, it took two years for the Europeans to cope with their need for a stable system to anchor their currencies. The Werner plan in 1973 seemed a feasible solution, in the wake of the oil crisis which accelerated the process and forced Western European states to resolve their differences.

It led to the establishment of the European Monetary System (EMS) in 1979, which, despite several realignments among strong and weak currencies, seemed to be reasonably stable. In fact, by removing any exchange rate risk and affirming a country's commitment to sound fiscal and monetary policies, the system should have reduced the cost of international borrowing for all member countries.

This was a commitment mechanism; countries could not pursue time-inconsistent fiscal and monetary policies such as printing money to collect seigniorage or playing with public debt, as the market would have punished them by putting pressure on Central Bank reserves and imposing a rebalancing of parities. The combination of long-run price stability, a commitment to time-consistent fiscal and monetary policies and lower interest payments on foreign debt made, in theory, the EMS quite attractive.

When the treaty of Maastricht was signed in January 1992, the decision to create limits and constraints to public spending, deficits and debts seemed to be the right way for moving towards a new strong currency, one with the potential of challenging the exorbitant privilege of the only true reserve currency, the U.S. dollar. The Black Wednesday crisis of September 20, 1992 was a major hit for this ambitious project, but it was a temporary setback.²⁵

25. Niccolò Battistini, Marco Pagano, Saverio Simonelli (2014). "Systemic Risk, Sovereign Yields and Bank Exposures in the Euro Crisis," *Economic Policy*, Vol. 29, Issue 78.

From the Delors plan to the euro

The development to a new stable currency in Europe was proposed as a succession of three phases, starting from the late 1980s and aiming at a common currency by 1998, by a detailed plan proposed by then EC president, Jacques Delors (1984–1994) and his group of wise men. The plan took his name becoming the “Delors plan” and has been ultimately the pathway to the euro.

Notwithstanding some temporary setbacks, the path outlined by the Delors plan continued, and, in April 1998, all major EU member states took a giant leap towards closer monetary integration. They agreed on the introduction of a new single currency, the euro, to be circulated as paper bills as of January 1, 2002. Initially the new euro seemed strong. Markets priced it above the U.S. dollar, at least initially, when it was traded at around 0.85 for the dollar.²⁶

It was politics, and the vision for a new Europe, that had prevailed over economics and the voices of those who suggested that the new monetary union was not an optimal currency area, as it was not only postponing significant steps towards closer fiscal integration, but it was at the same time accepting economically weaker members that were not yet able to live within the constraints of a common currency. However, at the time critical voices were drowned out by a consensus that saw Europe inevitably moving closer. The agreement on the common currency seemed to be enough to sustain the drive towards an even closer union.²⁷

But the 1998 agreements were the result of the deal between German Chancellor Helmut Kohl and French President François Mitterrand and the political view born in the early 1990s (still supported by Chirac after 1995) when Germany was reunified. A reunited Germany regained its full national sovereignty and triggered some deep-seated anxieties among its neighbours, most notably France. France wanted a larger euro area in order to not be “alone” in a potentially unequal partnership with Germany. In order to achieve this objective, Italy and others, despite their shaky public finances, could participate from the very beginning

26. Fred Bergsten (2004). “The Dollar and the Euro,” *Foreign Affairs* 76.

27. Patricia S. Pollard (2001). “The Creation of the Euro and the Role of the Dollar in International Markets,” The Federal Reserve Bank of St. Louis.

to the project. The political decision of both German and French leaderships to refuse a “two speed” Europe and push for a single Europe, single market, single currency approach, coupled with a belief that the EU would inevitably continue to move towards closer political integration, allowed the euro to materialize as it was conceived. Despite some initial difficulties, such as the narrow French referendum in 1994, the consensus among EU members on the perspective of a European Union, as a political body in the long run, remained strong.²⁸

Against this background, the pledge to keep public deficits within a narrow range of GDP (3%) under the European Stability Pact, and the commitment for a long-term target of public debt to GDP ratios at or below 60%, seemed enough to provide the necessary underpinnings for a progressive convergence of European economies.²⁹

Unfortunately, the attempt in 2003 to reshape EU governing rules failed. When ten new member states joined the EU in 2004, and another two joined in 2007, the burdensome decisional architecture showed its limits, with too many people sitting at the same table trying to make decisions under the constant threat of multiple cross-vetoes, only able to make difficult compromises based on very low common denominators. While Europe as a political project stalled, so did the convergence of different economies. Only some of them had a single currency.

The euro was born with a flawed architecture.³⁰ It was, and still remains, the common currency for economies that exhibit strong substantive differences in fiscal as well as in macroeconomic performance. Furthermore, the euro was born with no single treasury behind it. Instead, it relies on a central bank that has a very narrow mandate of price stability.³¹ The treaty confines the European Central Bank (ECB) to the role of en-

28. Erin Blakemore (2018). “The Euro: How a Common Currency Helped Europe Achieve Peace,” *History Stories*.

29. Jacopo Cimadomo, Sebastian Hauptmeier, Alessandra Anna Palazzo and Alexander Popov (2018). “Risk Sharing in the Euro Area,” *ECB Economic Bulletin*, Issue 3.

30. This part has been partially published in A. Privitera, A. F. Arcelli (2015) “An historical perspective to current trends in the banking industry in Europe”, on *Rivista Bancaria*, 2015, I quarter. This revision benefits from added insights from L. Bonamico.

31. Benoit Coeuré (2019). “Should the ECB Care About the Euro’s Global Role?”, Voxeu CEPR.

sureing the stability of the system rather than an instrument of economic support through monetary policy (like the U.S. Federal Reserve).³²

The decisions of 1998 left fiscal policies in Europe in the hands of national governments. Brussels had limited say, or at least, no effective means to enforce rules. Despite these flaws, for a decade markets implicitly accepted the convergence theory. Sovereign bond spreads between eurozone countries were, in fact, quite limited for a decade (1998-2008). The burden of past public debt and inefficiencies could have been a major impediment to launching the euro, but financial markets simply assumed that European economic growth would facilitate convergence and the debt burden would prove to be manageable even in higher debt economies. In short, the euro was a currency launched without an adequate institutional foundation, or, as events a decade later proved, the political commitment to sustain it.

The Lehman crisis and the response in Europe in the following decade

The Lehman crisis in September 2008 was the spark for a debt crisis that rapidly involved banks, non-financial corporations, households and, last but not least, national governments. Initially, it was primarily the banking sector's stability that was at stake, worldwide and in Europe.³³

Governments reacted by supporting the banking system with guarantees, capital and debt. In order to avoid a deep recession, most countries supported collapsing demand by expanding public spending. Both actions stretched public finances and increased sovereign deficits and debts. Rather than act in concert, each eurozone member supported its 'own' banks.³⁴ This choice was perceived by markets as the end of Euro-

32. Andrea Boltho & Wendy Carlin (2012). "The Problems of European Monetary Union—Asymmetric Shocks or Asymmetric Behavior," Voxeu CEPR.

33. Alberto Alesina, Daron Acemoglu and Christopher J. Bickerton (2016). "The Search for Europe: Contrasting Approaches," BBVA.

34. Andrew Moravcsik (1998). *The Choice for Europe: Social Purposes and State Power from Messina to Maastricht*, Ithaca: Cornell University Press. Also: Simon Hix (2008). *What's Wrong with the European Union and How to Fix It*, Cambridge: Polity.

pean convergence: risk was shifting from commercial (banks) to sovereigns (states), but in an uneven manner: each was on its own.

Economic fundamentals in each member country came under much more scrutiny. Markets quickly began to re-price national risk. As a result, borrowing costs for the highly indebted eurozone (the so-called 'PIIGS'—Portugal, Ireland, Italy, Greece and Spain) countries spiked. Even though the default of a sovereign eurozone borrower was now no longer unthinkable, it was still a reasonably remote case. But investors started to factor in the danger of incurring real losses.

The sovereign debt crisis in Europe was triggered by the Greek case. In 2009 the Greek government had to admit that for years it had in essence cooked the books, in order to meet the stringent Maastricht criteria and gain full membership in the monetary union. The government in Athens finally conceded that its real deficit was much higher at over 13%, versus a previous estimate of around 4%. The awareness of the high level of interconnection among European economies and the fact that the main German and French banks were overexposed forced EU governments to rescue weaker countries as the situation deteriorated. In Greece, as well as in Portugal and Ireland, this was the start of the age of bailouts.³⁵

But Ireland, a eurozone member, was broadly supported and attracted the intervention of the United Kingdom (which is not a eurozone member). The government in London saw its own national interests at stake. Portugal was supported by EU members and institutions and started a bold program of reforms and tax increases. However, it did not prove to be enough in order to shield the country from contagion. Indeed, Portugal was the first victim of a different perception of sovereign risk by markets.³⁶

The case of Greece was different from the very beginning, as Greek banks were largely foreign-owned (in particular, by French and German groups) and Greece was already overleveraged in terms of public debt

35. Peter A. Hall (2014). "Varieties of Capitalism and the Euro Crisis," *West European Politics* 37.

36. European Central Bank (2019). "The International Role of the Euro." Also see Barry Eichengreen (2007). "The Breakup of the Euro Area," NBER Working Paper No. 13393.

because of its decision to join the eurozone.³⁷ In Greece the banks, the real economy and public finances were all extremely vulnerable, even in good times. In order to limit potential losses to its creditors, the ‘price’ for the bailouts (over time funded by public money—coming from the European trojka, a.k.a. the IMF (then the ESM with IMF in advisory role), European Commission, and ECB—and commercial banks through ‘voluntary’ debt forgiveness) was the introduction of austerity: deep public spending cuts, savings and higher taxes.³⁸

In other words, the concern for the stronger European economies was first and foremost to control the situation. This implied that creditors would only commit to just enough solidarity in order to keep countries afloat, and only in exchange for serious commitments to significant debt/deficit reduction measures and spending controls. Such measures would have been far more effective in a different, more benign macroeconomic environment before the crisis. And while they remain essential if one wishes to think of a long-term converging Europe, they are inevitably contractionary if imposed in an economic recession, thus making it very difficult for Greece and Europe to recover and grow.³⁹

Indeed, those measures generally failed (at least in a first phase) to bring down yields for sovereign bonds substantially as spreads amongst “strong” and weak” states remained significant and the associated fall in economic activity caused a vicious circle. Austerity deepened the recession. The recession worsened the fiscal situation of many countries with deficits coming down too slowly and the debt to GDP ratio increasing.⁴⁰

The monetary expansion decided by the European Central Bank during the Draghi presidency (2011–2019) helped in reducing the

37. M. Mitsopoulos & T. Pelagidis (2012). *Understanding the Crisis in Greece*, Houndmills: Palgrave Macmillan. Also see Peter A. Hall (2016). “The Euro Crisis and the Future of European Integration,” BBVA, Madrid.

38. Michael D. Bordo & Lars Jonung (1999). “The Future of the EMU: What Does the History of Monetary Union Tell Us?,” NBER Working Paper No. 7365.

39. Matthias Matthijs and Mark Blyth (2015). *The Future of the Euro*, Oxford University Press.

40. Martin Feldstein (1998). “The Political Economy of the European Economic and Monetary Union: Political Sources of an Economic Liability,” NBER Working Paper No. 6150.

spreads amongst eurozone sovereign borrowers, but never took the clock back to before the 2008 crisis. This context seems now superseded by the current market trends since the start of the 2020 Covid-19 crisis, but it has to be noted that current measures are apparently “temporary” and not linked to a consensus on a long-term political plan (eventually another economic plan centred on a “recovery fund” is set to be launched by 2021).

Recognizing that the Growth and Stability Pact had failed, 25 of 27 EU countries, including all eurozone countries, agreed to a new “fiscal compact” in March 2012 that would force those countries with a debt-to-GDP ratio above 60% to arrive at a structural deficit at a maximum of 0.5% and to bring the debt-to-GDP ratio back to 60% within 20 years. This target remains very ambitious and can only be met if the eurozone economies start to grow again and inflation in the eurozone can be brought back to levels closer to the target of the ECB of a rate below, but close to 2%.

In 2014, the approval of the bank recovery and resolution directive (or “BRRD”, which came into force on January 1, 2016) and the definition of a path to a “banking union” apparently paved the way for a strengthening of the banking sector, de-linking it from sovereign risks.

The Covid-19 crisis once again changed the landscape and casts new shadows on the future, and it is still unclear the real path that European Union will follow in the coming decades and, notably, if it will be leaning towards a “single market of sovereign states” or at least a partial political union. From today’s perspective, the latter seems unlikely.

3

The Role of the Dollar and the Option of a New Bretton Woods

The leading theoretical debate at the Mount Washington Hotel in Bretton Woods was between John Maynard Keynes, representing Great Britain, and Harry Dexter White, representing the United States. White prevailed due to enhanced U.S. economic and political power.

The outcome was an international monetary system pegged to the U.S. dollar, which was convertible to gold. As a result, the dollar became the principal international reserve currency. The defeated thesis envisaged the establishment of an international currency, the “Bancor.”

However, in the following two decades, the system established at the Bretton Woods conference proved increasingly incapable of coping with economic and commercial imbalances among its member states. At the beginning of the 1960s the system started to be theoretically challenged by non-Keynesian economists.

The 1960s debate on the unsustainability of the Bretton Woods monetary system

In 1965, Jacques Rueff, French President Charles de Gaulle’s economic adviser, criticized the Bretton Woods international monetary system with the famous allegory of the tailor: “If I had an agreement with my tailor that whatever money I pay him he returns to me the very same amount on the same day as a loan, I would have no objection at all to ordering more suits from him.”

Rueff’s argument was that the Bretton Woods system hindered commercial disequilibrium adjustments because the country supplying the

currency convertible into gold, that is the United States, could finance its trade deficits without limits. Differing from the Gold Standard, which Rueff supported, the Gold Exchange Standard allowed the central banks of countries with a current account surplus to increase money supply based on reserves held in gold, dollar and dollar-denominated assets.

As a consequence, because countries with a current account surplus that purchased dollar-denominated assets maintained, as a matter of fact, their own reserves in the U.S. central bank as dollars, the outflow of dollars from the issuing state caused by its trade deficit, did not actually determine an outflow of gold nor a decreased capacity of domestic expenditure. In other words, at the end of the 1950s and the beginning of the 1960s, this system enabled European countries and Japan to reindustrialize themselves by providing “clothes” to the United States, which was able to purchase in great amounts thanks to the credits that these country’s tailors granted them.

Rueff’s analysis on the unsustainability of a system that enabled the United States to maintain permanent current account deficits was consistent with the 1960 analysis of Robert Triffin, whose critique of the Bretton Woods system would be known as the “dilemma.” The Triffin dilemma is the conflict of economic interests that arises between short-term domestic and long-term international objectives for countries whose currencies serve as global reserve currencies.⁴¹

Triffin’s analysis was aligned with Rueff’s analysis in that they observed that the dollars collected by the countries in surplus were used to purchase US debt to hold as a reserve asset alongside gold, and, as a result, there was no mechanism to re-absorb imbalances.

The conclusion of the two economists was that, inevitably, the amount of dollars retained by the member countries would increase compared to gold, undermining the confidence in the dollar’s effective convertibility. This meant declaring that the goal of the Bretton Woods conference would not be achieved, namely that of returning to a system of fixed exchange rates, while avoiding that the scarcity of gold would block, as in the Gold Standard, the supply of money requested by economic growth.⁴²

41. Robert Triffin (1960). *Gold and the Dollar Crisis*, New Haven: Yale University Press.

42. Ferguson N. (2001). *The Cash Nexus: Money and Power in the Modern World 1700-2000*, Basic Books, New York.

Rueff and Triffin shared their diagnosis on the flaws of the Bretton Woods system, but diverged on the therapy. While Rueff hoped for a return to a Gold Standard, Triffin aspired to an international monetary system based on the Keynesian “Bancor,” in other words, on the institution of a global currency.

From the end of the First Bretton Woods to the Second Bretton Woods

However, in 1971 with the U.S. announcement that it would suspend the convertibility of the dollar into gold, the exchange system based on the Gold Exchange Standard established at the Bretton Woods conference ended⁴³ under the pressure of the “tailors,” especially the French, who did not want to lend their revenues from the sale of their clothes to the American customer anymore. As a result, they tried to redeem their credits by asking to convert their dollar reserves into gold. From that point on, a true international monetary system—understood as several shared rules that define exchange rates between countries—has not been re-established.

Over time, there has been the establishment of a type of “anarchic” non-system, where some countries make their exchange rates fluctuate, while others peg their currencies to another foreign currency, often the dollar.

One of the notable consequences of the end of the system in place since 1944 was to leave the Europeans in need of a replacement to ensure stability to their currencies. However, this event did not compromise the role of the dollar as an international currency with its triple function as a store of value, unit of account and medium of exchange. Despite an international monetary system largely turned anarchic, that is not guided by clear rules, the dollar maintains and reinforces a dominant role, giving the United States a so-called “exorbitant privilege.” This role has never been questioned by other emerging powers, especially the more

43. Peter M. Garber (1993). “The Collapse of the Bretton Woods Fixed Exchange Rate System,” in *A Retrospective on the Bretton Woods System: Lesson for International Monetary Reform*, University of Chicago Press.

economically integrated Asian emerging countries, nor by the creation of the euro.⁴⁴

The European countries—in particular Germany, as well as Japan and the oil producing countries have continued to strengthen their “tailoring” and the United States, as a result, has continued to buy many clothes with debt. The system has in part continued until today, with China progressively affirming itself, for the past decade, as the principal “tailor,” replacing Europe and Japan.

As a consequence, particularly after the accession of China to the WTO in 2001, there have been talks about a “renewed” or “Second” Bretton Woods, with some of the main Asian currencies, in particular the Chinese renminbi, in addition to Latin America’s currencies, pegged to the dollar alongside with controls on international capital flows between these countries and the United States.⁴⁵

The story of this Second Bretton Woods, and the global imbalances associated with it, is instructive. The rapid Chinese economic growth coincided with its accelerated integration in the global economy. Its double-digit growth in trade with foreign countries, compared with overall growth in global trade, generated increased and persistent trade and current account surpluses. In the three years preceding the 2008 financial crisis, the Chinese current account surplus was on average 9% of its GDP.

Until 2005, by maintaining a fixed exchange rate with the dollar and controls on financial capital outflows, China had avoided adjusting its trade imbalances for many years by accumulating official foreign reserves, which in 2011 accounted for 25% of registered central banks’ global foreign reserves.

China’s purchase of public debt and other financial assets issued from countries with trade deficits, in particular the United States, enabled these countries to maintain high internal liquidity, therefore allowing them to sustain their internal consumption and investment demand. In

44. Ethan Ilzetzi, Carmen M. Reinhart and Kenneth S. Rogoff (2020). “Why is the Euro Punching Below its Weight?,” NBER Working Paper No. 26760.

45. Peter Kugler (2016). *The Bretton Woods System: Design and Operation, in Money in the Western Legal Tradition*, Oxford University Press, Oxford.

addition, these purchases allowed China to control its domestic liquidity and, as a result, to control its inflation pressures.

In summary, the two sides of the Pacific neutralized the classic monetary adjustment mechanism of fixed exchange rates imbalances, namely the adjustment of real exchange rates through shifting domestic prices. The American expansionary monetary policy, which at the turn of the 20th century had fuelled the new economy and real estate market speculative bubbles, and which financed excess domestic demand, has been the other side of the coin to the Chinese central bank's policy of exchange control and trade surplus management.

Once again, the story of the Second Bretton Woods is not far from the story of Rueff's "tailor." However, even this Second Bretton Woods couldn't survive the 2008 financial crisis. Already in 2005, under U.S. pressure, China abandoned pegging its exchange rate to the dollar and the renminbi appreciated by about 18% in just three years (2005-2008).

The Great Financial Crisis and the renewed critique of the dollar's role

In the midst of the 2008 financial crisis, China restored its policy of pegging its currency to the dollar, at least for a few years before ultimately abandoning it again. The idea in China is that the dollar standard was no longer able to assure monetary stability in the relations between America and Asia.

The increased exchange rate flexibility that China has decided to adopt responded to the goal of orienting production towards its domestic market. This goal has been pursued because the foreign market, compared to a production capacity that has tremendously increased and to an accumulation of private savings with a high inflationist potential, was becoming too fragile.

This meant that China, in the medium term, would have no longer been interested in financing the American deficit. This change, however, would take some time since there were concerns of a rapid depreciation of the dollar could in turn devalue China's dollar-denominated assets. In

addition, Asia still lacks a sufficiently sophisticated financial market that could assure proper use of its savings.⁴⁶

On the eve of the 2009 G20 meeting in London, where it was planned to discuss how the major world economies were managing the financial crisis generated from the United States, Zhou Xiaochuan, the Chinese central bank's governor, published a paper in the journal of the Bank for International Settlements. In that paper, the Chinese governor reiterated the problem of the impossibility to deal with global macroeconomic imbalances and assure financial stability without confronting the unsolved issue of the international monetary system, namely the absence of an international reserve currency pegged to a stable value. Zhou reintroduced Triffin's arguments on the flaws of a system where a national currency serves, *de facto*, as a global reserve currency and declared himself in favour of a supranational international reserve currency, explicitly recalling the "Bancor," the international currency unit Keynes had proposed in 1944 at Bretton Woods.⁴⁷

Zhou's proposal was to reconsider the role of Special Drawing Rights (SDRs). Created by the IMF in 1969, SDRs were intended to be an asset held in foreign exchange reserves under the Bretton Woods system of fixed exchange rates. In particular, it was proposed to foster the use of SDRs as a medium of exchange not only between the commercial and financial transactions of governments and financial institutions. Moreover, part of every country's official reserves should have been managed and held by the IMF so that market stability would be strengthened.

The Chinese proposal was not something new and responded to real problems. However, it was proposed at a time when the Second Bretton Woods had revealed its flaws and the possibility of a dollar crisis, with consequent value loss of the great amount of Chinese dollar-denominated assets, seemed real.

A year after Zhou's proposal, the issue of the international impact of American monetary policies arose again as a result of the Federal Reserve's ultra-expansionary quantitative easing, which had been adopted

46. Weizhen Tan (2020). "The Growing US Deficit Raises Questions About Funding as China Cuts US Debt Holdings," CNBC.

47. Zhou Xiaochuan (2009). "Reform the International Monetary System," Bank for International Settlements, Basel, Switzerland.

to counteract the recession. This surge in the amount of global liquidity resulted in increased investments in emerging countries—in particular Asia and Latin America—which offered higher returns. While in Asia, as mentioned above, China responded by pegging its exchange rate to the dollar and, therefore, avoiding capital inflows, Brazil was instead severely hit by massive capital inflows which triggered a rapid appreciation of its currency. Brazil was experiencing these capital inflows because of the strong performance of its economy, which at that time was commercially tied with China, creating favourable expectations regarding the external value of its currency.

The Brazilian government was unable to slow these capital inflows and, as a result, suffered a loss of competitiveness of its products due to the appreciated exchange rate. Moreover, its finance minister used for the first time the expression a “currency war” to describe what from its point of view was a foreign attack to the Brazilian economy. Although maybe exaggerated at that time, this military term would be used approximately ten years later by the United States (the issuer of that currency), not to condemn an aggression, but as a demonstration of deterrent power.⁴⁸

In these ten years there has been a separation between the role of the dollar in the international monetary system and the economic global power of its issuer country. Today, the United States produces about 20% of the world's GDP and represents 10% of global trade. However, the U.S. dollar remains central: one-third of the countries in the international system have a currency explicitly pegged to the dollar, 70% of global GDP uses the dollar as a benchmark currency, 50% of global invoices and two-thirds of foreign official reserves and global external debts are dollar-denominated.

The reason for this phenomenon can be attributed to a network effect that feeds on itself. Since most of the trade is invoiced in dollars, it is logical to insure oneself with dollar-denominated financial assets and retain large official reserves in dollars to be isolated from the impact of dollar fluctuations consequent to American economic cycles and monetary policies. Emerging countries are, as a result, forced to use their monetary policies to stabilize capital flows. The conclusion of this analysis

48. Samantha Pearson & Aluisio Alves (2010). “Brazil Says World in a “Currency War,”” Reuters.

is that the U.S. dollar, which remains as important as when the Bretton Woods system collapsed in 1971 (despite emerging countries nowadays representing 60% of global GDP), would still be dominant even if U.S. economic power would further decline.

4

A New Economic Order Coming From the Pandemic and U.S.–Chinese Competition

The renewed debate: the dollar after Covid-19

Not even the 2008 financial crisis generated by the United States has undermined the central role of the dollar, which has been confirmed as a safe asset, especially in circumstances of major international strain.

However, after 75 years and in a completely different world, the debate between Keynes and White on the utility of a global currency, the “Bancor,” has re-emerged, particularly because in a post-Covid-19 world there will be the need to redesign a new economic world order able to ensure cooperation between nations.

In fact, the debate on the international monetary system and the role of the dollar re-started before the Covid-19 crisis, essentially in connection with the escalating trade dispute between the United States and China, the so-called “tariff war”, which represented a more general strategic and geopolitical clash. Three major factors have influenced the resumption of this debate.

First, China’s enhanced economic growth and role in international trade compared to ten years ago. Connected to this evolution is the debate on a possible retreat from hyper-globalization and, in particular, on “decoupling” as a strategy to respond to the Chinese technological and economic challenge.

The second factor is the use, new in form but not in substance, of the dominant position of the dollar in the international payments system

and in the international financial infrastructures with the aim to expand U.S. influence in extraterritorial areas and in pursuit of geopolitical goals. This phenomenon, defined as the “weaponization” of the dollar, or using the dollar as a strategic political weapon, raises questions and concerns for investors regarding confidence in the dollar as a safe asset.⁴⁹

The third factor, possibly representing the major element of discontinuity with the past, is technology. Technology today offers new, efficient solutions for the payments system and, with the emergence of digital currencies and crypto-currencies, reiterates anew the technical, although not yet political viability, of global currencies that recall the Keynesian idea of a supranational currency able to solve factors that cause instability and that are connected to the use of a national currency as an international one.

The debate on de-globalization

When China joined the WTO in 2001, this accelerated its integration in international markets. The issue of economic relations with China represents a recurring and growing challenge.

Today the confrontation with China, albeit of a strategic nature, cannot fail to take into account the challenges facing the global economy after Covid-19: that is to say a deep recession that hit all economies, advanced and emerging economies as well as developing economies, and an unprecedented explosion of sovereign and private debts all over the world.

In this context, we have to consider that pre-Covid-19 there existed three global trends: the retreat from hyper-globalization, the relationship between market and government (with a growing role of the latter, evident also in Europe), and a declining growth rate. Regarding these three trends, Covid-19 probably will not be a game changer but rather a game accelerator.

The Covid-19 pandemic will probably accelerate the review of global value chains, which have been the core element for the growth of

49. Henry Farrell & Abraham L. Newman (2019). “Weaponized Interdependence. How Global Economic Networks Shape State Coercion,” *International Security*, Vol. 44, No. 1.

international trade and production of the global economy in the past decades. The fragile elements of these chains have emerged due to the pandemic, which, in search of increased economies of scale, have excessively extended themselves from a geographical point of view and have, as a result, fragmented the production process. Economic, natural or geopolitical risks are recommending the shortening of these chains and urge to partially “repatriate” production activities.

In addition to these tendencies, that are probably going to reinforce themselves in the post-Covid-19 world, for technological and geopolitical competition reasons, there is the idea to proceed towards a decoupling process, namely reducing the connections between Western and Chinese-influenced economies.

This perspective would probably be economically devastating and dangerous for the possible deterioration of the relations between countries. This will also mean that the protraction of the “trade war” will affect the monetary and financial system. In any event, the hyper-globalization decline and the enhanced regionalization of global value chains will reduce the ratio between world trade and GDP. In addition, these events will also diminish the role of the dollar in the global market, which has affirmed its “natural monopoly” from the inverse phenomenon.

China, the United States, Japan, Germany, France, the UK and Italy, to name the countries at the top of the infection rankings, represent almost 60% of the world’s GDP, 65% of the world’s manufacturing product and over 50% of the world’s manufacturing exports. Each of these countries is an important supplier of industrial inputs to each other and to third countries. They are at the heart of a myriad of international supply chains.

For this reason, getting out of the crisis would require the maximum attention to save the international reciprocal interactions, even if the pandemic has also highlighted the vulnerability of the current hyper-globalization phase and has offered arguments to pre-existing anti-globalization sentiments.

With the balance of the economic order in mind, it would be a risky reaction by countries to reduce the global connections between economies under the psychological pressure of pandemics, in response to political arguments for achieving national self-sufficiency in the provision of essential goods.

In particular, the danger is “decoupling.” The term has gradually entered the debate on the future of the economy to indicate a progressive and lasting process of splitting the world order as a consequence of the ongoing conflict between China and the United States, more generally seen as the conflict between the West and the new Asian power.

The fact that we speak freely about this, for some analysts, is a sign that the so-called trade war between the United States and China is only the starting point of a technological competition that includes not only the configuration of global value chains, but also geostrategic matters as security, the unity and interconnection of ICT networks and the financial and international payments infrastructures.

A de-globalization process could lead the global economy, currently valued at \$87 trillion, to split into two blocs, creating unpredictable consequences, not only in economic terms. In our opinion, such an idea is filled with impossibility and implausibility, at least in the short term. The main reason is that the global economy has reached a degree of integration without precedent that does not allow exiting easily.

Behind the international trade of any good there are many exchanges of components and intermediate inputs that include different countries, constituting global value chains that have been the primary engine of global growth in the past decades. This makes rescinding or limiting these exchanges extremely difficult and costly, because behind any bilateral exchange between two countries there is a multitude of connected exchanges.

Studies show that at least 20% of the U.S. trade deficit with China is actually a deficit with other countries that produce the components and intermediate goods for production in China.

According to the 2019 Global Value Chain Development Report, the deficit between the United States and China mainly derives from production by other advanced or emergent countries in China. This means that a heightening of tensions and a bilateral decoupling effort would impact many other countries and would not solve the U.S. deficit issue—which is caused by the excess in consumption and investments on savings—but would only determine a diversion of trade from some countries to other ones. This analysis can also be applied to the EU trade

disequilibrium with China and to the trade disequilibrium between Europe, in particular Germany, and the United States.

Behind the idea of decoupling there is essentially the fear of China's technological progress in all aspects, which many view as the result of the interactions of a centralized state capable of concentrating resources in support of such progress and, at the same time, an industrial base that is increasingly market-oriented. This unstoppable technological growth could translate into geopolitical hegemony.

This view is the core of the thesis on the need to adopt a containment strategy that would lead to a world divided into two economic and technological blocks, where innovations would not freely expand globally but only within two competing areas, one controlled by the United States and the other one by China.

But such a decoupled world is still highly unlikely, both because China is not yet technologically independent, and because of the difficulty of untangling, in a non-destructive way, the infinite number of technological, scientific and knowledge-based connections that bind the world.

Furthermore, if a trend towards de-globalization prevails, the world economy would face a long period of low growth which would clash with the explosion of sovereign and private debts that Covid-19 will leave as a legacy. The outcome would be a serious risk of a new global financial crisis.

For these reasons, it is vital to avoid associating Covid-19 with globalization and then to shut down borders.

It must not be forgotten that one of the positive effects of an interconnected world is the production of global common goods, like the fight against climate change and pollution, the diffusion of knowledge and education, scientific progress, human rights, the conquests of medicine and the global fight against endemic diseases.

As a consequence, especially in hard times, we cannot see China only as an enormous market or an economic competitor or a systemic rival. China can be seen as all of those things, but it mostly remains a crucial actor when it comes to addressing many crucial challenges facing humanity.

During the 2008 financial crisis, China and the United States adopted a cooperative response, with a great fiscal stimulus in China and unconventional monetary policies in the United States. China and the United

States were linked by the global macroeconomic imbalance consisting of the gigantic Chinese trade surplus and the American trade deficit.

Many things have changed since then. China has not only grown in weight as a global economy but has massively rebalanced its economy. China has gone from growth sustained by exports and investments to growth increasingly sustained by consumption, from manufacturing to an increasingly service-oriented system through an extensive use of manufacturing outsourcing, from a surplus of savings to an even greater internal absorption of savings.

Finally, China has gone from innovation imported through foreign direct investment to endogenous innovation, although still taking advantages from imported technology. The external consequences of this overall rebalancing of the Chinese economy are two-fold. The first is that today China no longer has an excessive trade surplus (currently 1.5% of GDP). The second consequence is that China has climbed the value-added ladder along international supply chains and it no longer plays the role of an emerging country.

Therefore, the unstable global equilibrium developed between the end of the last century and the first decades of the new millennium no longer holds, determining a geo-economic as well as a geo-political substantial change.

Today cooperation between the United States and China is lacking, at least in the war of press releases and, in times of crisis, the communicative war conveys uncertainty and further crisis. Therefore, in order to avoid turning competition into conflict, a new multilateral cooperative agreement is needed to design the governance of the global economy of the future, taking note of the new geo-economic and geo-political global weight, but also keeping in mind that the total population of the United States, Europe, China and Russia is less than half of the world population.

In this context, even the new Asian agreement on trade, the Regional Comprehensive Economic Partnership (RCEP), can be seen in two different ways: as either a positive starting point for a new global agreement between Asia, America and Europe or as a step in the opposite direction of splitting global markets and economies, contributing to the so-called “decoupling” between the West and China-led Asian economies.

We believe that the first option is in the interest of the West and of the world as a whole, even if this option implies a more general agreement on trade as well as on the architecture of the international financial and monetary systems that should take the new economic geography of the world into account.

In the post-Covid-19 world, a “New Bretton Woods” agreement is an alternative to protectionism, nationalism and the disruption of international trade and investment channels that have contributed so far to the growth of global well-being. This third “Bretton Woods” should involve, be led by, and proposed by the United States, backed by Europe in order to discuss new rules for fair trade and new rules for an international monetary system and financial infrastructures both challenged by the new geo-economic weights and the new technologies in the financial field and payments systems.

We cannot deceive ourselves: the two issues of fair trade and the need of a reform of the international monetary system cannot continue to be kept separate. In this context, the European Union and China have reached a first deal at end December 2020 and are working on the EU-China Comprehensive Agreement on Investment. The European purpose is clearly to improve the access of European investors to the Chinese market and obtain non-discriminatory treatment compared to Chinese companies. New laws on foreign investment have been approved in China and now an effective opening of the Chinese financial markets should be claimed because of reciprocity.

On the other hand, in Europe a renewed debate has emerged that is focused on new restrictive policies on Chinese investments. We should avoid looking at this issue in terms of conflict between the West and China and instead balance competition and cooperation. Nevertheless, in Italy and Europe the pressure is growing to side with the West. This is not the right question. Europeans can have no doubts regarding which side they are on, both in the sense of loyalty towards their alliances and in the meaning of adhesion to the liberal-democratic values of the open society that we identify as the values of the West. The better question, however, is the following: what should the West do to build a new global order for a future of peace and worldwide economic growth?

The dollar and the digital currencies

On July 17-18, 2019, the finance ministers and central bank governors of the G7 countries met in Chantilly, France. They discussed, with ill-concealed concern, Facebook's plan to launch the Libra, presented as a simple means of payment but actually a kind of currency pegged to a basket of "stable" currencies. The specific project presented little danger, since its probability of success was low. The G7 participants were nevertheless apprehensive, because they immediately understood that the initiative not only represented the first real potential challenge to what remained of the international monetary system that had been established at Bretton Woods, but also a challenge to the very basis of sovereign power: the Libra project had, in fact, been launched by a pool of private companies.

This new crypto-currency project has been presented as a mere cross-border means of payment that could drastically cut the cost of both time and money incurred by transnational payments. It is additionally offered as a means to include large sectors of the population that, especially in developing countries, are effectively excluded from payment methods based on banking systems. The project, however, is global in its ambition and poses a far larger challenge than the initially modest efficiency gains that could come from transitioning to digital currencies.

New technologies have already activated widespread payment systems tied to private platforms without the need to adopt a "crypto-currency" as a unit of account or store of value. Also, the current interbank transfer systems, for instance the Euro-American Society for Worldwide Interbank Financial Telecommunication ("SWIFT") and the European central bank system TARGET Instant Payment Settlement ("TIPS"), are experimenting with new systems of instantaneous transfers. However, Libra, as a private sector project, was a challenge for the central banks to adopt crypto-currencies and, most importantly, it showed that economies and technologies were mature enough also for the adoption of a global currency based on the Keynesian "Bancor" model.

One month after the G7 Chantilly meeting, one of the participants, the governor of the Bank of England, Mark Carney, spoke to an audience

of bankers and economists at the Jackson Hole annual meeting in Wyoming. He asserted that the world's dependence on the U.S. dollar was no longer sustainable and invited the IMF to take the lead on designing a new international monetary and financial system based on multiple currencies. The goal, he said, would be to protect emerging economies from destructive dollar capital outflows and help them avoid the accumulation of excess dollar reserves, which have a tendency to exacerbate uncertainties and deflation effects—particularly damaging when there is a misalignment between cyclical phases in the U.S. and emerging economies.

Carney's analysis starts from the finding that a flexible exchange rate regime is not the solution to enable countries to absorb global shocks and maintain stable production levels and domestic prices through a flexible monetary policy. The argument is that greater integration of global economy and production, including through the development of international value chains, has determined an increased synchronization between price movements and production in various countries.⁵⁰

This derives from the increased rigidity of international prices denominated in U.S. dollars compared to the fluctuations of the other currencies, due to the fact that the dollar represents the currency used in half of international trade invoices—about five times the U.S. share of global imports and three times its share of global exports. The consequence is that the depreciation of a currency against the dollar discourages imports, making goods and services produced abroad more expensive in terms of domestic currency. However, this has no effect on the prices of exports denominated in dollars and therefore delays the adjustment of the exported quantities, causing only enhanced profits in terms of the domestic currency for exporters.

The result is that global growth is strongly affected by the impact of economic events and U.S. dollar policies, leaving countries exposed to the volatility of the U.S. currency and to global risks. Carney's conclusion, mirroring that of other economists, is that the dominant role of the dollar in the monetary system is a source of instability and, as a result, a multipolar system is needed. This multipolar system could be based

50. Mark Carney (2019). "The Growing Challenges for Monetary Policy in the Current International Monetary and Financial System," Jackson Hole Symposium.

either on several international currencies or a single global currency, which could take the form of a global electronic currency. The alternative could be a future conflict between the dollar and the renminbi, the use of which is increasing in global trade.

These analyses are not much different from those made ten years earlier by the People's Bank of China governor, who reintroduced the debate that had taken place a half century before.

However, the transition to a new international reserve currency is a complex issue that follows not only an economic decline of the issuer country, but also the diffusion of the new currency as a medium of exchange that must be both efficient and convenient in international payments. Its adoption as a unit of account and store of value is a consequence.

It follows that technology today can play a key role in overtaking the network externalities that hinder the transition to a new international monetary system like that proposed by Keynes. Technology can do this by, using Carney's definition, creating an "hegemonic synthetic currency" through a network of central banks' digital currencies. China has already announced that the People's Bank of China is planning to issue an official digital currency and the European Central Bank is studying a digital euro.

These decisions could probably generate a first global challenge, although it is hard to imagine a digital renminbi which can be a competitive global currency. Those who argue against a new global currency recall data showing evidence about the persistent dominant role of the dollar, demonstrating that the strength of the dollar as a safe asset does not simply result from the current network effect.

As recently claimed by Henry M. Paulson Jr., Secretary of the Treasury during the George Bush administration, "the privilege conferred on the U.S. dollar as the global reserve currency was hardly preordained. The dollar's pre-eminence came about only through a combination of historical happenstance, geopolitical conditions after World War II, U.S. Federal Reserve policies and the sheer size and dynamism of the U.S. economy."⁵¹ Moreover, the "natural monopoly" of the dollar as a safe asset stems from the fundamental integrity of the American political and

51. H.M. Paulson Jr., "The Future of the Dollar," *Foreign Affairs*, May 19, 2020.

economic system. The dollar is principally supported by well-functioning American institutions, which ensure a developed and liquid financial market, and a strong legal system that protects investors.

These characteristics are not present, for instance, in China. As a result, the renminbi is not suited to challenge the dollar as an international currency. There are three necessary conditions a national currency must have in order to achieve an international role. The Chinese currency already possesses two of those conditions: the dimension of its country's economy and its capacity to maintain its value. However, the third condition, namely, to have a well-developed, liquid and open financial market, is still missing.

Gina Gopinath, Chief economist of the IMF, has recently reiterated these positions. She stated that, because of the dollar's characteristics, neither the renminbi, notwithstanding the increased importance of the Chinese economy, nor virtual currencies as the Libra or the one advocated by Mark Carney, can challenge it.⁵² However, her point is less convincing if it is referring to a global virtual currency issued by an international monetary and financial institution, such as a reformed IMF, and as a result of a global agreement between nations.

The combined effect of de-globalization and "dollar weaponization"

We have to consider two other elements: the dollar weaponization and the strengthening of policies tending toward the decoupling of the global economy—or even just the decline of hyper-globalization compared to past decades.

The most important dollar weaponization example in recent times is the implementation of economic sanctions, namely those applied against Iran. Those sanctions were implemented in order to keep Iran outside both the international banking system and from the international fund transfer systems. Until 2020⁵³, the United States has kept Iran from accessing these systems by the threat of retaliation toward coun-

52. G. Gopinath, "Digital currencies will not displace the dominant dollar," *Financial Times*, January 7, 2020.

53. The new US administration seems open to reconsider this approach and partnering with the European allies to find different solutions.

tries and companies, even non-American, that would not follow these directions. These policies have already motivated Russia to substitute its dollar-denominated assets.

In addition, other countries, for example China, are now increasingly conducting transactions in the oil market without using the dollar. These U.S. policies, besides their strategic goals, have the potential to undermine confidence in the dollar as a safe asset, as well as reducing its use in international trade.

The trade conflict with China and the impulse of the United States to want to control Chinese flows of investment capital in the United States for geopolitical or trade war goals represent other warning signs, both for emerging and advanced economies. These signs demonstrate that the desirability of an international monetary system less tied to the dollar and more equilibrated to the current composition of the global economy and international trade might be at least the subject of debate.

Future implications

The international monetary system established at Bretton Woods, which attributed the role of international reserve currency to the dollar, and with it the exorbitant privilege to easily finance its own deficits, does not exist anymore in its original formulation as a Gold Exchange Standard. However, this system has resulted in a “de facto” international monetary system where, after over 70 years and through various events and transformations of the global economy, neither the role nor the exorbitant privilege of the dollar have diminished.

The theoretical critique to a system where a national currency has the role of an international reserve currency has been reiterated many times. However, despite American power (which had imposed the original solution at Bretton Woods) being challenged by the Asian emerging countries and by China, this system has persisted.

Today, the issue is reiterated in a complex environment where the reasons for strategic competition between China and the United States are contrasted by the need to maintain, and possibly strengthen, post-Covid-19 international economic cooperation. It will not be easy to manage the increased sovereign and private debts accumulated throughout

the world, regulate international capital flows resulting from liquidity created by the central banks' monetary stimulus and, finally, to restore global supply chains.

We do not know if the central position of the dollar will depend once more on a substantially unarranged dynamic or if the attempt to avoid a long global recession, which could have devastating social and geopolitical consequences, will favor the idea of a new Bretton Woods. This new system, alongside a new agreement on shared rules for international trade and WTO reform, could lay the foundations of a monetary system founded on rules coherent to those that should oversee international trade. Perhaps this time, in part because of technology, the conditions are set for Keynes' farsighted vision to prevail.

5

Conclusion: A New Financial and Economic Perspective to Restore Confidence After the Covid-19 Crisis⁵⁴

The globalization process experienced in recent years has arrived at a landmark moment. The pandemic crisis has suddenly placed an obstacle to a seemingly unstoppable process that led to growing production and financial hyper-connectivity for practically all countries around the world and also accelerated the movement, not only of goods and persons, of ideas, knowledge, uncertainties and fears.

Today, the word “globalization” has assumed a new meaning and a new face. After the explosion of the pandemic in China, there was uncertainty about the potential direct economic impact on global economic growth of measures taken halfway around the world. Now we face the globalization of the pandemic and uncertainty regarding its length and geographic containment.

The economic consequences of the Covid-19 pandemic will depend on its expansion and length, and by the subsequent duration of the interruption of production and consumption chains that, in their attempts to halt the epidemic, rendered economic growth an unfortunate bystander. Consequences will also depend on how fast the economic policies of all

54. This text has been published in <https://www.transatlantic.org/blog/a-new-financial-and-economic-perspective-to-restore-confidence-after-the-covid-19-crisis-giovanni-tria-and-angelo-federico-arcelli/> and also in the collection of articles Franco Timpano and Angelo Federico Arcelli, ed. (2020). “Atti della XVI lezione M. Arcelli”, Rubbettino, Soveria Mannelli (CS), Italy.

major countries will be able to compensate for negative expectations by implementing expansive fiscal and monetary policies.

These overall direct effects relate to the short-term. The energies of governments and institutions today seem mostly to be focused on coping with the current danger and to imagine the immediate aftermath in the next 4-6 months. However, the globalized world seems not to be questioning itself enough, at least in a public debate, about the long-term perspectives and what will be our way of living in 5-10 years.

More attention and concern must be placed in addressing expectations and fears that could determine drastic changes in consumer behavior of populations and condition the strategic investment choices on a global level. Today there is no clear expectation about the future of the globalized economy and no clear pathway designed for what were once the “Western democracies.”⁵⁵

This uncharted territory also questions the recovery capability of the economy itself. The lack of clear expectations may determine economic players’ inability to respond efficiently according to the available information. What we saw in recent years is that an excess of information led to less rational interpretation by economic and social players, and hyper-connectivity and the rapid circulation of any kind of information possibly transformed local uncertainties into global systemic crises.

If we think back to the animal spirits which Keynes described as the engines of human behavior, and therefore of the economy, we may see now how they amplify their effects through global connections and supply chains, albeit generated through local or national filters of different cultures and traditions.⁵⁶

Today’s situation seems to have pushed to the limits the global financial and trade architecture which, since the conference of Bretton Woods held during wartime over 75 years ago, has ensured the stability of the financial order, and which somehow (with notable changes and adaptation) has endured. The result of that conference was a framework to govern currencies, trade, and development for future years. The estab-

55. Jay C. Shambaugh (2012). “The Euro’s Three Crises,” *Brookings Papers on Economic Activity*, The Brookings Institution.

56. John Maynard Keynes (1980). *The Collected Writings*. Vol. 26, *Activities, 1941-46: Shaping the Post-War World: Bretton Woods and Reparations*, London: Macmillan.

lishment of the IMF as a guardian of financial stability and trade was decided at Bretton Woods. Even today we still have the US dollar as the main international reserve currency.

The private and financial sectors must find ways to sterilize, perhaps in innovative ways, current risks to global value chains. Global trade is a complex network of international exchanges of intermediate inputs regulated by international commercial contracts, in addition to national and international norms, in turn accompanied by an equally complex network of financial and insurance contracts.

It is a sort of neural network that must face the risks derived from potential temporary interruptions of the numerous interconnections baked into these intricate economic activities, and that must adopt corresponding adjustment and compensation mechanisms. A private sector response may not necessarily be enough on its own and may entail stability risks around the world in the long term.

Also, countries may respond to these risks inadequately, either due to limited awareness of the interconnections between national economies in the global market, or because of attention to short-term political advantages as a result of the pressures generated by the pandemic, the chimera of decoupling, or the need to reduce global connections between economies. Such ideas have gradually entered the debate to indicate the risk of a progressive and lasting process of splitting the world order, as a consequence of the competition between China and the United States, that some view more generally as the conflict between the West and the new Asian power.

Behind the idea of decoupling there is essentially the fear of China's technological growth in all aspects, which could translate into geopolitical hegemony. This view may lead to a world divided into two technological blocs, where innovations would not freely expand globally, but only within two competing areas, one controlled by the United States and the other by China.

A decoupled world seems scary because it is dangerous and uncertain. Probably it will not be our world for the foreseeable future, but the economic consequences of wrong choices in the direction of de-globalization can be sudden, devastating, and would immediately damage economies in Europe and elsewhere.

Only a worldwide coordinated and collaborative response in order to foster a reconstruction of the international monetary system, in a new deal, could be the solution to avoid a very costly “financial war,” which Europeans are likely to lose in terms of how we could sustain, in the long run, the level of wealth we enjoy today.⁵⁷

We now need to think of a new scheme for the years to come, which entails a new Bretton Woods initiative, jointly promoted by all the main economies, including the new emerging ones. As for the case of the conference in 1944, a new global agreement should aim at redefining the mechanisms ensuring financial stability and appropriate balancing of trade and financial flows.

Such an idea, which theoretically seems fascinating, in practice will require a “Congress of Vienna” approach amongst the main economic areas in the World, as a potential deal may redefine the balance of (economic) power, and not only that. A lot may depend by the United States’ openness to consider for some limitations to the “exorbitant privilege position” of the US dollar on global markets. This may seem counterintuitive, but a renewed deal keeping the US dollar as the center of the international financial market will consolidate the leadership of the United States for long. On the other side, the trade-off for the rest of the World could be represented by a stronger role of the international fora and a more multilateral and regulated approach in finance and trade. The choice for this path, which is clearly all to be built and discussed, cannot be formalized as a specific model today, as it will come by possible negotiations on several tables. But this could be an option that the new US administration may elect to pursue in order to give an historical steer to the World economy in the years to come.

57. European Central Bank (2019). The International Role of the Euro.

Bibliography

- Accominotti, Olivier (2012). *London Merchant Banks, the Central European Panic, and the Sterling Crisis of 1931*, Cambridge University Press.
- Accominotti, Olivier (2020). *International Monetary Regimes: The Inter-war Gold Exchange Standard*, in *Handbook of the History of Money and Currency*, Springer Nature, Singapore.
- Accominotti, Olivier and Barry Eichengreen (2015). The Mother of all Sudden Stops: Capital Flows and Reversals in Europe, 1919-32, *The Economic History Review*.
- Adams, J. (1990). The Exchange-Rate Mechanism in the European Monetary System, *Bank of England Quarterly Bulletin* 30, no. 4.
- Alesina, Alberto with Daron Acemoglu and Christopher J. Bickerton (2016). *The Search for Europe: Contrasting Approaches*, BBVA.
- Alesina, Alberto with Silvia Ardagna and Vincenzo Galasso (2008). The Euro and Structural Reforms, NBER Working Paper No. 14479.
- Bartel, R. J. (1974). International Monetary Unions: the Nineteenth Century Experience, *The Journal of European Economic History*.
- Battistini, Niccolò with Marco Pagano, Saverio Simonelli (2014). Systemic Risk, Sovereign Yields and Bank Exposures in the Euro Crisis, *Economic Policy* Vol. 29, Issue 78.
- Begg, David et al. (1990). *Monitoring European Integration: The Impact of Eastern Europe*, Centre for Economic and Policy Research, London.
- Bergsten, Fred (2004). The Dollar and the Euro, *Foreign Affairs* 76.

- Bernanke, Ben with Frederic Mishkin (1992). *Central Bank Behavior and the Strategy of Monetary Policy: Observations from Six Industrialized Countries*, NBER Working Paper No. 4082.
- Bernanke, Ben with Harold James (1990). *The Gold Standard, Deflation, and Financial Crisis in the Great Depression: An International Comparison*, NBER Working Paper No. 3488.
- Bernanke, Ben with Harold James (1991). The Gold Standard, Deflation, and Financial Crisis in the Great Depression: An International Comparison, Chapter in *Financial Markets and Financial Crises*, University of Chicago Press.
- Bernanke, Ben with Thomas Laubach, Frederic Mishkin and Adam Posen (1999). *Inflation Targeting: Lessons from the International Experience*, Princeton University Press, Princeton.
- Bernanke, Ben S. (1993). The World on a Cross of Gold: A Review of “Golden Fetters”: The Gold Standard and the Great Depression, 1919-1939, *Journal of Monetary Economics*.
- Blakemore, Erin (2018). *The Euro: How a Common Currency Helped Europe Achieve Peace*, History Stories.
- Bloomfield, Arthur I. (1959). *Monetary Policy Under the International Gold Standard: 1880-1914*, Federal Reserve Bank of New York, New York.
- Boltho, Andrea with Wendy Carlin (2012). *The Problems of European Monetary Union—Asymmetric Shocks or Asymmetric Behavior*, VOX-EU CEPR.
- Bordo, Michael D. with Lars Jonung (1999). *The Future of the EMU: What Does the History of Monetary Union Tell Us?*, NBER Working Paper No. 7365.
- Bordo, Michael D. (1993). The Bretton Woods International Monetary System: A Historical Overview, in *A Retrospective on the Bretton Woods System: Lessons for International Monetary Reform* by Michael D. Bordo and Barry Eichengreen, University of Chicago Press.

- Bordo, Michael D. (1993). *The Gold Standard, Bretton Woods and other Monetary Regimes: An Historical Appraisal*, NBER Working Paper No. 4310.
- Bordo, Michael D. (2007). *A Brief History of Central Banks*, Federal Reserve Bank of Cleveland, Cleveland.
- Bordo, Michael D. (2017). *The Operation and Demise of the Bretton Woods System; 1958 to 1971*.
- Bordo, Michael D. with Anna J. Schwartz (1984). *A Retrospective on the Classical Gold Standard, 1821-1931*, University of Chicago Press.
- Bordo, Michael D. with Athanasios Orphanides (2013). *The Great Inflation: The Rebirth of Modern Central Banking*, Chicago University Press, Chicago.
- Bordo, Michael D. with Barry Eichengreen (1998). *The Rise and Fall of a Barbarous Relic: The Role of Gold in the International Monetary System*.
- Bordo, Michael D. with Harold James (2011). *The Great Depression Analogy*, NBER Working Paper No. 15584.
- Bordo, Michael D. with Pierre L. Siklos (2016). *Central Bank Credibility: An Historical and Quantitative Exploration, in Central Bank at a Crossroads*, Cambridge University Press, Cambridge.
- Bordo, Michael D. with Ronald MacDonald (2001). *The Inter-War Gold Exchange Standard: Credibility and Monetary Independence*, NBER Working Papers No. w8429.
- Bordo, Michael D. with Antu P. Murshid (1999). *The International Transmission of Financial Crises before World War II: Was there Contagion?*, Rutgers University.
- Bordo, Michael D. with Pierre L. Siklos (2017). *Central Banks: Evolution and Innovation in Historical Perspective*, NBER Working Paper No. 23847, Cambridge.
- Bordo, Michael D. with Robert D. Dittmar and William T. Gavin (2003). *Gold, Fiat, and Price Stability*, NBER Working Paper No. 10171.

- Bordo, Michael D. with Dominique Simard and Eugene White (1994). *France and the Bretton Woods International Monetary System: 1960-1968*.
- Boughton, James M. (2002). *Why White, Not Keynes? Inventing the Post-war International Monetary System*, IMF Working Paper/02/52.
- Branson, William (1994). German Unification and the Breakdown of the EMS, and the Transition to Stage III, in David Cobham (ed.), *European Monetary Upheavals*, Manchester University Press, Manchester.
- Buchanan, James (2018). *John Law: A Scottish Adventurer of the Eighteenth Century*, MacLehose Press.
- Bunker, Nick (2016). *Declining US Labor Mobility is About More than Geography*, Washington Center for Equitable Growth.
- Calvo, Guillermo A. with Carmen M. Reinhart (2002). Fear of Floating, *The Quarterly Journal of Economics*, Volume 117, Issue 2.
- Capie, Forrest with Charles Goodhart, Norbel Schnadt (2012). *The Development of Central Banking*, Cambridge University Press, Cambridge, UK.
- Carbaugh, Robert L. (1977). The Weakened Snake: Exchange Market Adjustments, *Nebraska Journal of Economics and Business*, Vol. 16, No. 1, Creighton University.
- Carney, Mark S. (2019). *The Growing Challenges for Monetary Policy in the Current International Monetary and Financial System*, Jackson Hole Symposium.
- Cassel, Gustav (1936). *The Downfall of the Gold Standard*, Oxford University Press.
- Cesarano, Filippo (2003). Defining Fundamental Disequilibrium: Keynes's Unheeded Contribution, *Journal of Economic Studies*.
- Cesarano, Filippo (2006). *Monetary Theory and Bretton Woods: The Construction of an International Monetary Order*, Cambridge University Press, Cambridge and New York.

- Choudhri, Ehsan U. Levis A. Kochin (1980). The Exchange Rate and the International Transmission of Business Cycle Disturbances: Some Evidence from the Great Depression, *Journal of Money, Credit and Banking*.
- Christiano, Lawrence J. with Roberto Motto and Massimo Rostagno (2004). *The Great Depression and the Friedman-Schwartz Hypothesis*, NBER Working Paper No. 10255.
- Cimadomo, Jacopo with Sebastian Hauptmeier, Alessandra Anna Palazzo and Alexander Popov (2018). Risk Sharing in the Euro Area, *ECB Economic Bulletin*, Issue 3.
- Coeuré, Benoit (2019). *Should the ECB Care About the Euro's Global Role?*, Voxeu.
- Coffey, Peter with John Presley (1971). *European Monetary Integration*, Macmillan Press, London.
- Cohen, Benjamin with Paola Subacchi (2008). A One-and-a-Half Currency System, *Journal of International Affairs* 62(1).
- Cooper, Richard N. (1982). The Gold Standard: Historical Facts and Future Prospects, *Brookings Papers on Economic Activity*.
- Crafts, Nicholas and Peter Fearon (2010). Lessons from the 1930s Great Depression, *Oxford Review of Economic Policy*.
- Dabrowski, Marek (2019). *The Economic and Monetary Union: Past, Present and Future*, Policy Department for Economic, Scientific and Quality of Life Policies.
- De Grauwe, Paul with Guy Verfaillie (1988). *Exchange Rate Variability, Misalignment and the European Monetary System*, University Chicago Press, Chicago
- De Kock, M. H. (1975). *On Central Banking*, St Martin's Press, New York.
- Delivorias, Angelos (2015). *A History of European Monetary Integration*, European Parliamentary Research Service.

- Dincer, Nergiz and Barry Eichengreen (2014). Central Bank Transparency and Independence: Updates and New Measures, *International Journal of Central Banking*.
- Edvinsson, Rodney with Tor Jacobson and Daniel Waldenström (2018). *Sveriges Riksbank and the History of Central Banking*, Cambridge University Press.
- Eichengreen, Barry (1984). Central Bank Cooperation Under the Inter-war Gold Standard, *Explorations in Economic History*.
- Eichengreen, Barry (1986). The Bank of France and the Sterilization of Gold, 1926-1932, *Explorations in Economic History*.
- Eichengreen, Barry (1992). *Golden Fetters: The Gold Standard and the Great Depression, 1919-1939*, Oxford University Press, Oxford.
- Eichengreen, Barry (1992). *Three Perspectives on the Bretton Woods System*, NBER Working Paper No. 4141.
- Eichengreen, Barry (2000). *The EMS Crisis in Retrospect*, NBER Working Paper No. 8035.
- Eichengreen, Barry (2007). *The Breakup of the Euro Area*, NBER Working Paper No. 13393.
- Eichengreen, Barry (2008). *Sui Generis EMU*, NBER Working Paper No. 13740.
- Eichengreen, Barry (2010). *Exorbitant Privilege. The Rise and Fall of the Dollar and the Future of the International Monetary System*, Oxford University Press, Oxford.
- Eichengreen, Barry and Jeffrey Sachs (2009). *Exchange Rates and Economic Recovery in the 1930s*, Cambridge University Press.
- Eichengreen, Barry and Marc Flandreau (1997). *The Gold Standard in Theory and History*, Routledge, London.
- Einaudi, Luca (2018). *A Historical Perspective on the Euro: the Latin Monetary Union (1865-1926)*, ifo DICE Report.

- Einaudi, Luca (2000). From the Franc to the 'Europe': Great Britain, Germany and the attempted transformation of the Latin Monetary Union into a European Monetary Union, *Economic History Review* 53 (2), 284–308.
- Einaudi, Luca (2001). *Money and Politics: European Monetary Unification and the International Gold Standard (1865-1873)*, Oxford University Press.
- Elwell, Craig K. (2011). *Brief History of the Gold Standard in the United States*, Congressional Research Service.
- Endres, Anthony M. (2009). *Currency Competition: A Hayekian Perspective on International Monetary Integration*.
- European Central Bank (2019). *The International Role of the Euro*.
- Farrell, Henry and Abraham L. Newman (2019). Weaponized Interdependence. How Global Economic Networks Shape State Coercion, *International Security*, Vol. 44, No. 1
- Feldstein, Martin (1998). *The Political Economy of the European Economic and Monetary Union: Political Sources of an Economic Liability*, NBER Working Paper No. 6150.
- Fendel, F. and Maurer, D. (2015). Does European History Repeat Itself?: Lessons from the Latin Monetary Union for the European Monetary Union, *Journal of Economic Integration*.
- Ferguson, Niall (2001). *The Cash Nexus: Money and Power in the Modern World 1700-2000*, Basic Books, New York.
- Flandreau, Marc (1995). Was the Latin Monetary Union a Franc Zone? In: Reis J. (eds) *International Monetary Systems in Historical Perspective*, Palgrave Macmillan, London.
- Flandreau, Marc (1993). On the Inflationary Bias of Common Currencies: The Latin Union Puzzle, *European Economic Review*, North-Holland.
- Flandreau, Marc (2000). The Economics and Politics of Monetary Unions: a Reassessment of the Latin Monetary Union, 1865-71, *Financial Historic Review*.

- Fostel, Ana and Kaminsky, Graciela L. (2007). *Latin America's Access to International Capital Markets: Good Behavior or Global Liquidity?*, NBER Working Paper No. 13194.
- Frankel, Jeffrey and Steven Phillips (1991). *The European Monetary System: Credible at Last?*, NBER Working Paper No. 3819.
- Fratianni, Michele and Franco Spinelli (1997). *A Monetary History of Italy*, Cambridge University Press, Cambridge.
- Frieden, Jeffry A. (1997). Monetary Populism in Nineteenth-Century America: An Open Economy Interpretation, *Journal of Economic History*.
- Froot, Kenneth A. with Kenneth Rogoff (1991). The EMS, the EMU and the Transition to a Common Currency, Chapter in NBER book *NBER Macroeconomics Annual 1991*, Vol. 6.
- Garber, Peter M. (1993). The Collapse of the Bretton Woods Fixed Exchange Rate System, in *A Retrospective on the Bretton Woods System: Lesson for International Monetary Reform*, University of Chicago Press.
- Giavazzi, Francesco with Marco Pagano (1988). The Advantage of Tying One's Hands: EMS Discipline and Central Bank Credibility, *European Economic Review* 32.
- Goldberg, Linda S. (2013). *Banking Globalization, Transmission, and Monetary Policy Autonomy*, Federal Reserve Bank of New York.
- Goodhart, Charles (2018). *The Bank of England, 1694-2017*, Cambridge University Press.
- Habermeier, Karl with Annamaria Kokenyne, Romaine Veyrune & Harald Anderson (2009). *Revised System for the Classification of Exchange Rate Arrangements*, IMF Working Paper.
- Hall, Peter A. (2014). Varieties of Capitalism and the Euro Crisis, *West European Politics* 37.
- Hall, Peter A. (2016). *The Euro Crisis and the Future of European Integration*, BBVA, Madrid.

- Hamilton, James D. (1988). Role of the International Gold Standard in Propagating the Great Depression, *Contemporary Policy Issues*.
- Hayek, Friedrich A. (1976). *Choice in Currency: A Way to Stop Inflation*, The Institute of Economic Affairs.
- Hix, Simon (2008). *What's Wrong with the European Union and How to Fix It*, Cambridge: Polity.
- Höpner, Martin (2017). *Better Than the Euro? The European Monetary System (1979-1998)*.
- Ikenberry, John G. (1990). *A World Economy Restored: Expert Consensus and the Anglo-American Power Settlement*, The MIT Press.
- Ikenberry, John G. (1993). The Political Origins of Bretton Woods, in *A Retrospective on the Bretton Woods System: Lesson for International Monetary Reform*, University of Chicago Press.
- Ilzetzki, Ethan with Carmen M. Reinhart and Kenneth S. Rogoff (2020). *Why is the Euro Punching Below its Weight?*, NBER Working Paper No. 26760.
- International Monetary Fund (1973). *The Snake in the Tunnel*.
- Irwin, Douglas A. (2017). *The Missing Bretton Woods Debate Over Flexible Exchange Rates*, NBER Working Paper No. 23037.
- James, Harold (1996). *International Monetary Cooperation Since Bretton Woods*, International Monetary Fund, Washington DC.
- James, Harold (2002). *The End of Globalization: Lessons from the Great Depression*, Harvard University Press.
- Kee-Hong Bae, Warren Bailey (2011). The Latin Monetary Union: Some evidence on Europe's failed common currency, *Review of Development Finance*, p. 131-149.
- Keynes, John Maynard (1943). Proposals for an International Clearing Union, in Keith Horsefield et al, *The International Monetary Fund 1945-1965: Twenty Years of International Monetary Cooperation, Volume 1*. Chronicle, International Monetary Fund, Washington DC.

- Keynes, John Maynard (1980). *The Collected Writings. Vol. 26, Activities, 1941-46: Shaping the Post-War World: Bretton Woods and Reparations*, London: Macmillan.
- Kindleberger, Charles P. (1996). *Manias, Panics and Crashes*, Wiley Investment Classics.
- Kindleberger, Charles P. (1993). *A Financial History of Western Europe*, Oxford University Press.
- Krugman, Paul R. with Maurice Obstfeld & Marc J. Melitz (2018). *International Economics, Theory and Policy*, Pearson, United Kingdom.
- Kugler, Peter (2016). *The Bretton Woods System: Design and Operation, in Money in the Western Legal Tradition*, Oxford University Press, Oxford.
- Mackay, Charles (1980). *The Mississippi Scheme*, Andrew Publishing Company, London, Reprint of the 1885 Edition.
- Matthijs, Matthias with Mark Blyth (2015). *The Future of the Euro*, Oxford University Press.
- McKinnon, Ronald I. (1993). The Rules of the Game: International Money in Historical Perspective, *Journal of Economic Literature*.
- McKinnon, Ronald I. (2014). *The Unloved Dollar Standard: From Bretton Woods to the Rise of China*, Oxford University Press, New York.
- Meissner, Christopher M. (2002). *A New World Order: Explaining the Emergence of the Classical Gold Standard*, NBER Working Paper No. 9233.
- Meltzer, Allan H. (1991). US Policy in the Bretton Woods Era, *Federal Reserve Bank of St. Louis Review* 73.
- Mitchener, Kris James with Kirsten Wandschneider (2015). Capital Controls and Recovery from the Financial Crisis of the 1930s, *Journal of International Economics* 95.

- Mitchener, Kris J. with Masato Shizume and Marc D. Weidenmier (2009). *Why Did Countries Adopt the Gold Standard? Lessons from Japan*, NBER Working Paper No. 15195.
- Moggridge, D. E. (1972). *British Monetary Policy 1924-1931: The Norman Conquest of \$4.86*, Cambridge University Press, Cambridge.
- Mooslechner, Peter and Enest Gnan (2007). *The Experience of Exchange Rate Regimes in Southeastern Europe in a Historical and Comparative Perspective*, Proceedings of OeNB Workshops, Vienna.
- Moure, Kenneth (2002). *The Gold Standard Illusion: France, the Bank of France, and the International Gold Standard, 1914-1939*, Oxford University Press.
- Obstfeld, Maurice (1993). The adjustment mechanism, chapter in *A Retrospective on the Bretton Woods System: Lessons for International Monetary Reform*, University of Chicago Press.
- Obstfeld, Maurice with Kenneth Rogoff (1995). The Mirage of Fixed Exchange Rates, *Journal of Economic Perspectives*.
- Ohanian, Lee E. (2009). *What—or Who—Started the Great Depression?*, NBER Working Paper No. 15258.
- Parker Willis, H. (1901). *A History of The Latin Monetary Union: A Study of International Monetary Action*, The University of Chicago Press, Chicago.
- Pollard, Patricia S. (2001). *The Creation of the Euro and the Role of the Dollar in International Markets*, The Federal Reserve Bank of St. Louis.
- Pollard, S. (1981). The Integration of the European Economy since 1815, *Economic History*.
- Redish, A. (1993). The Latin Monetary Union and the emergence of the international gold standard. In M. Bordo & F. Capie, *Monetary Regimes in Transition (Studies in Macroeconomic History)*, Cambridge University Press, Cambridge.

- Reuven Glick and Andrew K. Rose (2015). *Currency Unions and Trade: A Post-EMU Mea Culpa*, NBER Working Paper No. 21535.
- Rogoff, Kenneth A. (1985). The Optimal Degree of Commitment to an Intermediate Monetary Target, *Quarterly Journal of Economics* 100.
- Schenk, Catherine (2010). *The Decline of Sterling: Managing the Retreat of an International Currency, 1945 to 1992*, Cambridge University Press, New York.
- Schwartz, Anna J. (1987). *Alternative Monetary Regimes: The Gold Standard*, in *Money in Historical Perspective*, University of Chicago Press.
- Schwartz, Anna J. (1987). Lessons of the Gold Standard Era and the Bretton Woods System for the Prospects of an International Monetary System Constitution, in *Money in Historical Perspective*, University of Chicago Press.
- Selgin, George (2013). *The Rise and Fall of the Gold Standard in the United States*, Cato Institute, Policy Analysis No. 729.
- Shambaugh, Jay C. (2012). The Euro's Three Crises, *Brookings Papers on Economic Activity*, The Brookings Institution.
- Solomon, Robert (1976). *The International Monetary System, 1945-1976; An Insider's View*, Harper and Row, New York.
- Solomon, Robert (1982). *The International Monetary System, 1945-1981*, Harper & Row.
- Steil, Benn (2014). *The Battle of Bretton Woods: John Maynard Keynes, Harry Dexter White, and the Making of a New World Order*, Princeton University Press, Princeton.
- Stiglitz, Joseph E. (2016). *The Euro: How a Common Currency Threatens the Future of Europe*, W. W. Norton & Company, New York.
- Syrrakos, Dimitrios (2010). A Reassessment of the Werner Plan and the Delors Report: Why did they Experience a Different Fate?, *Comparative Economic Studies* 52.

- Takekazu, Iwamoto (1997). The Keynes Plan for an International Clearing Union, *The Kyoto University Economic Review*.
- Temin, Peter (1994). *The Great Depression*, NBER Historical Working Paper No. 62.
- Triffin, Robert (1960). *Gold and the Dollar Crisis*, New Haven: Yale University Press.
- Vanthoor, W. F. V. (1996). *European Monetary Union Since 1848: a Political and Historical Analysis*, Cheltenham.
- Verdun Amy with Erik Jones (2017). The Werner Report of 1970—a blueprint for EMU in the EU?, EUSA, Miami.
- Wandschneider, Kirsten (2008). The Stability of the Interwar Gold Exchange Standard: Did Politics Matter?, *The Journal of Economic History*.
- Weizhen, Tan (2020). The Growing US Deficit Raises Questions About Funding as China Cuts US Debt Holdings, CNBC.
- Werner Committee (1970). Report to the council and the commission on the realization by stages of economic and monetary union in the community (Werner Report), Bulletin of European Communities, Supplement 11.
- Wheelock, David C. (1997). *Monetary Policy in the Great Depression and Beyond: The Sources of the Fed's Inflation Bias*, Federal Reserve Bank of St. Louis.
- Wolf, Nikolaus (2008). *Scylla and Charybdis. Explaining Europe's Exit from Gold, January 1928-December 1936*, CESifo Working Paper Series 2271.
- Zhou Xiaochuan (2009). *Reform the International Monetary System*, Bank for International Settlements, Basel, Switzerland.

TOWARDS A RENEWED BRETTON WOODS AGREEMENT

Giovanni Tria and Angelo Federico Arcelli



Giovanni Tria is a senior fellow at the Transatlantic Leadership Network, Honorary Professor of Economics and President of the Center for Euro-Asian Studies at the University of Rome Tor Vergata. He has been Minister of Economy and Finance in the Italian Government, Full Professor of Economics and Dean of the Faculty of Economics at University of Rome Tor Vergata, President of the Italian National School of Public Administration and member of the Governing Body of ILO for the Italian government. He worked as an economic expert in many Italian institutions and government bodies and for international organizations. He is member of the scientific committees of Italian think tanks and foundations and he is an editorialist for Italian newspapers.



Angelo Federico Arcelli is currently a senior fellow at the Transatlantic Leadership Network, a full professor in Economy of Financial Intermediaries (International Institutions) at Guglielmo Marconi University (Rome, Italy) and a senior fellow at the Center for International Governance Innovation (CIGI, Waterloo, ON, Canada). Federico is also a partner in Oliver Wyman, a global strategic consulting firm. He has served as adviser to the vice president of the European Investment Bank (Luxembourg, 2004-2008) and then adviser and member of the executive board of the World Bank (Washington, DC-USA, 2008-2009). He was a Fellow at the Center for Transatlantic Relations of Johns Hopkins University SAIS from 2012-2018. He holds a degree (MSc) in economics from Bocconi University (Milan, Italy) and a PhD in economic history from the same university.

**TRANSATLANTIC
LEADERSHIP
NETWORK**

Transatlantic Leadership Network
1800 M St NW #33161
Washington, D.C. 20036-5828
<http://www.transatlantic.org>

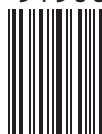
\$15.00

ISBN 978-0-9600127-8-7

5 1500 >



9 780960 012787



Distributed by:
Brookings Institution Press
Washington D.C.