# Yuan and the dollar crisis

Battle for currency domination or phony war?

Max Fry Memorial Lecture
Birmingham University
October 13$^{th}$ 2021

**Overview**

- The dollar (USD) has been the dominant international currency for at least the past 70 years or so. But in the past 20 years or so China has grown rapidly to become the largest exporter in the world.
- This suggests an obvious question of whether the Chinese currency, the yuan also called the renminbi (CNY), will displace the USD in the dominant currency role.
- The main message is that there is certainly no sign of this happening yet, and while anything is possible, a more likely scenario in the next several decades is for a tripartite world currency system in which the CNY has a substantial role in China’s environs, the Euro has a special role in Europe and its hinterland, while the USD continues to be the lead international currency for the Americas and for some key areas of financial activity, especially foreign exchange markets and perhaps commodity trade (especially energy).

## Plan

1. I first show the data for China's trade growth and then discuss why this might be significant for the international role of world currencies.
2. I then look back to the debates in the 1960s about the "international liquidity problem" which were stimulated by Robert Triffin's famous book: "Gold and the Dollar Crisis" (1960) which is what my title refers to. This debate led to a "solution" which was ill-designed and irrelevant……but still kicks around in the corners of the IMF to this day.
3. Meanwhile the private sector of the world economy provided its own solutions which increasingly relied on the use of the USD as what I have called the "international medium of exchange" or what Alexander Swoboda called the "vehicle currency" or what is generally now known as the "dominant currency".
4. I show evidence for the steadily growing dominance of USD (and to a lesser extent the Euro) in trade, in securities markets and in international banking.
5. One key role that the USD does perform in the world economy is as the medium of exchange in the foreign exchange markets.  This role is the one least likely to be displaced by emerging currencies such as the CNY, even if China's rapid growth continues for another decade or two.
6. I end with a brief discussion of Central Bank Digital Currency (CBDC).

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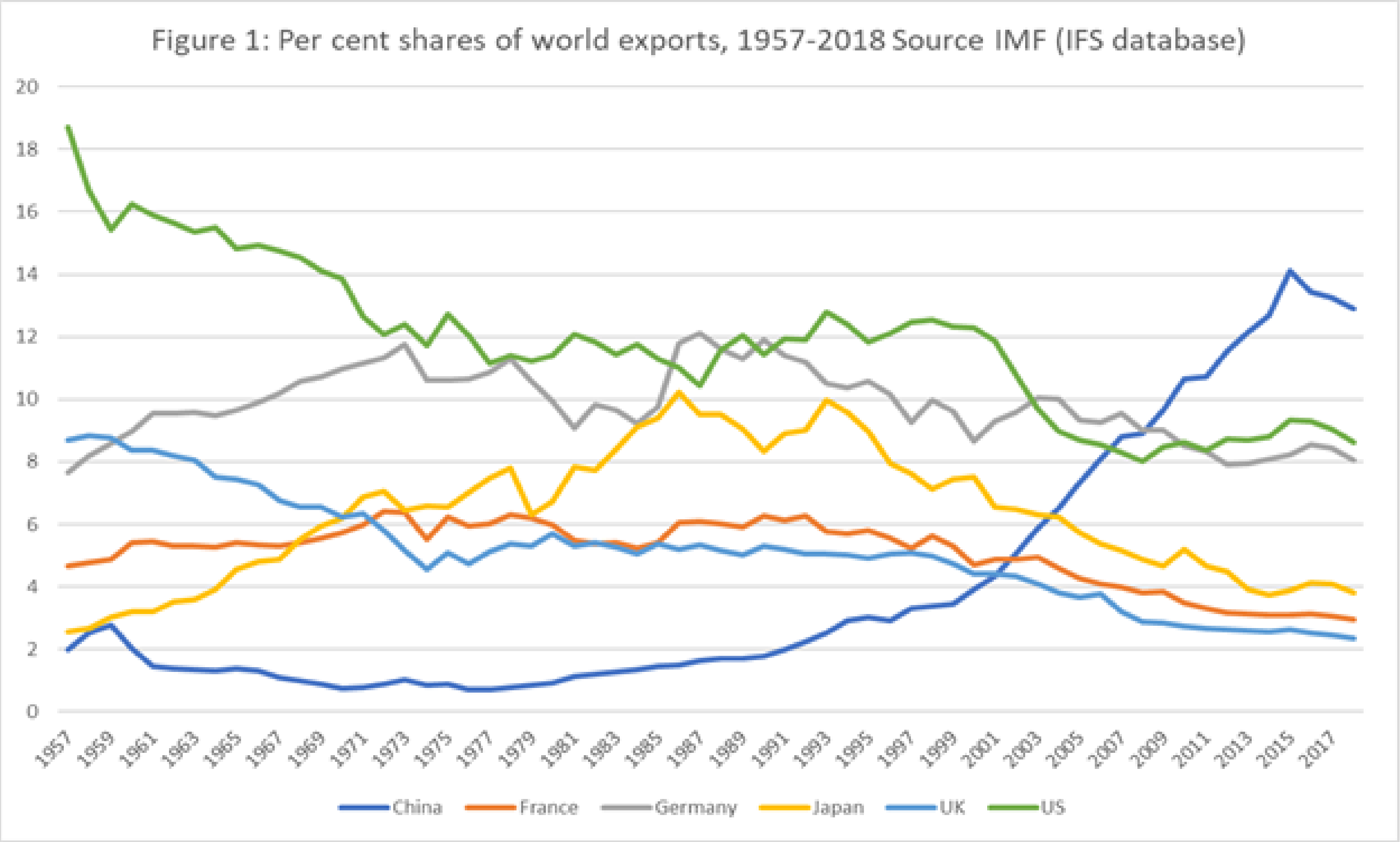


China’s exports have gone from 2% of world trade in 1990 to 15% in 2015.

US exports have gone from nearly 20% of world trade in the mid-1950s to around 8% of world trade in 2018.

NOTE that Japan’s export growth was projected to dominate the world in 1980s…..but then came the “lost decade” …...or two!

## Some have argued that the biggest trader will also have the dominant currency.

- One view of the world economy, called the “old view” or traditional view (Eichengreen, Mehl and Chitu, 2018), has it that the largest economy tends also to be dominant in financial affairs and that its currency becomes the most used money at the global level.

- *“These stories are told in terms of British hegemony in the nineteenth century, when Great Britain as the first industrial nation defined the technological frontier, and the country helped stabilize the global system by lending countercyclically---exporting capital when other economies suffered downturns---and by maintaining an open market for goods of distressed foreign producers. They are told in terms of American hegemony in the twentieth century, when the power of the United States was effectively institutionalized in what is sometimes referred to as the Bretton Woods-GATT System. …….Looking to the future, the same stories of political, economic, and monetary dominance are now told in terms of Chinese hegemony. The twenty-first century global economy, it is suggested, will be organized around the Chinese renminbi, and regulated by the People’s Bank of China. China’s immensely large population all but guarantees that the country will overtake the United States as the single largest economy, just as the US overtook Britain in the late nineteenth century. The renminbi will then overtake the dollar as the dominant international currency, for the same reasons that the dollar overtook sterling” (op. cit. pp 1-3).*

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## The new view

- In contrast to the “old view” that one currency is likely to dominate, the “new view” (Eichengreen et al 2018, pp 6-11) is that currencies can coexist as big players in the world economy.
- As evidence for this, it is clear that even when sterling was the dominant currency in the 19th and early 20th centuries, the French Franc and the DM (and later the dollar) had significant roles.
- In the current context, the USD is clearly dominant, but the Euro has a significant international role (some of which was played by the DM before it).
- Hence, according to this view, there is no inevitability about the CNY replacing the USD.
- Rather one possible outcome is that these two currencies coexist and play the dominant currency role in different parts of the world.
- Another is that the CNY does not evolve into a significant international currency but suffers the fate of the Yen which was once touted as a potentially significant international money.

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# The international liquidity problem: official international reserves

- By the start of the 1960s, the USD was the dominant reserve currency, and this is when Robert Triffin identified a problem.
- The USD was pegged in value to gold at $35 per ounce.
- But US gold reserves where more or less fixed in size and yet a growing world economy would require growing balances of USD in official reserves to help stabilise the fixed exchange rate system agreed at Bretton Woods.
- Triffin pointed out that as US external liabilities rose but the gold backing for those fell (as a proportion) then the safety of the USD, and especially its peg to gold, would come into question and this could cause a crisis for the whole world economy as external holders dumped dollars and switched into safer assets such as gold (and possibly other currencies seen to be safe at the time).
- According to Triffin, a currency crisis for the world's major currency would be likely to lead to a world recession and undermine the whole economic system of the post war world.
- This analysis was widely accepted and initiated a great debate about how to solve the "international liquidity problem".
- What was agreed in 1969 was the creation of IMF Special Drawing Rights (SDRs). The conception was that these would be issued to IMF members and expanded over time until they substantially reduced dependence on the USD.

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## Why did the SDR not become "the principle reserve asset" of the international monetary system?......as it was intended to do.

- It could be argued that the SDR just came too late, and the general move to floating exchange rates in the early 1970s made its introduction unnecessary. This is certainly part of the story.
- However, I argued in my 1978 Princeton Essay (Chrystal 1978) that the design of the SDR was flawed, and it would never replace FX reserves and could, indeed, speed up the creation of more FX reserves.
- One obvious limitation is that SDRs can only be used for transactions between IMF member governments.
- They cannot be used to intervene in FX markets, which is what FX reserves were for under the Bretton Woods system!
- A second is that SDRs are not money they are credit.
- The fact that the SDR offers credit not money is important, as it explains why the major countries lost interest in SDR issues for nearly 30 years between 1981 and 2009. They could borrow in the markets on the finest terms so had no benefit from the credit offered via SDR use.
- Many poorer countries, however, could not borrow cheaply and so would benefit from greater credit at low interest rates. But IMF voting was weighted towards the richer countries, and only at crisis time could they be persuaded to be seen to be helping the less prosperous countries with an apparent handout in the form of an SDR allocation (even though the bulk of the SDR issues went to the richer countries themselves).

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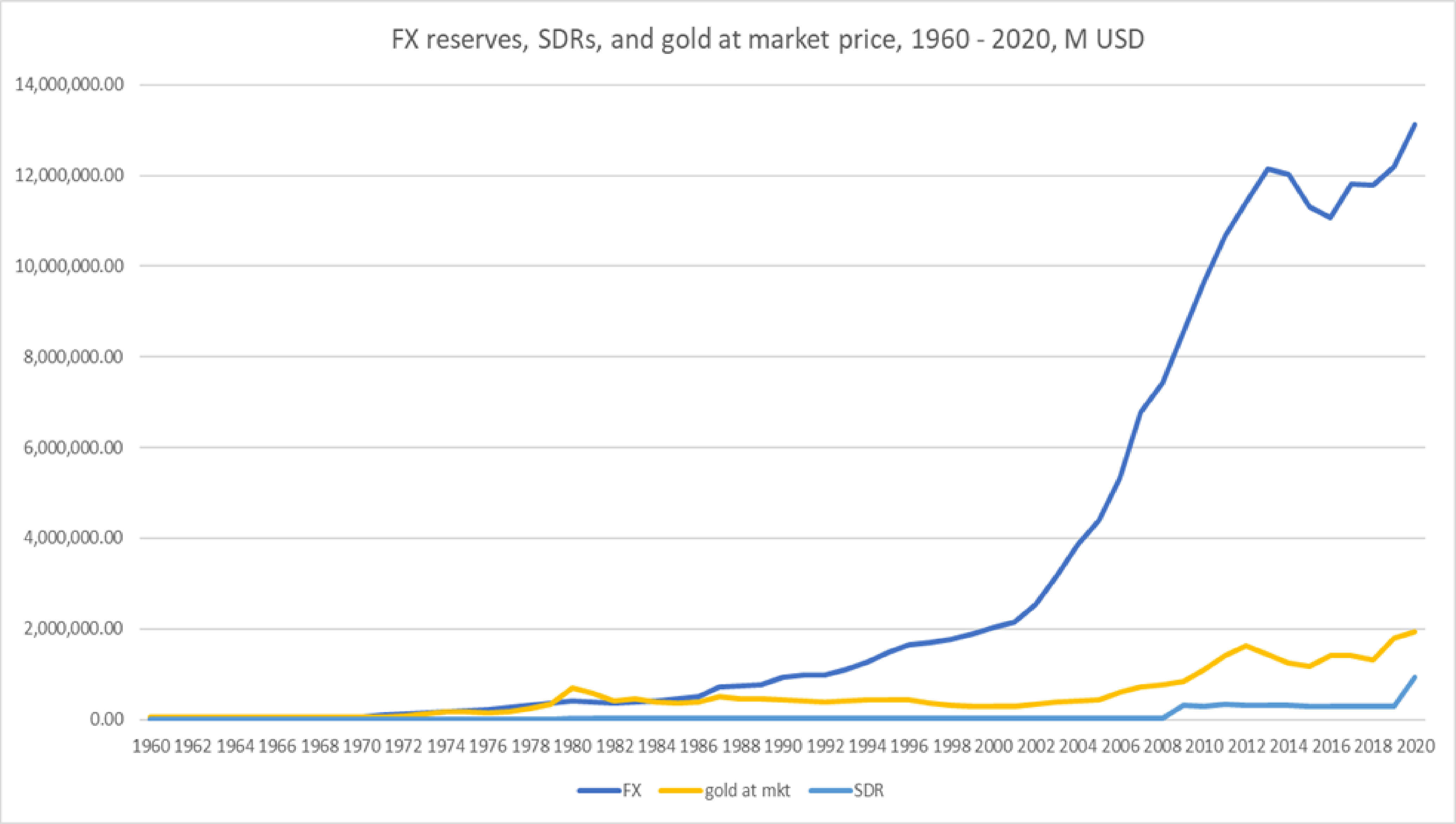


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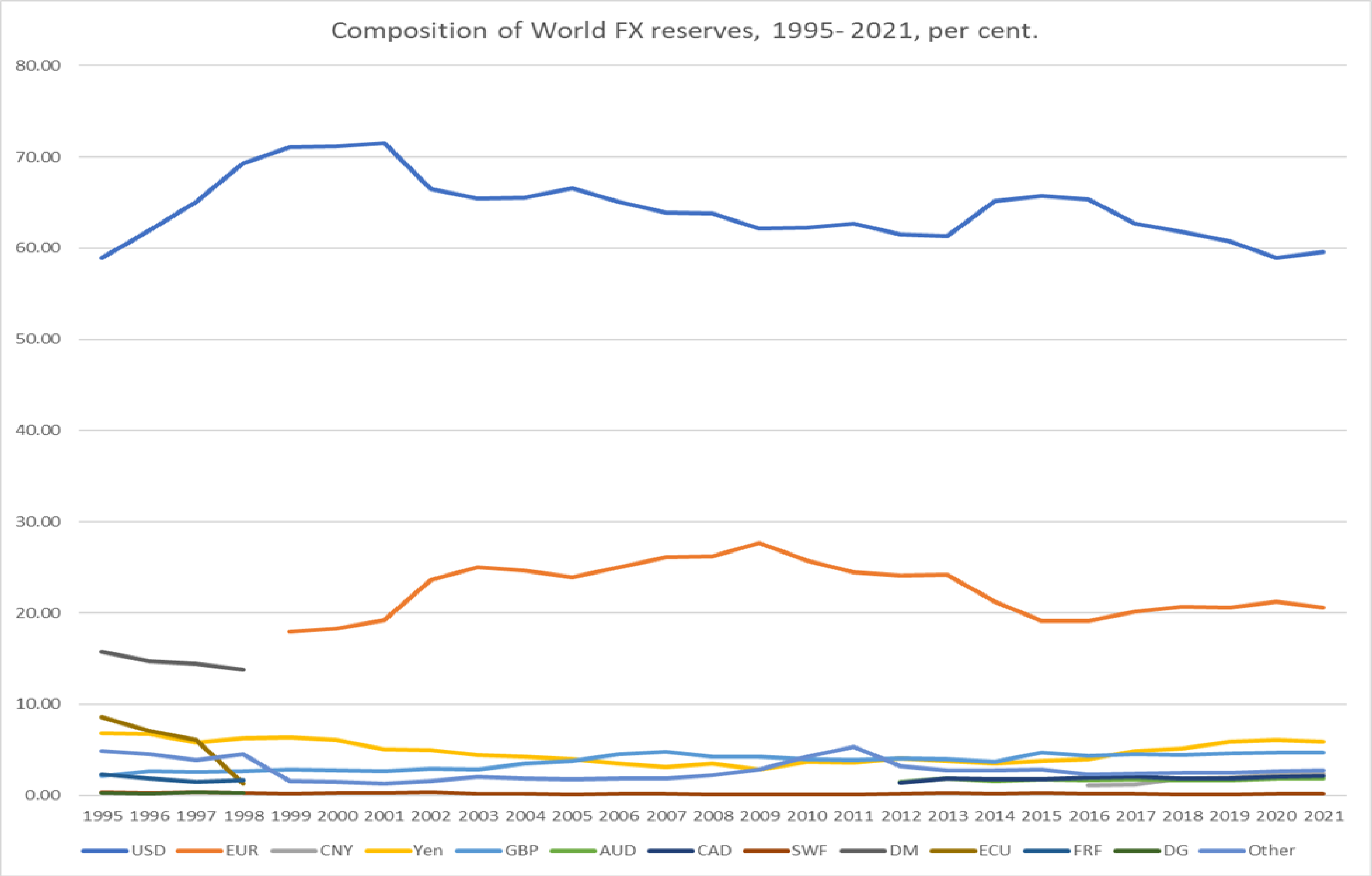


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## SDR allocations do not reduce FX reserves and could increase them.

- The reason that SDR issues do not reduce dependency on FX reserves is that any country that borrows via its SDR allocation does so by getting a real currency from another member.
- If this loan comes from, say, the UK in the form of sterling then it immediately increases the stock of FX reserves (and it is far more attractive to exchange SDRs for one's own currency than for another foreign currency).
- Indeed, the UK could increase it owns FX reserves by accepting SDRs in exchange for sterling and then using the SDR to acquire USD.
- In effect, it has enabled an FX swap indirectly.
- The old phrase that "loans create deposits" has a new context in the world of FX reserves and it helps to explain why SDR issues did nothing to reduce the stocks of FX reserves and if anything did the opposite.
- After 50 years of existence the SDR is an irrelevance for the international monetary system, but has a minor role in easing emerging market liquidity constraints (usually in crisis times).

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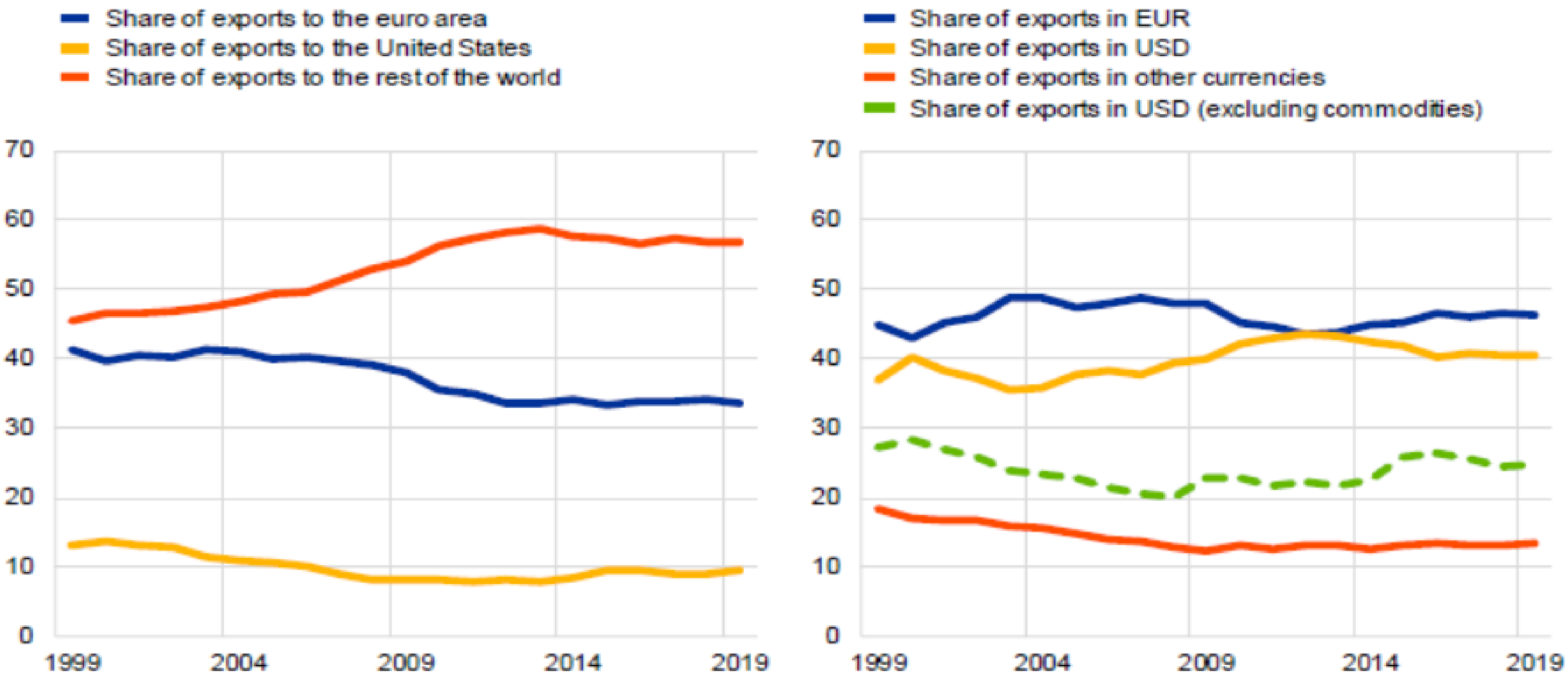
# Currency use in international trade

- An important set of ideas related to international currency use is what Alexander Swoboda (1968) called the “vehicle currency hypothesis” or what the present author (Chrystal 1977, 1978) called “demand for international media of exchange”. A more recent literature (with new twists) refers to this as the “dominant currency hypothesis” (Gopinath et al, 2020) and the term “dominant currency” is one that we have been using already above.
- Swoboda’s insight came from looking for reasons for the rapid growth of dollar banking markets in Europe in the late 1950s and early 1960s (which thus became known as Eurodollar Markets…..long before the Euro existed!) What was happening, he suggested, was that dollars were being used as a settlement medium in trade between companies and countries even when this did not involve any direct trade with the US. Hence, they would need working balances in USD (and perhaps trade credit is USD)
- Evidence for this international medium of exchange role for the USD (or any other currency) was lacking until the appearance of a study of invoicing patterns of Sweden’s foreign trade by Grassman (1973). A study for the UK followed this (Carse, Williamson and Wood, 1980) and many subsequent studies are reviewed in Hartmann (1998).
- A comprehensive recent study (Boz et al 2020) brings us up to date.

## Use of the US dollar and the euro as vehicle currencies has increased

**Shares of global exports broken down by destination (left panel) and by invoicing currency (right panel)**

(percentages)




Source: Boz, E., Casas, C., Georgiadis, G., Gopinath, G., Le Mezo, H., Mehl, A. and Nguyen, T., "Patterns in invoicing currency in global trade", *Working Paper Series*, No 2456, ECB, Frankfurt am Main, 2020.
Notes: The left panel shows the evolution of the share of exports to the United States, the euro area and the rest of the world in global exports; the right panel plots the share of global exports that are invoiced in US dollars, euro and other currencies. Only exports to countries for which invoicing data are available are shown. The charts are based on interpolated and extrapolated data.

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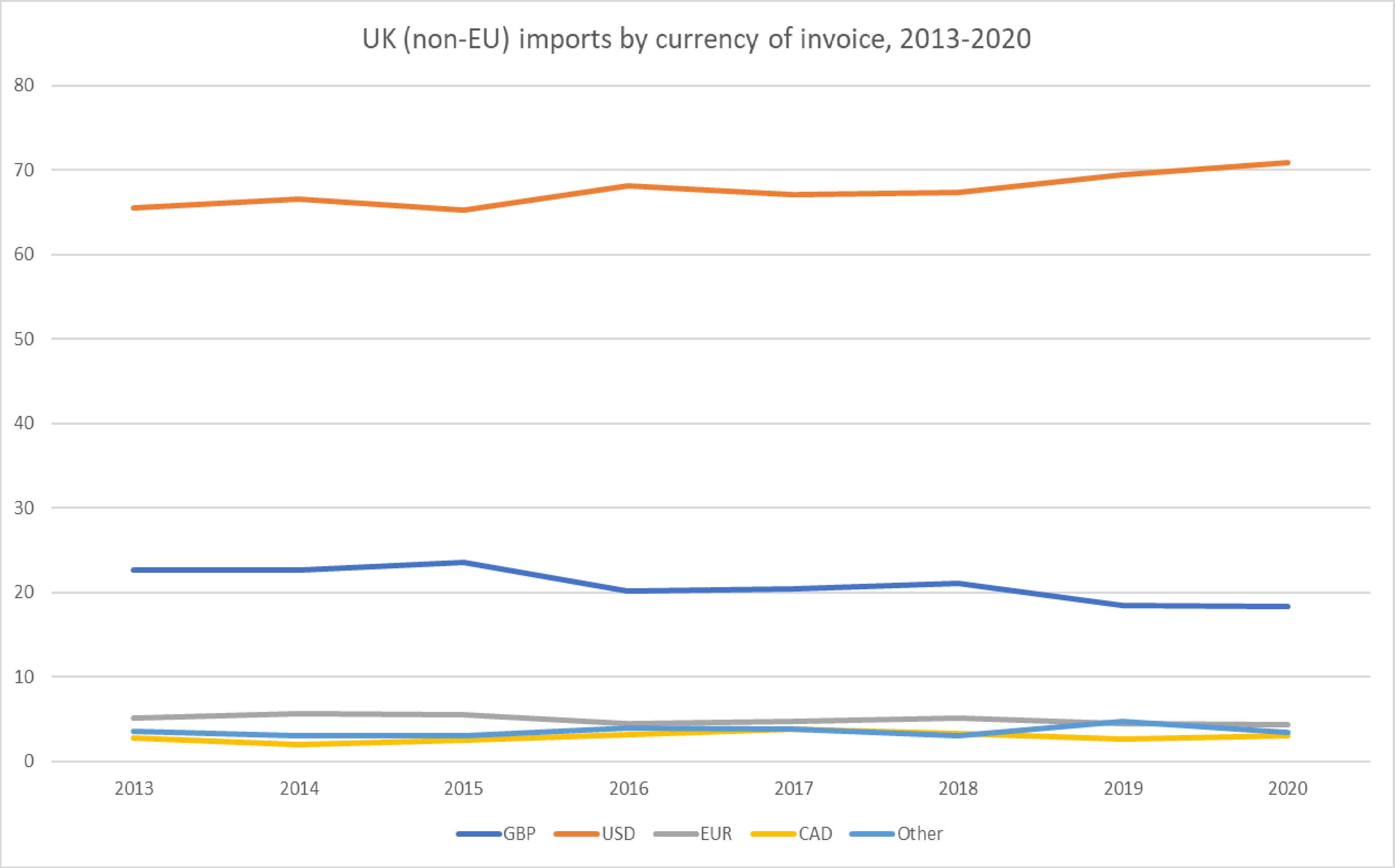


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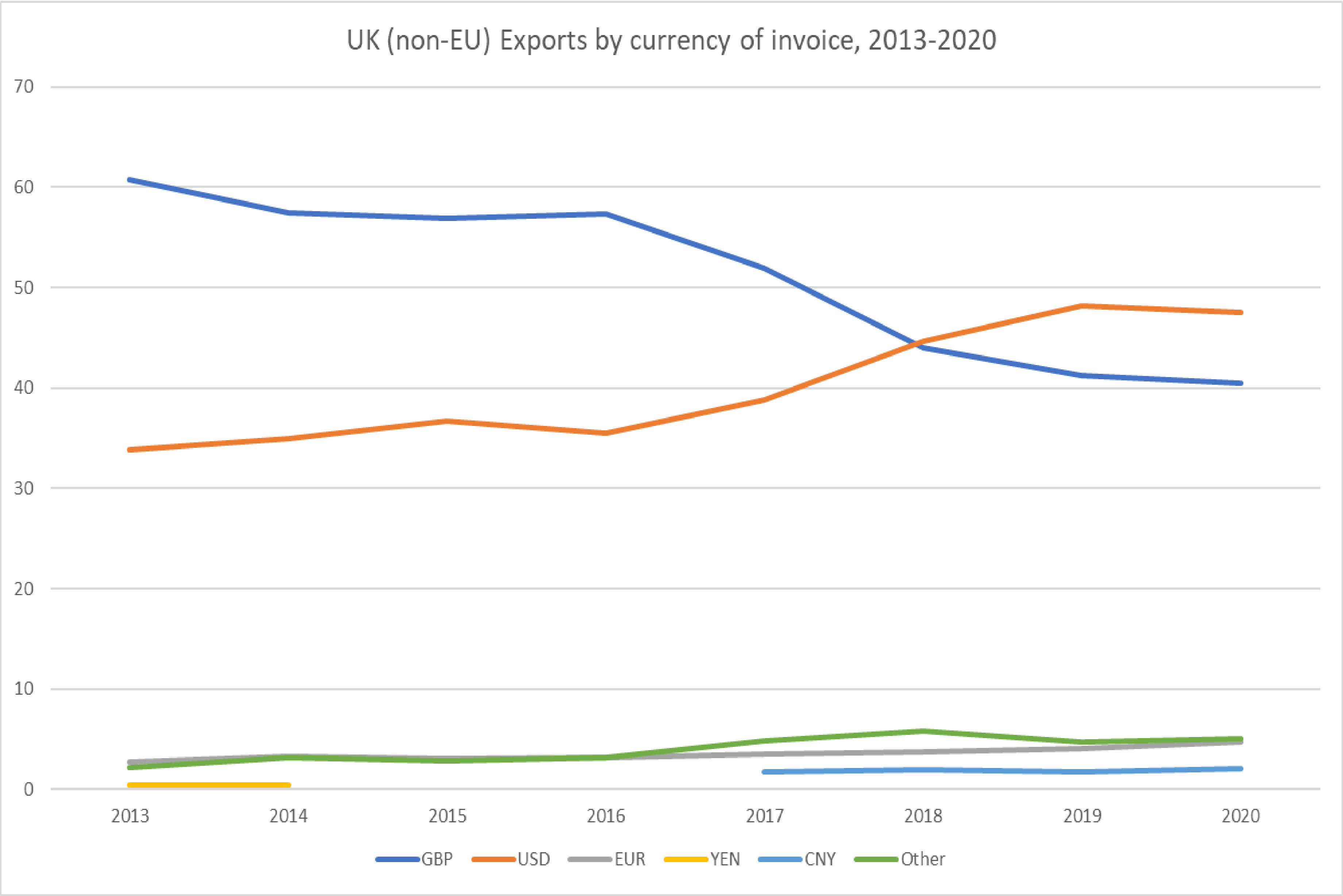


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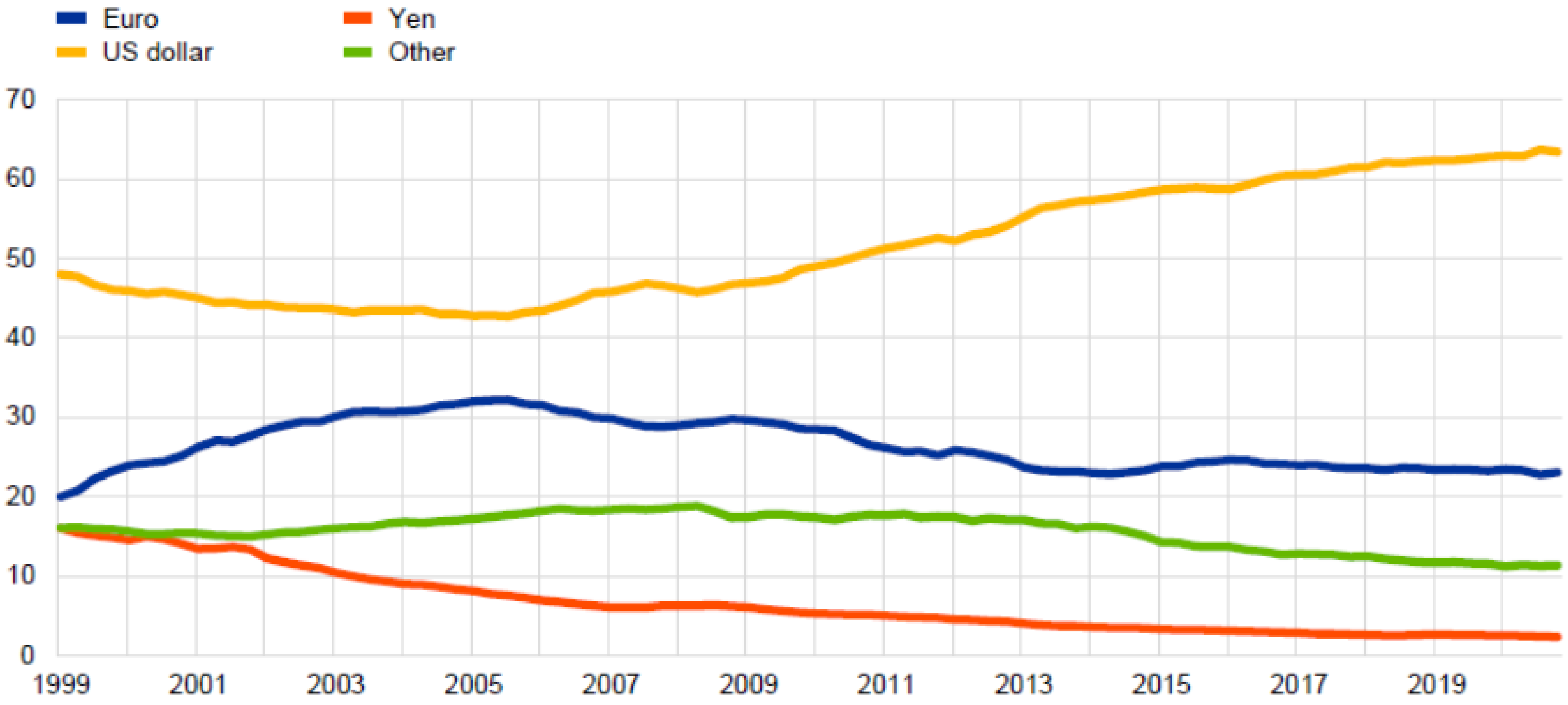
## Currency composition of outstanding international debt securities

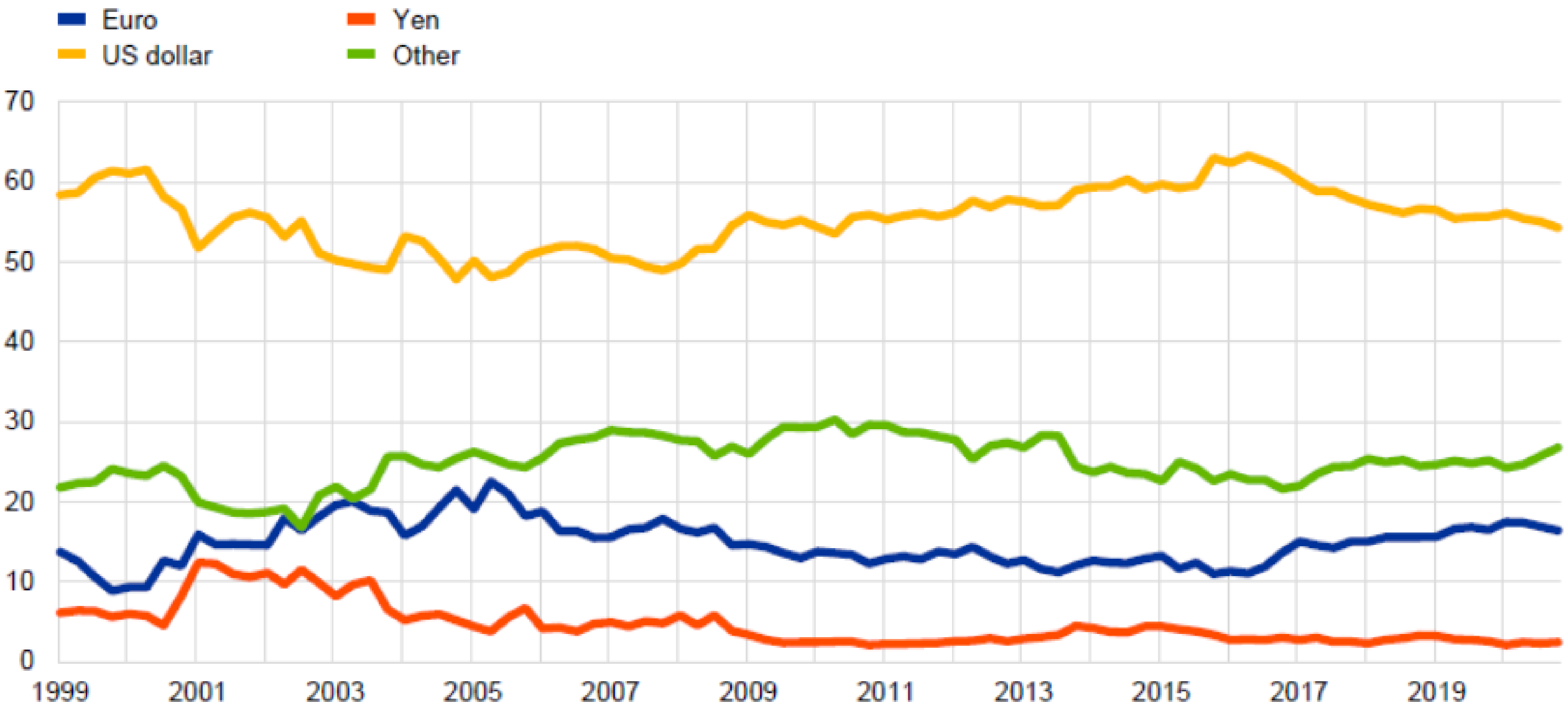
(percentages; at constant Q4 2020 exchange rates)




Sources: BIS and ECB calculations.
Notes: Narrow measure. The latest data are for the fourth quarter of 2020.

## Currency composition of outstanding amounts of international loans

(percentages; at constant Q4 2020 exchange rates)




Sources: BIS and ECB calculations.
Notes: The latest observations are for the fourth quarter of 2020. International loans are defined as loans by banks outside the currency area to borrowers outside the currency area.

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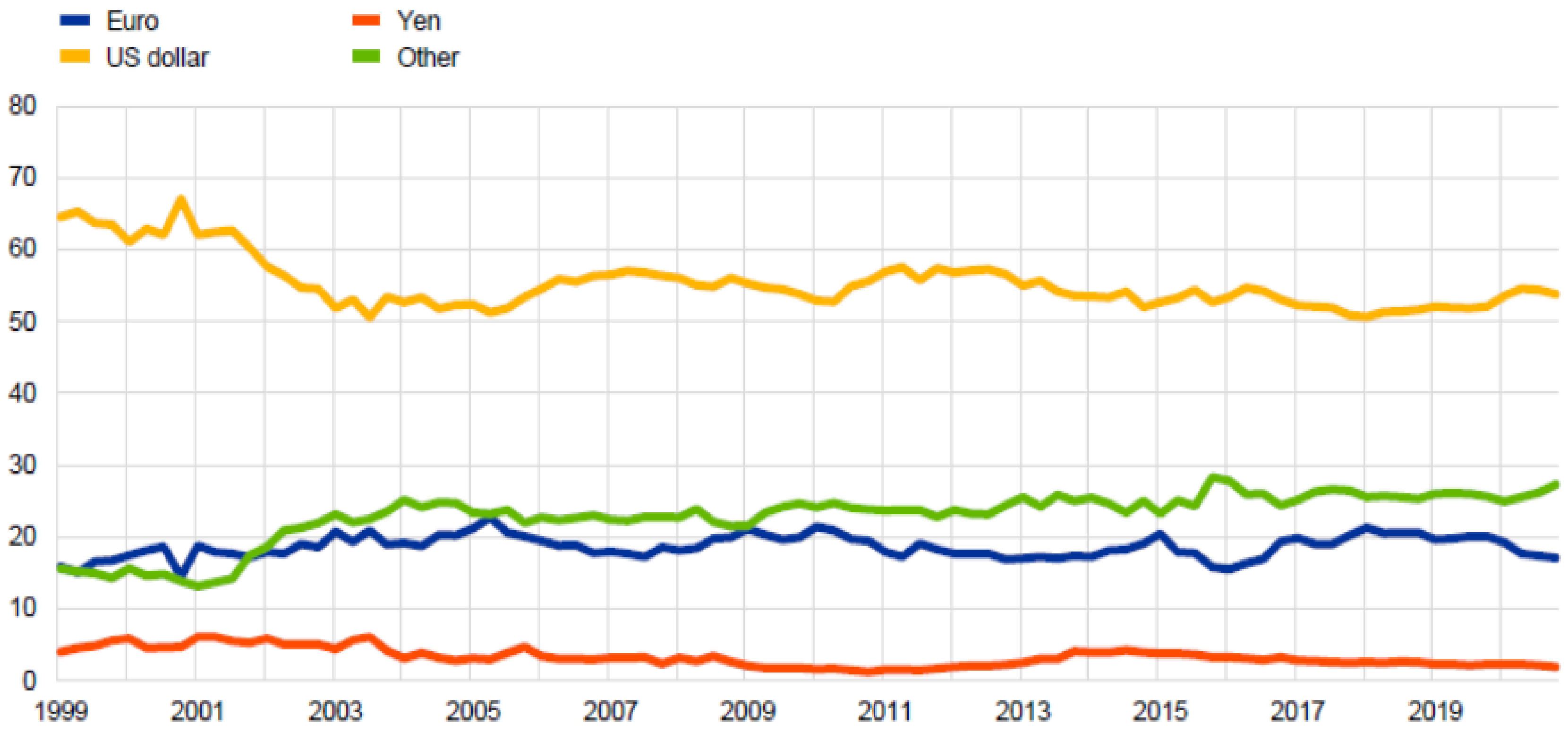
## Currency composition of outstanding amounts of international deposits

(percentages; at constant Q4 2020 exchange rates)




Sources: BIS and ECB calculations.
Notes: The latest observations are for the fourth quarter of 2020. International deposits are defined as deposits with banks outside the currency area from creditors outside the currency area.

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## The role of the USD as the “money” of the foreign exchange markets.

- FX turnover data are telling us much more than how much USD are used in trade or credit settlements.
- They are telling us a key characteristic of the FX markets themselves.
- This is that the USD is the “money” of the FX markets.
- The reason for this is that the USD has the most liquid FX market vis a vis every other traded currency and thus also the lowest spreads with each currency.
- Not all currency pairs have an active bilateral market.
- But any currency that does have a market will have one with the USD.
- An FX dealer who wants to sell Norwegian Kroner and buy Brazilian Real will not waste his or her time trying to find a suitable counterparty.
- Rather, the trader will sell Kroner for dollars and then use dollars to buy Real and this will be the cheapest and quickest way to complete the deal (see Chrystal, 1979 and Hartmann, 1998 for more detailed analysis of this mechanism).
- Certainly, there are some liquid cross-markets between a few of the major currencies, but the data are telling us very clearly that the USD is on one side of 90% of FX transactions.
- If this number were 100% there would be no other cross-market at all, and all FX trades would be intermediated via the USD.

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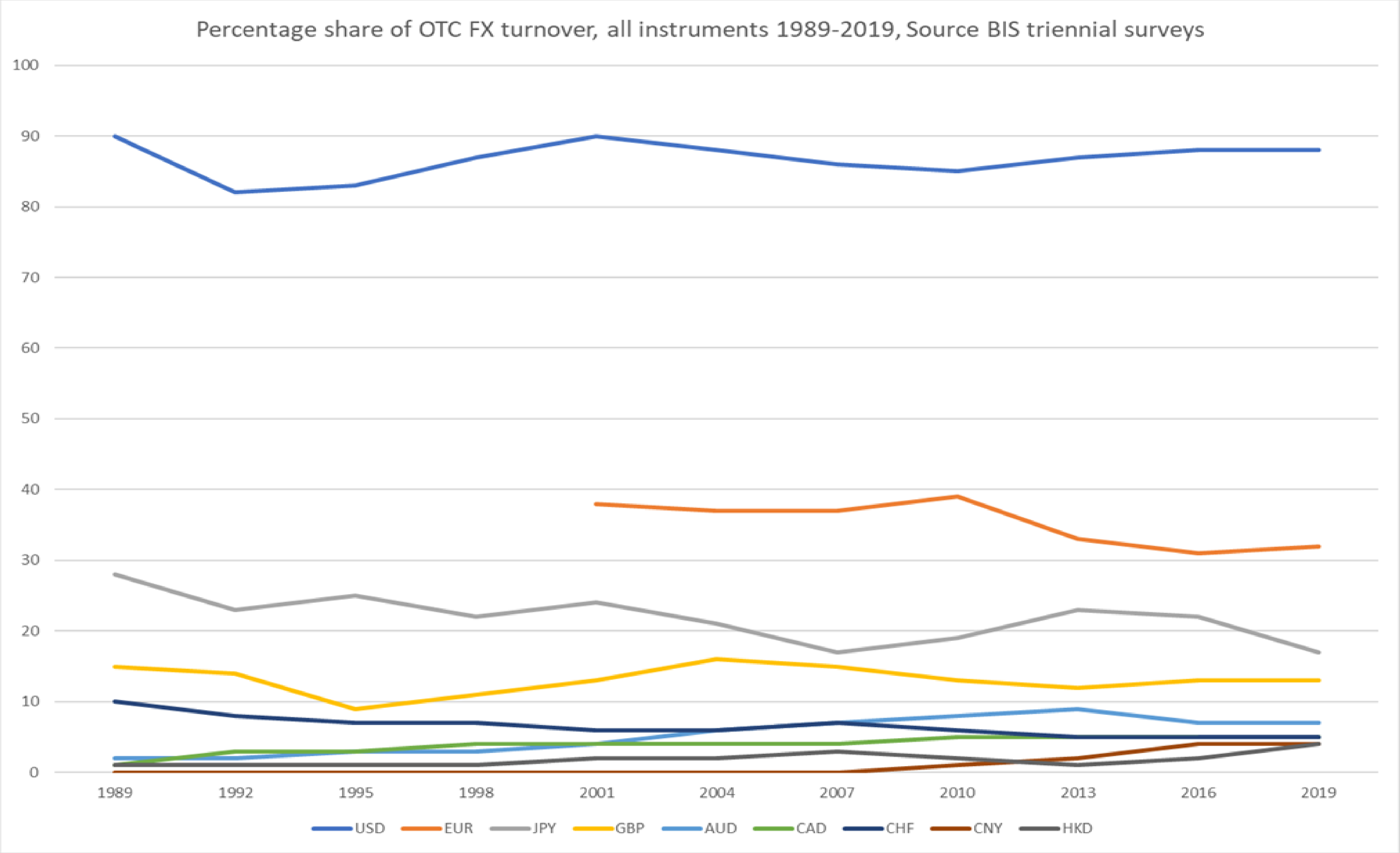


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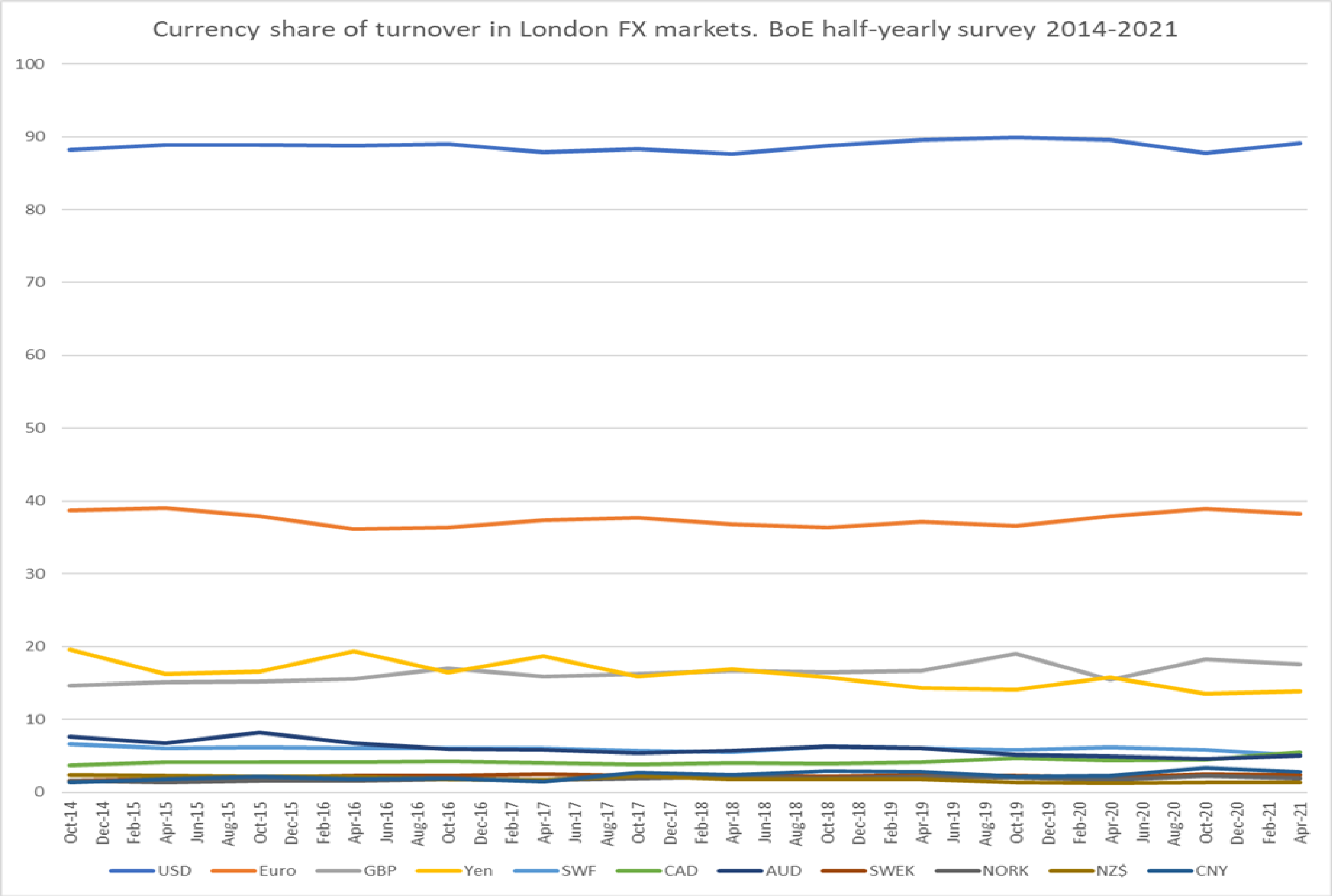


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## Will the USD be deposed?

- So, what might shift the USD from this dominant position.
- Clearly the growth of China’s trade alone has not done this…..so far.
- Perhaps a complete liberalization of China’s financial and capital markets would help to advance the CNY further.
- However, this (at best) is likely to be a long and slow process.
- On the other hand, the deteriorating economic and political relations between China and the so-called West are likely to push the attractiveness of the CNY in the opposite direction.
- These obstacles may persist so long as China remains a one-party state with a lack of trust in its openness and absence of corruption.
- Indeed, these issues may hinder underlying trade and economic growth directly with inevitable knock-on effects on currency use.
- Of course, there are political risks in the US and the Eurozone as well (for the latter see, for example, Demetriades 2020) however, the Fed and the ECB have so far managed to maintain a degree of independence and credibility, though this is not guaranteed for all time.
- One possible innovation that might work in favour of the CNY is that China is working on introducing a central bank issued digital currency (CBDC). Some commentators think that this could be a game changer in favour of the CNY.

# Digital Currencies

- At the present the exact form of any likely CBDC is not precise enough to allow us to conjecture on its impact.
- Indeed, we have had a form of central bank digital currency in all economies for many years in the form of reserve and clearing deposits at central banks by commercial banks and some other financial institutions.
- Hence, to be a genuine innovation a CBDC must involve much wider access for businesses and households to direct claims on central bank deposits.
- This, of course, could be a threat to the role in the domestic payments system of the commercial banks and providers of other payments services, so the impact on domestic payment systems is probably the dominant issue here.
- How CBDCs might affect international payments is even less clear than it is for domestic payments.
- Suppose though that China was ahead of the game in introducing a CBDC and that it was available through some channel (even if intermediated through correspondent banking or whatever) could this advance the international use of the CNY?
- Yes, it could if it significantly lowered transaction costs on CNY deals and this both encouraged wider use of CNY invoicing and wider use of the CNY in FX markets, and at the same time there was general confidence in the bona fides of the Chinese central bank.

## CBDC part 2

- However, there are likely to be unintended consequences of CBDC introduction and other central banks may benefit from a watch-and-wait strategy.  The CNY is sufficiently underdeveloped as an international currency that a rapid switch from USD use is very unlikely, and if there are significant teething problem with the CBDC this could work the other way and delay expansion of CNY use. Also problematic is the possibility that one attraction of CBDC for the Chinese authorities is the fact that they will be able to monitor transactions, when they cannot monitor transactions in cryptocurrencies (hence the ban).
- Thus, it is likely that if a CNY CBDC became available and it proved an immediate success AND started to affect international payments, then other central banks would soon react (as they have been studying this issue for some time) and this could neutralise any advantage that the CNY had picked up from its first-mover status.
- All of this is highly speculative so, for the time being, all that can be said is that this could be a significant issue for the future so watch this space.

## Conclusion

- The status quo of a dominant dollar in the international monetary system, with a significant secondary role for the Euro, seems to be firmly established.
- The growth of China has dramatically altered the structure of world trade in the past two decades, but so far this has done surprisingly little to change currency use in the international economy.
- What happens in the future will depend on politics as well as economics but it is likely that the international role of the Yuan (renminbi) will grow, at least in China's sphere of greatest influence and thus we may be heading for three-currency world
- We conclude, as we started, with a quote from Barry Eichengreen:

*"….The fundamental fallacy behind the notion that the dollar is engaged in a death race with its rivals is the belief that there is room for only one international currency. History suggests otherwise. Aside from the very peculiar second half of the twentieth century, there has always been more than one international currency. There is no reason that a few years from now countries on China's border could not use the renminbi in their international transactions, while countries in Europe's neighbourhood use the euro and countries doing business with the United States use the dollar…..There may have been only one country with sufficiently deep financial markets in the second half of the twentieth century, but not because this exclusivity is an intrinsic feature of the global financial system,"* (Eichengreen, 2011)