European Stability Mechanism

The euro in the world

The question of whether the international monetary and financial system is, or should be, moving toward a more 'multipolar' character has received much attention in recent years. The euro is the second most important global currency, and the euro area's economic weight lays a solid foundation for its greater role on financial markets. A stronger international role would benefit not only the euro area but also the global financial system. This paper therefore focuses on the main drivers of the euro's international role and the policies to support it. The ongoing reforms in the European Economic and Monetary Union can support the common currency on the international scene, and there is scope for further policies that strengthen the role of the euro on international capital markets.

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Executive summary

The euro's current international role reflects the euro area's weight in the world economy.

The question of whether the international monetary and financial system is, or should be, moving toward a more 'multipolar' character is a topical one. The euro is on par with the United States (US) dollar in terms of international trade invoicing and global payments, but it remains a distant second behind the dollar on global financial markets. Meanwhile, with the opening up of Chinese financial markets, the international use of the renminbi has been on the rise. This paper focuses on the main drivers of the euro's global role and the policies to support it.

But the euro can play a greater role…

The economic weight of the euro area lays the foundations for a greater role of the euro on financial markets. Countries with euro-denominated export receipts have economic incentives to manage their financial assets and liabilities in euros. Furthermore, the euro area is both an investment destination and a home to global institutional investors, who can foster the global use of the euro.

…providing knock-on strategic advantages.

A stronger international role of the euro would benefit both Europe and the global financial system. It can reinforce the autonomy of the European Union in the macroeconomic and financial fields, as set out by the European Commission's recent communication.[1] Furthermore, a more diversified mix of global currencies can mitigate the vulnerabilities of the global financial system, reduce spillovers, and improve the sustainability of capital flows.

The ongoing reforms in the European Economic and Monetary Union are making the euro more attractive to global investors.

The ongoing reforms in the European Economic and Monetary Union support the euro on the international scene. Progress in the reduction of internal imbalances has reinforced the stability of the euro area. The institutional innovations in response to Covid-19 will expand the pool of euro-denominated safe assets over the coming years and foster markets' perception of the euro as a safe-haven currency. Also, a completed banking union and progress towards capital markets union could improve euro area financial markets' depth and liquidity, attracting global investors and enhancing the currency's international role.

[1] European Commission (2021a), The European economic and financial system: fostering openness, strength and resilience.

There is scope for policies to strengthen the euro's role in global capital markets. One example is the development of a European platform for debt distribution, with a common regulatory environment underpinning the market infrastructure to promote security, stability, and transparency to nurture euro-denominated debt issuance. The euro has also become an important currency for green bond issuance to sustainable finance thanks to a strong European Union commitment to clearly defined regulation criteria. Looking ahead, the euro could benefit from the policies underway to support the post-pandemic recovery, including the push for investing in digital transformation and green finance and further strengthening crisis management.

New policies could further support the euro's role on global financial markets.

Introduction

The international role of a currency

A currency's international role can be measured along three dimensions: a) as a means of exchange, when used for international payments or financial transactions; b) as a unit of account for trade invoicing or bookkeeping; and c) as a store of value for official foreign reserves management and private investment. In some special cases, a country might peg its local currency to a foreign one or even adopt a foreign currency as a legal tender.

Table 1
Functions of an international currency

	Unit of account	Means of exchange	Store of value
Private	Trade invoicing	Vehicle/Payments/ Foreign exchange market	Investment/Financing
Official	Peg/Anchor	Intervention currency	Official reserves

Sources: Cohen, B. (1971), The Future of Sterling as an International Currency, Macmillan; Kenen, P. (1983) "The Role of the Dollar as an International Currency", Group of 30 Occasional Papers[2]

Ample literature exists discussing the determinants of currencies' international role. The most important include the size and stability of the underlying economy, financial market depth and liquidity, political and military power, and a policy stance that encourages currency internationalisation.[3]

- **Economic size.**[4] Large economies stand a better chance of issuing key international currencies because they generate greater transaction volumes and the potential for deep liquid markets. Within such economies, firms are likely to contribute to global trade with considerable weight, and the financial institutions play a major role in cross-border lending.
- **Political, economic, and financial stability.** History suggests political stability and government accountability play a role in determining which currencies internationalise.[5] Foreign exchange reserve managers generally invest conservatively, preferring stable currencies issued by countries with solid macroeconomic fundamentals. Reserve holders may shy away from unstable countries with a volatile currency, even if they are major trading partners.
- **Financial market development and safe infrastructure.** Financial market liquidity and depth reduce transaction and borrowing costs. A country's open capital account,

[2] For a recent overview of the characteristics of international currencies see Eichengreen, B., A. Mehl, and L. Chitu, (2017a), How Global Currencies Work: Past, Present, and Future. Princeton: Princeton University Press.

[3] Papadia, F. and K. Efstathiou (2018), "The euro as an international currency," Bruegel Policy Contribution 25; and Pandl, Z. and I. Rosenberg (2020a), "The Drivers of Reserve Currencies," Goldman Sachs Economics Research.

[4] Flandreau, M. and C. Jobst (2006), "The Empirics of International Currencies: Historical Evidence," CEPR.

[5] Cohen, B. (2015), Currency Power, Princeton University Press.

availability of investable securities, and well-functioning money markets are all important considerations. Sovereign investors in particular prefer large liquid bond markets with numerous highly rated issues and limited restrictions on access to capital.[6]

- **Geopolitical alignment and military power.** Politics also plays a part in international currency choices, at least for governments. Hegemonic power and military alliances, for instance, boost the share of partner-country currencies.[7] Changes in a country's geopolitical standing may, in turn, have currency market implications.
- **Inertia.** Powerful trends persist in choices about international currencies. For economic and institutional reasons, change only proceeds gradually once international currencies have developed strong network externalities that reinforce their status.
- **Issuing country policy preferences.** Clear policies can promote the international use of a currency, in particular through a well-established central bank willing and able to act internationally. Governments can facilitate capital flows and provide investable assets to encourage greater international use of their currency. And well-developed capital markets and stable banking systems foster overseas holdings of a country's assets and/or support cross-border lending. In contrast, governments sometimes discourage the international use of their currencies by imposing capital controls and other measures, concerned that such a development could harm domestic monetary policy and/or development goals.

Ultimately, two key macro-financial characteristics emerge: stability and liquidity. Both these features are associated with countries with economic weight and well-developed financial markets, offering opportunities for diversification and risk-sharing. Additionally, the geopolitical strength and safety of the home country's capital market infrastructure may be an attraction.

Stability commonly refers to price stability, both in terms of internal inflation and the external nominal exchange rate. Price stability requires financial system stability, including a credible central bank, as well as solid financial architecture and regulatory environment. Furthermore, the currency must preserve its value in times of heightened risk aversion, in other words, acting as a 'safe haven.'

Deep and liquid financial markets are also crucial to support a currency's international status. Global investors hold assets denominated in international currencies not only for their risk-return profile, but also as an insurance policy against liquidity shocks. Unlike local assets, international currency assets can be sold at any time and for a relatively predictable price – so a country or monetary union issuing an international currency must be able to provide such assets. The development of deep and liquid financial markets lowers transaction costs and enhances an international currency's attractiveness as a means of exchange and unit of account.[8]

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[6] World Bank (2019), Survey on the Reserve Management Practices of Central Banks.

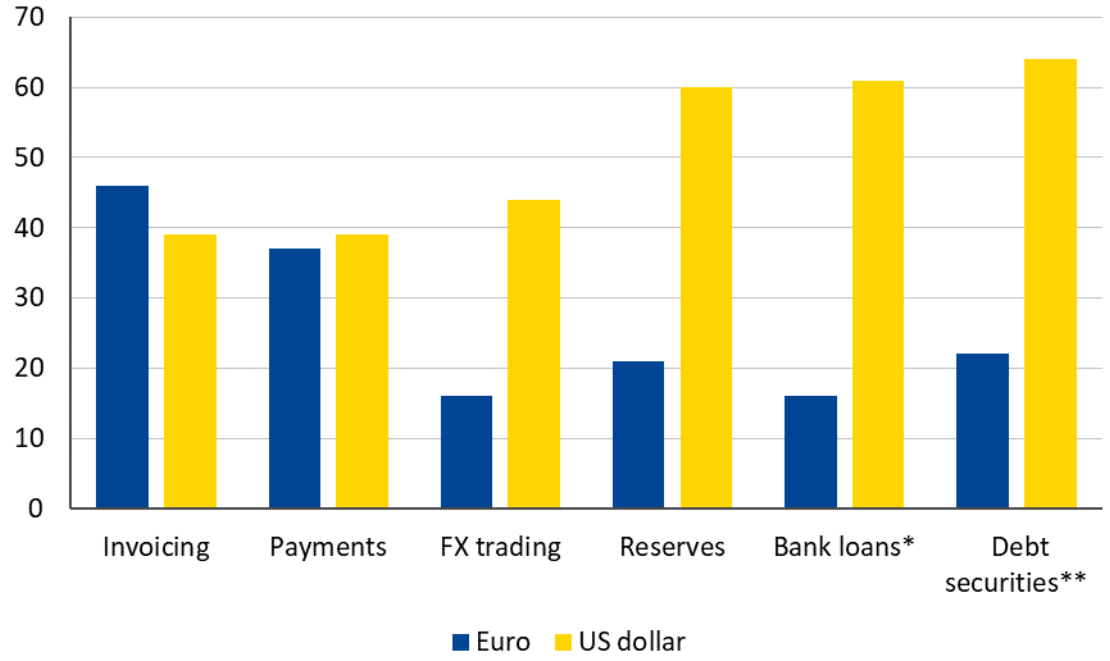
[7] Eichengreen, B., A. Mehl, and L. Chitu (2017b), "Mars or Mercury? The Geopolitics of International Currency Choice," NBER Working Paper 24145.

[8] Portes, R. and H. Rey (1998), "The Emergence of the Euro as an International Currency," NBER Working Paper 6424.

1. The current landscape

The euro's international role reflects its share in the world economy and global trade, but it is still used far less than the US dollar in financial markets. Inertia across the international monetary and financial system explains the difference in part, together with a traditional reliance of global investors and other countries on the dollar as a reference currency (Figure 1).

Figure 1
The euro is the world's second most important currency
(Global share of the US dollar and the euro in %)



Notes: *Bank loans include cross-border loans denominated in a foreign currency (i.e. currencies foreign to bank location country); **Debt securities include securities that are issued in a currency other than that of the borrower's residency.
Sources: Invoicing based on Boz et al. (2020); Payments based on Swift via Bloomberg Finance L.P.; FX trading, bank loans, and international debt securities based on Bank for International Settlements (BIS); Reserves based on the International Monetary Fund's (IMF) Cofer, latest available data

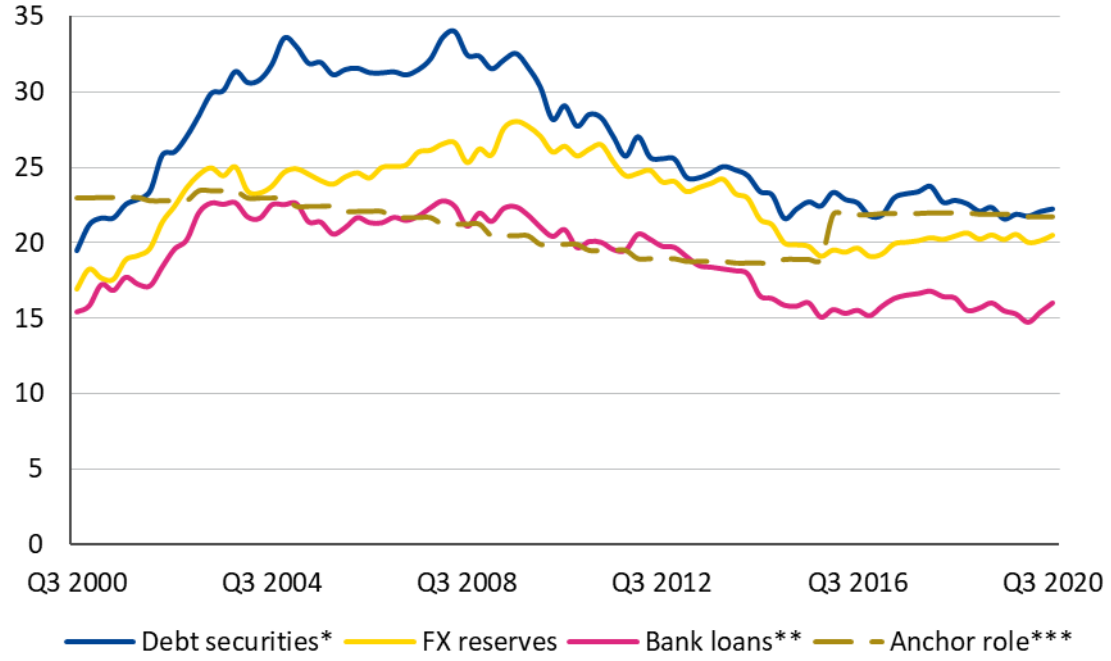
From its launch in 1999, the euro's global use grew strongly until the mid-2000s, establishing its status as a key international currency. It became commonly used for trade invoice pricing, cross-border payments, securities trading, and bank loans. It entered among the top currencies traded at a substantial volume, preferred for central bank reserve holdings, and established itself as a standard for some managed exchange rate regimes.

The euro's relative weight declined compared to the US dollar after the sovereign debt crisis. The trend was visible on debt markets and similar patterns emerged in other areas of international currency use.[9] The euro's share across various indicators now averages about 20% of the total, close to historical lows, according to the European Central Bank (ECB, Figure 2).[10] One explanation for the dollar's sustained dominance has been the sharp expansion of Asian economies that maintained their dollar anchor until recently despite substantial trade with Europe.

[9] Maggiori, M., B. Neiman and J. Schreger (2018), "International Currencies and Capital Allocation" NBER Working Paper 24673; Maggiori, M., B. Neiman and J. Schreger (2019), "The Rise of the Dollar and Fall of the Euro as International Currencies," AEA Papers and Proceedings 109: 521-26.

[10] ECB (2020a), The international role of the euro.

Figure 2
The euro's global importance declined following the sovereign debt crisis
(Euro's share in %)



Notes: *Debt securities include securities that are issued in a currency other than that of the borrower's residency; **Banks loans include cross-border loans denominated in foreign currency (i.e. currencies foreign to bank location country); ***Anchor role is an ESM calculation based on Ilzetzki, Reinhart and Rogoff (2019), adjusting the variables of China, Turkey, and the United Kingdom.
Sources: Bank loans and international debt securities based on BIS; Reserves based on IMF Cofer; Ilzetzki, Reinhart and Rogoff (2019)

Real economy

The euro's role in international invoicing and payments exceeds the euro area's share in global trade in goods. Its share of global trade invoicing has increased gradually, reaching about 46% in 2019,[11] and almost 40% of global payments in 2020 were in euros[12] – despite a decline in the euro area share of global trade in goods from some 30% in 2000 to about 25% in 2019.[13]

The share of trade with non-euro members invoiced and settled in euros has increased progressively since the currency's creation. The euro is now used as the trade invoicing currency for more than 50% of all euro area imports and for more than 60% of all euro area exports.[14] It has become the regionally dominant currency in Europe, and some parts of Africa, because of the euro area's openness to trade and economic integration with its surrounding regions.

In other countries, euro-denominated invoicing broadly reflects the share of exports destined to the euro area. At one end of the scale, euro-denominated invoicing stands at 60% to 70% among economies with high exports to the euro area, which includes central European states, the Balkans, some Scandinavian countries, and other countries in the European neighbourhood

[11] Boz et al. (2020), "Patterns in Invoicing Currency in Global Trade," IMF Working Paper 20/126.

[12] Based on Swift data.

[13] Based on IMF Direction of trade data for 2019, covering trade in goods, but excluding services, including intra-euro area trade. Excluding intra-euro area trade would result in a euro area share of about 18%.

[14] ECB (2020a).

like Morocco and Tunisia. At the other end are countries with less than 10% share of exports to the euro area and euro invoicing, including several Asian and Latin American economies, such as Argentina, Chile, Indonesia, Japan, and Korea.[15] Outliers appear to be economies that rely on energy exports, such as Algeria, Azerbaijan, and Kazakhstan, with a relatively low share of euro invoicing compared to their energy-driven exports to the euro area.[16]

This contrasts with the US dollar picture. Despite the smaller US share of global trade,[17] the dollar's share in international trade invoicing and global payments is broadly on par with the euro's share at around 40%.[18] Unlike the dollar, euro invoicing for international transactions between third countries is limited when transactions do not involve the euro area. Trade between other countries is more likely to be denominated in dollars than in euros (Figures 3 and 4), partly because of the dollar's dominant role in global finance and in denominating commodities and raw materials, although no apparent regulatory, legal, or accounting obstacle precludes using euros.[19]

Figure 3
Exports and invoicing in euros

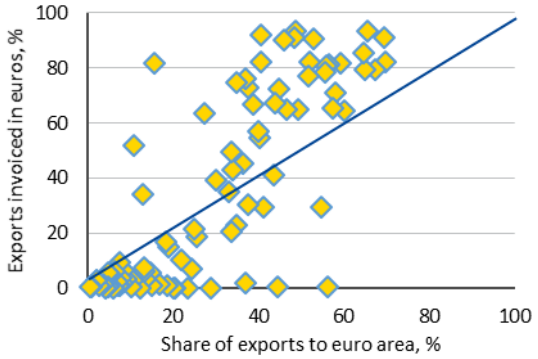


Figure 4
Exports and invoicing in US dollars

Sources: IMF Direction of trade and Boz et al. (2020), latest available data

The euro has become a key anchor reference for EU countries outside the euro area, with most of their central banks and treasuries preferring euros to US dollars for foreign exchange liquidity management. Outside the EU, it became a benchmark for setting the Swiss franc foreign exchange cap between 2011 and 2015, and part of an implicit reference basket for policy makers in Turkey.[20] The currencies of the Central- and West-African franc zone use the euro to anchor their pegs, given their historical affiliations with France.

Beyond Europe and Africa, the euro's anchor-currency role has been more limited. A gross domestic product (GDP)-weighted measure of anchor currencies suggests its importance has declined to about 20% of world GDP today from 25% at inception, reflecting weak euro area growth that shrank Europe's world footprint. Excluding the EU itself, the currency's anchor-role

[15] Based on Boz et al. (2020) and IMF Direction of trade.

[16] More homogeneous goods such as oil are usually priced in a single (or dominant) currency, such as the US dollar, according to Ronald McKinnon, Money in International Exchange, Oxford University Press, 1979.

[17] IMF Direction of trade data for 2019 shows the US share of world trade at 11% against 25% for the euro area, including intra-euro area trade. Excluding intra-euro area trade would result in a US share of about 12% share and a euro area share of about 18%.

[18] Based on Swift and Boz et al. (2020).

[19] Langedijk, S., S. Karagiannis and E. Papanagiotou (2016), "Invoicing Currencies in International Trade – Drivers and Obstacles to the Use of the Euro," JRC Scientific and Policy Reports, European Commission.

[20] A 50%─50% euro-dollar basket used to be an implicit reference for Turkey's central bank which was then replaced by a trade-weighted exchange rate, in which the euro has about a 40% weight.

is limited, with countries linked to the euro representing only about 5% of world GDP.[21] In contrast, the US dollar dramatically increased its reach, despite a decline of the US economy as a share of world GDP.

Dollar-anchoring in emerging markets has propelled the role of the US dollar historically, but this may be changing. Signs are arising to suggest emerging market economies are reducing their reliance on the dollar. Since the early 2000s, many countries in Latin America and in Asia engaged in 'de-dollarisation', although the process has been neither universal nor linear.[22] The dollar's role in foreign reserve and exchange rate management is also changing. For instance, in the reference basket that guides the management of the Chinese currency, the dollar weight declined to 19% in 2021 from 22% in 2016, while the euro's share increased to 18% from 16%.[23] Given China's international and regional trade links, this could shift the currency preferences of other East Asian economies towards the euro over time.[24]

Financial markets

The euro remains a distant second behind the US dollar on global financial markets. The dollar's role in the international monetary and financial system is much more important than that of the euro, even though the euro is on par with the dollar in terms of international trade invoicing and global payments.

The euro's share in official holdings of foreign exchange reserves peaked at 28% in 2009, but fell during the sovereign debt crisis, and has remained close to 20% from 2015 on.[25] While the US dollar's share declined from 66% in 2015 to 60% as of the end of September 2020, as several emerging market economies diversified away from dollar-denominated reserves, the euro's share has still remained broadly unchanged of late, at around 21%.[26]

Foreign investors hold less debt in Europe than in the US. The euro area's international investment position shows that portfolio liabilities, i.e. foreign investor holdings, total almost $14 trillion compared to $21 trillion for the US, both close to 100% of each economy's GDP. The composition of these portfolio investments shows equity and investment fund share holdings combined at a similar magnitude of $8.0–$9.0 trillion, but a difference emerges in the stock of debt securities held by foreigners: below $6.0 trillion in the euro area against over $12.0 trillion in the US (Figure 5).[27] That may be due in part to the lack of euro-denominated safe assets in quantities comparable to US Treasuries, but the demand for dollar-denominated assets is not restricted to such safe assets. US dominance as a supplier of corporate bonds is also striking; the total stock of US non-financial corporate debt securities outstanding is almost five times as large at 33% of US GDP as the euro area total at 13% of GDP (Figure 14).

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[21] Ilzetzki, E., C. M. Reinhart and K. S. Rogoff (2019), "Exchange Arrangements Entering the 21st Century: Which Anchor Will Hold?" Quarterly Journal of Economics 134 (2): 599-646. Data: https://www.ilzetzki.com/irr-data

[22] Cheng, G. (2021), "Evolution of foreign currency bond issuance and the new challenges revealed by the Covid-19 pandemic," Revue de l'économie financière (in French).

[23] Based on CFETS RMB Index from Bloomberg Finance L.P.

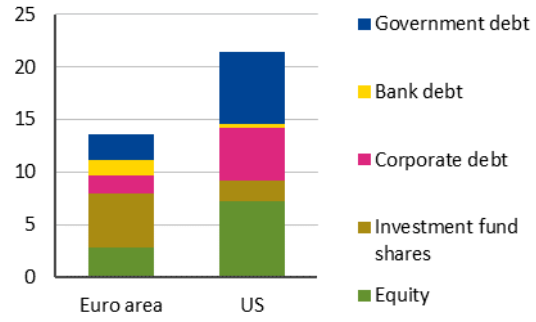
[24] Borio, C. (2019), "The international role of the euro: down but not out," speech at the public hearing before the European Economic and Social Committee.

[25] The euro's share in official reserve assets declined more modestly in exchange rate adjusted terms, to 19% in 2017 from 23% in 2009, suggesting no active rebalancing by reserve managers. Source: ECB (2020a).

[26] The share of 'allocated reserves,' i.e. whose composition is known, based on IMF Currency Composition of Official Foreign Exchange Reserves (Cofer) database.

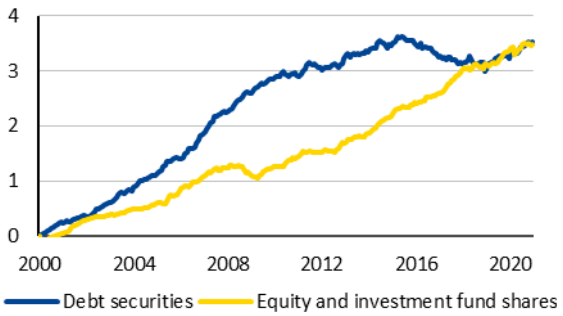
[27] IMF International Financial Statistics data, as of end-2019.

Figure 5
Portfolio liabilities of the euro area and the US
(in $ trillion, as of 2019)



Source: IMF International financial statistics

Figure 6
Cumulative portfolio inflows to the euro area
(in € trillion)



Source: ECB

Foreign investors sold about €500 billion of euro area debt securities between 2016 and 2018, but the trend reversed in 2019 and 2020. Ending several years of net selling by foreign investors, euro area debt securities recorded net inflows in 2019 at about €230 billion, and in 2020, at about €50 billion, despite the pandemic shock (Figure 6).

Equity portfolio inflows have fluctuated alongside growth prospects. Balance of payments data show net foreign investor purchases of euro area equities fell from a peak of almost €420 billion in 2017 to about €110 billion in 2018. After a pick-up to €260 billion in 2019, foreign buying dropped again in 2020, to around €120 billion. This waning enthusiasm for euro area equities mainly reflected global factors, particularly a diminished appetite for risk in a slow-growth environment, together with trade tensions and the pandemic shock. But specific euro area factors reduced the attractiveness of euro area equities, including worries about a possible severe activity slowdown across the euro area.[28]

In the foreign exchange markets, the US dollar is the world's dominant currency, with the euro a distant second. The Bank for International Settlements (BIS) Triennial Central Bank Survey published in September 2019,[29] identifies the dollar as being on one side of 44% of foreign exchange trades, whereas the euro's market share shrank after the sovereign debt crisis, to 16% in 2019 from 20% in 2010. Dollar-denominated liabilities of the US Federal Reserve to non-US residents also underline the important dollar role across the global financial system, with the euro-denominated liabilities of the ECB to non-euro area residents much smaller.[30]

The euro also sits well behind the US dollar on international debt markets.[31] The euro's share in the outstanding stock of international debt securities peaked at over 30% between 2004 and 2008, but then declined between 2009 and 2013. It has since remained at about 22% until recently, well below the dollar's rising share at over 60%.[32] Private borrowers in advanced economies have historically accounted for the bulk of international debt issuance in euros, and remain the main issuers of euro-denominated bonds, while the euro seems to be lagging as a funding currency for emerging markets.

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[28] ECB (2019), The international role of the euro.

[29] BIS (2019), Triennial Central Bank Survey.

[30] Ilzetzki, E., C. M. Reinhart and K. S. Rogoff (2020), "Why Is the Euro Punching Below Its Weight?" Journal of Economic Policy, July.

[31] Based on the 'narrow' definition of international debt securities, using the foreign currency principle. This covers securities that are issued in a currency other than that of the borrower's residency.

[32] ECB (2020a).

The dollar's dominance on emerging markets largely explains the euro's declining share on international debt markets over the past few decades.[33] The increasing importance of emerging markets as issuers of foreign currency debt, and their traditional preference for the dollar as a funding currency, drove dollar-denominated debt issues and cemented the dollar's position as the main financing vehicle on global debt markets (Figures 7 and 8). This dollar dominance is most pronounced in the Middle East and offshore financial centres, where the dollar's share is typically close to 90%, reflecting the dollar's pre-eminence in invoicing energy products and global financial transactions.[34]

The issuance of euro-denominated international bonds has picked up recently, but this has not established itself as a sustained trend. Low euro area interest rates should support the currency's use as a funding currency and encourage issues by US and international borrowers.[35] Signs point to increased interest among emerging market borrowers in using the euro as a funding currency to diversify currency exposures, but euro-denominated debt issuance by emerging market residents is still much lower than in US dollars.

Figure 7
Foreign currency debt securities by issuer residency, advanced economies and emerging markets
(in $ trillion)

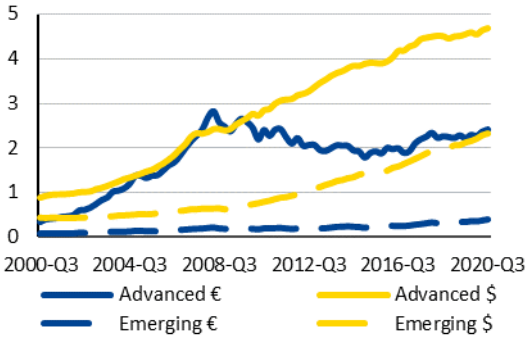
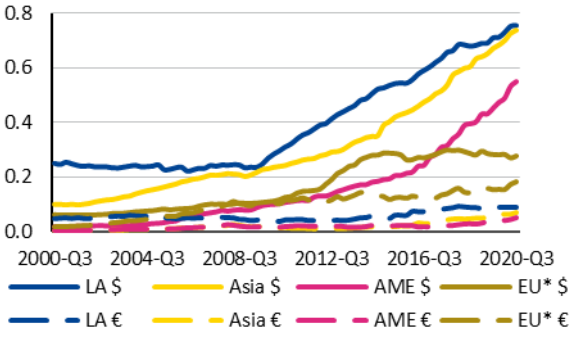


Figure 8
Foreign currency debt securities by issuer residency, emerging markets by region
(in $ trillion)



Notes: Advanced economies and emerging markets distinction is based on BIS developed and developing countries classification. The legend for Figure 8 denotes the following: LA: Latin America, Asia: Asian emerging markets; AME: Africa and Middle East; *European emerging markets.
Source: BIS debt securities data

Euro area investors' holdings of foreign debt securities denominated in US dollars are also higher than those denominated in euros. Between 2010 and 2013, euro area investors rebalanced their holdings of foreign debt securities from euro to dollar-denominated assets, presumably reflecting concerns about risks raised by the euro area debt crisis – and the euro's share did not recover later. Persistently low euro area yields may have contributed to euro area investors' preference for foreign bonds regarded as close substitutes, including US Treasury securities.[36]

The euro's share of cross-border bank loans reached over 20% in 2008, but then noticeably shrank.[37] Cross-border lending from the euro area to Central and Eastern Europe (CEE) drove the early expansion of euro-denominated international loans because several countries in the region had been on a euro-adoption path. But this trend slowed down during the financial crisis. The share of the euro in outstanding CEE loans declined as the domestic authorities promoted

[33] Aldasoro, I. and T. Ehlers (2018), "Global liquidity: changing instrument and currency patterns," BIS.

[34] ECB (2019).

[35] ECB (2020a).

[36] ECB (2019).

[37] Foreign currency cross-border bank loans include loans denominated in currencies foreign to the bank location country.

domestic currencies to mitigate financial stability risks.[38] Meanwhile, euro area banks deleveraged, shedding assets, and reducing foreign loans to restore capital ratios, partly a reflection of regulatory efforts to reduce exposures to foreign loans denominated in euro.[39] This trend has partly reversed in the past few years, but the euro share of cross-border loans currently at around 16% still lies below the pre-crisis peak, and well below the US dollar's share of around 60%.[40]

[38] For the countries that adopted the euro, euro-denominated lending no longer counts as foreign currency.

[39] In particular, the Recommendation of the European Systemic Risk Board of 21 September 2011 on lending in foreign currencies may have contributed to a reduction in cross-border euro-denominated loans. ECB (2019).

[40] ECB (2020a).

2. Possible drivers of a broader use of the euro

International currency functions strengthen one other. The widespread use of the US dollar in trade invoicing and its increasing prominence in global banking and finance are mutually reinforcing. Companies with dollar-denominated revenues and assets have an incentive to manage debt in dollars to prevent any currency mismatch between revenues and liabilities. In turn, companies with dollar-denominated liabilities have an incentive to invoice in dollars. The liquidity and safety properties of dollar assets generate additional demand and reduce yields, creating another incentive for firms to borrow in dollars. Central banks, therefore, accumulate dollar reserves as a precaution to cover dollar issuances by non-financial companies and dollar funding of local banks.[41]

Empirical analysis suggests that public debt issued in US dollars by other countries is also an important driver of their reserve holdings in dollars.[42] Central banks hold foreign reserves to hedge external liabilities, including the foreign-currency denominated debt of the sovereign. In turn, trade invoicing can also explain the currency denomination of official reserves, as well as of external debt. An economy where firms invoice exports in a foreign currency generates foreign currency cash flows that ultimately earn foreign reserve assets when the export proceeds are converted into the local currency. And, for foreign-currency imports, the country needs to ensure a buffer stock to cover potential emergencies. Some studies also find that the dollar's share of official reserves tends to be higher when the domestic currency's exchange rate movements are associated closely with dollar developments.[43]

The rationale for other countries to use the euro

Countries with euro-denominated export receipts have economic incentives to manage their financial assets and liabilities in euros. This logic can work in two ways; it can increase demand for euro-denominated safe assets if other central banks wish to match their reserves with the countries' export receipts; and it can foster more diverse euro-denominated debt markets if other countries decide to issue a larger share of their sovereign debt in euros.

Three structural drivers of reserve composition could support a wider euro role:[44]

- **Exchange rate regime.** If a currency anchors to the euro – from policy choice through a formal peg or basket, or because market forces demonstrate co-movement – authorities have an incentive to hold a larger official reserve share in euros. Some signs evidence such an increasing euro role in currency reference baskets, for example in China.[45]
- **Trade relationships.** A strong case exists to hold reserves matching a country's composition of foreign trade exposures. For some major reserve holders, the share of trade with the euro area, as a percentage of total trade, has expanded recently.[46]

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[41] Krugman, P. (1980) "Vehicle Currencies and the Structure of International Exchange," Journal of Money, Credit and Banking 12/3, pp. 513-526; Krugman, P. (1984) "The International Role of the Dollar: Theory and Prospect," in J.F.O. Bilson and R.C. Marston (eds) Exchange Rate Theory and Practice, University of Chicago Press; Gopinath, G. and J. Stein (2018), "Banking, Trade, and the Making of a Dominant Currency," NBER Working Paper 24485.

[42] Pandl, Z. and I. Rosenberg (2020b), "Euro Internationalization and the Recovery Fund," Goldman Sachs Economics Research.

[43] Ito H. and R. N. McCauley (2019), "The currency composition of foreign exchange reserves," BIS Working Paper 828.

[44] Bank of America Merrill Lynch (2018), Primer: Squaring the circle around CB reserve data.

[45] Some speculation emerged about similar shifts in Gulf states after oil prices fell in 2020. See for example: Investors Bet Oil Crash Will Weaken Middle East Currency Pegs, Wall Street Journal, 1 May, 2020. Kuwait has been referencing its currency to an undisclosed basket of currencies since 2007.

[46] Between 2013 and 2019, the euro area's share in China's imports increased from 9% to 11% and its exports from 11% to 12%. The euro area's share in Saudi exports increased from 8% in 2016 to 12% in 2019.

- **External debt.** Reserves also serve as a precautionary debt service cover, or to hedge against market movements, so an expansion in the share of external debt denominated in euros could lead to higher demand for euro-denominated assets as reserves. But movements in this direction have been tentative, and scope for further diversification still exists.

Comparing a country's exports and its external debt issuance is informative when examining links between the euro's role in real economic transactions and on financial markets. Countries with a high exposure to euro-denominated export income may be inclined to issue more euro-denominated debt to mitigate exchange rate risks. This seems to hold for most European countries outside the euro area such as Croatia, Poland, Romania, Sweden, Norway, and the United Kingdom. However, several exceptions persist among emerging markets. The first group includes the countries of the Maghreb, where a large share of goods exports, 60% or more, are destined for the euro area, but their euro-denominated external debt stands at around 50% or below. The second group comprises energy exporters such as Russia and Kazakhstan, where US dollar-denominated invoicing may explain a relatively larger share of dollar-denominated external debt issuance. The third group consists of major emerging markets, including Brazil, China, and India, with a lower share of exports to the euro area, at around 12%–14%, but the euro share of their external debt is even lower at 10% or below. And in Turkey an apparent disconnect exists between the share of goods exports to the euro area at about 34%, and the share of euro denominated external debt at 8% (Figures 9 and 10).[47]

Figure 9
Exports to the euro area and the euro's share in foreign currency debt, EU and advanced economies

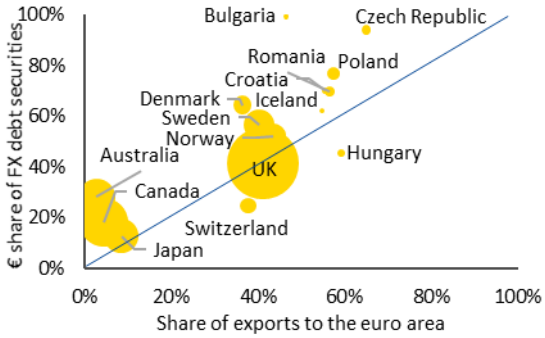
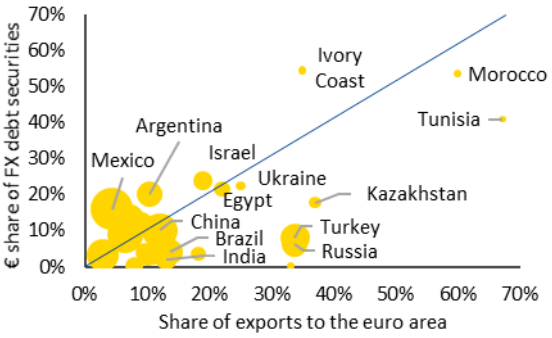


Figure 10
Exports to the euro area and the euro's share in foreign currency debt, emerging markets



Notes: Advanced economies and emerging markets distinction is based on BIS developed and developing countries classification. The size of the yellow bubbles is proportional to the stock of outstanding foreign currency debt securities.
Sources: IMF Direction of trade and BIS debt securities data, latest available

[47] Based on IMF Direction of trade data for 2019 (covering trade in goods, but excluding services), and BIS Debt securities data for Q3 2020 (covering securitised external debt of all sectors, but not bank loans).

Different euro and US dollar financing channels might explain some of the differences. Europe's financial architecture is geared more towards bank-based rather than market-based financing, so euro-denominated financing might be more accessible through bank loans, while the dollar share might be higher in marketable debt. In Turkey's case, including cross-border bank loans, the euro's share of overall external debt amounts to about 30%, but still remains well below the dollar's share close to 60%. Similarly, the euro represents around 35% in the share of foreign exchange deposits at Turkey's domestic banks, against a 63% dollar share (Figures 11 and 12).

Figure 11
Turkey's external debt breakdown
(in $ billion)

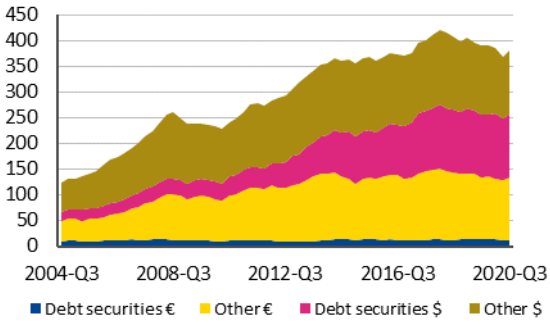
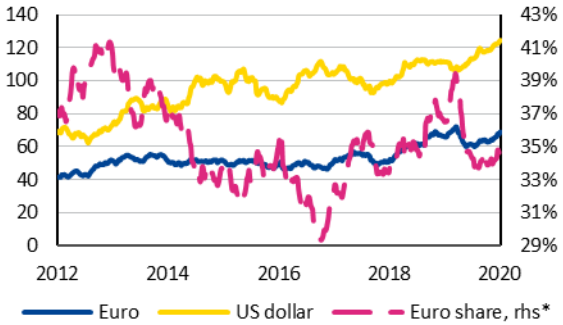


Figure 12
Turkey's foreign exchange deposits
(in $ billion)



Note: *Right-hand scale.
Sources: BIS debt securities data and Central Bank of the Republic of Turkey

Box 1. The dollar's global role

Historically, the rise of the US dollar in the international monetary and financial system stemmed from the founding of the Federal Reserve System and the onset of the First World War. The creation of the Federal Reserve underpinned the US dollar's value whereas the World Wars disrupted local currency trade credit in Europe and the US dollar replaced the pound sterling as the dominant reserve currency.[48]

The 1970s oil boom further boosted the dollar, especially in emerging markets. The higher oil prices widened the current account deficit of energy importers, including the US, and generated a dollar inflow to the oil exporters. In turn, oil exporters' surpluses found their way back to finance the deficits of energy-importing countries. A large share of the accumulated central bank reserves were invested in US Treasuries as safe assets[49] and considerable new investment went into financing developing country deficits through the offshore Eurodollar market,[50] mainly intermediated by US banks. As emerging markets with widening deficits expanded their dollar debt issuance, global dollar markets become more diverse and liquid. And all this petrodollar recycling was governed mainly by US banks, supported by the US government, and responded to incentives shaped by US monetary policy.[51]

As emerging markets predominantly invoice their exports in dollars, accumulate reserves in dollars, and issue dollar-denominated debt, this cemented the international role of the dollar.

[48] Eichengreen, B. (2010), Exorbitant Privilege. The Rise and Fall of the Dollar and the Future of the International Monetary System, Oxford: Oxford University Press.

[49] Higgins, M, T. Klitgaard and R. Lerman (2006), "Recycling Petrodollars," New York Fed.

[50] He, D. and R. N. McCauley (2010), "Offshore markets for the domestic currency: monetary and financial stability issues," BIS Working Paper 320.

[51] Lubin, D. (2018), Dance of the Trillions, Brookings and Chatham House; pp. 19-37.

The US makes up about 16% of the global economy, but the dollar denominates about 60-85% of the world's safe assets,[52] over 50% of cross-border lending, and almost 40% of trade flows.

First, the dollar denominates the world's dominant risk-free asset, US Treasuries. Treasuries account for around 60% of sovereign debt rated AA+ or better. The US share of high-quality sovereign debt has increased over time because of euro area downgrades.

Second, the dollar denominates most cross-border lending, especially to emerging markets, as many international borrowers cannot access funds in their local currencies and seem to have a traditional preference for the US dollar as an alternative. Therefore, a pick-up in cross-border borrowing/lending activity usually entails an increase in dollar proceeds to creditors, even if the ultimate borrower does not need or want dollar funds.

Lastly, the US dollar denominates a large share of global trade. Exporters choose to invoice their products in dollars, even when the US is not a party to the transaction. The share of trade invoiced in dollars therefore exceeds the share of trade with the US in most countries. Dollar invoicing tends to be the highest in commodities and among less developed economies.

The dollar's international features also explain one of its key economic properties – a negative correlation between the dollar exchange rate and global growth. Three mechanisms are at work: a risk-taking channel; a cross-border lending channel; and a trade channel. In a benign environment, dollar weakness supports healthy global growth, but, in times of stress, dollar strengthening can become a further drag on weak global growth.

The global role of the US dollar can raise a policy dilemma for US policymakers.[53] Domestic and international objectives for the dollar's exchange rate may conflict, and achieving them simultaneously can be challenging. There may be also a contradiction between satisfying an increasing demand for safe dollar assets and maintaining their safety.[54]

US monetary policy in turn might inject shocks into global financial markets. Monetary tightening in the US leads to a tightening of global financial conditions, a significant deleveraging of global financial intermediaries, a strong retrenchment of international credit flows, and a decline in the provision of domestic credit in other countries.[55] The dollarisation of domestic bank deposits is also prevalent in several emerging markets, especially in ones with weak domestic policy credibility and higher external vulnerabilities.[56]

Speculation mounted about a possible dilution of the dollar's dominant status, as its share of foreign exchange reserves declined after 2015. More recently, structural US weaknesses, evidenced by persistent and widening twin deficits, together with political uncertainty, contributed to a dollar depreciation of 12% in trade-weighted terms between March 2020 and January 2021. Going forward, as global trade and financial market growth exceeds that of the US, the correlation between dollar movement and other major currencies appears to have weakened, with financial markets becoming less dollar reliant for a nominal peg. A gradual movement towards a multipolar international monetary and financial system could emerge as the international financial system becomes less US-centric.

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[52] Pandl, Z. (2018), "What Makes the Dollar Special," Goldman Sachs Economics Research.

[53] For a discussion about the so-called 'Triffin dilemma', and its possible interpretations, see Bordo, M. D. and R. N. McCauley (2017), "Triffin: dilemma or myth?" BIS Working Paper 684.

[54] Farhi, E. and M. Maggiori (2017), "The new Triffin Dilemma: The concerning fiscal and external trajectories of the US," VoxEU.

[55] Miranda-Agrippino, S. and H. Rey (2020), "U.S. Monetary Policy and the Global Financial Cycle," The Review of Economic Studies, 87/6, pp. 2754–2776.

[56] Grut, S. and K. Trivedi (2018), "Tracking the Dollarization of EM deposits," Goldman Sachs Economics Research.

Does the euro area have the characteristics to be a safe haven?

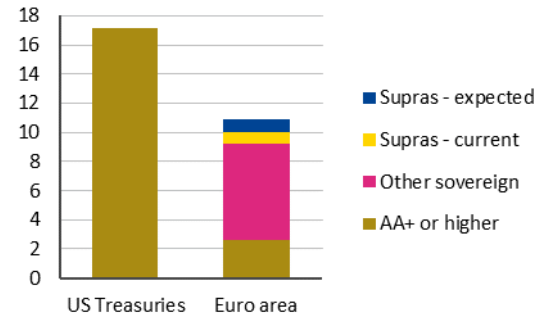
The euro exhibits many features that would be needed to play a stronger international role, but diversification away from the US dollar has benefited the euro only to a limited extent so far.[57] A large economic area, well-advanced financial markets, and relatively low currency volatility should support an international euro status, underpinned by an independent central bank with a clear price stability mandate and a prohibition against monetising government deficits.

A key variable associated with a currency's safe-haven status is the net international investment position (NIIP). Currencies of countries with a stronger NIIP tend to appreciate in risk-off periods when domestic investors repatriate capital and shed risky assets.[58] Such currencies, for example the Japanese yen and the Swiss franc, therefore tend to act as safe havens over time, apart from the special case of the US dollar.[59] Since the sovereign debt crisis, the euro area has been running strong current account surpluses, thereby improving the NIIP, which is now nearly balanced.

However, fragmented internal euro area markets still delay euro internationalisation. Because economic fundamentals vary greatly across member states, without an overarching risk-sharing mechanism, idiosyncratic economic and political risks bring about varying impacts across European markets. Financing under 'Next Generation EU' will help the recovery from the pandemic shock, but a permanent mechanism allowing for risk sharing among euro area countries hit by asymmetric shocks is missing. And euro area capital markets remain much less integrated than those of the US, with regulatory and information barriers leading to considerable member state home bias; in the sovereign debt markets some government bonds trade like risky assets, while others exhibit all the characteristics of safe assets.[60]

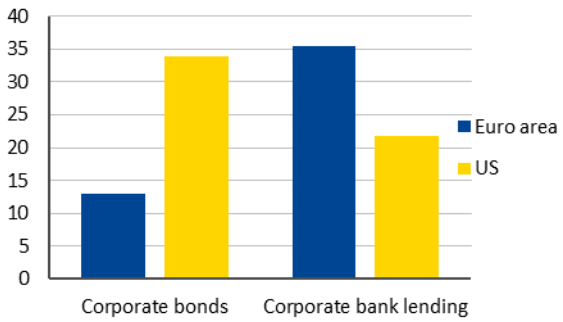
A scarcity of euro-denominated safe assets is another obstacle to establishing the euro as a safe-haven currency. Safe assets accounted for about 25% of euro area GDP at the end of 2019,[61] while the US Treasury market accounted for 90% of GDP – and the volume of all euro area sovereign debt combined is still smaller than that of the US Treasury market (Figure 13).

Figure 13
Euro area and US sovereign and supranational debt
(in $ trillion, as of 2020)



Sources: ECB and US Treasury

Figure 14
Corporate debt
(in % of GDP, as of 2020)



Sources: BIS and IMF

[57] Bank of America Merrill Lynch (2021), CB reserves: a smaller offset to USD weakness & UST selloff.

[58] Habib, M. M. and L. Stracca (2011), "Getting beyond carry trade: What makes a safe haven currency?" ECB Working Paper 1288.

[59] The trade-weighted US dollar exchange rate also shows the characteristics of a safe haven currency, despite the US's negative NIIP, which likely reflects its unique properties as a reserve currency.

[60] Cole, G. (2018) "EMU sovereign bond / equity correlations," Goldman Sachs Economics Research.

[61] This includes debt issued by member states rated AA+ or higher (Germany, Netherlands, Luxembourg, Austria, and Finland – about €2.3 trillion combined as of end-2019), and highly-rated European supranational issuers: the EIB (€450 billion), EFSF/ESM (€310 billion) and the European Commission (€50 billion).

This safe asset scarcity means the euro area has only a limited ability to absorb sizeable foreign inflows seeking safety. A large part of the euro area asset base may lose value during increased global risk aversion, and such sentiment generates capital outflows seeking to preserve value.[62] An ample supply of safe assets could act as a 'ballast' to dampen euro area sovereign debt price fluctuations during stress. Holding more euro-denominated safe assets would mean riskier assets comprised a smaller share of any overall euro fixed income portfolio. As a result, there would be less incentive to rebalance the portfolio or flee euro assets should sentiment deteriorate, therefore equilibrating price movements would become smaller.[63]

One question remains – to what extent would the euro preserve value during global stress periods, and could it truly become a financial market safe haven? The euro exhibits pro-cyclical characteristics with a positive correlation to risk appetite, although this has weakened over the past years. The euro still tends to weaken against the US dollar when the risk environment deteriorates and investors' risk appetites contract. This likely reflects investor concern about weaknesses within Economic and Monetary Union (EMU) architecture, together with lingering internal imbalances, limited fiscal risk-sharing and fragmented capital markets. These all may be hurdles hindering the euro from becoming a global safe haven currency (Figures 15 and 16).

Figure 15

Correlation of bond yields and equity markets

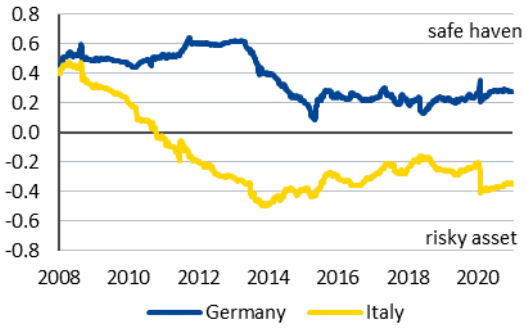
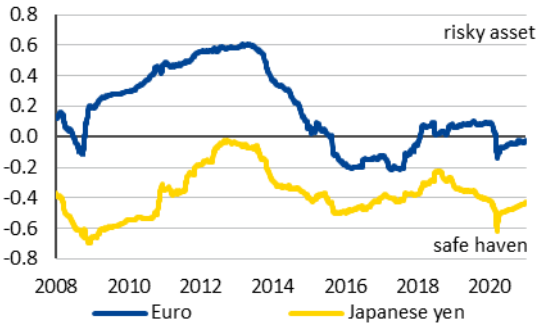


Figure 16

Correlation of exchange rates and equity markets



Note: Two-year rolling correlation between daily change in 10-year sovereign bond yields and STOXX 600 equity index (Figure 15); and between exchange rate moves against the dollar and S&P 500 equity index (Figure 16).
Sources: ESM based on Cole, G. (2018) and Cole, G. and K. Reichgott (2018); data from Bloomberg Finance L.P.

Europe's financial market depth and structure also put the euro at a disadvantage to the US dollar. The euro area financing model relies much more heavily on banks than that of the US, and this limits European financial market liquidity. The euro area reliance on bank funding, rather than bond or equity financing, means a larger share of outstanding corporate debt registers as unmarketable assets on bank balance sheets, and so not available as assets for foreign investors. European capital markets remain small and fragmented, with only about a third of corporate liabilities securitised and more than half of European investors' assets in domestic claims.[64]

The contrast between the market capitalisation of the euro area's thin fragmented equity market and the US equivalent is striking. Europe's stock market capitalisation is about two-thirds of its GDP, while the US market capitalisation is more than double its GDP.[65] The Euronext

[62] Cole, G. and K. Reichgott (2018), "The EUR as a Safe Haven: Not There Yet," Goldman Sachs Economics Research.

[63] See Appendix I in Hardy, D. C. (2020), "ECB Debt Certificates: the European counterpart to US T-bills," University of Oxford, Department of Economics Discussion Paper.

[64] IMF (2019), "A Capital Market Union for Europe," Staff Discussion Note 19/07.

[65] Momentum builds for Europe's capital markets union, ESM blog, 2020.

umbrella unites several national exchanges, but its market capitalisation stands well behind the New York Stock Exchange, and closer to that of the London Stock Exchange, the Japan Exchange Group, or the Shanghai Stock Exchange. The total market capitalisation of all the euro area exchanges combined is less than a quarter of the two major US stock exchanges, New York and Nasdaq. Also, trading volumes are much smaller, reflecting higher liquidity in US-issued stocks. The contrast in equity market depth helps explain why many of the world's largest investors pivot towards the US, generating an important source of US dollar demand (Figures 17 and 18).[66]

Figure 17
Output and stock market capitalisation
(in € trillion, as of 2020)

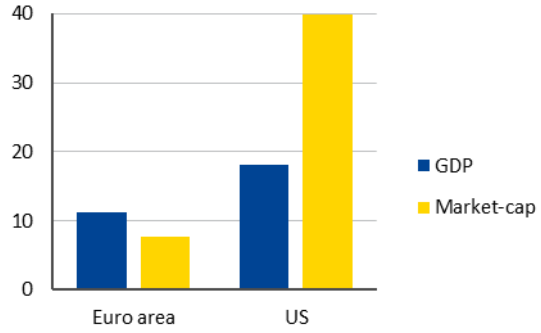
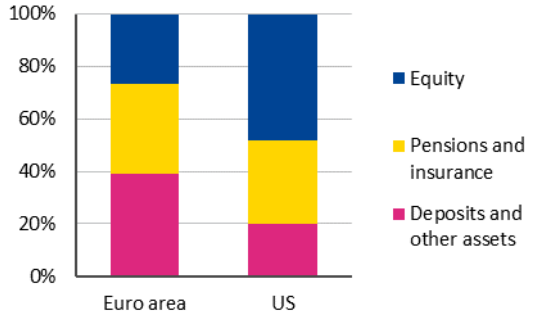


Figure 18
Household financial assets
(share of total, %, as of Q3 2020)



Notes: *Market cap refers to market capitalisation of listed domestic companies. Household financial assets in Figure 18 refer to stocks of financial assets of households and NPISH (S14+S15); Equity refers to Equity and investment fund shares or units (F5); Pensions and insurance refers to Insurance pension and standardised guarantees (F6); Deposits and other assets refer to Currency and deposits (F2), Debt securities (F3), Loans (F4), Financial derivatives and employee stock options (F7), and Other accounts receivable (F8).
Sources: World Federation of Exchanges, IMF, US Bureau of Economic Analysis (Figure 17); OECD and Eurostat (Figure 18)

Box 2. Government-led renminbi internationalisation

The internationalisation of the renminbi offers an example of a state-led process to promote the international use of a national currency. Starting in the early 2000s, the Chinese authorities launched an array of policy initiatives to advance the international use of the renminbi, supporting a gradual liberalisation of the capital account and domestic financial markets. While the renminbi's international use remains modest relative to the US dollar, euro, yen, and pound sterling, the systematic approach to currency internationalisation furthered progress towards establishing the renminbi as a global currency, culminating in the 2016 renminbi inclusion in the IMF's Special Drawing Rights currency basket. Between 2016 and 2020, the renminbi's share in total official foreign exchange reserves with known composition doubled to 2%. Its share in global payments rose to 1.7% from 0.05% between 2010 and 2020, and its share in foreign exchange markets reached 4.3% in 2019, rising from 0.1% in 2004. This currency internationalisation strategy has relied on four key approaches, with a focus on easing restrictions and widening foreign investor access to China's financial markets.

Strategy 1: Deepen domestic financial markets: Policies focused on developing deep, liquid bond markets, because economies with reserve currencies are expected to issue high-quality corporate and government debt to attract foreign investors to domestic currency-denominated assets. Associated Chinese reforms led to more foreign investor participation, with the share of government debt owned by non-residents rising to 9.8% in 2019 from 2.8% in 2015. The authorities supported financial markets deepening by dismantling controls over the allocation and pricing of commercial bank credits, strengthening financial stability with initiatives such as a deposit insurance scheme, expanding the range of financial instruments, and increasingly

[66] Ilzetzki, Reinhart and Rogoff, (2020).

allowing market forces to determine the exchange rate.

Strategy 2: Establish market structures: Varied market structures ease foreign investors' access to renminbi-denominated securities in onshore markets, and allow Chinese investors to diversify portfolio holdings internationally. The most prominent investment scheme is the quota-free renminbi Qualified Foreign Institutional Investor scheme, created in 2011, which encourages foreign institutional investors to trade in Chinese mainland stock and bond markets, with 713 foreign institutions participating. Additional access channels – Bond Connect and China Interbank Bond Market Direct – allow bond investments from the Hong Kong Special Administrative Region (SAR). Another scheme, Stock Connect, regulates equity investments from the Hong Kong SAR and London stock exchanges in the Shanghai and Shenzhen stock exchanges, and vice versa.

Strategy 3: Increase offshore renminbi liquidity: Since 2009, the People's Bank of China (PBC) has concluded bilateral currency swap arrangements with 35 foreign central banks, worth three trillion renminbi by 2020. In 2015, it launched the Cross-border Interbank Payment System to facilitate international renminbi transactions, with 31 direct and 750 indirect participants. The PBC designated renminbi clearing banks in 25 countries to provide offshore liquidity, a jump from only two available offshore clearing banks in 2003 – in Hong Kong SAR and Macau SAR.

Strategy 4: Develop the offshore renminbi market: The offshore renminbi market provided a controlled environment to experiment with capital account liberalisation, and served as a sandbox for innovative financial instruments. Following an initial listing of China Development Bank in Hong Kong SAR in 2007, the issuance of renminbi-denominated bonds abroad (dim sum bonds) was a key offshore renminbi market driver. Several foreign multinationals, sovereigns, and international financial institutions have since raised funds in the offshore renminbi market, which also played an important role in renminbi foreign exchange trading, with the share of total renminbi foreign exchange transactions concentrated in Hong Kong at 41%, the United Kingdom (UK) 22%, Singapore 16%, and the US 11% as of 2019.[67]

In sum, the renminbi example highlights that a well-orchestrated and dedicated state-led approach can catalyse the market forces that ultimately drive currency internationalisation. Starting from a low base, China's strategy of currency internationalisation significantly strengthened the renminbi's international use. However, this use is still far from rivalling the leading international reserve currencies. This modest outcome reflects the authorities' strategy to allow for only a very gradual and tightly controlled currency internationalisation. Moreover, the strong momentum behind renminbi internationalisation in the early 2010s has waned partly due to a turnaround in exchange rate expectations driven by the only narrow averting of a full currency crisis in 2015, trade tensions with the US, and financial stability risks in China. This recent slowdown notwithstanding, turning the renminbi into a major international currency remains a key plank in the government's reform agenda. The agenda includes liberalising the capital account and exchange rates, deepening domestic financial markets, and implementing broad structural reforms to strengthen the economy's market orientation, and to ensure fiscal and financial stability. Should the implementation of the broader reform agenda prove successful, the renminbi is likely to move towards becoming an important anchor of a multipolar international monetary and financial system, together with the US dollar and the euro.

[67] Schrimpf A. and V. Sushko (2019), "Sizing up global foreign exchange markets," BIS Quarterly Review.

3. What can be done to support the international role of the euro?

Different strategies can be pursued to internationalise a currency. A market-based approach focuses on confidence, economic strength, stability, and liquidity, because the process is mainly the product of private sector decentralised decisions. However, policy choices can also play an important role, as the renminbi example demonstrates.

Key requirements for the euro to expand internationally cover policies that are also needed domestically: a strong economy, a stable financial system, and liquid markets.[68] International euro use crucially depends on euro financial market stability and the credibility of the euro area institutions. The global financial crisis 2007–2009 and the euro area 2010–2012 sovereign debt crisis exposed the incomplete nature of EMU and the fragility of euro area financial integration, highlighting the need for a genuine union. Thus the euro's international attractiveness could result from improved euro area institutional arrangements that support credible, sound economic policies. In addition, deeper, more liquid euro area financial markets and stronger euro area debt credit quality would underpin its global position.

The European Commission has issued several documents discussing ways to enhance the euro's international role over the past few years. A 2018 communication outlined initiatives and highlighted the importance of completing the economic, monetary, and banking unions. It advocated capital market integration, improved market infrastructures, and the promotion of euro usage in international payments, official reserves, and across key strategic sectors such as energy transactions, commodity trading, and transport manufacturing.[69] The Commission has also published recommendations on the international role of the euro in the energy field,[70] and its latest communication sets out how the EU can reinforce its open strategic autonomy in the macro-economic and financial fields by promoting the international role of the euro and strengthening the EU's financial market infrastructures.[71]

Deepening Economic and Monetary Union

Deepening EMU could help strengthen the euro's international role. Institutional reforms and policy innovations during the sovereign debt crisis and afterwards have already enhanced euro area stability. The joint response to the Covid-19 pandemic has furthered common European policies, clearly fostering a positive perception of Europe in financial markets.

As the bedrock of a currency's international status is the strength and resilience of the underlying economy, reforms to strengthen growth potential in euro area member states will be crucial. Markets will look at the ability of European countries to deal with impediments to growth and address the remaining scars left by the pandemic crisis. Supporting growth will enhance market perception of the euro and demonstrate an ability to address longer-term euro area economic challenges. It will also help mitigate the risk that social and political conflict might undermine the cohesion of the euro area.

Measures taken during the pandemic crisis will go a long way to supporting the international role of the euro. The EU Recovery Fund addresses macroeconomic instability with intra-regional transfers, while also boosting the structural reform effort. The Recovery Fund, together with substantial ECB government debt purchases, help to contain sovereign credit risk in high-debt

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[68] Benassy-Quere, A. (2015), "The euro as an international currency," G-MonD Working Paper 41, Paris School of Economics.

[69] European Commission (2018a), "Further strengthening the euro's role in the world," Update ahead of the Euro Summit.

[70] European Commission (2018b), Recommendation on the international role of the euro in the field of energy.

[71] European Commission (2021a).

countries, which should encourage inflows from foreign investors and support the currency.

The EU is on course to become one of the largest single issuers in the euro area, and to expand the supply of euro-denominated safe assets. By 2026, a total of €850 billion new EU bonds could be issued — €750 billion to finance the Recovery and Resiliency Facility and €100 billion for other loan programmes. This could expand the pool of highly rated bonds to about 40% of GDP over coming years,[72] which would offer a new alternative for low-risk euro-denominated investments. A larger pool of safe euro assets will improve macroeconomic and financial stability and the functioning of euro area financial markets, reduce the dependence between sovereigns and banks, improve monetary policy transmission, and attract international investors.

This should, in turn, facilitate the diversification of official reserves into euros. Supranational issuance is already fairly well-subscribed relative to national bonds, with a large share absorbed by central banks,[73] and EU bonds appear to exhibit better performance when it comes to risk-off or systemic euro risk correlations.[74] Were foreign official investors to purchase half of the new EU securities, the euro's share of foreign exchange reserves could rise to around 24%.[75] Empirical analysis suggests that common liabilities have a more powerful effect on semi-core markets than core markets, so the Recovery and Resiliency Facility could contribute to convergence between euro area issuers.[76] However, the additional EU bond supply will only lead to a permanent increase in the euro's share of official reserve allocation if reserve managers are confident such instruments will remain available over an extended period, possibly beyond the envisaged expiry of the debt issued under the Recovery and Resiliency Facility in 2058. Otherwise, there is a risk that EU bonds would merely substitute for other euro-denominated reserve holdings and dampen demand for member states' sovereign debt.

The ECB's purchase programme, launched in March 2020, also supports euro confidence, but absorbs a large amount of euro-denominated securities. The Pandemic Emergency Purchase Programme, launched after Covid-19 triggered financial market turmoil, reaffirmed the ECB's ability and commitment to act as the euro area lender of last resort. The programme's flexibility helped tame divergences across euro area government bond markets, and reduced sovereign credit risk in high-debt member states. However, the ECB's purchases reduced the market volume of government debt available to investors. To address this issue, some observers suggested the bank offset the safe asset reduction by issuing its own certificates of deposit to expand, and stabilise, euro demand. A large volume of ECB certificates could complement the EU's long-term bond issuance with short-term bills, and supply the financial sector with a short-term safe euro asset to meet its liquidity management and collateralisation needs.[77] However, this would always have to be reconciled with the appropriate monetary policy stance and the ECB has not signalled a move in this direction.

Euro internationalisation will require further efforts, such as reforming the European governance and policy framework. A well-coordinated economic, fiscal, and monetary policy mix can strengthen confidence that euro area countries can avoid a protracted debt overhang after the pandemic shock, in particular. Simple effective rules and procedures would help guide market views, and bolster investor trust. Clear communication and guidance about fiscal and

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[72] Lenarčič, A. and M. Sušec (2020), Pandemic crisis as a catalyst for a common European safe asset, ESM blog.

[73] Saravelos, G. (2020), "Someone likes Europe," Deutsche Bank Research.

[74] Cole, G. et al. (2020), "EU Bonds — A New Supra Hero," Goldman Sachs Economics Research.

[75] Pandl, Z. and I. Rosenberg (2020b).

[76] Valla, N. (2012), "All debts are not equal," Goldman Sachs Economics Research.

[77] Hardy, D. C. (2020); Capolongo A, B. Eichengreen and D. Gros (2020), "Safely increasing the supply of safe assets: Internationalising the euro in the age of COVID-19," VoxEU.

monetary policy outlooks could steer market expectations and underpin confidence in the euro.

In the long run, a more explicit and permanent public risk mechanism would reinforce confidence in the euro and help mitigate asymmetric shocks. Financing under 'Next Generation EU' will support the recovery from the pandemic shock, but a permanent mechanism for sharing risk among euro area countries hit by asymmetric shocks is missing. Establishing such a fiscal capacity to stabilise economies beyond the current crisis would reinforce global investor confidence in the euro area's capacity to respond to economic and financial shocks.

Completing banking union and improving private sector risk sharing would make euro-denominated financial markets more attractive. More cross-border banking in Europe would be one way to increase risk-sharing through the private sector. The completion of banking union is a precondition for a more integrated European banking market, including the common backstop to the Single Resolution Fund and European Deposit Insurance Scheme (EDIS). Implementing these projects would strengthen market trust in the ability to secure financial stability. Accordingly, the first 'key action' of the European Commission's recent communication calls for completing banking union and making further significant progress on capital markets union as a means of supporting the resilience of the EU and deepening EMU.[78]

Capital markets union

Advancing towards financial union would support an international euro role. Financial market depth and liquidity are key determinants for any currency's global status, so progress towards a capital markets union – along with completing banking union – would better connect European capital markets and deepen the euro-denominated markets, making the euro more attractive and enhancing its use internationally. Connections established by capital markets integration could also promote private sector risk sharing and shock absorption. And the causality would run both ways, translating into a self-reinforcing cycle as the euro's global role increased demand for euro denominated assets.

More internal demand for euro-denominated assets could also contribute to euro market liquidity and attract foreign investors. Enabling long-term domestic institutional investors such as banks and insurers to invest more in euro capital markets would contribute to efficiency and growth of market-based financing by generating economies of scale. Pension funds could also play a vital role. US capital markets are larger than in Europe partly because domestic households invest more savings through pension funds, whereas the euro area's smaller pension funds play a less prominent role. So if pension funds could attract higher demand, this would also help increase the euro area capital market size.

In the meantime, Europe has to remain open to capital from abroad. Global investors have tended to use the City of London as a gateway to European financial markets, which generated economies of scale, cross-market synergies, and links to other capital market jurisdictions. Now Brexit might transform this hub into a multi-node network, spreading trading and clearing across numerous locations, possibly risking efficiencies and so hurting market liquidity. Replicating existing efficacy will likely take time and euro area financial centres need to be ready for the forthcoming changes. Securing this efficacy implies taking strategic decisions as to which areas of the financial markets should remain in London and which alternative financial structures should be set up in the euro area.[79]

In June 2020, the European Commission proposed initiatives to foster substantial progress

[78] European Commission (2021a).

[79] IMF (2019).

towards a capital markets union based on recommendations from a high-level forum of 28 experts. The forum identified numerous obstacles: equities under-investment by European banks and insurers; burdensome costly public listing requirements; fragmented cross-border settlement services; insufficient numbers of long-term-oriented institutional investors; low retail investor participation; and supervision differences across member states.[80] In response, the Commission identified seven action points that would help integrate national capital markets into a single market. It suggested simplifying withholding tax procedures; fostering parallel insolvency rules; enabling cross-border shareholder rights; enhancing cross-border settlement services; establishing shared and consolidated trading data provision; strengthening the protection of cross-border investments; and common capital market rulebooks to cultivate supervisory convergence.[81] A more harmonised and centralised European supervisory authority – mirroring the supervisory model implemented for banking union – would in particular be a real game changer by facilitating market access for international investors.[82]

The rapidly growing demand for green bonds could also be a promising development. A Bank for International Settlements report found two thirds of central banks have not included sustainability considerations in their list of objectives, yet 68% identify scope to adopt one.[83] The euro would reap advantage from any progress, because almost half the world's green bond issues are euro-denominated.[84] EU residents are now the largest green bond issuers and the Taxonomy regulation[85] will likely establish the EU as the largest pool of certified investors for green finance. This has also attracted non-residents to issue green bonds in euros. Chile and Mexico have, for instance, both issued green bonds in euros during the Covid-19 pandemic.

Market infrastructure

Improvements in financial market infrastructures facilitate access by global investors to euro-denominated markets. An integrated financial market infrastructure enables market access and promotes efficient, safe transactions. Since the euro's launch, the Eurosystem has helped reshape and consolidate the infrastructure for large-value payments, post-trading services, and instant retail payments, aiming to establish a truly single financial market across Europe where payments, securities, and collateral can shift safely and efficiently between participants without friction or restrictions.[86]

Room now exists to develop an infrastructure for euro-denominated debt issuance. At the front end of the securities process chain, the issuance and distribution of securities still hinges on old, fragmented standards, structural constraints, and complex national market practices. One potential change would be to develop a European platform for debt distribution, where a secure, stable, and transparent market within a common regulatory environment would nurture euro-denominated debt issuance.

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[80] European Commission (2020), A New Vision for Europe's capital markets, Final Report of the High Level Forum on the Capital Markets Union, June 2020.

[81] European Commission (2021b), What is the capital markets union? CMU Action Plan Factsheet.

[82] European supervision fit for capital markets union, ESM blog, 2021.

[83] Fender, I, M. McMorrow, V. Sahakyan and O. Zulaica (2020), "Reserve management and sustainability: the case for green bonds?" BIS Working Paper 849.

[84] ECB (2020a).

[85] See EU taxonomy for sustainable activities.

[86] ECB (2019).

The smooth functioning of euro liquidity arrangements, via swap lines globally, can also enhance the euro's international role. Historically, swap lines served three main purposes: to promote foreign exchange policy, for example managing demand for the currency; to facilitate cross-border trade; and to offer liquidity support in third markets during serious market dysfunctions.[87] The possibility of opening swap and repo lines with the ECB offers a liquidity backstop to countries that use the euro and thus smooth financial and commercial transactions. These lines provide support for currency markets by moderating the risk of euro funding cost fluctuations, which enhance the attractiveness of euro-based financial and commercial contracts, boost asset market confidence, and support global financial stability.

The ECB has implemented swap lines with a number of central banks to ensure euro availability beyond the euro area. This liquidity-support function was particularly evident during the global financial crisis when the ECB participated in a currency swap line network with major central banks such as the US Federal Reserve, the Bank of Japan, the Bank of England, and the Swiss National Bank. Then, in 2013, the ECB arranged a bilateral currency swap agreement with China's central bank to reflect deepening trade and investment ties. More recently, it re-activated earlier swap agreements with Denmark's central bank to counter potential market dysfunction during the Covid-19 pandemic and established precautionary arrangements with the central banks in Croatia and Bulgaria. The ECB also instituted bilateral repo agreements with several other non-euro area central banks, including Hungary, Romania, Serbia, and Albania.[88]

The geographical location of euro trading also raises important questions. About 87% of euro transactions are initiated outside the euro area, against some 13% within the euro area, mainly in Paris and Frankfurt. The largest share of foreign transactions involving the euro, at almost 50%, is initiated in the UK, helping mark London as the world's largest foreign exchange trading venue. The US follows at a distant second with an 18% share, reflecting New York's general role and Chicago's importance for futures contracts. Asian financial centres, notably Tokyo, Hong Kong, and Singapore, account for much smaller shares – at about 3.0%–4.0% each – and Zurich's share is similar. In China, foreign exchange euro trading is even lower, at below 1.0% of global turnover, suggesting onshore renminbi exchanges mainly take place against the US dollar.[89]

Much of the euro-denominated clearing through central counterparties (CCPs) takes place outside the euro area, and Brexit might require a review of its governing framework. For UK-based CCPs, the European Market Infrastructure Regulation (EMIR), the framework CCP regulation, provided the Eurosystem with tools to monitor potential systemic risk in clearing activities. The framework is based on EMIR supervisory colleges, with the Eurosystem represented as the central bank of issue. Its operating procedures are governed by the European Court of Justice and a Memorandum of Understanding between the ECB and the Bank of England. However, following the UK decision to leave the EU, the existing framework will no longer apply and new arrangements will be required to ensure financial system stability and to preserve the Eurosystem's role as the central bank of issue. In this area, centralised European supervision would be particularly essential.

In the meantime, existing initiatives need to be sustained: a move of derivatives onto CCPs (Regulation (EU) No 648/2012); the provision of interest rate benchmarks (Regulation (EU) 2016/1011); and plans to exploit the ability of a new ECB facility – the Target Instant Payment

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[87] Ibid.

[88] Panetta, F. and I. Schnabel (2020), "The provision of euro liquidity through the ECB's swap and repo operations," ECB blog.

[89] BIS (2019).

Settlement – to provide instant payments across the EU available to private individuals.[90] The European Commission has also issued a recommendation to foster the use of the euro to denominate energy contracts.[91]

Box 2. Digital currencies and the international role of the euro

Developments in digital currencies are attracting financial sector attention. Most central banks are contemplating how to respond to an evolving payments landscape, considering the declining use of cash, and the risks to monetary sovereignty should their own currency be crowded out by foreign-controlled entities.[92] While early crypto money approaches such as Bitcoin show considerable price volatility, privately issued 'stablecoins' such as Diem (previously called Libra) could gain traction as a global reference currency.

Facebook's Diem announcement in summer 2019 was a wake-up call. Diem was not the first stablecoin, but would be the first with unprecedented global reach and utility, given Facebook's over 2.7 billion active monthly users. The Group of Seven (G7) nations quickly started examining regulatory options, while the US Committee on Financial Services requested that Facebook and partners immediately agree a moratorium on any movement forward on Libra. In April 2020, Diem revised its white paper[93] to address regulatory concerns such as anti-money laundering and counter-terrorism financing, reserve governance, risk management, and data protection. And to guarantee sovereign monetary control, Diem complemented its original plan for a currency-basket similar to IMF's Special Drawing Rights, with single-currency stablecoins, for example a LibraUSD backed by the US dollar and a LibraEUR backed by the euro. Meanwhile, numerous central banks, particularly in small economies, started preparing to issue central bank digital currencies (CBDC) before any private sector or foreign sovereign competition emerged.

CBDCs are the digital equivalents of banknotes but differ in degrees of anonymity, infrastructure centralisation, retail focus and offline interfaces. Design choices are in flux, with proof-of-concept operations, such as e-yuan or e-krona, setting different priorities. Nevertheless, emerging markets are optimistic that CBDCs will improve financial inclusion and efficiency.[94]

Digital currencies improve payment efficiency by eliminating the cost of holding cash, accelerating transaction speeds close to instant, and furthering the interconnectedness of financial services. The new payment systems can improve user experience and spawn fintech business models, facilitate smart contracts, and reduce some transaction complexities. Central banks issuing CBDC potentially promote homogeneity in an otherwise scattered digital payment landscape, such as the limited interoperable national payment and card systems in Europe. They could also break up operations that enjoy imperfect competition, such as credit card companies.

However, CBDCs can pose financial stability risks, including a potential for digital bank runs, and longer-term consequences for bank funding. Deposit insurance and bank resolution frameworks render system-wide bank runs into cash very rare; however, CBDC could make them more frequent and severe by enabling digital runs faster and larger than possible with cash. An

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[90] Papadia, F. and K. Efstathiou (2018).

[91] European Commission (2018b).

[92] Boar, C., H. Holden and A. Wadsworth (2020), "Impending arrival – a sequel to the survey on central bank digital currency," BIS Papers 107.

[93] Diem Association (2019), "White Paper v2.0"

[94] Auer, R., G. Cornelli, and J. Frost (2020), "Rise of the central bank digital currencies: drivers, approaches and technologies", BIS Papers 880.

introduction of a CBDC can also erode banks' retail deposits, threatening the stable funding mix.

Digital currencies may weaken reserve currencies. Traditionally, the most important determinant that makes a currency attractive is its underlying macroeconomic performance, but digital currencies offer competitive attractions, such as links to other financial services. If switching costs are low, users may deploy different currencies simultaneously for different purposes.[95] However, then Bank of England governor Mark Carney argued that digital currencies could counter the destabilising influence of the US dollar on international trade,[96] while ECB models warn about international spillover effects from CBDCs.[97]

The Eurosystem is reviewing responses to a public consultation after preliminary results found privacy, security, and pan-European reach ranked highest in European citizens' preference. The consultation report is defensive about the CBDCs' potential to strengthen the euro's international role.[98] It argues that the size of risks to the Eurosystem's balance sheet would increase were non-euro area residents to appreciably rebalance portfolios towards a digital euro. By attracting capital inflows, the digital euro could strengthen the euro exchange rate and harm the competitiveness of euro area companies, which could then impair monetary policy sovereignty in non-euro area countries affected by the change; that might intensify political tensions and foster resentment abroad. The consultation report notes the option for international collaboration with other central banks to form a multilateral CBDC system. A G20 workstream could deliver a platform for such collaboration, enhancing cross-border payments collaboration. The G20 workstream foresees more analysis and implementation over the next five years together with the IMF, the World Bank, and other international organisations.[99]

Reaching out beyond the euro area

Policies could aim to increase the use of the euro in specific markets, such as the emerging market sovereign debt market or in the energy sector, based on existing trade and financial links. For countries with extensive exports to the euro area, scope may exist to use the euro more widely as an invoicing unit, buttressing the economic rationale to increase euro-denominated debt issues to mitigate currency mismatches.

Euro-denominated funding and bond issues by partner countries would reduce their single-currency dependence and expand euro usage in emerging markets. This development could be augmented by measures to support euro liquidity on foreign exchange markets, helping the direct conversion of emerging market currencies into euros. Promoting euro-based financial instruments to hedge against exchange rate movements would also help, because even when instruments like cross-currency swaps are available for emerging market currencies, they are usually not liquid enough to appeal to investors. Trading through the US dollar, called triangulation, remains common practice.

The European Commission is pursuing dialogue with public and private bodies in third countries to better understand obstacles hindering a wider use of the euro, and ways to address them. The Commission plans dialogues with neighbourhood countries, especially Eastern Partnership

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[95] Brunnermeier, M. K., H. James and JP. Landau (2019), "Digital currency areas," VoxEU.

[96] Carney, M. (2019), "The Growing Challenges for Monetary Policy in the current International Monetary and Financial System," speech at Jackson Hole Symposium.

[97] Ferrari, M. M., A. Mehl and L. Stracca (2020), "Central bank digital currency in an open economy," ECB Working Paper 2488.

[98] ECB (2020b), Report on a digital euro.

[99] FSB (2020), Enhancing Cross-border Payments, Stage 3 roadmap.

and Southern Neighbourhood countries, given their proximity and the EU's importance as a trade partner, investor, and a source of both remittances and macro-financial assistance.[100]

The euro area's external position establishes a strong foundation to expand the euro's role. Its current account surplus and broadly balanced international investment position can attract safe haven flows, while it can also build on its strengths as a net capital exporter. In 2020, euro area banks extended €175 billion in cross-border loans to non-residents and euro area residents purchased €640 billion of portfolio assets outside the euro area, while gross euro-denominated debt issuance by non-residents reached €590 billion in the first three quarters of 2020.[101]

Some signs point to a rising appeal of the euro as a funding currency for non-residents. Excess euro liquidity is rising, thanks to ECB asset purchases, negative interest rates and concessional ECB-targeted longer-term refinancing operations (TLTROs) that provide accommodative financial conditions to euro borrowers.[102] Empirical analysis suggests that movements in euro area yields are increasingly driving yields on emerging markets' euro-denominated debt.[103]

Emerging market sovereigns' euro-denominated debt issuance has surged over the past few years, and there are tentative signs of a growing market. Emerging market sovereigns' euro-denominated debt issuance rose to about €50 billion in 2019 and 2020 from around €20 billion on average between 2017 and 2018. The number of emerging market sovereigns issuing in euros increased to 20 in 2020 from seven in 2012,[104] and the share of euro-denominated market issuance climbed to near 30% in 2020 from some 10% in 2017 (Figure 19). However, the euro-denominated emerging market bond market is still relatively small and only draws a limited range of investors. Euro-based investors attracted to emerging markets mostly prefer higher-rated sovereigns geographically close to the euro area. Euro-denominated emerging market spreads therefore tend to be wider than US dollar- denominated bond spreads (Figure 20).[105] Nevertheless, euro-denominated emerging market bond spreads outperformed their dollar-based counterparts during the market stress peak induced by the Covid-19 pandemic in March 2020, despite its smaller market size.[106]

Figure 19
Emerging market sovereign issuance in euros
(in € billion, 4-quarter rolling sum)

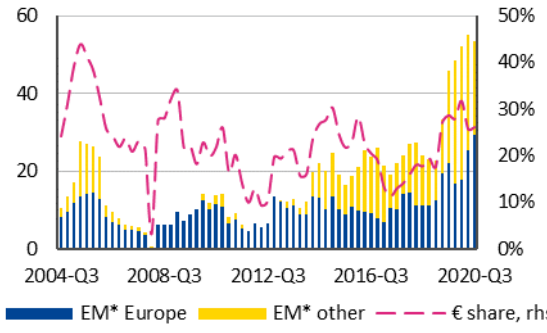
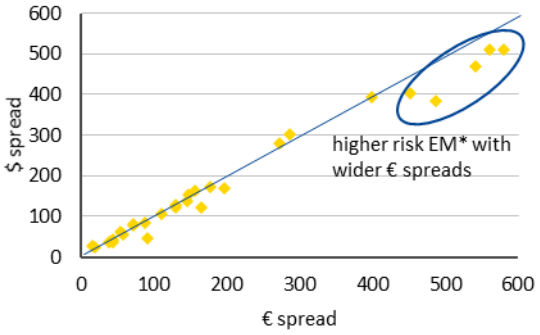


Figure 20
Sovereign spreads in euros and dollars
(in basis points, as of January 2021)



Note: *EM denotes emerging markets, based on BIS developing countries classification.
Sources: BIS debt securities data (Figure 19), Bloomberg Finance L.P. and Goldman Sachs Global Investment Research (Figure 20)

[100] European Commission (2021a).

[101] Net issuance was €63 billion in the first three quarters of 2020. Based on BIS debt securities data, foreign currency classification.

[102] Saravelos, G. (2019), "The world's new carry trade: how the EUR is being transformed," Deutsche Bank Research.

[103] Grut, S. (2019), "Mapping spillovers from ECB QE to EM Eurobonds," Goldman Sachs Economics Research.

[104] Goldman Sachs Economics Research (2020), "China and EM local inflows – enough to go around?"

[105] Goldman Sachs Economics Research (2021), "Idiosyncratic ideas after a strong run in EM assets."

[106] Grut, S. (2020), "A Look at the Value Proposition of EM IG EUR and USD Sovereign Credit," Goldman Sachs Economics Research.

4. Strategic advantages and economic implications

An international currency status involves advantages and responsibilities because being such an issuer can change a country's international relationships. It enables the issuer to achieve strategic objectives but potential international pressures on the issuer may demand digression from desired policies to accommodate foreign needs.[107]

Advantages of a stronger international role of the euro

A broader global use of a currency offers several benefits. At the launch of the euro, the expected benefits of currency internationalisation included seigniorage; lower transaction costs; added breadth and efficiency across the euro area financial markets; and 'exorbitant privilege' – whereby issuers of international currencies enjoy lower external financing costs.[108]

- **Seigniorage.** Non-residents effectively extend interest-free loans to the domestic central bank when they hold banknotes or non-remunerated deposits in the international currency, but this benefit is limited in the low interest rate environment.
- **Exorbitant privilege.** International currency issuers can issue debt to non-resident investors at lower interest rates than other issuers, then invest the proceeds in higher-yielding foreign assets. The ECB estimates foreign official reserve holdings of debt securities have compressed term premia on euro area long-term yields by around 110 basis points, compared to about 160 basis points for US long-term yields.[109] However, foreign official holdings of euro area government debt mainly focus on euro area sovereigns that issue highly rated debt securities, so reinforcing the credit quality of outstanding debt and creating a common euro area safe asset could help spread the euro's exorbitant privilege more widely across euro area sovereigns.
- **Efficiency gains.** Bid-ask spreads in wholesale and retail foreign exchange markets are lower for international currencies than for other currencies, so larger, more liquid, euro markets should realise lower transaction costs, improve financial intermediation efficiency and encourage the emergence of new financial market segments.

The expected benefits of an international role for the euro have evolved over the past 20 years. Financial globalisation, the low interest rate environment, new monetary policy frameworks across major central banks, and challenges to multilateralism have diminished some traditional effects of international currency status, while other advantages have become more apparent:

- **Insulation:** International currency status provides some defence to external disturbances, especially those stemming from exchange rate movements. The exchange rate pass-through to import prices and domestic prices shrinks considerably when much of the imported goods and services are invoiced in the domestic currency. And trading using the euro rather than a foreign currency can remove the exchange risk and other currency-related costs, especially for small- and medium-sized European businesses.
- **Monetary policy:** An international currency status may strengthen the global transmission of domestic monetary policy, with potential advantages for the domestic economy. An increase in the use of the euro for international funding would amplify the risk-taking channel of monetary policy through international bank leverage. If the euro

[107] Beckmann, J., S. Fiedler, K. J. Gern and J. Meyer (2020), "The International Role of the Euro: State of Play and Economic Significance," European Parliament, Monetary Dialogue Papers.

[108] ECB (2019).

[109] Ibid, based on data for the period 1980–2018.

were used more for global trade, a euro depreciation would cheapen all euro-denominated exports, and support global trade, with potentially positive spillbacks.[110]

- **Monetary sovereignty:** More euro use internationally would enable European consumers and businesses to pay, or receive, international trade finance directly, with reduced exposure to legal actions by third country jurisdictions, for example extraterritorial sanctions,[111] while a more diversified European financial markets investor base is likely to be more stable.

A more prominent role of the euro may have implications beyond the euro area, across the international monetary and financial system. It can reduce risks associated with an excessive reliance on the US dollar. For instance, dominant-currency pricing and financing have started to feature in the policy debate, raising questions about the impact on exchange rate adjustments.[112] A more diversified mix of global currencies can mitigate the vulnerabilities of the global financial system, reduce spillovers, allow investors to diversify their portfolios, and improve the sustainability of capital flows – thus creating a more resilient and less risky system overall.[113] A wider use of the euro for financial transactions and investments, alongside an expansion of the renminbi, could promote diversification across the international monetary and financial system. While reducing dependence on the US dollar, it also means a shared responsibility for global financial stability.

The risks of currency internationalisation

A greater international role of the euro also comes with costs and risks. The 'exorbitant duty' implied by the international currency status could lead to currency appreciation during global stress and pressure a domestic central bank to assume additional responsibilities for global financial stability. There is also a risk of volatility in capital flows and money aggregates, which could complicate the conduct of monetary policy.[114]

- **Currency appreciation:** Were the euro to become more attractive as a global reserve currency and generate foreign demand for euro-denominated securities, appreciation pressure on the euro might ensue, particularly in times of global stress, reducing the price competitiveness of domestic producers and adding disinflationary risks.
- **Exorbitant duty:** International currency issuers effectively provide insurance to the rest of the world in times of global financial market stress, which gives rise to potentially large financial transfers between economies.
- **Tensions can arise between the central bank's domestic mandate and the international consequences of its monetary policy.** For instance, high demand for domestic safe assets by foreign investors can keep long-term interest rates low, even if the domestic central bank might prefer a tightening bias, while an international currency appreciation during an economic downturn might make it more difficult for the domestic central bank to ease financial conditions.

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[110] Cœuré, B. (2019), "The euro's global role in a changing world: a monetary policy perspective," speech at the Council on Foreign Relations, New York City.

[111] Acedo Montoya, L. and M. Buti (2019), "The euro: From monetary independence to monetary sovereignty," VoxEU.

[112] Adler G. et al. (2020), "Dominant Currencies and External Adjustment," IMF Staff Discussion Note 20/05.

[113] Carney, M. (2019), "The Growing Challenges for Monetary Policy in the current International Monetary and Financial System," Speech at Jackson Hole Symposium.

[114] ECB (2019).

Conclusion

Given the euro area's share of the world economy and global trade, there are strong economic reasons for a greater international role for the euro. A stronger international euro role would benefit both Europe and the global financial system. It would reinforce the autonomy of the EU in the macroeconomic and financial fields, as set out by the European Commission's recent communication.[115] A more diversified mix of global currencies could also mitigate the vulnerabilities of the international monetary and financial system, reduce spillovers, and improve the sustainability of capital flows.

EMU reforms support the euro's international status, with progress on reducing internal imbalances reinforcing euro area stability. Institutional innovations in response to Covid-19 have fostered the markets' perception that the euro can act as a safe haven currency, and will contribute to an increase in euro-denominated safe assets.

A completed banking union and substantial progress towards a capital markets union would improve the depth and liquidity of euro area financial markets. In turn, deep and liquid euro-denominated financial markets make the euro more attractive for global investors and enhance the euro's international role. Furthermore, other countries with euro-denominated export receipts have economic incentives to manage their financial assets and liabilities in euros.

The euro's global reach will also depend in part on developments in emerging markets. Its international status would expand substantially were China to apportion the euro a larger sustained weight in its currency basket and other countries followed suit. Nonetheless, the renminbi prominence can also affect the euro's standing in the international monetary system. Given the size of the Chinese economy, a freely convertible renminbi, with an associated regional currency bloc, could challenge the euro's global role as well as complement it.

[115] European Commission (2021a).

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Annex

Figure A.1
Euro share of trade invoicing

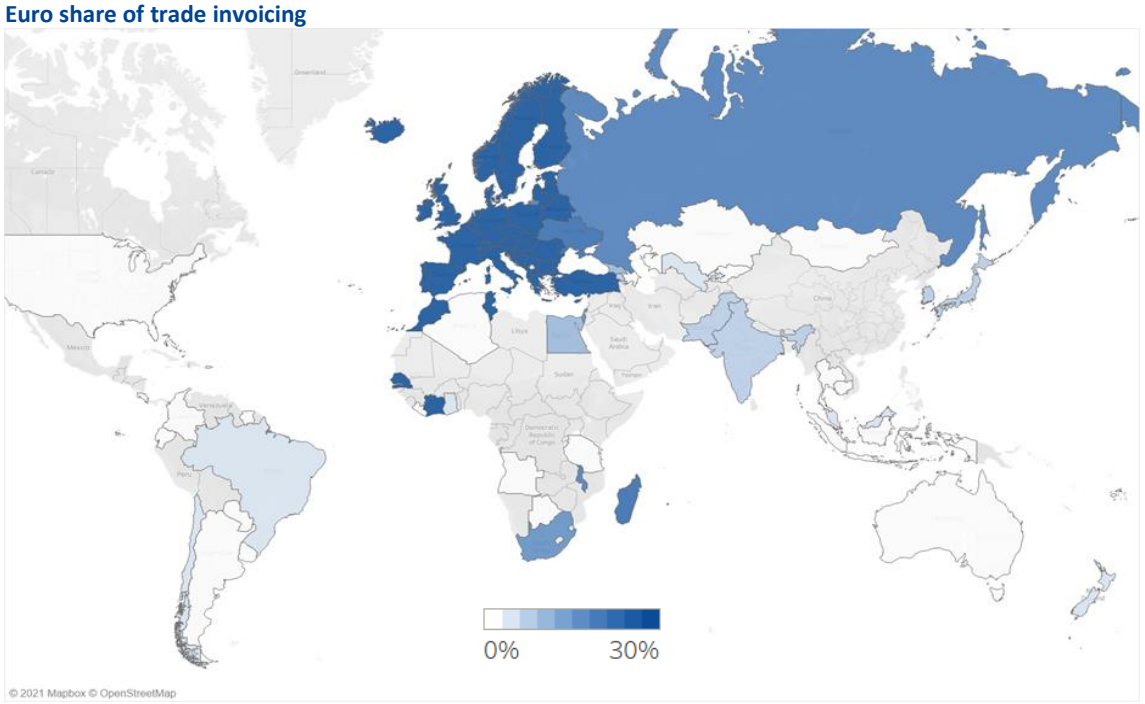
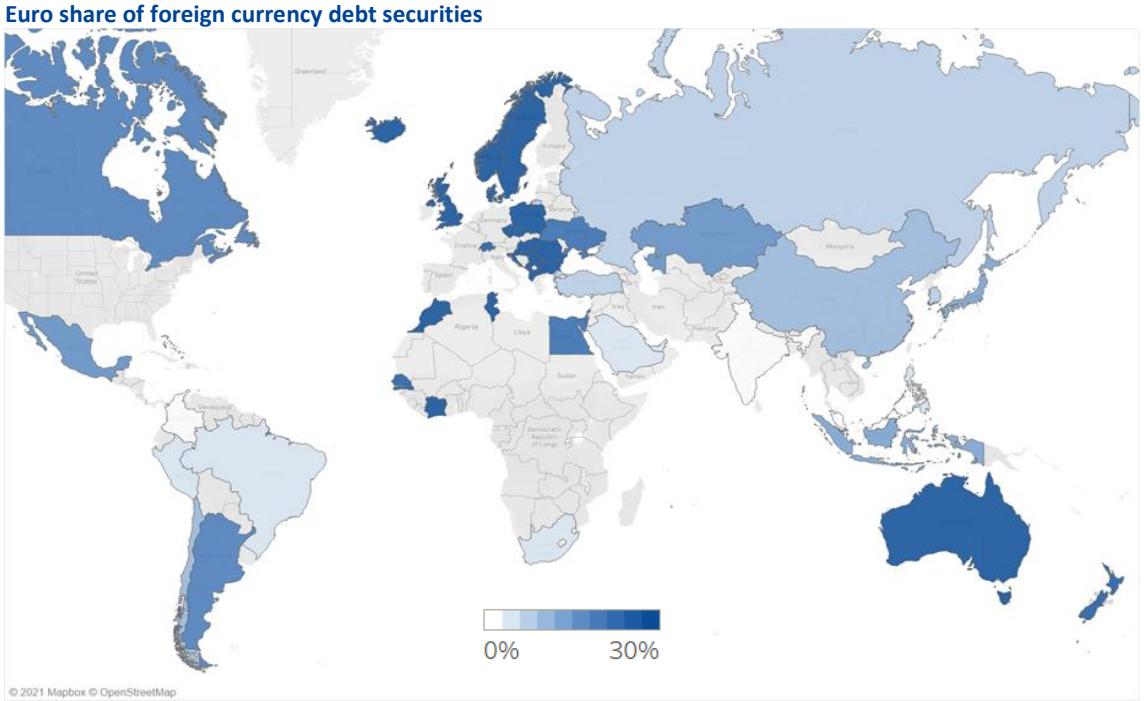


Figure A.2
Euro share of foreign currency debt securities



Note: Colour scale capped at 30%. Figure A.2 include securities that are issued in a currency other than that of the borrower's residency.
Sources: Boz et al. (2020) and BIS debt securities data.