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De-dollarization? Not so fast[☆]

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ABSTRACT

De-dollarization refers to the reduction of the reliance of foreign countries on the US dollar. This phenomenon generates concern about the U.S. dollar as a global currency. We construct new data on the currency denomination of central bank currency reserves, foreign exchange transaction volume, denomination of global debt securities, and the invoicing of trade. This paper presents empirical evidence suggesting that these concerns are misplaced, finding US dollar dominance remains unchanged up through late 2023, nearly two years after the 2022 Russian invasion of Ukraine and several years after the 2020 COVID-19 pandemic. Meanwhile euro and renminbi influence have since declined. These findings have implications for reserve currency resilience, U.S. dollar dominance, U.S. sanctions policy, international spillovers of U.S. monetary policy, and U.S. government borrowing costs.

1. Introduction

A unipolar currency world (as opposed to a multipolar currency world) is highly important in international finance as it can improve the hegemon's borrowing costs, stability in the international monetary system, the ease of international trade, and the ability of the hegemon to implement sanctions (Farhi and Maggiori, 2018).

In recent years, the future of dollar dominance, that is the status of the United States dollar as the dominant global currency (a position held since World War 2), has been called into question, owing to various geopolitical events and changing economic sentiments. The 2022 Russian invasion of Ukraine, accompanied by sanctions imposed by the United States on Russian foreign exchange reserve assets, has sparked discussions regarding the resilience of the dollar's dominance. Moreover, the emergence of anti-dollar sentiment, exemplified by the 2023 bilateral trade agreement between China and Brazil to reduce their reliance on the US dollar as an intermediary currency, has raised concerns about the future of the dollar's global standing. Financial institutions, such as Goldman Sachs, JP Morgan and State Street, have undertaken research efforts to dissect this issue (Chandan and Popescu, 2023; Tse, 2023; Thiagarajan et al., 2023). However, many of these reports tend to disregard the extensive body of literature in international economics that supports the strength of dollar dominance across various dimensions, including trade invoicing, central bank currency reserves, foreign exchange transaction volume, and the denomination of global debt securities (see Maggiori, 2017, Farhi and Maggiori, 2018, He et al., 2019, Eichengreen, 2014 among others). More recently, Maggiori et al. (2019) have offered insights into the increasing predominance of the dollar and the declining status of the euro, a trend that persisted until the mid-2010s, across various dimensions such as trade invoicing, central bank currency reserve denominations, foreign exchange transaction volume, and syndicated loans.

This paper aims to provide an update on the dollar dominance facts provided by Maggiori et al. (2019), utilizing more recent data that accounts for developments post COVID-19 and the 2022 Russian invasion of Ukraine, both of which were viewed as potential destabilizing factors in the global trade and financial landscape. Since dollar dominance is a multifaceted phenomenon, it is important to consider various indicators beyond just the recent decline in dollar-denominated foreign reserves. In fact, other key indicators, such as trading volume and the prevalence of global debt securities in dollars, present a contrasting perspective. To contribute to the existing literature and policy discussions, we analyze important indicators such as the proportion of central bank reserves denominated in dollar, the volume of foreign exchange transactions conducted in dollars and currency invoicing of US Dollars in global trade. Additionally, we provide data that encompasses the currency denomination of global debt securities, offering a more comprehensive measure of currency denomination in debt markets.

☆ These views are our own and do not reflect those of any affiliated institutions. Data from the paper can also be easily viewed at the paper's website at de-dollarization.org. The authors are grateful for helpful comments from an anonymous referee, John Cochrane, Max Croce, Darrell Duffie, Michael Faulkender, Niall Ferguson, Arvind Krishnamurthy, Matteo Maggiori.

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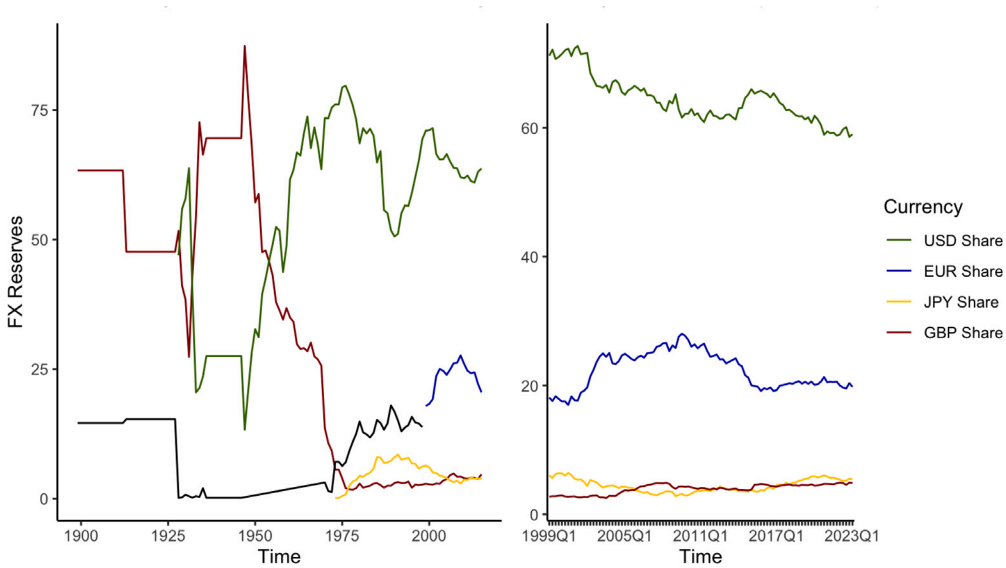

Fig. 1. Central bank foreign exchange reserves by currency.
Notes: Central bank foreign exchange reserves by currency denomination data from 1900 through 1999 (left) is annual from Eichengreen (2014) and obtained from Barry Eichengreen's website. Data from 1999 through 2023 (right) is quarterly data obtained from the International Monetary Fund (IMF) COFER database.

The paper is organized as follows. First we report new data on the proportion of central bank reserves denominated in dollars. The second section is displaying updated data on the volume of foreign exchange transactions conducted in dollars. We then discuss the percentage of global debt securities issued in dollars. Finally, we show evidence of non-declining currency invoicing in U.S. dollars in global trade.

2. Central bank reserves by currency

We start our analysis by extending the time series of central bank currency reserves compiled by Eichengreen (2014). A widely referenced graph in the discourse on "de-dollarization" is Fig. 1 (right), displaying central bank currency reserves from 1999 to 2023, sourced from the IMF COFER database. This graph might erroneously suggest that the U.S. dollar's share of currency reserves is at an all-time low. However, when we extend the dataset to 1900 (left), a different narrative unfolds. While the U.S. share of central bank currency reserves has declined since the early 2000s, it has since remained higher than its lows in the early 1990s when the U.S. dollar's share of currency reserves reached as low as 50.6 percent. Potentially driving the recent decline in the dollar share of central bank reserves since the early 2000s could be globalization which substantially increased the volume of international trade and established new global trading routes.

While not pictured, the Chinese reminbi share of global central bank reserves (as a fraction of total world central bank FX reserves) has fallen from 2.83 percent at the time of the 2022 Russian invasion of Ukraine in the first quarter of 2022 to 2.37 percent as of the third quarter of 2023.

This level is significantly below the current figure of 59.2 percent as of the third quarter of 2023. Notably, the U.S. dollar's share of currency reserves has experienced lower levels in the past, particularly during periods of inflation in the 1970s and 1980s, rebounding during the era of low and stable inflation associated with central bank inflation targeting, which began in the 1990s.

3. Foreign exchange transaction volume by currency

An examination of foreign exchange transaction volume by currency pairs, as depicted in Fig. 3, underscores that the U.S. dollar's share in foreign exchange transactions has remained remarkably stable over the past 30 years since the inception of the BIS Triennial Survey. As of 2022, the U.S. dollar is involved in approximately 90 percent of all foreign exchange transactions. It is worth noting that this data was collected after the 2022 Russian invasion of Ukraine and the subsequent sanctions on Russian central bank currency reserves, reinforcing the U.S. dollar's enduring dominance in foreign exchange transaction volumes. Interestingly, the euro's share of foreign exchange transaction volume has declined from nearly 40 percent in 2001 to around 30 percent in 2022 (see Fig. 2).

4. Global debt securities denomination by currency

Regarding the denomination of global debt securities, the majority of the world's debt is still denominated in US dollars, even in the aftermath of the COVID-19 pandemic and the 2022 Russian invasion of Ukraine. Our analysis covers the currency denomination of global debt securities, encompassing both domestic and international debt, from the first quarter of 2015 to the first quarter of 2023, as presented in Fig. 4. The dollar's share in debt contracts has remained relatively stable, hovering between 40 and 45 percent, with a slight increase following the events of the COVID-19 pandemic and the 2022 Russian invasion of Ukraine. Notably, corporate debt and firms' currency preferences significantly contribute to this pattern. Eren and Malamud (2022) have documented the widespread use of the U.S. dollar for debt contracts worldwide, even in the post-COVID-19 era. Subsequent analysis of BIS international debt statistics reaffirms this empirical observation.

In the realm of sovereign borrowing, the phenomenon known as "original sin", referring to the denomination of external debt in foreign currencies, remains a persistent challenge, particularly in emerging markets, as originally highlighted by Eichengreen et al. (2002, 2007). Onen et al. (2023) provide further insights into this matter.

5. Currency invoicing in global trade

Expanding upon the previous work of Gopinath et al. (2020), which computed trade invoicing dollar shares up to 2018, our paper updates this series with more recent data, including the pandemic years of 2022 and the Russian invasion of Ukraine. This was achieved by collecting data on trade invoicing currencies from the central banks, finance ministries, and government agencies of several major trading nations, including the United Kingdom, all European Union member countries,

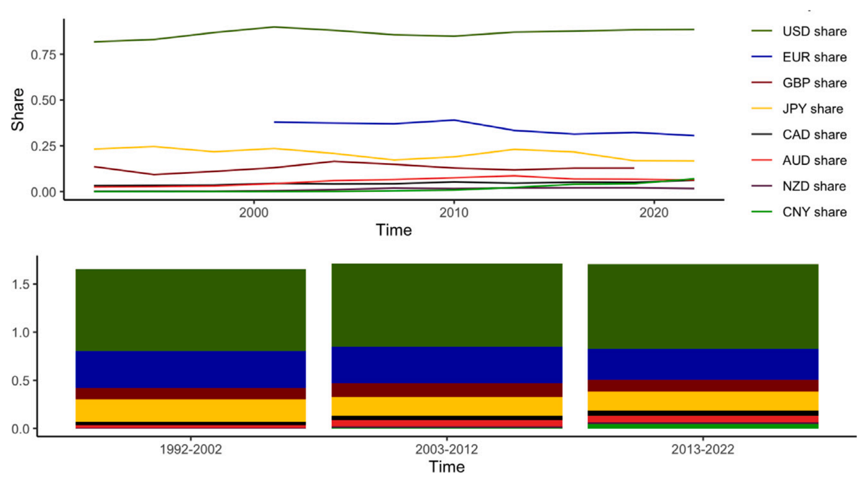

Fig. 2. Foreign exchange transaction volume by currency.
Notes: The upper graph displays the time series of the data, while the bottom one shows averages across time periods. Data on foreign exchange transaction volume from 1992 to 2022 is from the Bank of International Settlements (BIS) Triennial Survey. All shares sum to 200% (with a maximum of 100% for any single currency) since there are two currencies in every foreign exchange transaction. The U.S. dollar share of foreign exchange volume remains close to 90% through 2022 and has been close to such a level since the survey began in 1992.

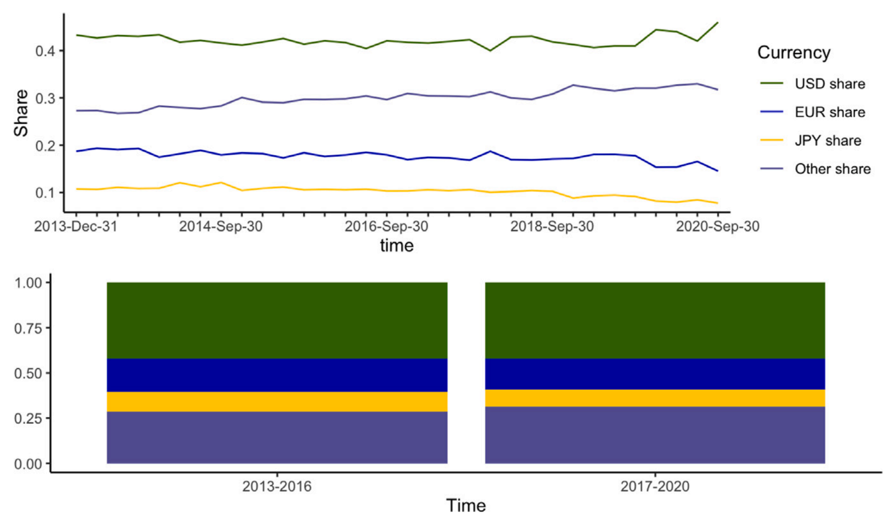

Fig. 3. Currency denomination of global debt securities outstanding (Q1 2013–Q4 2022).
Notes: The upper graph displays the time series of the data, while the bottom one shows averages across time periods. Data on global debt securities denomination by currency from Q1 2013 to Q4 2022 is from the Bank of International Settlements (BIS). The U.S. dollar share of global debt securities has been above 40% since 2013. At the end of 2022, the U.S. dollar share is now higher than what it has been since 2013. Meanwhile the euro and yen shares have decreased while other currencies have increased.

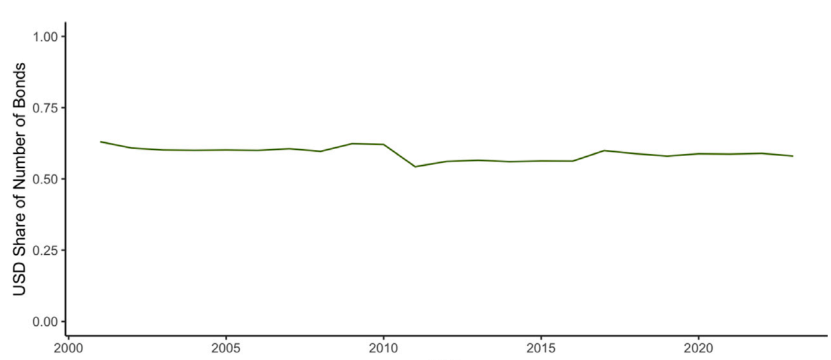

Fig. 4. Share of the number of bonds denominated in USD.
Notes: U.S. dollar share of the number of total bonds in the Bloomberg Fixed Income Multiverse. Data obtained from Bloomberg.

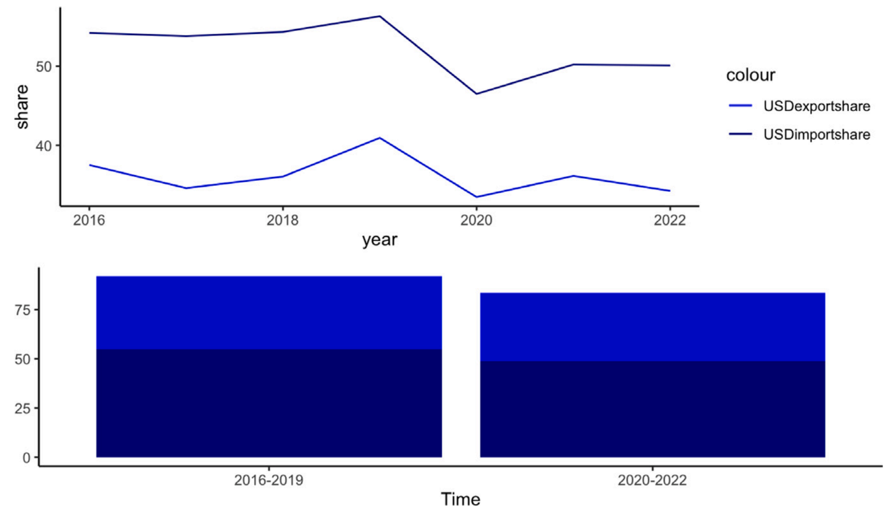

Fig. 5. Currency denomination of trade invoicing (2016–2022).
Notes: The upper graph displays the time series of the data, while the bottom one shows averages across time periods. Data for the UK is from non-EU imports and exports, for the European Union imports and exports with extra-EU geopolitical entity partners, for Japan the component Ratio by Contract Currency in the Export and Import Price Index Decomposition, and Australia Export and Import invoicing currencies data. The U.S. dollar share of exports has approximately been between 30% and 40% since 2016 while the U.S. dollar share of imports has approximately been between 45% and 55%.

Japan, and Australia. In the context of global currency invoicing in international trade, a significant proportion is still denominated in U.S. dollars, a pattern that has remained largely unchanged post-COVID-19 pandemic and the Russian invasion of Ukraine.

Fig. 5, displaying a simple average from 2016 to 2022, illustrates that the U.S. dollar's share of exports has remained relatively constant, ranging between 47 and 54 percent. Similarly, the U.S. dollar's share of imports has seen little variation, fluctuating between 34 and 38 percent. This trend aligns with the findings of Gopinath et al. (2020) and Maggiori et al. (2019). Notably, there was a slight decline in U.S. dollar invoicing in 2020 during the peak of the COVID-19 pandemic, followed by a subsequent rebound.

6. Conclusion

In conclusion, this paper seeks to offer an updated assessment of U.S. dollar dominance through the mid-2020s, considering the potential impact of both the COVID-19 pandemic and the 2022 Russian invasion of Ukraine, events that were perceived as potential disruptors in the global trade and financial landscape. Notably, following these events, the US dollar remains a prominent force in trade invoicing, central bank currency reserves, foreign exchange transaction volumes, and the denomination of global debt securities. The findings of Dooley et al. (2022), who argue that U.S. sanctions reinforce the dollar's dominance, as well as McDowell (2023), who suggests that such sanctions may provoke political backlash against the dollar, appear to find support in our analysis.

Furthermore, scholars such as Farhi and Maggiori (2018) and Maggiori (2017) offer theoretical models for understanding the dynamics of the international monetary system and the role of dominant global currencies. Historically, transitions between dominant currencies have often been prompted by wars and conflicts. The absence of such events in recent times, possibly due to international deterrence mechanisms, may have contributed to the enduring dominance of the U.S. dollar. Nonetheless, the rise of an internationally ascendant China, as documented by Clayton et al. (2022), could potentially pave the way for a transition to a multipolar currency regime in the coming decades. That said, the renminbi's share of central bank reserves has fallen since the 2022 Russian invasion of Ukraine as of late 2023.

Data availability

No data was used for the research described in the article.

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