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FRANKFURT FORUM on US-EUROPEAN GEOECONOMICS

ATLANTIK-BRÜCKE

The International Role of the Euro and the Dollar

Forever in the Lead?

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Frankfurt Forum

This paper is one of four publications launched at the inaugural Frankfurt Forum on US-European GeoEconomics held in Germany from September 27 – 29, 2022. Co-hosted by the Atlantic Council GeoEconomics Center and Atlantik-Brücke, the Frankfurt Forum anchors critical work on transatlantic economic cooperation. The war in Ukraine, and the G7 response, reminded the world of the impact of transatlantic coordination. As part of the Frankfurt Forum, this new research aims to advance transatlantic dialogue from crisis response to addressing the key economic issues that will underpin the US-EU partnership over the next decade. The goal of the Frankfurt Forum is to deliver a blueprint for cooperation in four key areas: digital currencies, monetary policy, international trade, and economic statecraft.

Atlantic Council's GeoEconomics Center

Launched in 2020, the Atlantic Council's GeoEconomics Center has become the go-to place at the intersection of economics, finance, and foreign policy. The Center bridges the divide between these oft-siloed sectors and helps shape a better global economic future for the US and its allies. The Center is organized around three pillars: 1) The Future of Capitalism; 2) The Future of Money; and 3) The Economic Statecraft Initiative.

Atlantik-Brücke

Founded in 1952, Atlantik-Brücke is a non-profit and non-partisan association committed to deepening cooperation between Germany, Europe and America. Transatlantic cooperation remains pivotal for global order and stability, now more than ever. With nationalist tendencies gaining popularity worldwide, Atlantik-Brücke has doubled down on its mission to solidifying relations across the Atlantic among policymakers, industry leaders, journalists, academics, and civil society by offering a platform for different perspectives and lively debate. Atlantik-Brücke also fosters ties between young professionals and representatives of civil society through annual conferences and exchanges. The approximately 500 members of Atlantik-Brücke are decision-makers from business, politics, science and the media on both sides of the Atlantic.

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INTRODUCTION

The international monetary system has been surprisingly resilient over the past two years, considering the size of pandemic and geopolitical shocks that hit markets during this period. Liquidity injections by the major central banks helped stabilize economic activity and avoid disruptions to capital flows or foreign exchange markets. Major exchange rates remained range-bound throughout most of the crisis, even if the dollar has appreciated sharply in recent months[1]. Volatility is likely to pick up as monetary policy responds to high inflation, but there should be no doubt that the dollar-based monetary order has withstood a major test during the past two years.

This feat has been even more remarkable as the global security landscape has deteriorated in dramatic fashion. The rules-based architecture centered on the United Nations is being challenged by China and other autocracies, and Russia's invasion of Ukraine has brought international tensions to a level not seen since the 1961 Cuban missile crisis. Markets have reacted in a time-honored fashion by seeking refuge in US assets, strengthening the dollar even before the Federal Reserve began to tighten monetary policy.

While the dollar's safe haven status remains firmly established, the center of global economic activity has been shifting east. Asia has become an economic powerhouse, and China is on course to become the world's largest economy over the next few years. In its quest for self-reliance, China has been pursuing access to raw materials and dominance in critical technologies. It has tried to shape international relations through the Belt and Road Initiative and Global Security Initiative, using its financial reserves in a way that traditional economic powers have been unable or unwilling to match. Moreover, the damage imposed on Russia by Western sanctions may well reinforce China's push for greater financial security.

It is, therefore, a natural question whether China will challenge the United States and Europe for global economic leadership, and whether the renminbi will appear as a leading, if not dominant, currency. This paper argues that this is unlikely for the foreseeable future, in part because a larger global role for the renminbi would be inconsistent with the Chinese leadership's current policy priorities.

However, there is no room for complacency. With the post-World War II international order in gradual decline, the world could again reach a moment where unforeseen geopolitical events might lead to changes in long-held political and economic paradigms. The United States and Europe can reduce this risk by making their growth models more robust and sustainable. Moreover, keeping their global alliances intact could prevent a loss of influence that has heralded changes in the international monetary system in the past.

Federal Reserve Board Chairman Jerome Powell speaks during a news conference. July 27, 2022. REUTERS/Elizabeth Frantz

1. GREENBACK DOMINANCE

> *"The simple reality is that we live in a dollar world: on the real side, where dollar invoicing is dominant; on the financial side, where dollar funding is essential to global banks and non-financial corporations; and on the policy side, where dollar anchoring and dollar reserves are prevalent."*
> — Pierre-Olivier Gourinchas[2]

The US dollar has been the dominant international currency for much of the past century. The importance of the US economy became evident in the 1920s when European economies slowly recovered from World War I, and the dollar was at the center of the Bretton Woods system, a global architecture built on the economic and military strength of the United States. The 1971 collapse of Bretton Woods ended the regime of gold-based fixed exchange rates, but it did not diminish the leading role of the dollar. The greenback was by then the global unit of account, and even without a fixed gold parity, the United States continued to be the main provider of safe assets to the rest of the world, underpinned by its fiscal capacity and the depth and liquidity of its financial markets.

As documented in recent work by the International Monetary Fund (IMF)[3] and the Federal Reserve[4], the dollar is involved in close to 90 percent of all global foreign exchange transactions, and it accounts for more than half of global export invoicing, cross-border banking claims, and international debt securities (Figure 1). Dollar assets also represent around 60 percent of the value of foreign reserve holdings worldwide.

The euro occupies a strong second place behind the dollar in all categories. It is involved in about a third of foreign exchange transactions and accounts for up to a quarter of cross-border banking claims and international debt securities. Currencies of other advanced economies (notably the Japanese yen, British pound, Australian and Canadian dollars, and Swiss franc) make up much of the balance. The share of the Chinese renminbi stays small, being most visible in foreign exchange reserves and in global foreign exchange turnover.

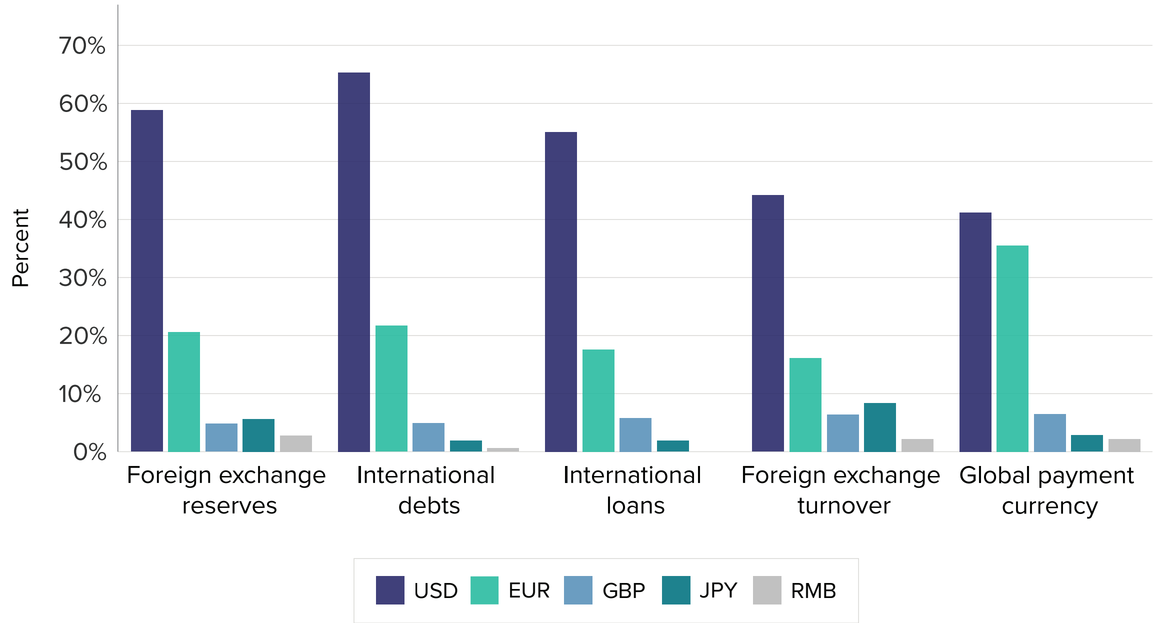
Academic work[5] has established that once a dominant currency[6] is in place, there are powerful stabilizing forces and network effects in play that perpetuate its position unless a major paradigm shift occurs. Since a country's foreign exchange reserves need to be of the highest liquidity, central banks will not change their reserve currency allocation unless they believe that markets in a new reserve currency will offer greater liquidity (implying that other market participants are switching their reserve holdings, too).

Countries also have an incentive to stabilize their exchange rates vis-à-vis the dominant currency, since it tends to be a key driver of import price fluctuations. This incentive increases with openness to foreign trade, giving a further boost to the dollar as trade barriers generally declined in recent decades.

Consistent with this trend, many countries have adopted exchange rate policies that tie the value of their currencies close to the dollar. According to some estimates[7], the number of currencies that are either directly or indirectly anchored to the dollar (e.g., via currencies that are itself tied to the dollar) is currently as large as during the Bretton Woods era. Moreover, dollar invoicing leads to higher demand for dollar-denominated safe assets, which tends to reduce dollar borrowing costs and, therefore, incentivizes the financing of international trade in dollars.

Network effects would of course pertain to any international currency that gained the status of a dominant currency, and it is not a given that the dollar and euro will remain forever in the lead. Transitions from one dominant reserve currency to another have occurred in the past, usually over lengthy time intervals and in connection with major geopolitical transitions (see below).

Figure 1. Role of major currencies in the international monetary system

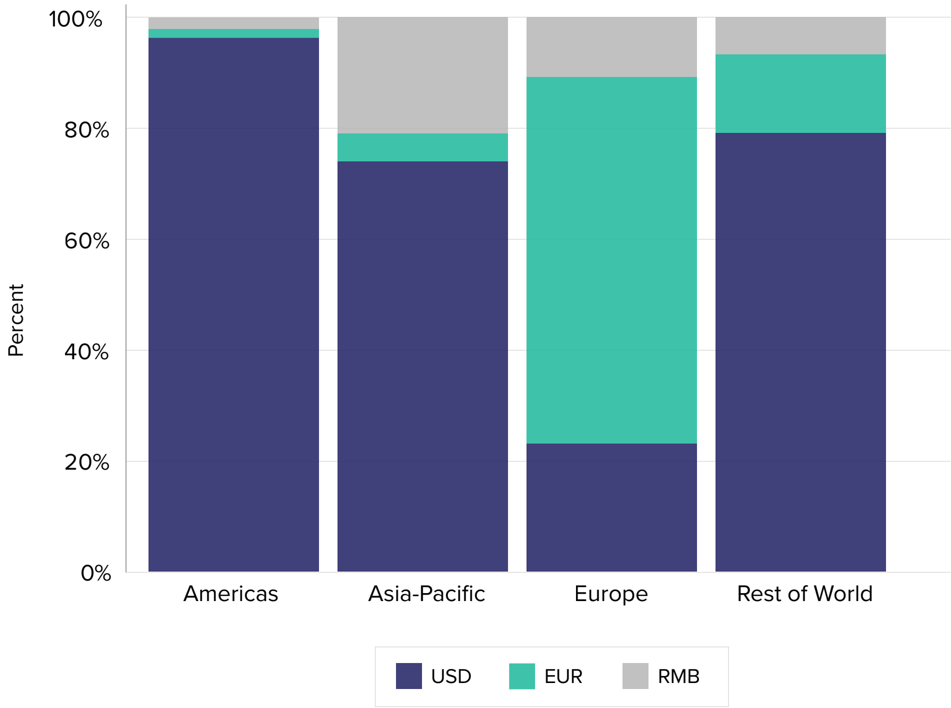


Notes: The latest data for foreign exchange reserves, international debt and international loans are for the fourth quarter of 2021. Foreign exchange turnover data as of April 2019. SWIFT data as of December 2021

Data sources: BIS, IMF, Society for Worldwide Interbank Financial Telecommunication (SWIFT) and ECB calculations.

Source: European Central Bank, The international role of the euro, Frankfurt: June 2022, https://www.ecb.europa.eu/pub/ire/html/ecb.ire202206~6f3ddeab26.en.html.

Figure 2. Share of Export Invoicing



Notes: Average annual currency composition of export invoicing, where data are available. Data extend from 1999 through 2019. Regions are those defined by the IMF.

Data sources: IMF Direction of Trade; Central Bank of the Republic of China; Boz et al. (2020); Federal Reserve Board staff calculations.

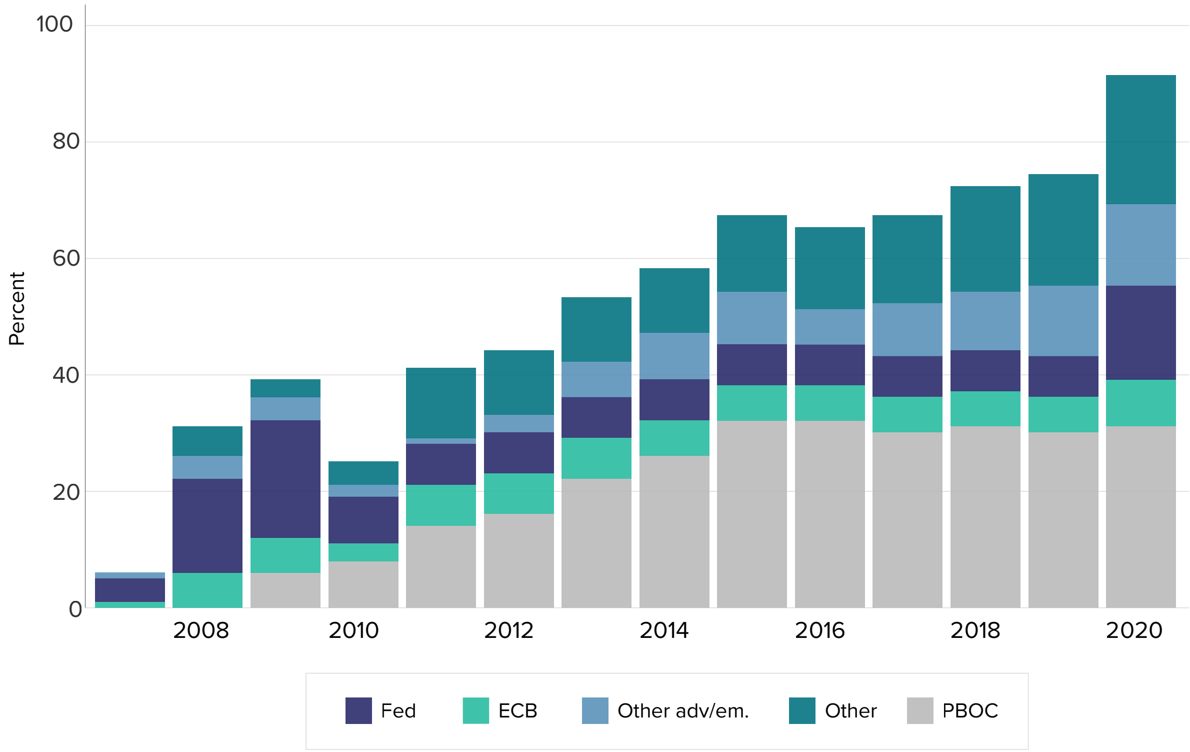
Source: C.C. Bertaut, B. von Beschwitz, S.E. Curcuru (2021). "The International Role of the U.S. Dollar," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, October 6, 2021, https://doi.org/10.17016/2380-7172.2998.

Before asking whether we are again at the verge of such a transition, however, it may be useful to take a closer look at the distinct functions that reserve currencies play in international markets, and to see whether other currencies have been gaining in importance even as the dollar is still dominant.

- **Unit of account.** A major change in the denomination of international transactions, whether in trade or financial instruments, has been the introduction of the euro in 1999. Taking on the role of its predecessor currencies, the euro assumed a large share of international payments right from the start but has failed to make significant headway outside of Europe. As seen above, the euro rivals the dollar in SWIFT payments, and it also accounts for close to 80 percent of trade invoicing within Europe and parts of Africa, but its role in the rest of the world is still small (Figure 2). Moreover, it has become less of an anchor currency[8] for other countries following the euro area crisis a decade ago.

  The Chinese renminbi's status as a freely tradeable international currency has been boosted by the inclusion of the renminbi in the IMF's Special Drawing Rights (SDR) currency basket in 2016. Despite an increase in foreign capital flowing into China, however, there are no signs yet that the renminbi is becoming a more widely used currency, even if its use in pricing Chinese exports to key partner countries seems to be gradually increasing.

Figure 3. **Number of Bilateral Swap Lines**



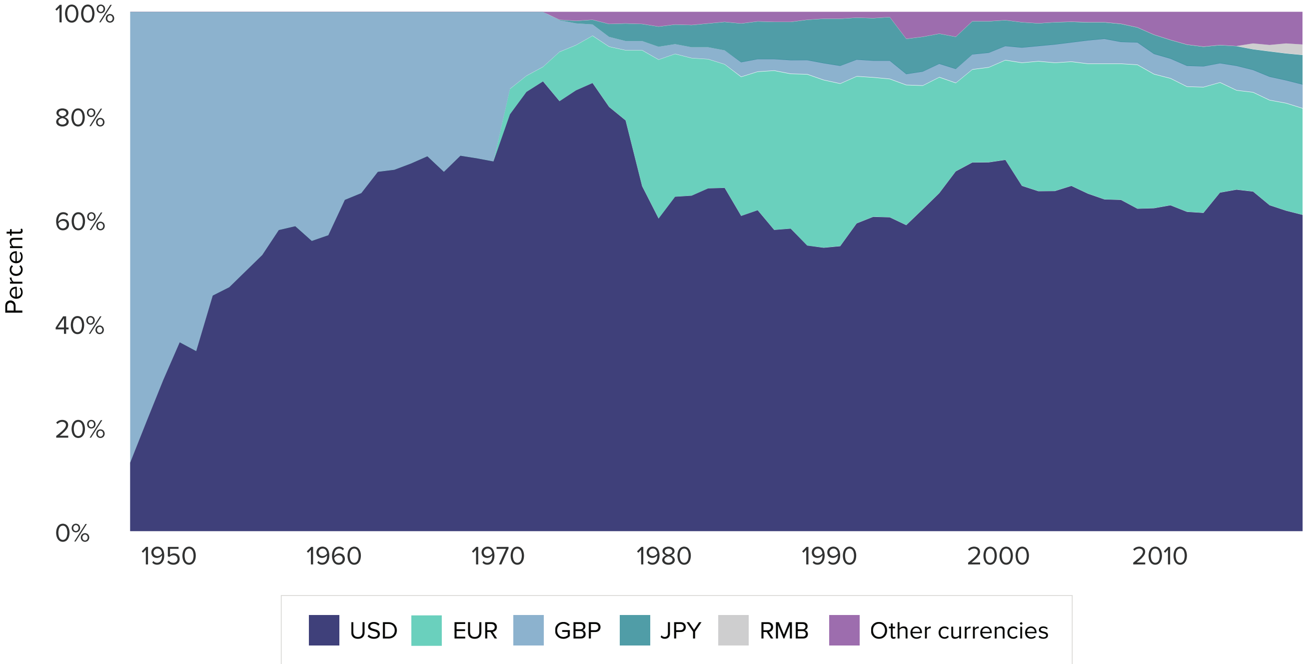
Data Sources: Central Bank websites and IMF staff estimates.

Source: M. Perks, Y. Rao, J. Shin, K. Tokuoka, "Evolution of Bilateral Swap Lines," IMF Working Paper 21/210, Washington, DC, August 2021. https://www.imf.org/-/media/Files/Publications/WP/2021/English/wpiea2021210-print-pdf.ashx

- **Medium of exchange.** Since the currency of settlement and currency of invoicing are often closely tied to each other, the dollar's use as a medium (or "vehicle") of exchange is linked to its status as the global unit of account. In addition, given the depth and liquidity of dollar markets, global investors flock to the dollar in times of crisis. The official sector also conducts most foreign exchange interventions in dollars. During times of crisis, the Federal Reserve has backed up global dollar markets by providing emergency liquidity and swap lines to other major central banks, acting as a lender of last resort to the global economy. China has also become a major provider of bilateral swap lines[9] after the global financial crisis, often to developing countries and in smaller amounts (Figure 3).

- **Store of value.** While the dollar still accounts for the bulk of global foreign exchange reserves, its share has gradually declined since it went off gold in the 1970s (Figure 4). European currencies became considerably more attractive after US president Richard Nixon delinked the dollar from gold in 1971 (the "Nixon shock"), but lost ground in the run-up to the introduction of the euro in 1999. Since then, the status of the euro as the second-most held reserve currency has been fairly stable. In fact, a group of less widely used currencies,[10] such as the renminbi, Australian and Canadian dollar, and Korean won, among others, did more to challenge the dollar than the euro over the past two decades. The renminbi accounts for about a quarter of the increase in smaller currencies' share but has stayed at around 3 percent of total reserve holdings.

Figure 4. **Currency Composition of Foreign Exchange Reserves, 1974–2019 (percent of total)**



Note: Excludes unallocated reserves. European Currency Unit and legacy currencies are included in the euro prior to 1999.

Data sources: IMF, Currency Composition of Official Foreign Exchange Reserves (COFER) database; and IMF staff calculations.

Source: A. Iancu, G. Anderson, S. Ando, E. Boswell, A. Gamba, S. Hakobyan, L. Lusinyan, N. Meads, Y. Wu, "Reserve Currencies in an Evolving International Monetary System," IMF Departmental Paper No. 2020/002, Washington, DC, November 17, 2020. https://www.imf.org/-/media/Files/Publications/DP/2020/English/RCEIMSEA.ashx

While these statistics convey a large degree of intertemporal stability, it is important to keep in mind that a country's status as currency hegemon is closely related to its geopolitical position. The standing of a currency may depend as much on the *perception* of a country's strategic capabilities (and alliances) as its actual means of achieving its objectives—but once the gap between the two becomes too large, the currency's role becomes untenable. Harold James, a professor of history and international affairs at Princeton University, evokes the parallels of the pound and the dollar going off gold in 1931 and 1971, respectively. In the first instance, the League of Nations (sponsored mainly by the United Kingdom) could not prevent armed aggression in Manchuria, and in the second, the Nixon shock occurred when the United States was burdened by the costs of the Vietnam War. Thinking about the future of the dollar-based economic order, James concludes:

> *"In looking for a new path forward, the essential message of 1931 and 1971 should be heeded. Chaotic financial transitions are also security challenges. Only by re-creating a viable system for managing interstate relations can financial stability be assured. And stable international politics tend to be a prerequisite for establishing new financial orders."*[11]

European flags are seen in front of the European Central Bank (ECB) building, in Frankfurt, Germany, July 21, 2022. REUTERS/Wolfgang Rattay

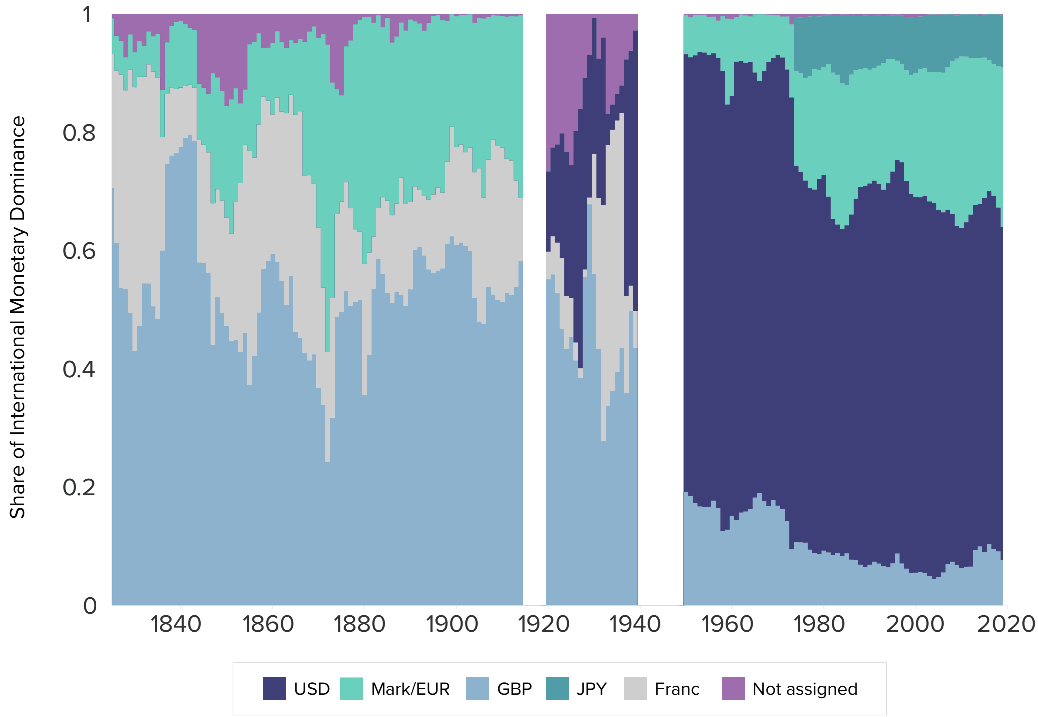
2. MULTIPOLARITY, WINNER-TAKES-ALL, AND THE ROLE OF THE EURO

The post-1945 financial order has been supported by a network of alliances that tied the United States closely together with other advanced economies. Compared to other historic episodes, this period has been unusual both in the degree by which the dollar has dominated the global monetary system and in its duration. There are many historic examples where leading currencies temporarily coexisted with other contenders, fluctuating in their use and relative global importance. For example, Spanish reals competed with Dutch guilders for global dominance; British hegemony arose out of a competition with France's bimetallic standard and Asian silver-based currencies; the pound and the German mark were both widely used around the turn of the twentieth century; and the dollar and pound together dominated international financial relations in the 1920s. A recent analysis by Roger Vicquéry[12] contrasts these earlier episodes with the extraordinary stability of the dollar-based system (Figure 5).

The academic debate[13] about the reasons for this stability is still ongoing. The lasting hegemony of the dollar is Exhibit A for the theory that competitions between major currencies will result in winner-takes-all outcomes. However, the examples given in the previous paragraph also support the theory that multipolar currency systems may be the norm rather than the exception. This debate is complicated by the difficulty to empirically differentiate[14] between the two outcomes. For example, with all large currencies tied to the dollar during the Bretton Woods era, any smaller currency that would have been pegged to, say, the pound or the franc would have been indirectly anchored to the dollar as well. Given that most major currencies have remained relatively stable vis-à-vis the dollar since the end of Bretton Woods, and certainly since globalization took off in the 1990s (Figure 6), academic views about the future of dominant currencies, therefore, continue to differ.

This debate serves as an important backdrop for considering the future role of the euro. The European Central Bank (ECB)[15] and European Commission remain committed to strengthening the international role of the euro, and an action plan[16] including fifteen key measures was compiled in early 2021. However, Europe's limited capacity to project military and geostrategic power raises doubts on whether the euro

Figure 5. The Rise and Fall of Global Currencies Over Two Centuries



Note: The figure shows annual GDP-weighted shares of international monetary dominance by global currency.

Source: R. Vicquéry, "The Rise and Fall of Global Currencies over Two Centuries," Banque de France Working Paper No. 882, July 1, 2022, Paris. https://publications.banque-france.fr/en/rise-and-fall-global-currencies-over-two-centuries.

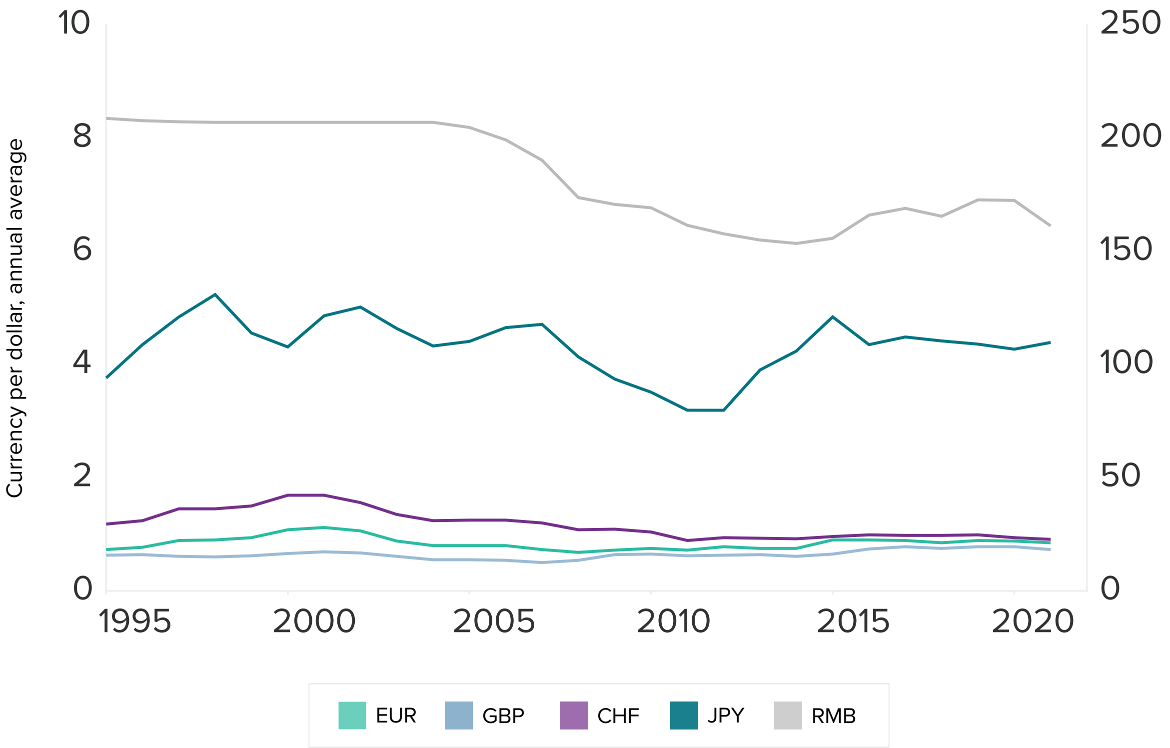
could ever compete with the dollar as the world's dominant reserve currency. In fact, while the euro's recent drop to dollar parity[17] largely reflects the divergence of monetary policy cycles in both economies, geopolitical developments may also be in play.

As the Ukraine war has underscored, Europe's geostrategic position remains dependent on the security umbrella provided by the United States. The euro's rise as an international currency was achieved within the framework of the NATO alliance, which facilitated an exchange of goods, services, investment, and ideas between Europe and the United States that has far exceeded any other bilateral relationship.[18] Should the international monetary system evolve toward a single dominant currency, it is therefore hard to imagine that the euro would persevere in a winner-takes-all competition against the dollar or the renminbi. This suggests that the euro's long-term role as reserve currency might continue at best as a shadow hegemon, closely tied to the leading currency of the future, or as part of a truly multipolar currency system.

In either case, Europe still has a considerable amount of homework to complete if it wants to expand the use of the euro outside the European and North African neighborhood. As highlighted most recently in an analysis by the Brussels-based think tank Bruegel,[19] there are several areas where the euro still falls short of the requirements for a major reserve currency. Most importantly, Europe does not provide "a large and elastic supply of safe assets" that would be needed to develop the deep and liquid financial markets to support the euro in times of crisis.

There has, of course, been an uptick in bond issuance associated with fiscal stimulus during the COVID-19 pandemic, and the NextGenerationEU program will be financed by an attractive supply of

Figure 6. Major Exchange Rates



Source: IMF International Financial Statistics. (Euro equivalent of German mark prior to 1999; yen rate on right axis)

bonds underwritten jointly by EU member countries (Figure 7). Nevertheless, the ECB[20] in 2021 conceded that "as new EU bond issuances are still relatively small on a global scale and are also temporary, they are unlikely to fundamentally alter the international role of the euro, in particular its position as a global safe asset."

EU countries would also need to take more significant steps to complete the banking and capital markets union. Considerable progress has been made in recent years, particularly in building the institutions needed to create a level playing field for banks and manage systemic risks. However, the sector is still fragmented along national lines—a major obstacle for investors seeking liquid investment opportunities—and the newly built institutions still lack the political independence and track record that would inspire broader investor confidence. As Jean Pisani-Ferry,[21] a senior fellow at Bruegel, put it, "pan-European banks would be able to diversify risk on a broader scale, [but] national governments remain reluctant to relinquish privileged relationships with 'their' banking systems."

These problems are symptomatic of a broader handicap of the euro. The countries of the euro area have shown skill and determination in pursuing common economic goals through mutual institutions and cross-government cooperation. However, Europe is not a single country, sovereign interests are still divided along important cultural and political lines, and nationalist politics could yet undermine the consensus toward greater European integration. The momentum toward banking and capital market union may not be robust enough to generate the economic and financial synergies needed to expand the global role of the euro in a more uncertain world.

China's official app for digital yuan is seen on a mobile phone next to 100-yuan banknotes in this illustration picture taken October 16, 2020. REUTERS/Florence Lo/Illustration

3. THE RENMINBI: A DOMINANT CURRENCY IN THE MAKING?

The biggest unknown for the international monetary system is the future role of the renminbi. There is an ongoing discussion among China watchers about the progress of the renminbi[22] as a competitor to the dollar, the reasons why it may not reach that status[23] in the foreseeable future (primarily China's closed capital account and the lack of liquid financial markets), and the policies that China would need to adopt[24] to speed up the process.

Since much of this discussion is taking place outside China, any statements about the deeper motives behind official announcements and policy actions should, therefore, be taken with a grain of salt. It does appear, however, that the 2008 global financial crisis triggered concerns in Beijing about China's large exposure to the dollar via reserve holdings, trade invoicing, and financing activities. When markets collapsed after Lehman Brothers filed for bankruptcy in September 2008, the inability to obtain finance caused a major drop in Chinese trade and, like other countries, China was dependent on the Fed's emergency liquidity provision. As a result, China seems to have concluded[25] that the continued development of its economy would require an expanded use of the renminbi for international transactions to enhance economic independence and financial stability.

At the same time, Chinese policy makers have been aware that greater use of the renminbi abroad would need to be intermediated by Chinese financial markets, which were inefficient and used to operate largely in the domestic economy. Given the constraints imposed by China's closed capital account and a tightly managed exchange rate, the chosen strategy was to promote the development of offshore renminbi markets out of Hong Kong. Even so, there was an imperative to reform China's domestic financial markets, which also brought some tangible benefits to the rest of the economy. Supported by China's growing network of bilateral swap lines,[26] this strategy had the intended effect of modestly boosting the use of the renminbi while preserving domestic stability.

The renminbi received a major boost from being included in the IMF's SDR basket[27] in 2015, where it joined the dollar, euro, yen, and pound in determining the daily exchange rate for the IMF's synthetic reserve currency. The decision hinged on two criteria. First, China has been among the countries with the highest global export values (it ranked number three at the time), and second, the renminbi was considered a "freely usable currency for cross-border transactions" under the IMF's Articles of Agreement. Meeting the latter criterion required a set of additional market reforms,[28] including some targeted relaxation of capital controls as well as financial reforms to absorb the larger volume of cross-border capital flows. These reforms may have been as consequential as the newly acquired SDR status itself, which was mostly a political recognition of China's rise to economic power status. The renminbi's membership in the SDR basket was confirmed in a May 2022 review,[29] with key indicators for the use of China's international currency again showing small increases within a 1 percent to 3 percent range of overall market share.

The Chinese government also launched the Belt and Road Initiative[30] (BRI) in 2013, providing political incentives for Chinese official and commercial lenders to finance infrastructure projects and deepen trade ties with countries around the world. The BRI was to help China develop new sources for raw materials and provide underdeveloped regions in China with better market access. Besides generating diplomatic goodwill by meeting the development needs of poorer countries, the initiative may also have aimed at investing China's dollar-denominated reserve assets (most BRI lending is in dollars) as well as boosting the use of the renminbi abroad.

The BRI has since run into well-known criticism, including over shoddy project implementation, lack of transparency,[31] onerous financial terms, and a growing debt burden[32] for recipient countries. Official BRI loans fell[33] after 2018, but Chinese commercial banks[34] are continuing to extend significant loans abroad, becoming a key lender for emerging markets and developing economies (EMDEs).[35] There are also indications that China may be stepping up its trade in currencies other than the dollar, especially with Russia, but none of this appears to significantly boost the use of the renminbi abroad.

One of the most intriguing aspects of the BRI has been the development of a central bank digital currency (CBDC) that China introduced as part of the Digital Silk Road during the 2022 Olympic Winter Games. Despite speculation[36] about China's long-term ambitions, there is much to suggest that the eCNY is primarily a domestic response[37] to the explosion of private shopping platforms and digital payment systems. Like other countries, China has been concerned about the risks of large payment flows being outside the central bank's purview, and regulators intervened in late 2021 to curb the growing concentration of data and market power among large tech companies.

The eCNY is expected to account for only a small share of China's monetary base,[38] it is being distributed through commercial banks that will not pay interest on digital money deposits, and there are ceilings on the amount individuals can hold. While these features may be subject to changes in the future, existing restrictions on the renminbi's international use remain in play and will circumscribe the role of the digital yuan as well. Concerns about a possible diversion of transaction-related data to China's national security apparatus may further deter the use of this form of money outside China.

The key questions for the renminbi remain whether—and how fast—China is willing to ease restrictions on capital account transactions, and whether it can credibly commit to market integrity and investor protection, including the enforceability of foreign ownership rights. On the first question, it appears that the loss of macroeconomic autonomy from larger outward capital flows would be unacceptable to a government that is tightening political controls[39] and pursuing a more domestic growth model. As far as inflows are concerned, however, the experience with the partial opening of China's financial markets[40] was positive as foreign ownership of domestic stocks and bonds has been growing rapidly. According to estimates by China's International Monetary Institute[41], domestic financial asset holdings by foreign institutions increased by 40 percent in 2020 alone.

China nevertheless faces the challenge of reassuring foreign investors that their investments are safe, and Shanghai may never be able to match the degree of protection afforded to investors in New York and London. But this is not just a question of legal sophistication, as was illustrated at the onset of the Ukraine war in February 2022. China has since experienced significant capital outflows, unlike other emerging markets—an unprecedented pattern, according to the Institute of International Finance.[42] It appears that investors were concerned about geopolitical pushback to the financial sanctions imposed on Russia by the United States and other advanced economies, placing their capital at risk.

Taken together, these developments paint a picture of a country that has become the world's manufacturing hub but still needs to find its place in the global financial system. China officially pursues the internationalization of the renminbi and is likely doing so in its own pragmatic way, with experimental steps that may or may not lend themselves to scaling up its financial activities. However, a strong or even dominant global role for the renminbi still appears to be a secondary objective, not to be achieved for its own sake. It may be a welcome result of other policies that help China meet its economic and social goals and, above all, maintain political stability as seen through the eyes of the Chinese Communist Party. It is, therefore, hard to see a preordained way for the renminbi to gain in status, and much will depend on whether the United States and other advanced countries leave an opening that China could exploit.

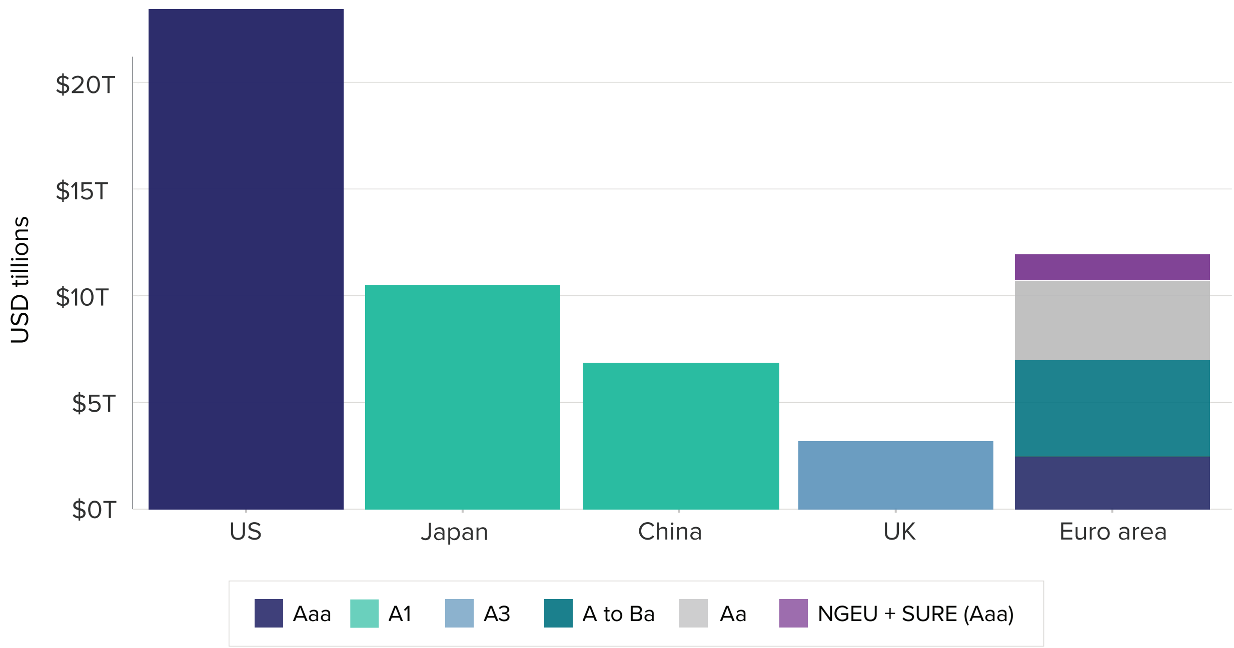
4. THE DEARTH OF SAFE ASSETS: THE TRIFFIN DILEMMA REVISITED

The renminbi competition[43] has triggered a lively discussion about the dollar's future as a reserve currency, but so have the rise of Bitcoin,[44] the development of CBDCs,[45] and the sanctions[46] regime imposed on Russia, among others. Excluding a strand of the literature that Adam Tooze,[47] a professor of history at Columbia University, has dubbed finance fiction, or "Fin-fi," most experts concur that the dollar is unlikely to be replaced[48] as the leading currency for the foreseeable future, for reasons discussed earlier in this paper.

While seemingly reassuring, one important angle of this discussion still warrants a closer look. The United States and other advanced economies have provided "safe assets," in the form of risk-free government securities, for a long time. Whether they can continue to do so in sufficient quantities, and whether China might eventually offer an alternative, will be an important question going forward.

The provision of safe assets can be costly for the issuing country as it creates a source for capital inflows that, all else equal, can push up the valuation of the exchange rate, depressing output and contributing to a structural current account deficit (or a lower structural surplus). The issuing country benefits from

Figure 7. Outstanding general government debt securities, 2020



Notes: The data refer to total debt securities issued by the general government. Planned issuance for NGEU. The latest Moody's local currency long-term sovereign debt rating is reported for each country and NGEU. The observations are for the third quarter of 2020 for the amount outstanding of debt securities and for March 2021 for credit ratings.

Data sources: BIS, Haver Analytics, Bloomberg, European Commission and ECB calculations.

Source: European Central Bank, *The international role of the euro*, Frankfurt: June 2021. https://www.ecb.europa.eu/pub/ire/html/ecb.ire202106~a058f84c61.en.html

lower interest rates, creating a temptation to run fiscal deficits and accumulate public debt. Overall, however, the "extraordinary privilege" of printing the global reserve currency conveys economic advantages (including the ability to use the currency for political pressure), and negative side effects can be kept in check through policy discipline.

Problems for the global monetary system occur when doubts about the country issuing the safe asset begin to arise. As discussed above, there are strong network effects in favor of a dominant currency. However, a transition may get underway if outstanding liabilities are no longer backed up by the strength of the incumbent's economy, and if there are one or more credible alternatives. The two most recent monetary transitions in memory provide a case in point:

- **Pound to dollar.** US industrial momentum in the 1920s had risen well beyond Britain's, which was still exhausted from World War I. By that time, the dollar had replaced the pound as the leading global currency, with markets looking to developments on Wall Street rather than London for guidance. The transition was helped by close collaboration between policy makers on both sides of the Atlantic, but the United States was clearly in the driver's seat. Nevertheless, the pound held on as a major reserve currency throughout the 1950s because of its link to the dollar and the close ties it held with Britain's soon-to-be former colonies.

- **Fixed to floating.** When the Nixon administration went off gold in 1971, the mechanism underlying the change was similar. The US fiscal position had been strained by the costs of the Vietnam War, among other factors, and its external liabilities (which the United States promised to redeem at par) had grown far beyond the value of US gold holdings. Markets ignored the shrinking gold coverage of US external liabilities for some time, but the economist Robert Triffin, in his famous 1959 testimony to Congress, predicted that the United States would eventually face a dilemma.[49] It would either face a run on its gold stock or it would need to tighten policies to reduce the gap between its gold holdings and external liabilities, which could hurt the US economy and lead to a deflationary shortage of safe assets reminiscent of the Great Depression.

  With the benefit of hindsight, the Triffin dilemma did not present itself as dramatic as it was postulated, given inflation[50] was a larger concern than deflation in the late 1960s. But as foreign countries began to redeem their dollar holdings for gold, the Nixon administration chose to abandon the gold standard rather than consolidate US public finances. The dollar survived as the dominant currency for want of a credible alternative, but the Japanese yen and German mark also became reserve currencies within a few years, given the two countries' role as major exporters and their close integration with the US economy.

What does this tell us about the future role of the dollar and the euro? For one, the relative scarcity of safe assets[51] increased significantly prior to the COVID-19 crisis, to be only temporarily alleviated by record stimulus programs over the past two years. The scarcity has been driven by rapid growth in emerging markets (many with high saving rates), as well as increases in capital mobility, supply-chain-related financing needs, and tighter capital requirements for banks after the global financial crisis. Advanced economies have not been able to provide sufficient amounts of safe assets, given their lower growth rates, contributing to low real interest rates in recent years (the savings glut[52] hypothesis). This helps explain why monetary policy lost its effectiveness at the zero lower bound, and why extraordinary fiscal stimulus and quantitative easing by central banks were needed to avert global recessions when markets froze during the global crisis in 2010 and at the outset of the COVID-19 pandemic.

Akin to the original Triffin dilemma, a return to the status quo in the post-pandemic years may not be sustainable. As the output of advanced economies relative to emerging market economies continues to decline, the supply of safe assets would eventually be exhausted because the United States and Europe would not be able to keep expanding their fiscal and monetary liabilities.

This conclusion is not far-fetched, given legitimate concerns about the rising long-term claims on taxpayers in both economies. The United States and Europe both face massive increases in social spending, predominantly on health care, due to their aging populations. For example, the Congressional Budget Office in the United States projects US federal debt to almost double from already elevated pandemic levels to about 185 percent of gross domestic product (GDP) by 2050 (Figure 8), set on an accelerating track that raises major concerns about US long-run fiscal sustainability.

5. PREPARING FOR CHANGE

On balance, while staying under dollar and euro dominance, the international monetary system is likely to become more multipolar over the coming years. It would be surprising if the renminbi would not gain in stature[53] over the next decade, consistent with China's growing economic, geopolitical, and financial clout. How this could unfold is a matter of speculation, but there are several avenues that could lead to a larger international role for China, some in response to US policies, some by its own choosing:

- **US sanctions threat.** The use of Western sanctions on Russia's foreign exchange reserves has changed the financial calculus of countries that do not have close and friendly relations with the United States and Europe. China currently holds around $3 trillion in foreign exchange reserves, of which about $1 trillion consists of US Treasury securities, and it may likely want to reduce these holdings over time. As the renminbi could come under upward pressure if its US holdings were unwound, China might be willing to undertake some careful liberalization of capital account outflows, easing a restriction that has so far constrained an international role for the renminbi.

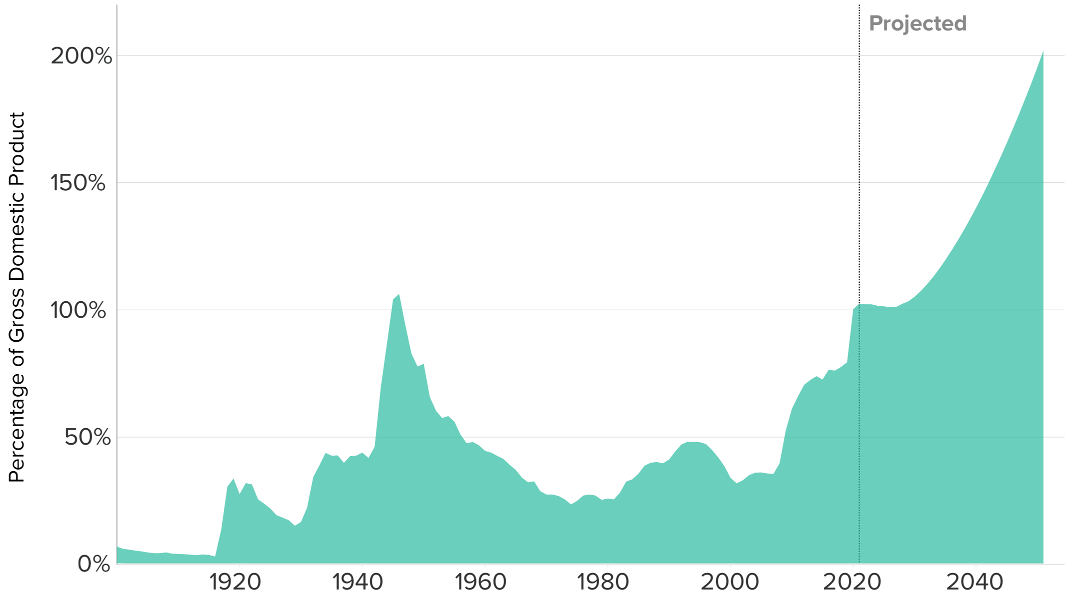
- **Global decoupling.** China has been carefully managing its exchange rate in recent years, curbing trade balances and keeping inflation in check. However, in a global recession, facing rising domestic unemployment and social tensions, China could decide to let its exchange rate depreciate[54] more noticeably against the dollar. A tense international environment could lead to retaliatory policy moves (not unlike the 1930s), and countries may eventually be forced to choose between separate trade and financial blocs in a highly fragmented global economy. In such a scenario, the renminbi would become the reserve currency of one economic bloc, even if China's capital account were to stay relatively closed (the Bretton Woods system also came with tight capital controls at the outset).

- **Safe renminbi assets.** There are many ways a scarcity of safe assets issued by the United States and other advanced economies could play out. There is a risk of deflationary conditions returning once the current inflation shock has unwound. Alternatively, other safe asset providers could step into the breach. Europe could add to the supply of safe assets through an increase in mutualized debt instruments, although this still seems politically out of reach. China could also decide to widen access to renminbi assets[55], especially in a fragmented system where countries may have to accept Chinese rules in exchange for economic leadership. Chinese hesitancy in opening its capital account might be overcome if partner countries were to agree to strict controls over bilateral capital flows (possibly enforced by Chinese AI systems monitoring daily currency transactions).

Beyond the renminbi, Bitcoin and other crypto assets have also been touted as alternatives to existing reserve currencies in recent years. However, they have yet to show that they are a game changer for the international monetary system, given conceptual and regulatory constraints that inhibit their widespread use. Similarly, the transition to CBDCs[56] may introduce greater (retail) competition in the international use of major currencies, but is unlikely to affect the safety and liquidity of assets issued in these currencies. Their most consequential impact may occur domestically through their impact on bank profitability and monetary transmission mechanisms.

On the other hand, the efficiency of cross-border payments could well be boosted by crypto technology. The observed rise in smaller reserve currencies may already reflect technical progress that facilitates

Figure 8. **U.S. Federal Debt Held by the Public**



Note: Primary deficits exclude net outlays for interest.

Data source: CBO.

Source: Congressional Budget Office, *The 2022 Long-Term Budget Outlook*, July 27, 2022. Washington, DC. https://www.cbo.gov/publication/57971

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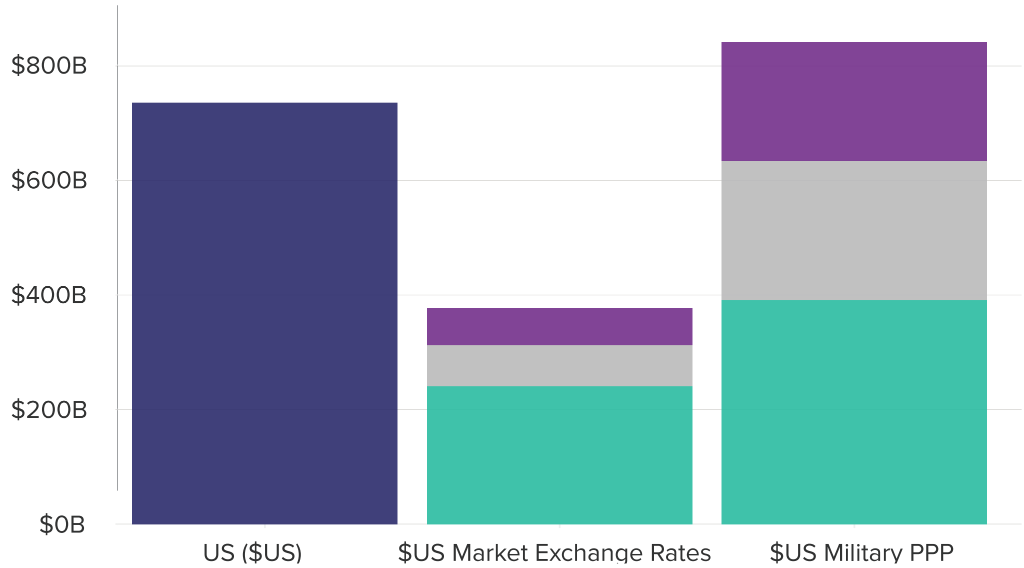
trading in niche bilateral currency markets.[57] If a foreign exchange transaction no longer needs to be separated into two transactions, each with the dollar or euro as counterpart, the number of currencies in a more multipolar[58] international monetary system may increase. However, the changes so far have been small, and some recent developments may simply reflect countries' growing financial integration.[59]

Finally, one should not rule out the possibility of more drastic changes in the international political (and monetary) order. Much of the discussion in this paper so far implicitly assumes a continuation of the geoeconomic paradigm that has turned the dollar into the world's dominant currency. But the relative stability of currency arrangements belies a decades-high risk of geopolitical conflict, fraying support for free trade, ineffective multilateral institutions, and growing inequality. It would be complacent to ignore the possibility of geopolitical shocks that could, among much more dire implications, also affect the status of the dollar and euro in the years ahead.

One observation in this regard relates to the status of the United States as the world's foremost military power. Global military spending crossed the $2 trillion mark in 2021,[60] with China making significant investments in its armed forces in recent years, building a nuclear arsenal that may eventually match that of the United States and Russia. The United States still spends considerably more on its military than China and Russia taken together, but a lower cost base in those countries implies that the quantitative advantage enjoyed by the United States over its two largest rivals has shrunk in real terms[61] (Figure 9). Maintaining its military supremacy could become an increasingly expensive proposition for the United States. With growing tensions in Eastern Europe, Taiwan, North Korea, and Iran, among other regions, the United States risks military overstretch as medium-term budget constraints begin to bite.

Figure 9. Military spending in US dollars, 2019



Note: Non-US Spending calculated at military-Purchasing Power Parity (PPP) and market exchange rates.

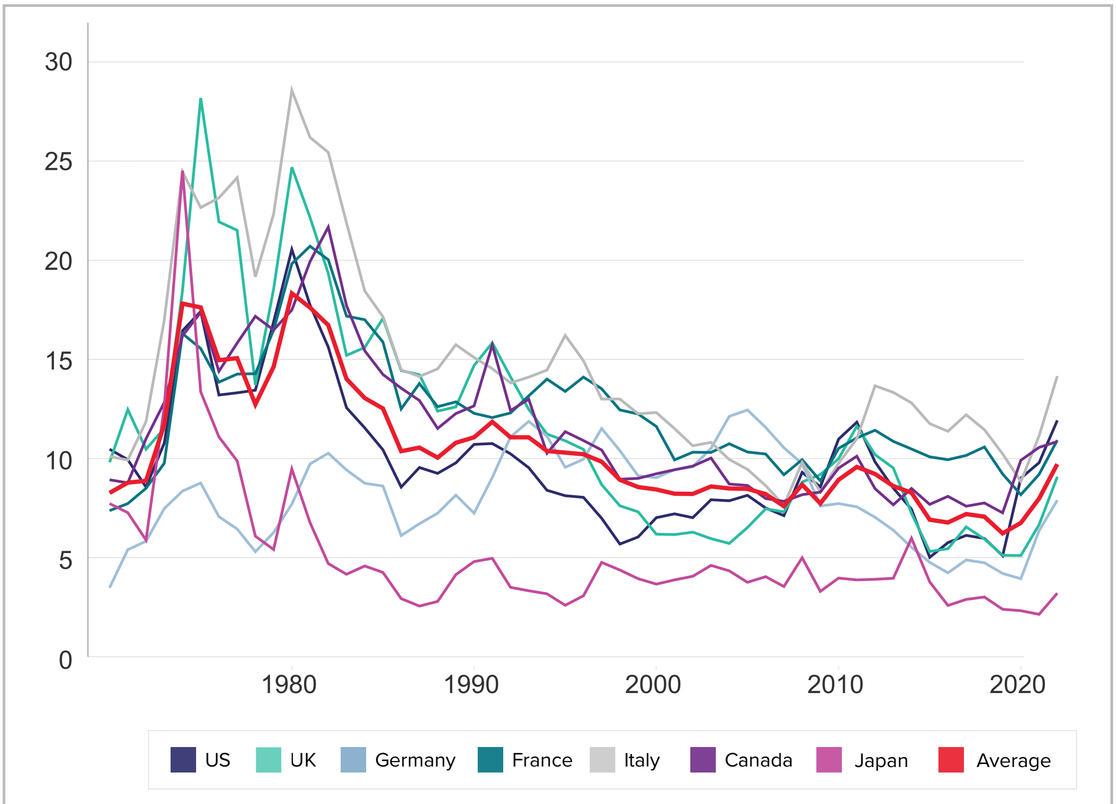
Source: Peter Robertson, "Debating defence budgets: Why military purchasing power parity matters," VoxEU Column, October 9, 2021. https://voxeu.org/article/why-military-purchasing-power-parity-matters.

NATO's strong reaction to Russia's invasion of Ukraine and the shared concerns in Asia about China's military intentions have the seeds of a collective response by Western democracies to meet these security challenges. However, the Trump years were a drastic warning not to take US interest in supporting its European allies as given, and voters on both sides of the Atlantic have been questioning the benefits of the post-World War II liberal international order. Social polarization could get worse if high inflation were to persist, particularly if fueled by high energy costs. In the G7 countries, the misery index, defined as the sum of the inflation and unemployment rates (Figure 10), could return to levels last seen in the 1970s in case of a global recession. In such a case, the political climate in the United States and other advanced economies could tilt more sharply toward protectionist policies and away from multilateral solutions.

Europe is considerably more exposed to geoeconomic tensions, given its lack of domestic energy sources and access to raw materials, as well as the export orientation of some of its larger economies. The Ukraine war has also demonstrated Europe's dependence on the United States for its military leadership. Unless the United States and its allies find a way to better share defense-related burdens, it may be hard to prevent a further loss of global influence to China and other autocratic countries. And in the absence of a strong transatlantic alliance, Europe could be forced into strategic compromises with Russia and China to preserve its standard of living, especially on access to energy and raw materials such as rare earths. This could pave the way to a new geopolitical paradigm and likely changes in economic and monetary arrangements as well.

These scenarios are hypothetical, of course, in part because China itself has to deal with structural factors that may limit its future growth. However, the challenge for policy makers on both sides of the Atlantic is clear. Notwithstanding its relative decline in recent months, the euro remains an important in-

Figure 10. **Misery Index in G7 Countries**



Note: The misery index is constructed as the sum of a country's consumer price inflation and its unemployment rate.

Source: IMF International Financial Statistics, national central banks.

ternational currency, closely tied to the dollar, the world's dominant currency. The question is not whether this pair may face competition in a more multipolar currency system, but whether the United States and Europe, along with other advanced economies, will retain their domestic cohesion and unity of purpose that has supported the dollar-based global economy since World War II.

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