



EUROPEAN CENTRAL BANK
EUROSYSTEM

The international role of the euro

June 2020



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Foreword



This 19th annual review of the international role of the euro published by the ECB presents an overview of developments in the use of the euro by non-euro area residents.

This report covers developments in 2019. This period was characterised by persistent international trade and geopolitical tensions, weak global economic activity, rising debt issuance by corporate and emerging market borrowers in global capital markets and a shift towards increased monetary policy accommodation in major economies. On balance, these developments resulted in a stabilisation in the international role of the euro. On the one hand, the euro's share in outstanding international loans increased significantly. On the other hand, the share of the euro in outstanding international debt securities declined, albeit international debt issuance in euro continued to increase in volume. The share of the euro in global foreign exchange reserves and in outstanding international deposits remained broadly stable, as did the share of the euro as an invoicing currency for extra-euro area transactions in goods and the stock of euro banknotes circulating outside the euro area.

An interesting development, highlighted in Box 1 of this report, relates to the significant role of the euro in global green bond markets, with the euro being the main currency of denomination for the issuance of green bonds in 2019.

The international role of the euro is primarily supported by a deeper and more complete EMU, including advancing the capital markets union, in the context of the pursuit of sound economic policies in the euro area. The Eurosystem supports these policies and emphasises the need for further efforts to complete EMU. The recent COVID-19 pandemic underlines the urgency of these policies and reform efforts, which are paramount to raising the attractiveness of the euro globally. The ECB has taken immediate and exceptional measures in response to the pandemic to address possible market dysfunction and euro liquidity needs in the euro area and globally, so as to mitigate risks to the smooth transmission of its monetary policy in line with its mandate. In doing so, these measures should in turn also serve to safeguard the attractiveness of the euro globally.

The ECB will continue to monitor developments in and publish information on the international role of the euro on a regular basis.

Christine Lagarde
President

1 Main findings

The international role of the euro remained stable in 2019. This period was characterised by persistent international trade and geopolitical tensions, weak global economic activity, continuously rising debt build-up by corporate and emerging market borrowers in global capital markets and a notable shift towards increased monetary policy accommodation in major economies.

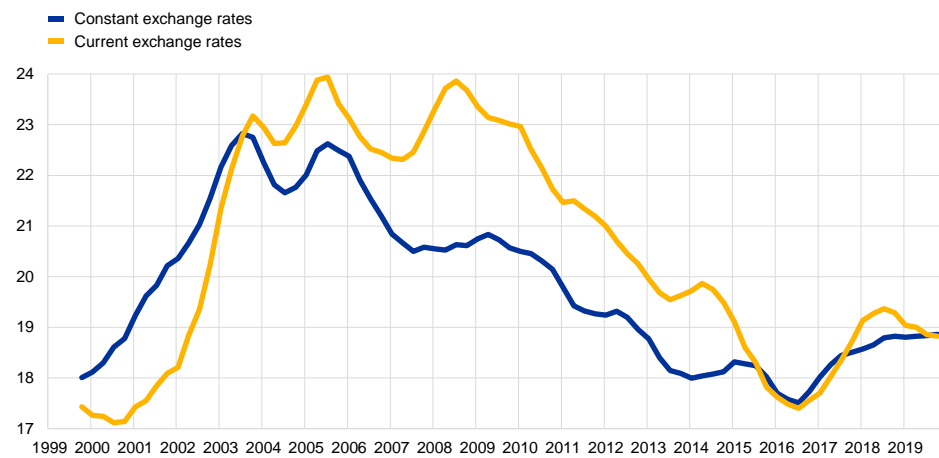
On balance, adjusting for exchange rate valuation effects, a composite index of the euro's international role remained essentially flat in the review period at a low level (see [Chart 1](#)). The share of the euro across various indicators of international currency use averaged around 19% – close to historical lows. The euro remained unchallenged as the second most important currency in the international monetary system (see [Chart 2](#)).

Chart 1

The international role of the euro remained stable at a historically low level in the review period

Composite index of the international role of the euro

(percentages; at current and Q4 2019 exchange rates; four-quarter moving averages)



Sources: BIS, IMF, Ilzetzi, Reinhart and Rogoff (2019) and ECB calculations.

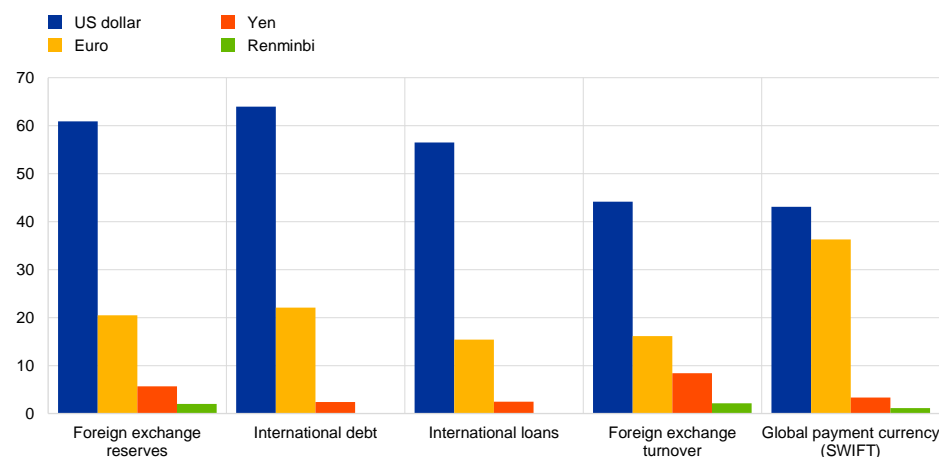
Notes: Arithmetic average of the shares of the euro at constant (current) exchange rates in stocks of international bonds, loans by banks outside the euro area to borrowers outside the euro area, deposits with banks outside the euro area from creditors outside the euro area, global foreign exchange turnover, global foreign exchange reserves and the share of the euro in global exchange rate regimes. Data at constant exchange rates are not available for global foreign exchange turnover. The estimates for the share of the euro in global exchange rate regimes between 2016 and 2019 were obtained by ECB staff using the same methodology as Ilzetzi, E., Reinhart, C. and Rogoff, K. (2019), "Exchange arrangements entering the 21st Century: which anchor will hold?", *Quarterly Journal of Economics* 134 (2), pp. 599-646. The latest observations are for the fourth quarter of 2019.

Chart 2

The euro remains the second most important currency in the international monetary system

Snapshot of the international monetary system

(percentages)



Sources: BIS, IMF, SWIFT and ECB calculations.
Note: The latest data are for the fourth quarter of 2019.

Following a significant rise in 2018, the share of the euro in global foreign exchange reserves remained broadly stable in the review period, increasing modestly by 0.2 percentage point (see [Table 1](#)). Large official reserve holders were among the main purchasers of euro-denominated assets. Anecdotal evidence suggests that purchases of reserve assets could reflect various motives, including exchange rate management and currency diversification decisions. The share of the US dollar, the leading global reserve currency, declined further to a two-decade low, suggesting that the trend towards gradual diversification of global reserve portfolios continued. Accumulation of gold by official reserve holders grew unabated, which indicates that central banks are exploring alternatives to the traditional major currencies.

The euro remained the second most actively traded currency in foreign exchange markets. Evidence from the latest triennial survey of global foreign exchange activity conducted by the Bank for International Settlements suggests that the share of the euro in global foreign exchange turnover increased by around 1 percentage point between 2016 – the year when the previous survey was conducted – and 2019. A large share of transactions involving the euro was initiated in the City of London. Almost 50% of global foreign exchange turnover in the euro was undertaken in the United Kingdom, against approximately 13% in the euro area.

Other indicators suggest that developments in the global attractiveness of the euro were mixed in the review period.

- On the one hand, issuance of international bonds denominated in euro rose, with the share of the euro increasing by more than 1 percentage point. Low interest rates in the euro area continued to support the use of the euro as a funding currency – even after adjusting for the cost of swapping euro proceeds into other currencies, such as the US dollar. This encouraged issuance by US borrowers

and international borrowers from a broad range of economic sectors, such as manufacturing, construction and financial institutions. On the other hand, the share of the euro in the outstanding stock of international debt securities, which tends to adjust more gradually, and depends additionally on net redemptions and developments in money market instruments, declined by 0.3 percentage points.

- The share of the euro in international loans by banks outside the euro area to non-euro area borrowers also increased in 2019, by a full percentage point. Volumes of euro-denominated loans by banks outside the euro area to non-euro area borrowers were twice as large as in the aftermath of the global financial crisis in 2009. Volumes of all outstanding cross-border loans denominated in euro were around 3% higher compared to 2018, suggesting that deleveraging by euro area banks, which had been a feature of developments in the years after the global financial crisis, no longer acted as a drag on the use of the euro in international loan markets.
- The share of the euro as an invoicing currency for extra-euro area transactions in goods remained broadly unchanged relative to last year, while its share in transactions in services declined.
- The share of the euro in outstanding international deposits remained broadly stable.
- The stock of euro banknotes circulating outside the euro area was also broadly stable in 2019.

Recent research suggests that increasing the depth and liquidity of euro area financial markets, and strengthening the credit quality and liquidity of euro area debt, would support the international role of the euro.¹ At the Euro Summit on 13 December 2019, euro area leaders stressed that the international role of the euro “should be commensurate with the global economic and financial weight of the (European) Union”. Last year’s report noted tentative signs of recovery in the global appeal of the euro after years of decline. The stabilisation of the international role of the euro described in this report suggests that the policy implications stressed by the Eurosystem in the past remain fully valid. The international role of the euro is primarily supported by a deeper and more complete EMU, including advancing the capital markets union, in the context of the pursuit of sound economic policies in the euro area. The Eurosystem supports these policies and emphasises the need for further efforts to complete EMU.

This year’s report contains a box on the role of the euro in global green bond markets.

¹ See Ilzetzki, E., Reinhart, C. and Rogoff, K., “Why is the euro punching below its weight?” *NBER Working Paper*, No. 26760, February 2020.

Table 1

The international role of the euro from different perspectives

Summary of data in this report

Indicator	Share of the euro (percentages, unless otherwise indicated)			Total outstanding amounts (at current exchange rates)			
	Latest	Comparison period	Difference (% points)	Latest	Comparison period	Unit	Difference (%)
Stock of global foreign exchange reserves with known currency composition, at constant exchange rates	20.5 (Q4 2019)	20.3 (Q4 2018)	0.2	11,830 (Q4 2019)	11,436 (Q4 2018)	USD billions	3.4
Outstanding international debt securities: narrow measure, i.e. excluding home currency issuance, at constant exchange rates	22.1 (Q4 2019)	22.4 (Q4 2018)	-0.3	16,087 (Q4 2019)	15,198 (Q4 2018)	USD billions	5.8
Outstanding international loans: by banks outside the euro area to borrowers outside the euro area, at constant exchange rates	15.4 (Q4 2019)	14.3 (Q4 2018)	1.04	2,730 (Q4 2019)	2,610 (Q4 2018)	USD billions	4.6
Outstanding international deposits: with banks outside the euro area from creditors outside the euro area, at constant exchange rates	18.7 (Q4 2019)	18.8 (Q4 2018)	-0.1	2,626 (Q4 2019)	2,580 (Q4 2018)	USD billions	1.8
Foreign currency-denominated debt issuance at current exchange rates	23.9 (2019)	22.5 (2018)	1.4	1,993 (2019)	1,917 (2018)	USD billions	4.0
Euro nominal effective exchange rate (broad measure against 38 trading partners)	118.8 (17 Apr. 2020)	116.3 (17 Apr. 2019)	2.2				
Daily foreign exchange trading (settled by CLS), annual averages, at current exchange rates, as a percentage of foreign exchange settlement	36.6 (2019)	37.7 (2018)	-1.1				
Foreign currency-denominated loans in CESEE countries, at current exchange rates ¹	80.1 (2019)	77.9 (2018)	2.2	152.7 (2019)	150.2 (2018)	EUR billions	1.7
Foreign currency-denominated deposits in CESEE countries, at current exchange rates ¹	80.6 (2019)	80.0 (2018)	0.6	154.9 (2019)	143.3 (2018)	EUR billions	8.1
Invoicing of goods exported from the euro area to non-euro area countries, at current exchange rates	60.9 (2019)	61.3 (2018)	-0.4				
Invoicing of goods imported to the euro area from non-euro area countries, at current exchange rates	51.3 (2019)	51.3 (2018)	0.0				
Cumulative net shipments of euro banknotes to destinations outside the euro area (not seasonally adjusted)				169.1 (Dec. 2019)	169.1 (Dec. 2018)	EUR billions	-0.01

Sources: BIS, CLS Bank International, Dealogic, IMF, national sources and ECB calculations.

Notes: Outstanding amounts refer to outstanding amounts of foreign currency total amounts. An increase in the euro nominal effective exchange rate indicates an appreciation of the euro.

2 Key developments

2.1 Use of the euro as an international reserve

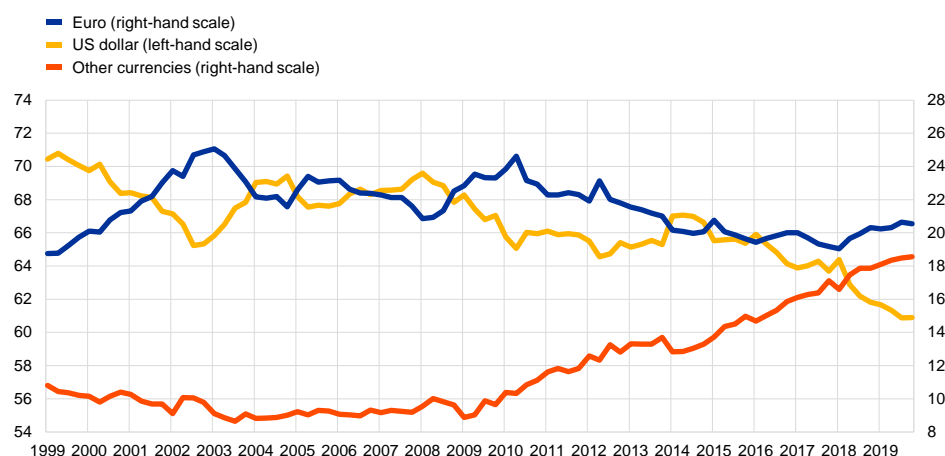
The share of the euro in global official holdings of foreign exchange reserves remained broadly stable in 2019. At constant exchange rates, the share of the euro in globally disclosed holdings of foreign exchange reserves rose modestly, by 0.2 percentage point between the end of 2018 and the end of 2019 – the second consecutive year of increase (see [Chart 3](#)).² The US dollar remained the leading global reserve currency in the review period, although its share in globally disclosed reserves declined by almost a full percentage point, to 60.9%, a two-decade low when measured at constant exchange rates.

Chart 3

The share of the euro in global foreign exchange reserves remained broadly stable in 2019

Developments in the shares of the euro, US dollar and other currencies in global official holdings of foreign exchange reserves

(percentages; at constant Q4 2019 exchange rates)



Sources: IMF and ECB calculations.

Note: The latest observation is for the fourth quarter of 2019.

The trend towards gradual diversification of global reserve portfolios also continued. At constant exchange rates, the share of currencies other than the euro and the US dollar increased by 0.7 percentage point in the review period (see [Chart 4](#)). The increase primarily reflected purchases of official reserve assets denominated in Japanese yen, often considered a safe haven currency, the share of which rose by 0.4 percentage point to nearly a two-decade high.³ The share of the Chinese renminbi increased modestly, by less than 0.1 percentage point, in line with

² At current exchange rates, the share of the euro declined by 0.1 percentage point owing to the depreciation of the euro exchange rate against the US dollar in the review period.

³ An alternative explanation is that this could reflect central bank purchases of Japanese securities on a hedged basis, for instance from their US dollar reserves. Transactions such as these are common, and potentially profitable, and do not necessarily reflect an attempt to rebalance the composition of foreign exchange reserves towards the Japanese yen.

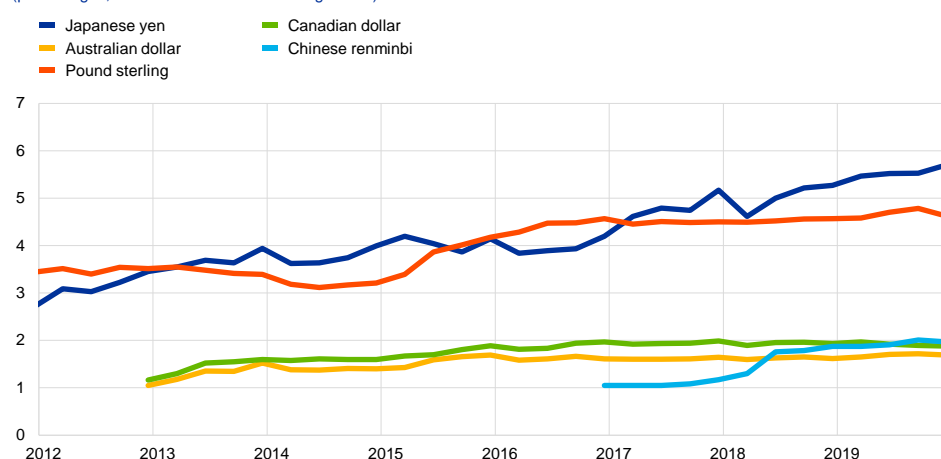
the observation that growth in the unit's international role has decelerated since its inclusion in the special drawing rights basket in 2016. The share of other non-traditional reserve currencies was stable.

Chart 4

Diversification of global reserve portfolios towards currencies other than the euro and the US dollar was largely confined to the Japanese yen

Developments in the shares of selected currencies in global official holdings of foreign exchange reserves

(percentages; at constant Q4 2019 exchange rates)



Sources: IMF and ECB calculations.

Note: The latest observation is for the fourth quarter of 2019.

Large official reserve holders were among the main purchasers of euro-denominated assets.

Motives underlying the purchases in question varied across central banks, including exchange rate management, currency diversification decisions and, in some cases, perhaps geopolitical considerations. For instance, press reports suggest that the Swiss National Bank (SNB) had been active in the foreign exchange market in order to manage the Swiss franc exchange rate as economic uncertainty raised by international trade tensions presumably led to safe haven capital inflows.⁴ In line with this interpretation, holdings of euro-denominated foreign exchange reserves by the SNB increased by over EUR 20 billion in 2019. Moreover, the value of euro-denominated assets held as reserves by the Central Bank of Russia also increased by over USD 20 billion.⁵ Russia had been among the main sellers of US Treasury securities between March and December 2018 in an attempt to rebalance the currency composition of its official reserves (see [Chart 5](#)). Together China and Russia sold a combined USD 204 billion worth of US Treasury debt securities amid concerns about unilateral sanctions and international trade tensions in 2018. China continued to sell US Treasury securities in 2019, to the tune of

⁴ See, for instance, Szalay, E., "Currency war fears bolster demand for havens", *Financial Times*, 7 August 2019. The SNB held over USD 800 billion worth of foreign exchange reserves at the end of 2019. Press reports further suggest that Swiss foreign exchange market intervention may have slowed down following the addition of Switzerland to the *US Department of the Treasury* monitoring list of currency practices and macroeconomic policies. See Davies, C.J. and Ostroff, C., "Swiss franc climbs against euro, leaving central bank in bind", *Wall Street Journal*, 23 February 2020.

⁵ The latest data available on the currency composition of the foreign exchange reserves of the Central Bank of Russia are for January 2020.

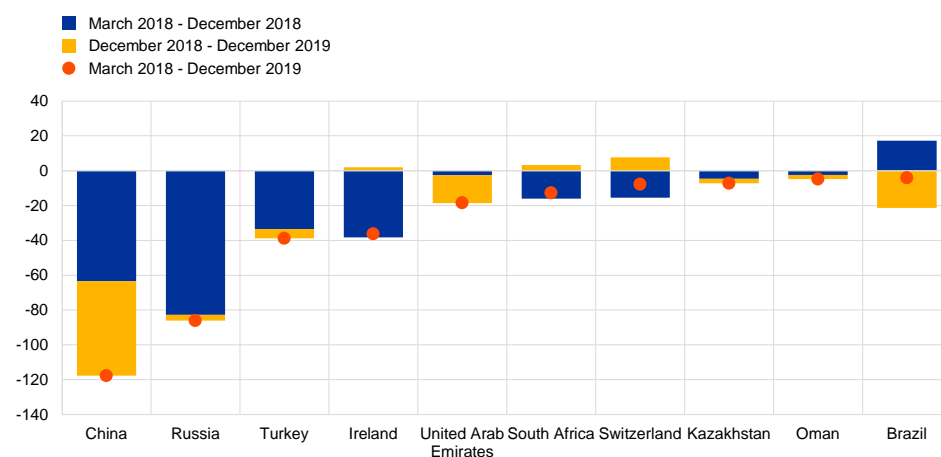
USD 54 billion. By contrast, Russia's sales were limited in 2019, at just over USD 3 billion, having already disposed of the majority of its holdings.⁶ These developments notwithstanding, US Treasury securities remained attractive safe assets globally. Several countries increased their exposures to US Treasury securities in 2019, such as Japan and some euro area countries.

Chart 5

China and Russia have reduced their exposures to US Treasury securities since 2018

Sales of US Treasury securities by selected countries

(net amounts in USD billions)



Sources: US Department of Treasury, Treasury International Capital (TIC) System and ECB calculations.

Accumulation of gold by official reserve holders continued unabated over the review period, suggesting that central banks globally are exploring alternatives to the major currencies.

In value terms, official holdings of gold increased by over USD 280 billion over the review period, compared to an increase of USD 390 billion in foreign exchange holdings (see [Chart 6](#)). The share of gold in total global reserve holdings increased markedly, to 12% – a six-year peak.

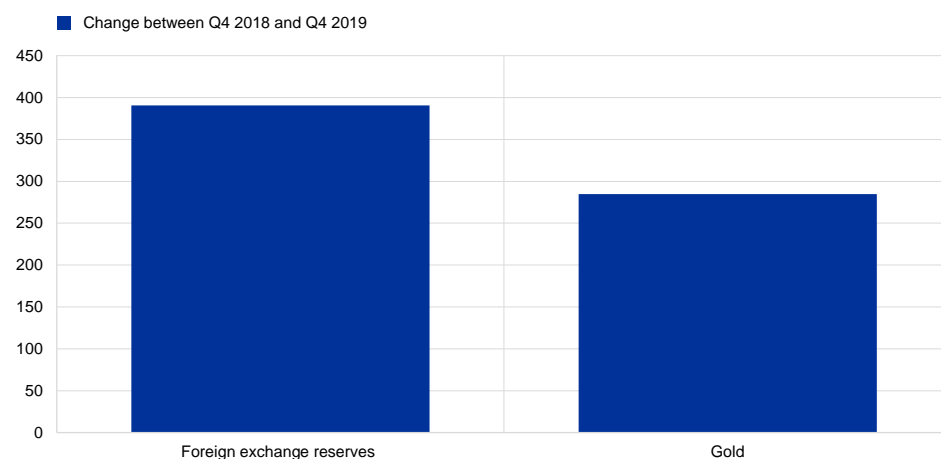
⁶ Moreover, the share of the US dollar in the foreign reserves (including gold) of the Central Bank of Russia increased by 2 percentage points between mid-2018 and mid-2019, to 24%, presumably in the form of other highly-rated US issuers or US dollar-denominated deposits, while the share of the euro declined slightly, to around 31%. Excluding gold, the share of the euro was broadly stable in 2019, at about 38%, while that of the US dollar increased by almost 3 percentage points, to around 30%.

Chart 6

Accumulation of gold by official reserve holders continued unabated

Changes in global official reserve holdings of gold and foreign currency

(amounts in USD billions)



Source: World Gold Council.

Note: The latest observation is for the fourth quarter of 2019.

Since gold prices increased by close to 18% last year, the increase in gold holdings partly reflects valuation effects. However, official reserve managers also increased their real physical holdings of gold in vaults and storage facilities by over 500 tonnes in 2019 – in line with a trend that started a decade ago with the global financial crisis (see [Chart 7](#)). Strong interest in gold from central banks reflects multiple factors, such as the appeal of gold in anchoring public confidence in their balance sheets, the diversification benefits it offers relative to other assets and the decline in the opportunity cost of holding gold in a low or even negative interest rate environment.⁷ Global geopolitical developments might have been an additional supportive factor. In line with this, it is notable that the countries that reduced their exposures to US dollar assets amid concerns about unilateral sanctions and international trade tensions, such as Russia and China, were also some of the largest official reserve purchasers of gold.

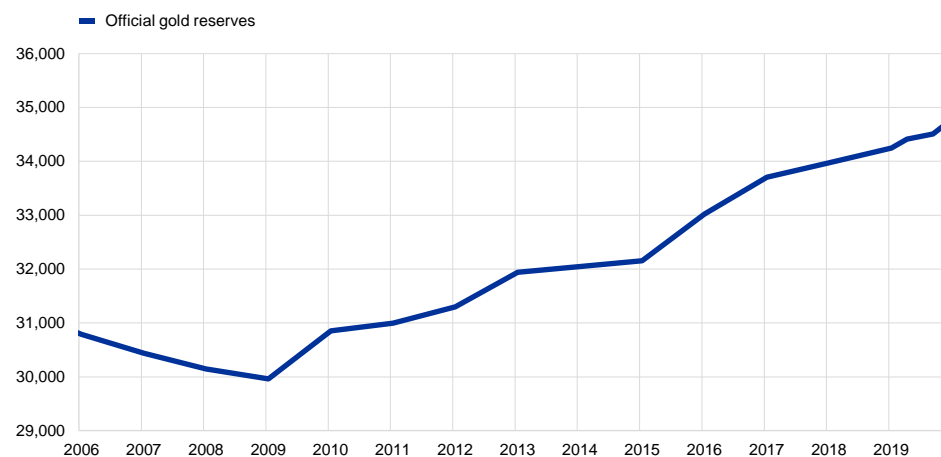
⁷ See Chițu, L., Gomes, J. and Pauli, R., "Trends in central banks' foreign currency reserves and the case of the ECB", *ECB Economic Bulletin*, Issue 7, ECB, Frankfurt am Main, 2019.

Chart 7

Holdings of physical gold by official reserve managers continued to trend upwards

Developments in global official holdings of gold

(in metric tonnes)



Source: World Gold Council.

Note: The latest observation is for the fourth quarter of 2019.

2.2 The euro in global foreign exchange markets

The share of the euro in global foreign exchange trading increased somewhat in 2019. The BIS Triennial Central Bank Survey of Foreign Exchange and OTC Derivatives Markets in 2019 released by the Bank for International Settlements (BIS) indicates that trading in foreign exchange markets totalled USD 6.6 trillion per day in April 2019, up from USD 5.1 trillion in April 2016. More than half of the rise in foreign exchange trading is attributable to transactions in foreign exchange swaps. The US dollar remained the leading currency in the foreign exchange market, being involved in almost 90% of all transactions. The euro remained the second most actively traded currency, with its share increasing by around 1 percentage point, to around 32% in April 2019 (see [Chart 8](#)).⁸ In line with global reserves, transactions in global foreign exchange markets became more diversified. The share of transactions against emerging market currencies rose further, to 25%.⁹

⁸ The increase was due to dynamism in transactions in some currency pairs, notably JPY/EUR and CHF/EUR. This notwithstanding, the share of the euro remained below its peak of 39% of global foreign exchange transactions in April 2010.

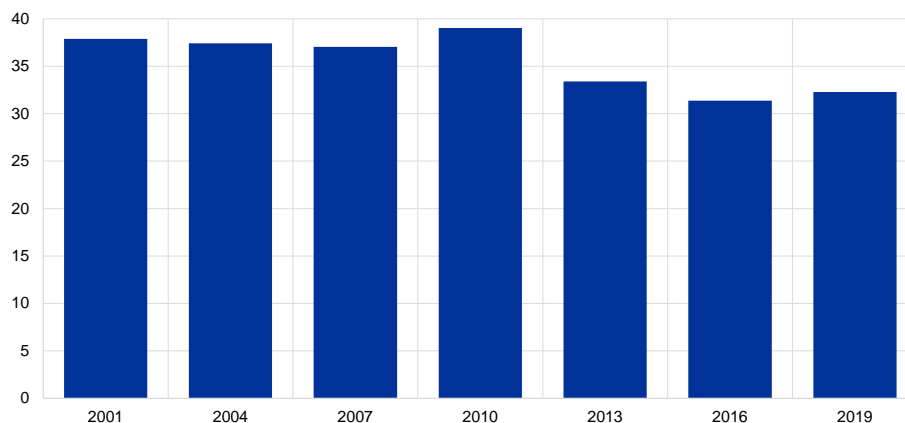
⁹ As two currencies are involved in each transaction, the sum of the percentage shares of individual currencies totals 200% instead of 100%. The share of transactions against the renminbi remained stable, at around 4%, paralleling developments in the Chinese currency as a global reserve unit.

Chart 8

The share of the euro in global foreign exchange turnover increased somewhat in 2019

Share of the euro in global OTC foreign exchange transactions, on a net-net basis

(percentages, in April of the corresponding year shown on the x-axis)



Sources: BIS and ECB calculations.

Notes: As two currencies are involved in each transaction, the sum of the percentage shares of individual currencies totals 200% instead of 100%. Adjusted for local and cross-border inter-dealer double-counting (i.e. "net-net" basis).

The City of London remained the main venue globally for foreign exchange transactions in euro in April 2019, less than a year prior to the exit of the United Kingdom from the European Union. Foreign exchange trading is increasingly concentrated in a small number of large financial hubs. In 2019, the top five trading locations accounted for 79% of global foreign exchange transactions. The United Kingdom alone accounted for 43%. This largely reflects the role of the City of London, which plays a pivotal role across a range of financial markets, and is the world's largest venue for foreign exchange trading. The role of the City of London was even more pronounced in foreign exchange transactions against the euro, with a share of almost 50% (see [Chart 9](#)). Most foreign exchange transactions vis-a-vis the euro took place outside the euro area, i.e. in London or in other locations. The combined share of euro area trading locations was just 13% of total transactions involving the euro in the review period. Research suggests that various factors combine to determine the location of foreign exchange trading. Increasing returns and the self-reinforcing effects of market liquidity tend to concentrate transactions in a few financial centres. Economies of scope arising from concentration of suppliers of intermediate goods or specialised services, such as legal, IT and accounting services, or the availability of skilled and talented staff, are additional sources of segmentation of the geography of foreign exchange trading.

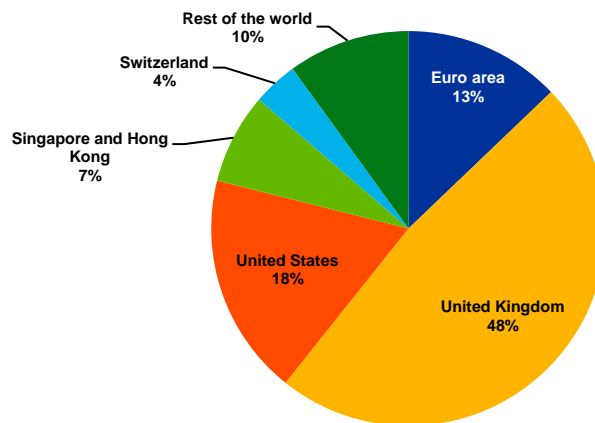
However, research also suggests that technology dampens the impact of traditional spatial determinants to a significant extent and can have economically important implications for the distribution of foreign exchange transactions across financial centres. One estimate, for instance, suggests that the City of London's status as a hub for fibre-optic cables – cables often considered as the "backbone of the internet" – boosts its share in global foreign exchange turnover by

about one-third.¹⁰ Market developments, such as the rising importance of high-frequency trading and co-location services, may mean that this factor has become increasingly important in the foreign exchange market. In turn, this is consistent with conjectures in market reports that the large sunk costs involved in laying undersea or terrestrial fibre-optic cables might lead to persistence in the current geographic distribution of foreign exchange trading after the exit of the United Kingdom from the European Union.

Chart 9

Most foreign exchange transactions in euro take place outside the euro area, notably in the City of London

Share of selected countries in global foreign exchange transactions in euro in 2019 (percentages)



Sources: BIS and ECB staff calculations.
 Notes: The data include spot transactions, outright forwards, foreign exchange swaps, currency swaps, options and other products. They are adjusted for local inter-dealer double-counting (i.e. net gross basis) and may differ slightly from national survey data owing to differences in aggregation procedures and rounding. The BIS uses several criteria to determine the location of a foreign exchange transaction, notably the location of the initiating sales desk.

The primacy of the City of London as a trading venue for the euro is a long-standing phenomenon and has grown further still over the past three years, with its share increasing by almost 5 percentage points, against 14 percentage points since 2001 (see Chart 10).

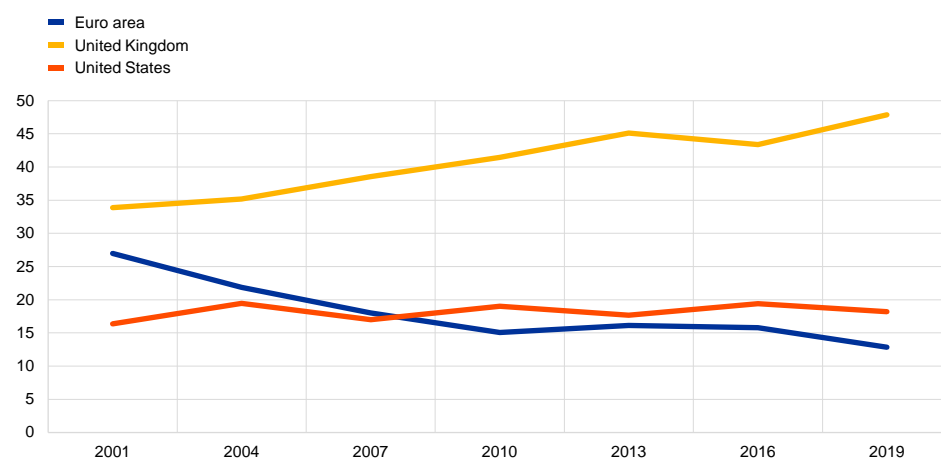
¹⁰ See Schrimpf, A. and Sushko, V., "Sizing up global foreign exchange markets", *BIS Quarterly Review*, December issue, 2019, pp. 21-38. See also Eichengreen, B., Lafarguette, R. and Mehl, A., "Cables, sharks and servers: technology and the geography of the foreign exchange market", *NBER Working Paper*, No 21884, January, 2016.

Chart 10

The importance of the City of London for foreign exchange transactions against the euro has grown over the past three years

Developments in the share of selected countries in global foreign exchange transactions in euro, 2001-2019

(percentages)



Sources: BIS and ECB staff calculations.

Note: See Chart 9.

The share of the euro in global foreign exchange settlements declined

somewhat over the past year. Data on foreign exchange transactions settled in the CLS system provide additional quantity-based evidence on the role of the euro in the foreign exchange markets.¹¹ According to these data, the share of the euro in foreign exchange settlements stood at around 36% in December 2019, down by approximately 1 percentage point over the previous 12 months (see [Chart 11](#)). The share of the US dollar remained in excess of 90%, making it by far the leading currency in global foreign exchange settlements.¹²

¹¹ CLS is operated by CLS Bank International, a specialised financial institution providing settlement services to its members in the foreign exchange market. Although not all foreign exchange transactions are settled in CLS, which partly reflects the fact that the foreign exchange market is largely decentralised, it has been estimated that over 26% of all global foreign exchange transactions are settled in CLS. This suggests that data on activity in CLS might be indicative of broader market trends.

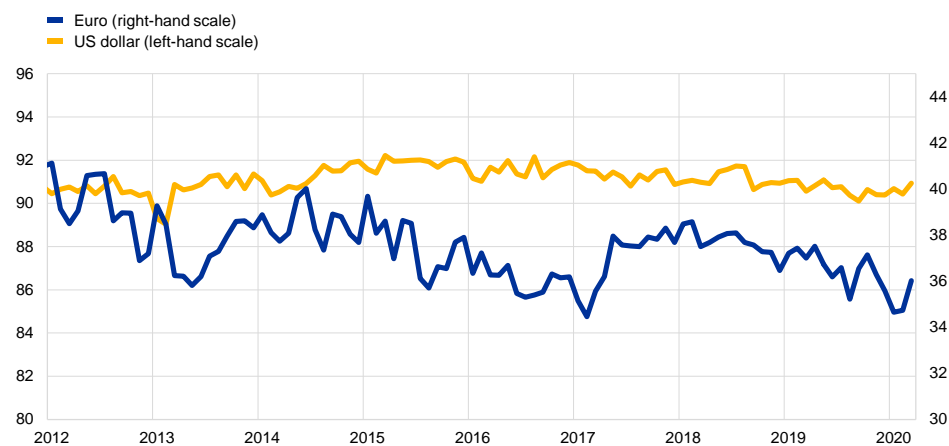
¹² As two currencies are involved in each transaction, the sum of shares in individual currencies totals 200%.

Chart 11

The share of the euro in global foreign exchange settlements declined in 2019

Share of foreign exchange transactions settled in CLS

(percentages)



Sources: CLS Bank International and ECB calculations.

Notes: The latest observation is for March 2020. As two currencies are involved in each transaction, the sum of shares in individual currencies totals 200%.

2.3 Use of the euro in international debt and loan markets

2.3.1 The euro in international debt markets

The share of the euro in the stock of international debt securities declined by 0.3 percentage point in 2019, standing at around 22% at constant exchange rates (see Chart 12 and Table A4).¹³ The share of the US dollar increased by half a percentage point in the review period, continuing the rising trend seen since before the global financial crisis of 2007-09. By contrast, the share of the euro declined by almost 9 percentage points over the same period. Recent research indicates that the geographic distribution of holdings of US-dollar bonds is unique in that a large share is held by foreign investors, while the vast majority of bonds in other currencies, including the euro, is held by domestic investors.¹⁴

¹³ The discussion here is based on the “narrow” definition of international debt issuance, which focuses on the foreign currency principle. This definition therefore excludes all domestic currency issuance from the standard (also known as “broad”) definition of international debt issuance, which is based on the residence principle. For instance, the narrow definition excludes a euro-denominated bond issued by a German company whether outside the euro area (e.g. in the United States) or inside the euro area (e.g. in France).

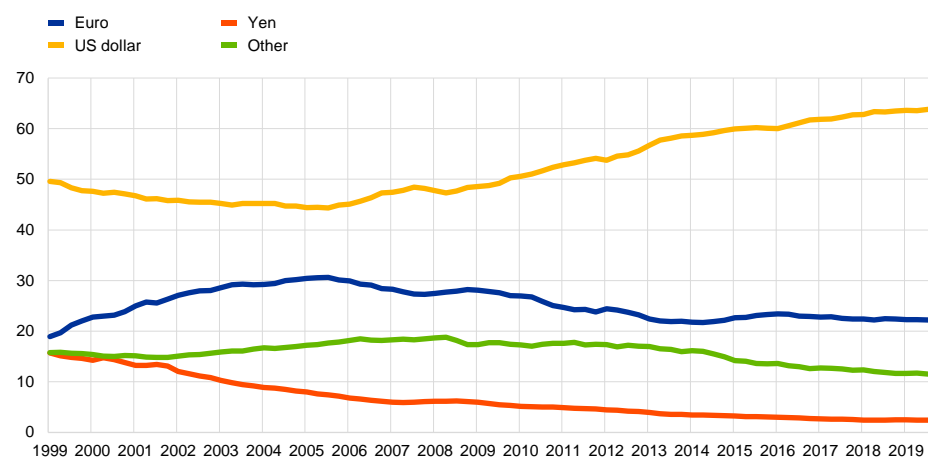
¹⁴ See Maggiori, M., Neiman, B. and Schreger, J., “International currencies and capital allocation”, *NBER Working Paper*, No 24673, April 2019.

Chart 12

The share of the euro in the stock of international debt securities declined in 2019

Currency composition of outstanding international debt securities

(percentages; at Q4 2019 exchange rates)



Sources: BIS and ECB calculations.

Notes: Narrow measure. The latest data are for the fourth quarter of 2019.

An examination of granular (i.e. security-by-security) data on international issuance of foreign currency-denominated debt securities suggests that the share of US dollar-denominated issuance was broadly stable, while the share of euro issuance increased for the second consecutive year. In 2019 the total volume of foreign currency-denominated debt issuance increased by almost 4%, to just under USD 2 trillion, thereby partly reversing the marked decline observed in 2018 (see the left panel of [Chart 13](#)). Issuance of debt securities denominated in US dollars increased by just 2%, or USD 26 billion, while issuance in euro increased by 10%, or USD 44 billion.¹⁵ The share of the US dollar issuance therefore remained broadly stable, at approximately 60% of total issuance in 2019 – almost 7 percentage points down from its peak in 2016. By contrast, the share of euro issuance increased by 1.4 percentage points in the review period, to almost 24%.¹⁶ That the data on the share of the euro in foreign currency-denominated debt issuance reveal a different pattern than the data on the stock of international debt securities may be due to the fact that the latter depend additionally on net redemptions and developments in money market instruments.

¹⁵ Issuance in currencies other than the US dollar and the euro increased by 2%,

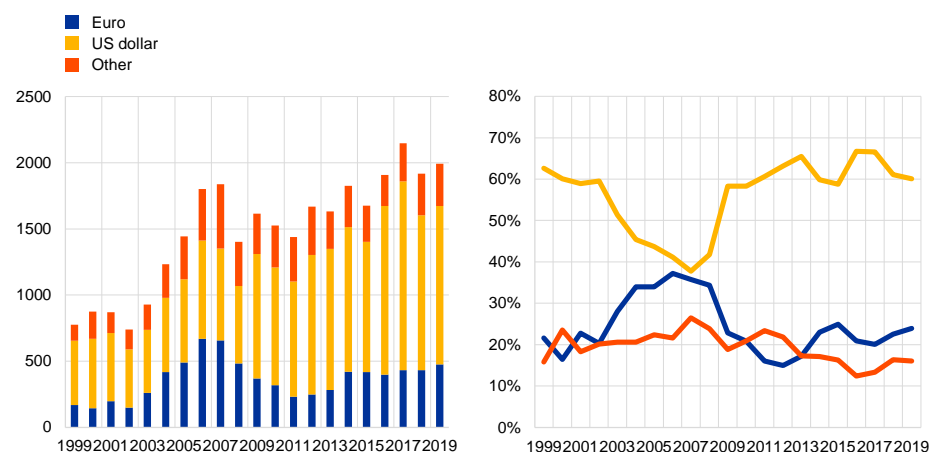
¹⁶ The share of other currencies declined marginally to stand at approximately 16% in 2019.

Chart 13

The share of the euro in international issuance of foreign currency-denominated debt securities further increased in 2019

Currency composition of foreign currency-denominated debt issuance

(left panel: USD billions; right panel: percentages)



Sources: Dealogic and ECB calculations.
Note: The latest data are for the fourth quarter of 2019.

Issuance of international US dollar debt securities in the review period was largely driven by resurgent issuance by emerging market borrowers possibly linked to the Federal Reserve’s pivot to more accommodative monetary policy.

US dollar-denominated debt issuance by emerging market borrowers increased markedly by almost 30% in 2019, thereby reversing most of the decline of 2018 (see the green line in the left panel of [Chart 14](#)).¹⁷ Issuance accelerated noticeably in the first half of 2019, perhaps in anticipation of a pause in increases in the federal funds target range of the Federal Reserve.¹⁸ This is in line with developments over much of the last decade, whereby emerging-market issuers tried to take advantage of low US interest rates to borrow US dollars. The share of US dollar issuance rose noticeably between 2009 and 2013 when unconventional US monetary policies were deployed and remained high subsequently. By contrast with emerging markets, US dollar-denominated debt issuance in advanced economies declined in 2019.¹⁹

US borrowers were among the most active issuers of euro-denominated debt securities in 2019, as in earlier years. Euro-denominated issuance by US borrowers more than doubled to around USD 150 billion in 2019 (see the light-blue line in the right panel of [Chart 14](#)) and the combined issuance by advanced economies reached the highest level since the global financial crisis. The cross-currency swap basis – which measures the premium paid to borrow US dollars “synthetically” by using

¹⁷ One noteworthy exception is Russia. Since economic and financial sanctions were imposed on Russia by the international community in 2014, international issuance of both US dollar- and euro-denominated debt securities by Russian borrowers fell significantly and remains well below earlier peaks.

¹⁸ Media reports suggest that Chinese regulators may have introduced measures in June and July 2019 in order to curb Chinese offshore issuance of US dollar-denominated corporate bonds, which had been increasing rapidly in the first half of 2019.

¹⁹ For instance, US dollar-denominated issuance by euro area borrowers fell by 12%, to almost USD 230 billion and US dollar-denominated issuance by borrowers in other advanced economies (i.e. excluding the United States, euro area and Japan) declined by approximately 13%, to around USD 340 billion in 2019.

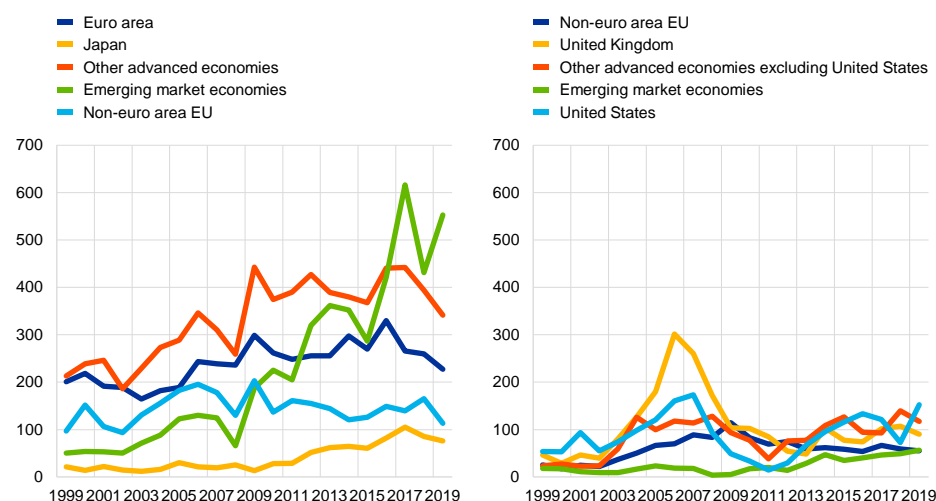
another currency such as the euro as the funding unit and swapping the proceeds into US dollars – was relatively stable in 2019. The cost of synthetic dollar issuance via the euro remained therefore broadly unchanged, which might have supported issuance of international euro-denominated debt securities by US borrowers. In line with this, press reports suggest that the very low rates available in the euro area during the review period encouraged market participants to use the euro as a funding currency in carry trade transactions, where funds are borrowed in economies with relatively low interest rates and invested in economies with higher interest rates.²⁰ Issuance by emerging market borrowers also increased somewhat, but remained relatively small in volume.²¹ Overall, euro-denominated international bond issuance stood at over USD 470 billion in 2019, its highest level since 2008.²²

Chart 14

Emerging market borrowers drove US-dollar denominated international debt issuance in 2019, while US borrowers were the most dynamic issuers of euro-denominated debt

Regional breakdown of US-dollar denominated (left panel) and euro denominated (right panel) international debt issuance

(USD billions)



Sources: Dealogic and ECB calculations.
Note: The latest data are for the fourth quarter of 2019.

The composition of international issuance of euro denominated debt by security type has changed substantially. Issuance was primarily driven by investment-grade corporate-bond issuance, which increased by 26% in 2019 (see **Chart 15**). And it continued to account for the majority (60%) of issuance. Issuance of short-term debt, and asset- and mortgage-backed securities, which were widespread in the years preceding the global financial crisis, remained more limited in 2019.

²⁰ See, for instance, Szalay, E., “How the euro has become ‘the world’s new carry trade’, *Financial Times*, 5 December 2019. Unwinding of these positions might have contributed to the strengthening of the euro against the US dollar following the outbreak of the COVID-19 pandemic amid heightened global risk aversion.

²¹ Issuance of euro-denominated debt securities by emerging markets remained barely more than 10% of the volume of their US dollar-denominated issuance.

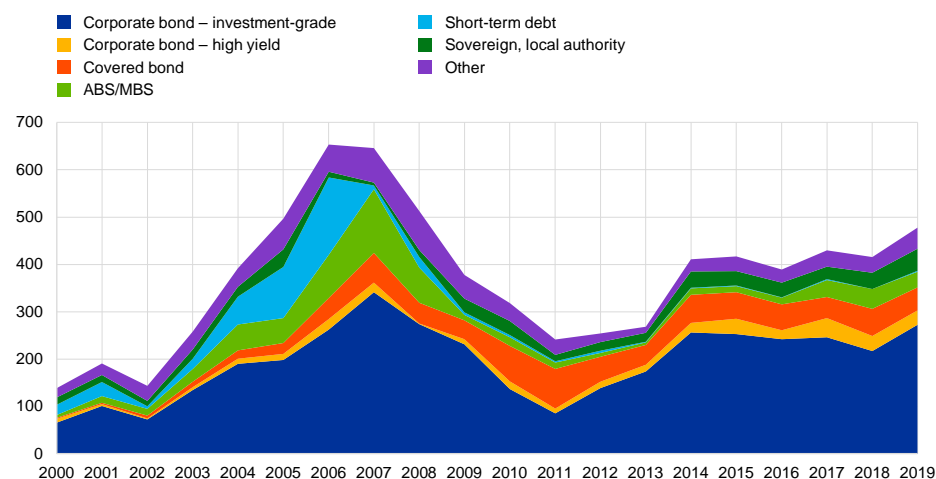
²² By contrast, amounts outstanding of euro-denominated debt securities grew by less than USD 100 billion. Figures may differ for a number of reasons, including on account of net redemptions and developments in stocks of money market instruments.

Chart 15

International issuance of euro-denominated debt securities reached the highest level since the global financial crisis, driven by corporate borrowers

International issuance of euro-denominated debt securities, by security type

(USD billions)



Sources: Dealogic and ECB calculations.
Note: The latest data are for the fourth quarter of 2019.

2019 also saw a shift in the sectoral composition of international issuance of euro-denominated debt securities. While financial institutions remained the most active issuers of US dollar-denominated international bonds, their share of total euro-denominated issuance declined by over 10 percentage points in the review period, to around 55% (see the left panel of **Chart 16**). By contrast, the share of the construction and manufacturing sector increased by approximately 5 percentage points, to over 22%. This contrasts with earlier years when the largest issuers were typically found among financial institutions but is consistent with the tendency for many global firms to finance themselves through foreign subsidiaries in conduit economies, often for tax optimisation purposes.²³ Sovereign issuance continued to account for approximately 10% of total international issuance of euro-denominated debt securities.

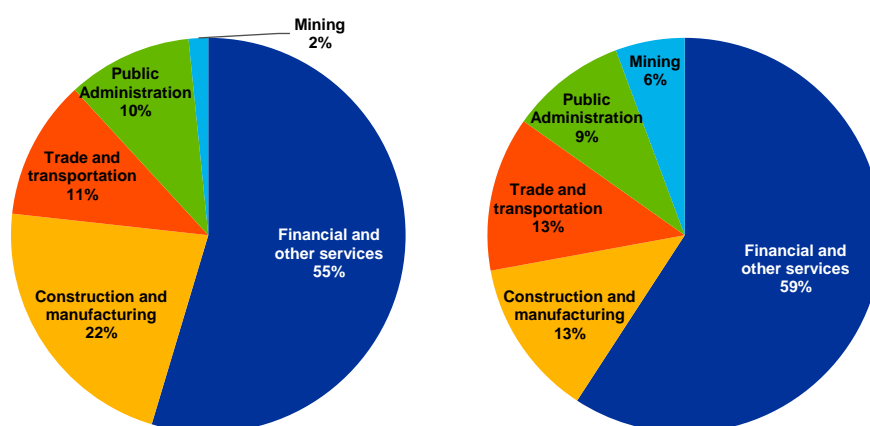
²³ See for example, Di Nino, V., Habib, M. and Schmitz, M., “Multinational enterprises, financial centres and their implications for external imbalances: a euro area perspective”, *Economic Bulletin*, Issue 2, ECB, Frankfurt am Main, 2020; Coppola, A., Maggiori, M., Neiman, B., and Schreger, J., “Redrawing the map of global capital flows: the role of cross-border financing and tax havens”, *Becker Friedman Institute Working Paper*, No 2019-118, University of Chicago 2020; Galstyan, V., Maqui Lopez, E. and McQuade, P., “International debt and special purpose entities: evidence from Ireland”, *ECB Working Paper*, No. 2301, ECB, 2019.

Chart 16

Construction and manufacturing firms accounted for a larger share of issuance of euro-denominated international debt securities in 2019, with financial institutions remaining the most active issuers

Sector breakdown of euro-denominated (left panel) and US-denominated (right panel) international debt issuance

(percentages)



Sources: Dealogic and ECB calculations.

Box 1

The role of the euro in global green bond markets

Prepared by Lena Boneva and Fabio Tamburrini

A green bond is a type of fixed-income security whose proceeds are earmarked to finance investment projects with an environmental benefit. These debt instruments are increasingly used by companies, governments and financial institutions to finance the adoption of more energy-efficient technologies, reduce carbon emissions and reorient business models towards sustainable economic activities.²⁴

While the global green bond market is still relatively small, it has been growing rapidly in recent years. Global green bond issuance was only USD 9.1 billion or 0.2% of total bond issuance in 2014; that figure grew to approximately USD 205 billion or 2.85% of total issuance by 2019. This amounts to a 20 fold increase in the last five years. Growing investor demand for green financial products and the recent entry of sovereign issuers in the market suggest that there is significant potential for further growth in this segment.²⁵

EU residents are the largest issuers of green bonds. In 2019 more than half of global issuance was concentrated in the EU and almost half of global green bond issuance was denominated in euro (see left panel of Chart A). The euro is also leading in terms of relative importance of green bonds compared to other bonds: the proportion of green bonds relative to total bond issuance denominated in euro rose to almost 9% by the end of 2019, compared to 2.1% for bonds in US dollars and around 2.5% for bonds in other currencies. The leading role of the euro does not simply reflect the prevalence of green bond issuers based in the euro area. As shown in the right panel of Chart A, issuance of euro-denominated green bonds is also strong among non-euro area residents, with non-euro area

²⁴ There are different approaches to defining and certifying green bonds. While many are self-labelled or certified according to market standards, some jurisdictions have developed certification frameworks.

²⁵ [Green Bond European Investor Survey 2019](#), Climate Bonds Initiative.

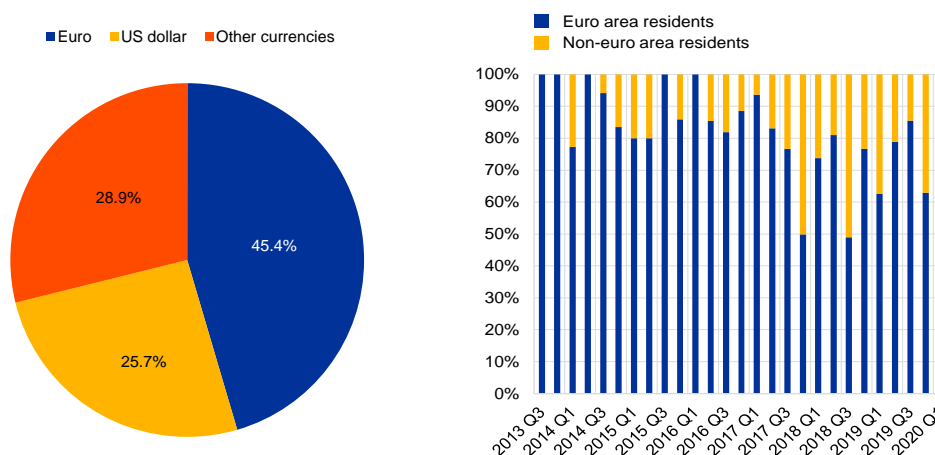
issuers accounting for almost 30% of total euro-denominated green bond issuance in 2019, which suggests that the euro is also attractive for foreign issuers. While incumbent currencies display a significant degree of inertia in established markets²⁶, the emergence of new segments of capital markets could provide a window of opportunity for other currencies to gain international use. As the euro is already the main currency of denomination for the issuance of green bonds, the consolidation of the EU role as a global hub for green finance could strengthen the euro as the currency of choice for sustainable financial products, bolstering its international role.

Chart A

Almost half of global green bond issuance is denominated in euro; issuance of euro-denominated green bonds – breakdown by issuer residence

Currency breakdown of green bond issuance in 2019 (left panel) and developments of the share of euro area and non-euro area issuers of green bonds in euro (right panel)

(percentages)



Sources: Dealogic and ECB calculations.
Note: last observation 31 January 2020.

Future developments will depend on multiple factors, including the EU’s ability to fully reap the benefits of the capital markets union and the rapid developments in the regulatory environment. The European Commission launched an [Action plan on sustainable finance](#) in 2018. The objective of this action plan was to create an enabling framework for sustainable finance notably through the development of a taxonomy of sustainable economic activities aimed at preventing “greenwashing”, commonly defined as the practice of making an unsubstantiated or misleading claim about the environmental benefits of a financial product. The swift implementation of the taxonomy could be conducive to strengthening the international role of the euro by providing a credible and standardised framework and ensuring greater investor confidence. Further EU initiatives are ongoing to increase the availability of information on sustainability, develop an EU green bond standard, and enhance international coordination.²⁷ Whether the euro will benefit from these efforts will also depend on the approaches of other jurisdictions. A number of countries, most notably the United Kingdom, China and Singapore, have also developed green finance strategies to promote the growth of this segment

²⁶ Papaioannou, E. and Portes, R., “Costs and benefits of running an international currency” European Economy, Economic Papers 348, European Commission, November 2008.

²⁷ The European Commission launched on 18 October 2019 an International Platform on sustainable finance open to third countries on a voluntary basis. Its aim is to help scale up sustainable finance internationally, share best practices and enhance international coordination, for example by aligning policies.

and foster their role as international centres for green finance. One challenge going forward is to avoid regulatory competition undermining efforts to set common standards and to prevent “greenwashing”, which could lead to undue market fragmentation and reduce the environmental benefits of green finance.

2.3.2 The euro in international loan and deposit markets

The share of the euro in international loan markets continued to rise in 2019.

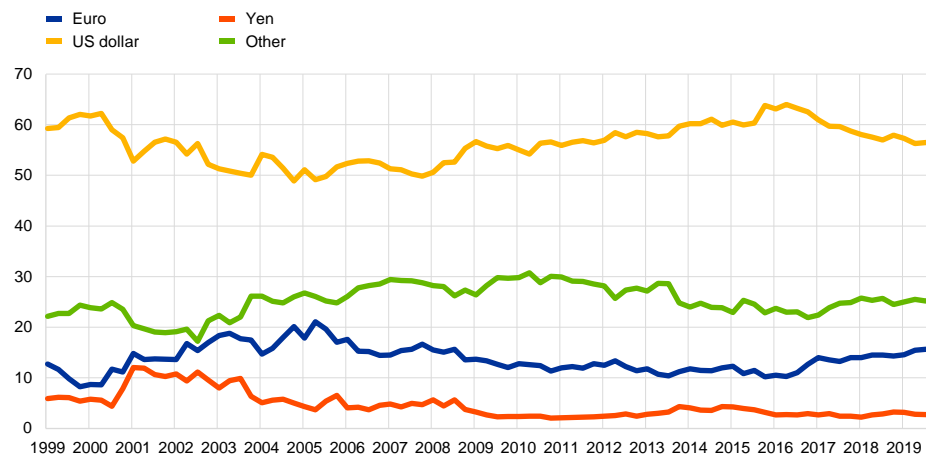
This represents a reversal of the decline observed between 2006 and 2014. As shown in earlier reports, the decline in the share of the euro in international loans in that period was due to, among other things, deleveraging by euro area banks and regulatory efforts to reduce exposures to foreign loans.²⁸ At constant exchange rates, the share of the euro in international loans increased in 2019, by approximately 1 percentage point (see [Chart 17](#) and [Table A6](#)).²⁹ At the same time, the share of the US dollar in international loan markets declined by more than 1 percentage point, albeit it remained the leading currency in international loan markets by a large margin.

Chart 17

The share of the euro in outstanding international loans increased in 2019

Currency composition of outstanding amounts of international loans

(percentages; at Q4 2019 exchange rates)



Sources: BIS and ECB calculations.

Notes: The latest data are for the fourth quarter of 2019. International loans are defined as loans by banks outside the currency area to borrowers outside the currency area.

²⁸ See the *Recommendation of the European Systemic Risk Board* of 21 September 2011 on lending in foreign currencies.

²⁹ International loans are defined as loans by banks outside the currency area to borrowers outside the currency area. For instance, international loans in euro correspond to all euro-denominated loans by banks outside the euro area to borrowers outside the euro area.

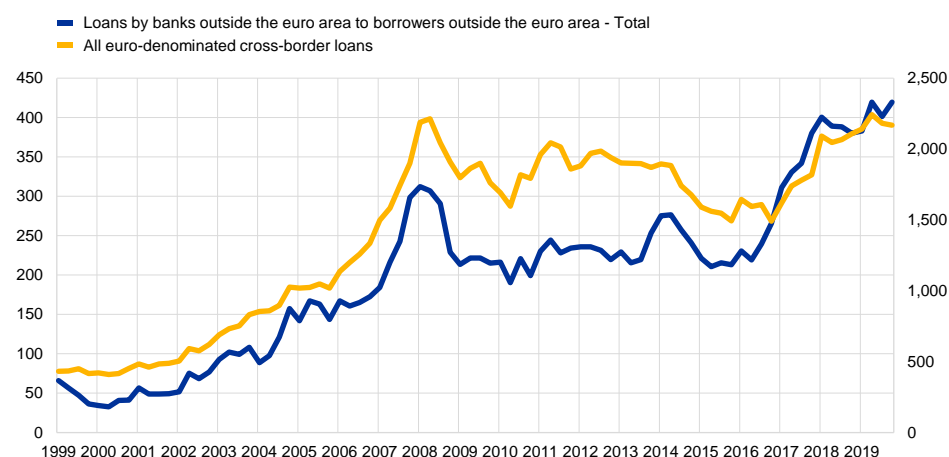
The ECB's accommodative monetary policy stance may have continued to support the euro in international loan markets.³⁰ In absolute terms, volumes of euro-denominated loans by banks outside the euro area to non-euro area borrowers have grown rapidly since 2016, such that they were around twice as large in 2019 as in the aftermath of the global financial crisis in 2009 at current exchange rates (see **Chart 18**). Similarly, volumes of all outstanding cross-border loans denominated in euro were around 3% higher compared to 2018. Recent research indicates that euro area banks operating internationally reallocated funds abroad within their respective banking organisations in response to the ECB's unconventional monetary policy measures. This suggests that international monetary policy transmission may be amplified by internal capital markets.³¹ The increase in the supply of euro-denominated funding outside the euro area is also likely to have boosted euro lending by banks outside the euro area.

Chart 18

Volumes of international loans denominated in euro continued to increase in 2019

Amounts outstanding of international loans denominated in euro

(billions of US dollars; at current exchange rates)



Sources: BIS and ECB calculations.

Note: The latest data are for the fourth quarter of 2019.

In line with this, volumes of outstanding euro-denominated loans increased in many countries in central, eastern and south-eastern Europe in 2019 (see Table A10). This occurred despite recent efforts by some local authorities to promote domestic currency lending, in order to mitigate potential financial stability risks raised by currency mismatches.

³⁰ See Takáts, E. and Temesváry, J., "The currency dimension of the bank lending channel in international monetary transmission", *Journal of International Economics*, forthcoming, and Gráb, J., and Zochowski, D., "The international bank lending channel of unconventional monetary policy", *Working Paper Series*, No 2109, ECB, Frankfurt am Main, November 2017.

³¹ See Cetorelli, N. and Goldberg, L.S., "Banking Globalization and Monetary Transmission", *Journal of Finance*, Vol. 67(5), 2012, pp. 1811-1843. As global banks respond to domestic monetary shocks by managing liquidity globally through an internal reallocation of funds between headquarters and foreign branches or subsidiaries, their foreign lending is more affected by domestic shocks (see also Bénétrix, A. and Schmitz, M., "Euro-US dollar exposures in cross-border banking", *The International role of the euro*, ECB, Frankfurt am Main, 2019).

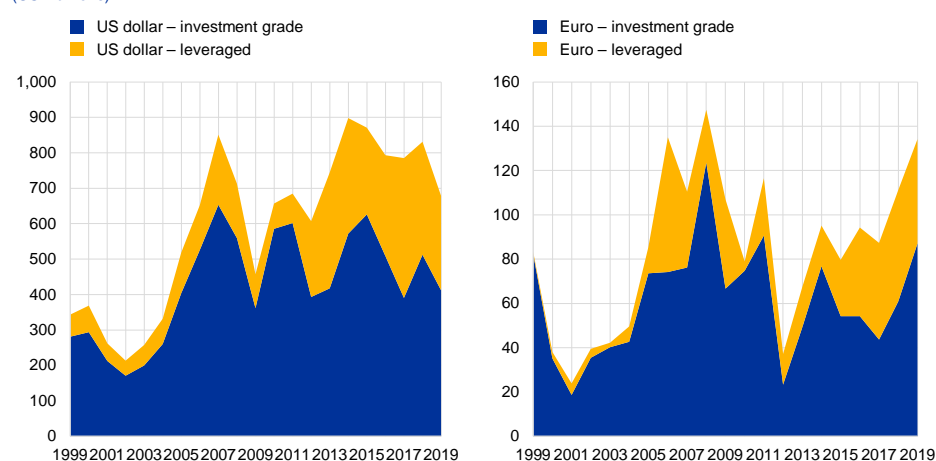
An examination of granular (i.e. security-by-security) data on international issuance of foreign currency-denominated debt securities suggest that international loan issuance declined in 2019, primarily due to a fall in US dollar-denominated loans (see Chart 19). US dollar-denominated investment-grade loan issuance declined by around 20%. By contrast, euro-denominated investment-grade loan issuance increased by more than 40% in 2019, to almost USD 90 billion, the highest level observed since 2011. As a consequence, the share of the euro in total investment-grade loan issuance increased from 10% in 2018, to almost 17% in 2019. The share of the euro in total leveraged loans issuance remained broadly stable. Overall, the share of euro-denominated international loan issuance remained well behind that of the US dollar, which accounted for around 80% of both investment grade and leveraged loan issuance.

Chart 19

Volumes of US dollar-denominated international loans declined in 2019, unlike euro-denominated loans

Breakdown of US dollar-denominated (left panel) and euro-denominated (right panel) international loans by type

(USD billions)



Sources: Dealogic and ECB calculations.
Note: The latest data are for 2019.

The share of the euro in outstanding international deposits remained stable in 2019. The share of the euro in the stock of international deposits stood at just under 19% in 2019, at constant exchange rates (see Chart 20 and Table A7).³² It is approximately 4 percentage points above the trough observed in 2016, albeit below the mid-2000s peak of just over 21%. The share of the US dollar in outstanding international deposits also remained stable over the review period, standing at around 53%.

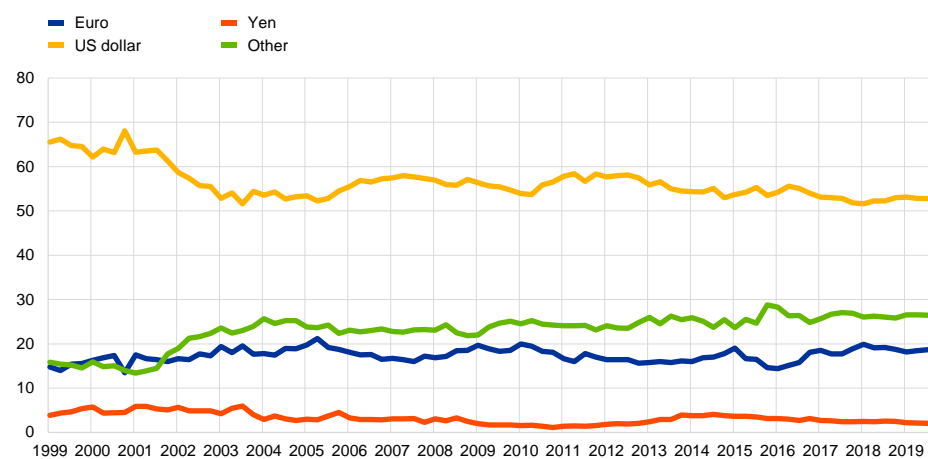
³² The definition of international deposits is equivalent to the definition of international loans. International deposits are defined as deposits with banks outside the currency area from creditors outside the currency area. For instance, international deposits in euro correspond to all euro-denominated deposits with banks outside the euro area from creditors outside the euro area.

Chart 20

The share of the euro in outstanding international deposits remained stable in 2019

Currency composition of outstanding amounts of international deposits

(percentages; at Q4 2019 exchange rates)



Sources: BIS and ECB calculations.

Notes: The latest data are for the fourth quarter of 2019. International deposits are defined as deposits with banks outside the currency area from creditors outside the currency area.

2.4 Use of the euro as an invoicing currency

The share of the euro as an invoicing or settlement currency for extra-euro area trade remained broadly unchanged in 2019 for transactions in goods, but declined for those in services. 61% of extra-euro area exports and 51% of extra-euro area imports of goods were invoiced in euro in 2019 (see the left panel of **Chart 21 and Table A8**). 62% of extra-euro area services exports were invoiced in euro in 2019, down from 64% the previous year. Similarly, just under 52% of extra-euro area imports were invoiced in euro in 2019, compared to 53% in the previous year (see the right panel of **Chart 21**). Recent research suggests that there are three main factors which determine currency choice for international trade invoicing, namely: economic size, global value chain integration and strategic pricing complementarities in world export markets.³³

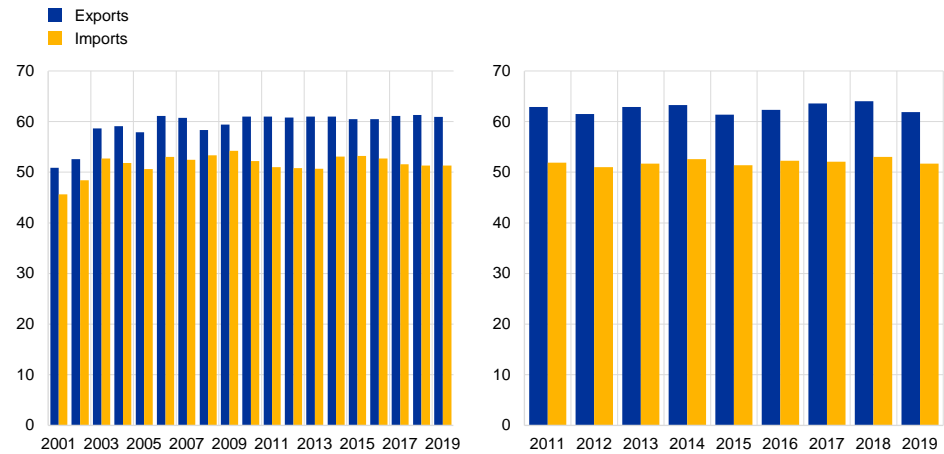
³³ See Mukhin, D., "An equilibrium model of the international price system," 2018 Meeting Papers 89, Society for Economic Dynamics, 2018, mimeo.

Chart 21

The share of the euro in the invoicing of extra-euro area transactions in goods remained broadly stable in 2019, but declined for those in services

Share of the euro in the invoicing of extra-euro area trade in goods (left panel) and in the invoicing of extra-euro area trade in services (right panel)

(percentages)



Sources: ECB, IMF DOTS and ECB calculations.
Note: The latest data are for 2019.

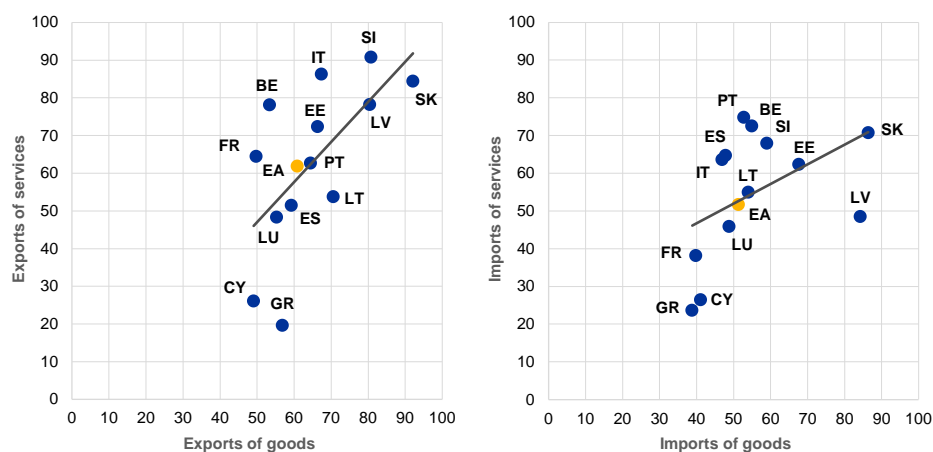
Patterns across euro area countries point to a positive correlation between invoicing transactions in goods and invoicing transaction in services in euro (see Chart 22). The correlation between the shares of international transactions in goods invoiced in euro and international transactions in services invoiced in euro is positive, albeit stronger for exports than for imports. Notable exceptions are Greece and Cyprus, perhaps due to a high share of services relating to shipping services, which are typically invoiced in US dollars.

Chart 22

Euro invoicing in external transactions of euro area members – goods versus services

Share of the euro in the invoicing of extra-euro area trade in services and goods: exports (left panel) and imports (right panel)

(percentages of total exports)



Source: ECB.

Note: Data are for 2019 or the latest available year.

2.5 Use of euro cash outside the euro area

The stock of euro banknotes shipped to destinations outside the euro area remained broadly stable in 2019. Net shipments were broadly unchanged last year, following declines observed between 2015 and mid-2018 (see [Chart 23](#)).³⁴ This suggests that foreign demand for euro cash outside the euro area has remained resilient, much as it is in the euro area. [Chart 24](#) shows data collected from banknote wholesalers, which act as intermediaries between the national central banks of the Eurosystem and financial institutions outside the euro area. Entities in euro area neighbouring countries remained the main exporters and importers of euro banknotes, accounting for around 64% of both sales and purchases. The largest increase in net exports was to the Middle East region, where it rose by some EUR 2 billion compared to 2018. This was more than offset by the decline of net sales to non-EU eastern European countries of nearly EUR 5.5 billion.

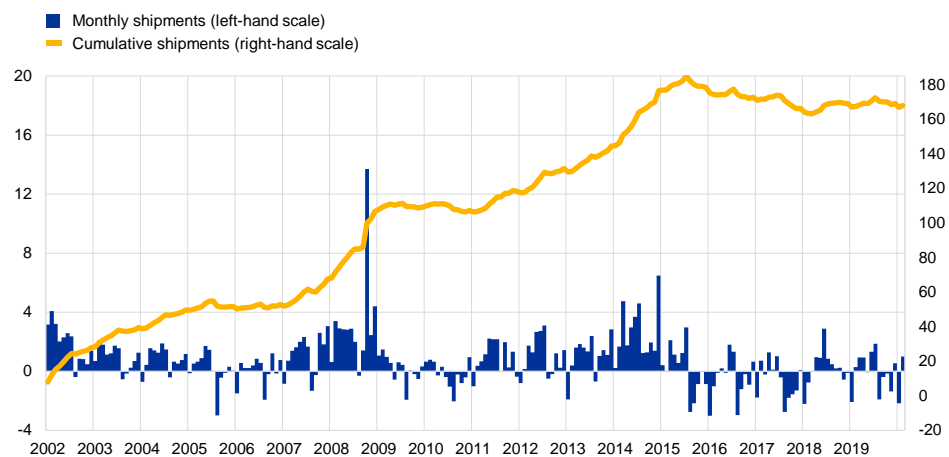
³⁴ As noted in last year's report, the earlier decline may have reflected several factors, including the discontinuation of production and issuance of EUR 500 banknotes, which may have reduced demand for this denomination, although it remains legal tender. It was decided to permanently stop producing the EUR 500 banknote to take into account concerns that the banknote could have facilitated illicit activities. Data on official shipments, which put the stock of euro banknotes in circulation outside the euro area at about EUR 167 billion, only capture observed cross-border flows of banknotes. An indirect estimation method, which attempted to quantify the unobserved cross-border flows of banknotes by combining information on domestic banknote circulation and coin circulation and by making assumptions on potential factors underlying those flows, suggested that the actual circulation of banknotes outside the euro area may be higher still (see the ECB press release entitled "[Estimation of euro currency in circulation outside the euro area](#)" published on 6 April 2017).

Chart 23

Foreign demand for euro banknotes remained broadly stable in 2019

Net monthly shipments of euro banknotes to destinations outside the euro area

(EUR billions; adjusted for seasonal effects)



Source: Eurosystem.

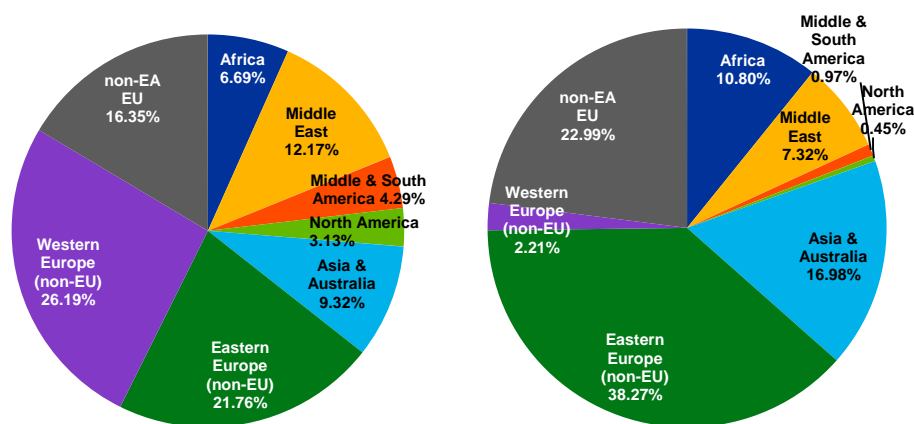
Notes: Net shipments are euro banknotes sent to destinations outside the euro area minus euro banknotes received from outside the euro area. The latest observation is for February 2020.

Chart 24

In 2019 euro banknotes were mainly exported to, and imported from, euro area neighbouring regions

Sales (exports, left panel) and purchases (imports, right panel) of euro banknotes – breakdown by destination

(percentages)



Source: ECB calculations based on data from international banknote wholesalers.

Note: The data are for 2019.

3 Statistical annex

3.1 The euro in global foreign exchange reserves and exchange rate anchoring

Table A1: Global holdings of foreign exchange reserves

	All countries											Unallocated reserves
	Total holdings of foreign reserves ¹⁾	Allocated reserves	EUR	USD	JPY	GBP	CHF	AUD	CAD	CNY	Other ²⁾	
Outstanding amounts (in USD billions, at current exchange rates)												
2006	5,254	3,322	830	2,161	115	150	6	.	.	.	60	1,932
2007	6,706	4,123	1,077	2,634	131	199	6	.	.	.	76	2,583
2008	7,348	4,210	1,104	2,684	146	178	6	.	.	.	93	3,138
2009	8,166	4,583	1,270	2,848	133	195	5	.	.	.	132	3,583
2010	9,266	5,155	1,328	3,209	189	203	7	.	.	.	220	4,111
2011	10,205	5,643	1,379	3,538	204	217	4	.	.	.	301	4,562
2012	10,951	6,085	1,464	3,742	249	246	13	89	87	.	196	4,866
2013	11,698	6,223	1,507	3,813	238	248	17	113	114	.	174	5,475
2014	11,606	6,800	1,442	4,431	241	252	16	108	119	.	190	4,806
2015	10,932	7,413	1,419	4,874	278	350	20	131	132	.	210	3,519
2016	10,727	8,418	1,611	5,502	334	365	14	142	163	90	197	2,309
2017	11,458	10,013	2,019	6,280	491	454	18	180	203	123	244	1,445
2018	11,436	10,727	2,217	6,623	558	474	15	174	197	203	265	709
2019 Q1	11,611	10,898	2,209	6,727	585	496	15	182	209	212	264	713
Q2	11,738	11,021	2,265	6,751	612	497	16	187	210	212	271	717
Q3	11,658	10,927	2,211	6,726	614	492	16	183	205	216	265	731
Q4	11,830	11,078	2,276	6,746	631	512	17	187	208	218	284	751
Currency shares in foreign exchange reserves with disclosed currency composition (at constant exchange rates)												
2006	.	.	22.4	68.3	4.0	3.2	0.2	.	.	.	1.9	.
2007	.	.	21.6	69.2	3.6	3.4	0.2	.	.	.	2.0	.
2008	.	.	22.5	67.8	3.1	4.1	0.2	.	.	.	2.3	.
2009	.	.	23.3	67.0	2.7	3.7	0.1	.	.	.	3.1	.
2010	.	.	22.9	65.9	2.9	3.6	0.1	.	.	.	4.5	.
2011	.	.	22.3	65.9	2.7	3.4	0.1	.	.	.	5.6	.
2012	.	.	21.8	65.4	3.4	3.5	0.2	1.0	1.2	.	3.4	.
2013	.	.	21.0	65.3	3.9	3.4	0.3	1.5	1.6	.	3.0	.
2014	.	.	20.1	66.6	4.0	3.2	0.3	1.4	1.6	.	2.9	.
2015	.	.	19.6	65.4	4.1	4.2	0.3	1.7	1.9	.	2.8	.
2016	.	.	20.0	64.1	4.2	4.6	0.2	1.6	2.0	1.0	2.3	.
2017	.	.	19.2	63.7	5.2	4.5	0.2	1.6	2.0	1.2	2.5	.
2018	.	.	20.3	61.8	5.3	4.6	0.1	1.6	1.9	1.9	2.5	.
2019 Q1	.	.	20.2	61.7	5.5	4.6	0.1	1.6	2.0	1.9	2.4	.
Q2	.	.	20.3	61.3	5.5	4.7	0.1	1.7	1.9	1.9	2.5	.
Q3	.	.	20.6	60.9	5.5	4.8	0.1	1.7	1.9	2.0	2.4	.
Q4	.	.	20.5	60.9	5.7	4.6	0.2	1.7	1.9	2.0	2.6	.
Currency shares in foreign exchange reserves with disclosed currency composition (at current exchange rates)												
2006	.	63.2	25.0	65.0	3.5	4.5	0.2	.	.	.	1.8	58.2
2007	.	61.5	26.1	63.9	3.2	4.8	0.2	.	.	.	1.8	62.7
2008	.	57.3	26.2	63.8	3.5	4.2	0.1	.	.	.	2.2	74.5
2009	.	56.1	27.7	62.1	2.9	4.3	0.1	.	.	.	2.9	78.2
2010	.	55.6	25.8	62.2	3.7	3.9	0.1	.	.	.	4.3	79.7
2011	.	55.3	24.4	62.7	3.6	3.8	0.1	.	.	.	5.3	80.8
2012	.	55.6	24.1	61.5	4.1	4.0	0.2	1.5	1.4	.	3.2	80.0
2013	.	53.2	24.2	61.3	3.8	4.0	0.3	1.8	1.8	.	2.8	88.0
2014	.	58.6	21.2	65.2	3.5	3.7	0.2	1.6	1.8	.	2.8	70.7
2015	.	67.8	19.1	65.7	3.8	4.7	0.3	1.8	1.8	.	2.8	47.5
2016	.	78.5	19.1	65.4	4.0	4.3	0.2	1.7	1.9	1.1	2.3	27.4
2017	.	87.4	20.2	62.7	4.9	4.5	0.2	1.8	2.0	1.2	2.4	14.4
2018	.	93.8	20.7	61.7	5.2	4.4	0.1	1.6	1.8	1.9	2.5	6.6
2019 Q1	.	93.9	20.3	61.7	5.4	4.5	0.1	1.7	1.9	1.9	2.4	6.5
Q2	.	93.9	20.6	61.3	5.6	4.5	0.1	1.7	1.9	1.9	2.5	6.5
Q3	.	93.7	20.2	61.6	5.6	4.5	0.1	1.7	1.9	2.0	2.4	6.7
Q4	.	93.7	20.5	60.9	5.7	4.6	0.2	1.7	1.9	2.0	2.6	6.8

Sources: IMF and ECB calculations.

Notes: 1) The total includes unallocated reserves, i.e. reserves with undisclosed currency composition, as well as allocated reserves with disclosed currency composition.

2) The category "other" includes all allocated reserves with disclosed currency composition not explicitly mentioned in the table.

Table A2: Currency composition of foreign exchange reserves for selected countries

(percentage share of the euro in foreign exchange reserve holdings, end of period, at current exchange rates)

	2014	2015	2016	2017	2018	2019
Non-euro area EU Member States						
Bulgaria	93.2	99.5	99.5	99.8	99.8	99.8
Croatia	79.8	78.9	83.1	85.1	87.0	83.7
Czech Republic	52.6	51.2	53.8	65.8	60.3	57.2
Denmark	68.6	59.7	74.1	86.8	81.1	78.5
Poland	33.1	28.3	27.3	30.3	29.8	21.9
Romania	75.0	79.5	77.9	67.5	66.0	68.1
Sweden	33.9	34.1	33.3	35.0	34.3	21.6
United Kingdom	55.1	50.7	43.9	49.4	53.4	50.8
Other industrial countries						
Canada	26.8	22.5	19.7	21.1	18.9	20.2
Russia	46.1	40.1	38.0	26.2	38.7	37.9
Norway	27.8	26.6	27.0	25.7	30.2	29.5
Switzerland	46.3	42.9	44.4	43.0	40.0	39.8
United States	62.9	60.4	59.0	61.2	59.4	58.6
Latin American countries						
Chile	20.3	15.0	14.1	15.6	15.6	10.5
Peru	27.1	9.5	6.3	5.2	11.5	11.5

Sources: National central banks and ECB calculations.

Calculations are, in general, based on international reserve and foreign currency liquidity statistics. Please note the following on country-specific sources of data or calculation methods:

Bulgaria: currency compositions published in the annual reports of the central bank.

United Kingdom: combined currency share of the Bank of England and the UK Government (including other foreign currency assets such as claims vis-à-vis residents). The United Kingdom withdrew from the European Union on 31 January 2020.

Norway: currency shares are calculated using the total foreign exchange reserves of Norges Bank, comprising equity, fixed income and the petroleum buffer portfolio.

Russia: currency shares as published in the annual reports of the central bank, with adjustments made to account for the exclusion of gold in the above table.

Switzerland: combined currency share as published by the Swiss National Bank, including government bonds, other bonds and equities.

United States: combined currency shares for the System Open Market Account (SOMA) at the Federal Reserve System and the US Treasury Exchange Stabilization Fund (ESF); reciprocal currency arrangements are not included.

Chile: combined currency shares in the liquidity and the investment portfolio of the central bank.

Peru: reserve assets denominated in currencies other than the US dollar. According to the Central Reserve Bank of Peru, these are mostly euro-denominated assets. It is assumed that the composition of the gross international reserves is the same as that of the net international position, with adjustments made to account for the exclusion of gold in the above table.

Table A3: Countries and territories with exchange rate regimes linked to the euro

(as at end March 2020)

Region	Exchange rate regime	Countries	Monetary policy framework
Non-euro area EU Member States	ERM II	Denmark	Exchange rate anchor
	Euro-based currency boards	Bulgaria	Exchange rate anchor
	Tightly managed floating regimes	Croatia	Exchange rate anchor
	(Managed) floating regimes	Romania	Inflation targeting framework
	Pro memoria: free floating regimes	Czech Republic, Hungary, Poland, Sweden	Inflation targeting framework
EU candidate and potential candidate countries	Unilateral euroisation (no separate legal tender)	Kosovo ¹ , Montenegro	Other ²
	Euro-based currency boards	Bosnia and Herzegovina	Exchange rate anchor
	Stabilised arrangements with the euro as a reference currency	Republic of North Macedonia	Exchange rate anchor
	Crawling pegs or crawl-like arrangements involving the euro	Serbia	Inflation targeting framework
	(Managed) floating regimes	Albania, Turkey	Inflation targeting framework
Other countries ³	Euroisation	European microstates, some French overseas collectivities	Other ²
	Pegs based on the euro	CFA franc zone, CFP franc zone, Comoros, Cabo Verde, São Tomé and Príncipe	Exchange rate anchor
	Stabilised arrangements with baskets involving the euro	Singapore	Exchange rate anchor
	Crawling pegs or crawl-like arrangements involving the euro	Botswana, Islamic Republic of Iran	Exchange rate anchor
		China	Monetary aggregate target
		Tunisia	Other ²
	Pegs and managed floats based on the SDR or other currency basket involving the euro	Algeria, Belarus	Monetary aggregate target
		Fiji, Kuwait, Libya, Morocco, Syria	Exchange rate anchor
		Samoa, Vanuatu	Other ²

Sources: National central banks, IMF and ECB.

Notes:

The table refers to de facto exchange rate regimes.

1) This designation is without prejudice to positions on status, and is in line with UN Security Council Resolution 1244/1999 and the International Court of Justice Opinion on the Kosovo declaration of independence.

2) No nominal anchor; different indicators are taken into account to implement the monetary policy.

3) Classification is based on the IMF's 2018 Annual Report on Exchange Arrangements and Exchange Restrictions.

Denmark: participates in ERM II with a +/-2.25% fluctuation band.

Bulgaria: maintains a fixed exchange rate with the euro within the framework of a currency board arrangement. In the currency board regime, the euro serves as the reserve currency.

Croatia: the de jure exchange rate arrangement is a managed floating regime with no pre-announced path for the exchange rate. Hrvatska narodna banka conducts foreign exchange auctions on a discretionary basis to ensure the stability of the kuna and provide liquidity for payments domestically and abroad. The kuna has stabilised within a 2% band against the euro since April 2016.

Romania: Banca Națională a României may intervene to smooth excessive exchange rate fluctuations, although this concept is not formally defined.

Serbia: since March 2017 the dinar followed an appreciating trend against the euro consistent with a crawl-like arrangement. Accordingly, the de facto exchange rate arrangement was reclassified to crawl-like from stabilised, effective 27 March 2017.

European microstates: Republic of San Marino, Vatican City, Principality of Monaco and Andorra are entitled to use the euro as their official currency. Liechtenstein uses the Swiss franc as its official currency.

French overseas collectivities: Saint Barthelémy, Saint Martin and Saint-Pierre and Miquelon use the euro as their official currency.

CFA franc zone: CEMAC (Cameroon, Central African Republic, Chad, Republic of Congo, Equatorial Guinea and Gabon) and WAEMU (Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, Togo). In December 2019, a reform of the WAEMU was announced where the CFA franc would be replaced with a new unit -the eco- with a fixed exchange rate vis-à-vis the euro.

CFP franc zone: New Caledonia and the French overseas collectivities of French Polynesia and Wallis and Futuna. The CFP Franc has had a fixed exchange rate against the euro since its introduction in 1999.

Cabo Verde and São Tomé and Príncipe: both countries have had fixed exchange rates against the euro since 1998 (Cabo Verde) and 2010 (São Tomé and Príncipe).

Singapore: the Singapore dollar is allowed to fluctuate within a targeted policy band and is managed against a basket of the currencies of the country's major trading partners and competitors.

Botswana: weighted basket of currencies comprising the SDR and the South African rand (crawling peg since 2005).

Islamic Republic of Iran: has maintained de jure a managed floating arrangement against a basket of currencies including the euro, US dollar and Japanese yen since 2002. The exact composition has not been disclosed.

China: as the renminbi (CNY) has moved within a 2% band against the basket of 24 currencies included in the CFETS index since June 2017, the de facto exchange rate arrangement has been reclassified to crawl-like from stabilised.

Belarus: the central bank intervenes to reduce daily volatility of the exchange rate against a basket of currencies (50% RUB, 30% USD and 20% EUR).

Tunisia: the dinar has followed a depreciating trend against the euro since April 2017. Consequently, the exchange rate arrangement has been reclassified to crawl-like from floating.

Fiji: the currency was pegged to a basket of international currencies in May 2007. The external value of the Fiji dollar is officially determined on the basis of a weighted basket of currencies comprising the Australian dollar, Japanese yen, New Zealand dollar, euro and US dollar.

Kuwait: the de jure exchange rate arrangement is a conventional peg vis-à-vis a currency composite. The composition has been undisclosed as of May 2015.

Libya: the de jure exchange rate arrangements are a conventional peg vis-à-vis the SDR.

Morocco: bi-currency basket comprising EUR (60%) and USD (40%).

Syria: the de jure exchange rate arrangement is a pegged exchange rate (to the SDR basket) managed within horizontal bands. Given the developments in the official rate, the emergence of the parallel market, and the intervention rate, the de facto exchange rate arrangement is classified as an "other managed" arrangement.

Samoa: the central bank maintains an exchange rate peg based on a basket of currencies that includes the euro.

Vanuatu: the exchange rate of the vatu is currently linked to a transaction-weighted basket of currencies.

3.2 The euro in international debt markets

Table A4: Outstanding international debt securities by currency

	Narrow measure					Broad measure					Memo item: BIS broad measure	
	Total	EUR	USD	JPY	Other	Total	EUR	USD	JPY	Other	Total	EUR
Outstanding amounts (in USD billions, at current exchange rates, end of period)												
2006	7,793	2,430	3,450	408	1,505	13,182	5,184	4,973	491	2,534	15,037	7,040
2007	9,630	3,093	4,172	514	1,851	16,032	6,640	5,677	612	3,102	18,422	9,031
2008	9,559	3,088	4,269	645	1,558	16,401	6,864	5,753	766	3,018	18,873	9,336
2009	10,298	3,250	4,713	586	1,749	18,287	7,810	6,224	693	3,559	20,872	10,395
2010	10,517	2,910	5,113	654	1,840	18,425	7,432	6,600	767	3,627	20,829	9,835
2011	10,872	2,794	5,520	663	1,895	18,612	7,292	6,899	759	3,662	20,961	9,641
2012	11,767	3,010	6,135	578	2,044	19,487	7,440	7,525	659	3,864	21,925	9,878
2013	12,398	3,125	6,796	429	2,048	20,185	7,663	8,167	495	3,861	22,695	10,172
2014	12,543	2,932	7,299	366	1,945	19,689	6,867	8,802	426	3,594	21,752	8,931
2015	12,562	2,846	7,578	344	1,795	19,197	6,286	9,205	400	3,306	21,037	8,126
2016	13,073	2,872	8,239	342	1,621	19,438	6,202	9,897	400	2,940	21,205	7,968
2017	14,719	3,469	9,098	355	1,797	21,734	7,339	10,683	426	3,286	23,745	9,350
2018	15,198	3,464	9,627	370	1,737	22,068	7,290	11,160	444	3,173	24,096	9,318
2019 Q1	15,382	3,427	9,796	378	1,781	22,265	7,236	11,308	451	3,270	24,293	9,264
Q2	15,641	3,525	9,936	386	1,794	22,575	7,423	11,425	460	3,269	24,644	9,491
Q3	15,714	3,423	10,131	390	1,770	22,528	7,235	11,606	460	3,227	24,528	9,235
Q4	16,087	3,554	10,298	381	1,854	23,185	7,554	11,759	450	3,422	25,250	9,618
Percentages of outstanding amounts (at constant exchange rates, end of period)												
2006	100.0	28.4	47.3	6.1	18.2	100.0	36.8	41.4	4.5	17.3	100.0	44.1
2007	100.0	27.3	48.2	6.1	18.5	100.0	36.5	40.9	4.5	18.1	100.0	43.8
2008	100.0	28.2	48.4	6.1	17.3	100.0	37.4	38.8	4.3	19.4	100.0	44.8
2009	100.0	27.0	50.3	5.3	17.4	100.0	37.9	38.7	3.7	19.8	100.0	44.8
2010	100.0	25.0	52.3	5.0	17.6	100.0	37.3	39.5	3.4	19.8	100.0	44.1
2011	100.0	23.8	54.1	4.6	17.4	100.0	37.0	40.3	3.2	19.6	100.0	43.7
2012	100.0	23.2	55.6	4.2	17.0	100.0	35.5	42.2	2.9	19.4	100.0	42.2
2013	100.0	21.9	58.6	3.6	15.9	100.0	34.2	44.7	2.6	18.5	100.0	40.8
2014	100.0	22.2	59.6	3.3	14.9	100.0	33.6	46.5	2.5	17.4	100.0	39.7
2015	100.0	23.3	60.1	3.0	13.6	100.0	33.7	47.9	2.3	16.1	100.0	39.7
2016	100.0	22.9	61.7	2.8	12.6	100.0	33.0	49.5	2.2	15.4	100.0	38.8
2017	100.0	22.4	62.8	2.5	12.3	100.0	32.4	50.3	2.1	15.3	100.0	37.9
2018	100.0	22.4	63.5	2.5	11.6	100.0	32.5	50.7	2.0	14.7	100.0	38.1
2019 Q1	100.0	22.2	63.6	2.5	11.6	100.0	32.5	50.7	2.1	14.8	100.0	38.1
Q2	100.0	22.3	63.6	2.5	11.7	100.0	32.5	50.6	2.0	14.8	100.0	38.1
Q3	100.0	22.2	63.8	2.4	11.6	100.0	32.6	50.7	2.0	14.7	100.0	38.2
Q4	100.0	22.1	64.0	2.4	11.5	100.0	32.6	50.7	1.9	14.8	100.0	38.1
Percentages of outstanding amounts (at current exchange rates, end of period)												
2006	100.0	31.2	44.3	5.2	19.3	100.0	39.3	37.7	3.7	19.2	100.0	46.8
2007	100.0	32.1	43.3	5.3	19.2	100.0	41.4	35.4	3.8	19.4	100.0	49.0
2008	100.0	32.3	44.7	6.7	16.3	100.0	41.9	35.1	4.7	18.4	100.0	49.5
2009	100.0	31.6	45.8	5.7	17.0	100.0	42.7	34.0	3.8	19.5	100.0	49.8
2010	100.0	27.7	48.6	6.2	17.5	100.0	40.3	35.8	4.2	19.7	100.0	47.2
2011	100.0	25.7	50.8	6.1	17.4	100.0	39.2	37.1	4.1	19.7	100.0	46.0
2012	100.0	25.6	52.1	4.9	17.4	100.0	38.2	38.6	3.4	19.8	100.0	45.1
2013	100.0	25.2	54.8	3.5	16.5	100.0	38.0	40.5	2.5	19.1	100.0	44.8
2014	100.0	23.4	58.2	2.9	15.5	100.0	34.9	44.7	2.2	18.3	100.0	41.1
2015	100.0	22.7	60.3	2.7	14.3	100.0	32.7	47.9	2.1	17.2	100.0	38.6
2016	100.0	22.0	63.0	2.6	12.4	100.0	31.9	50.9	2.1	15.1	100.0	37.6
2017	100.0	23.6	61.8	2.4	12.2	100.0	33.8	49.2	2.0	15.1	100.0	39.4
2018	100.0	22.8	63.3	2.4	11.4	100.0	33.0	50.6	2.0	14.4	100.0	38.7
2019 Q1	100.0	22.3	63.7	2.5	11.6	100.0	32.5	50.8	2.0	14.7	100.0	38.1
Q2	100.0	22.5	63.5	2.5	11.5	100.0	32.9	50.6	2.0	14.5	100.0	38.5
Q3	100.0	21.8	64.5	2.5	11.3	100.0	32.1	51.5	2.0	14.3	100.0	37.7
Q4	100.0	22.1	64.0	2.4	11.5	100.0	32.6	50.7	1.9	14.8	100.0	38.1

Sources: BIS and ECB calculations.

Table A5: Outstanding international bonds and notes in selected regions at the end of the review period, by currency

(narrow measure, in USD billions and as a percentage of the total amount outstanding, as at end 2019)

	Total amounts outstanding (USD billions)	US dollar (%)	Euro (%)	Japanese yen (%)	Other currencies (%)
Africa	174	80.5	17.2	1.4	0.9
Asia and Pacific	1,807	73.5	16.7	2.5	7.3
<i>of which:</i>					
Japan	421	80.1	13.3	.	6.6
Europe	5,835	53.3	25.5	4.5	16.7
<i>of which:</i>					
Euro area	2,677	63.9	.	5.8	30.3
Denmark, Sweden, United Kingdom	2,485	45.1	46.5	3.5	4.9
Other non-euro area EU Member States	201	25.8	67.0	2.0	5.2
EU28	5,342	53.6	24.4	4.6	17.4
Non-EU developed Europe ¹	373	39.1	46.9	3.6	10.4
Non-EU developing Europe ²	114	83.9	12.2	0.0	3.9
International organisations	1,865	30.1	46.1	1.3	22.6
Latin America	849	84.3	11.7	1.2	2.8
Middle East	553	89.9	6.5	1.7	1.9
North America	1,933	32.6	46.0	3.9	17.6
<i>of which:</i>					
Canada	926	68.0	21.7	0.3	10.0
United States	1,007	.	68.3	7.1	24.6
Offshore centres	3,088	89.1	3.9	2.6	4.4
Total	16,105	60.4	23.8	3.1	12.7

Sources: BIS and ECB calculations.

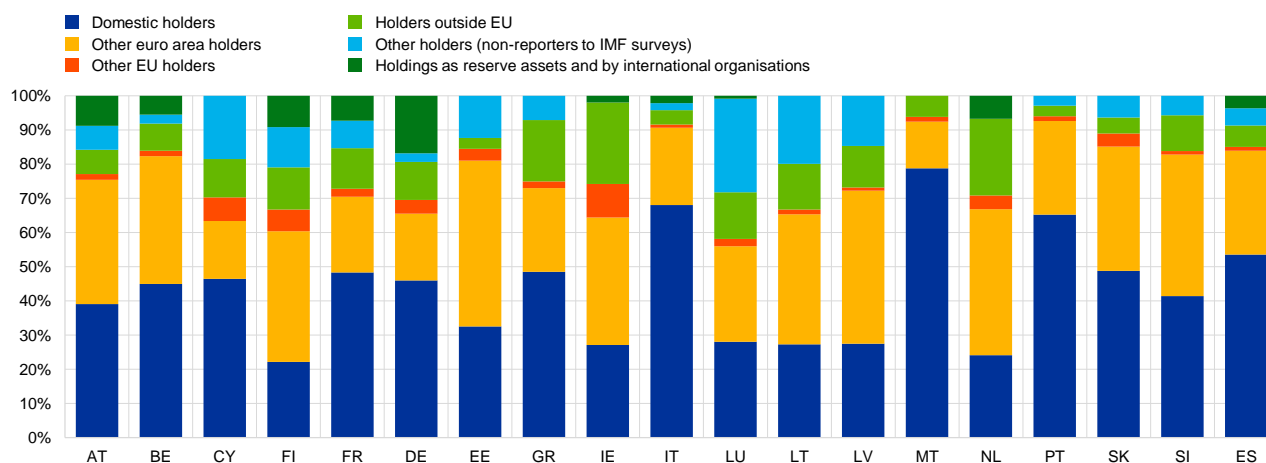
¹ Iceland, Norway, Switzerland and European microstates.

² Albania, Belarus, Bosnia and Herzegovina, Republic of North Macedonia, Moldova, Russia and Ukraine.

³ The United Kingdom withdrew from the European Union on 31 January 2020.

Chart A1: Debt securities issued by euro area countries, by holder

(percentages of total outstanding amounts, as at end 2018)



Sources: ECB calculations, IMF (CPIS, SEFER and SSIO surveys) and national sources (national accounts and international investment position data).

Notes: international investment position figures for Cyprus and the Netherlands include "special financial institutions". Reserve assets and holdings of international organisations cannot be allocated to reporting countries as the results of the IMF's surveys on securities held as foreign exchange reserves (SEFER) and securities held by international organisations (SSIO) only report figures in aggregate form.

3.3 The euro in international loan and deposit markets

Table A6: Outstanding international loans, by currency

	All cross-border loans ¹⁾					Loans by banks outside the euro area to borrowers outside the euro area ²⁾				
	Total	EUR	USD	JPY	Other	Total	EUR	USD	JPY	Other
Outstanding amounts (in USD billions, at current exchange rates, end of period)										
2006	5,063	1,334	2,727	187	815	1,040	173	534	43	290
2007	6,417	1,899	3,213	269	1,036	1,436	299	681	62	394
2008	6,260	1,909	3,166	281	904	1,417	229	754	61	373
2009	5,960	1,762	3,057	203	937	1,449	215	781	39	414
2010	6,303	1,793	3,292	244	974	1,518	199	835	40	443
2011	6,615	1,859	3,403	320	1,032	1,636	234	897	51	454
2012	6,709	1,940	3,408	296	1,064	1,686	220	961	51	455
2013	6,792	1,871	3,507	341	1,073	1,892	253	1,101	82	457
2014	6,472	1,678	3,513	271	1,010	1,870	241	1,114	73	443
2015	6,693	1,494	3,896	245	1,058	2,149	213	1,380	63	493
2016	6,807	1,491	4,021	269	1,027	2,207	266	1,394	60	488
2017	7,628	1,817	4,292	283	1,236	2,568	380	1,496	59	632
2018	8,146	2,108	4,436	308	1,294	2,610	380	1,508	83	638
2019 Q1	8,494	2,140	4,639	347	1,368	2,633	383	1,510	81	658
Q2	8,646	2,243	4,681	333	1,389	2,686	419	1,508	75	684
Q3	8,656	2,182	4,712	399	1,364	2,633	401	1,494	72	666
Q4	8,602	2,168	4,682	324	1,428	2,730	419	1,543	69	698
Percentages of outstanding amounts (at constant exchange rates, end of period)										
2006	100.0	23.3	55.8	4.2	16.7	100.0	14.5	52.4	4.6	28.5
2007	100.0	24.3	53.8	4.6	17.3	100.0	16.7	49.8	4.7	28.8
2008	100.0	26.4	54.2	4.0	15.5	100.0	13.6	55.3	3.8	27.3
2009	100.0	24.8	55.2	3.1	16.9	100.0	12.0	55.9	2.4	29.7
2010	100.0	25.3	55.3	3.1	16.4	100.0	11.4	56.6	2.0	30.0
2011	100.0	25.7	54.2	3.6	16.4	100.0	12.8	56.4	2.3	28.5
2012	100.0	26.0	53.6	3.7	16.7	100.0	11.4	58.5	2.4	27.7
2013	100.0	23.7	54.5	5.1	16.7	100.0	11.2	59.7	4.3	24.8
2014	100.0	24.4	55.1	4.7	15.8	100.0	12.0	59.9	4.3	23.8
2015	100.0	22.8	57.6	4.0	15.6	100.0	10.2	63.8	3.2	22.8
2016	100.0	22.9	58.1	4.2	14.8	100.0	12.7	62.5	2.9	21.9
2017	100.0	22.6	57.0	3.9	16.4	100.0	14.0	58.7	2.4	24.8
2018	100.0	25.5	54.7	3.8	16.0	100.0	14.3	57.9	3.2	24.5
2019 Q1	100.0	25.2	54.6	4.2	16.1	100.0	14.5	57.3	3.2	25.0
Q2	100.0	25.7	54.3	3.8	16.1	100.0	15.4	56.3	2.8	25.5
Q3	100.0	25.8	54.0	4.5	15.6	100.0	15.6	56.5	2.7	25.2
Q4	100.0	25.2	54.4	3.8	16.6	100.0	15.4	56.5	2.5	25.6
Percentages of outstanding amounts (at current exchange rates, end of period)										
2006	100.0	26.3	53.9	3.7	16.1	100.0	16.6	51.4	4.1	27.9
2007	100.0	29.6	50.1	4.2	16.1	100.0	20.8	47.5	4.3	27.4
2008	100.0	30.5	50.6	4.5	14.4	100.0	16.2	53.2	4.3	26.3
2009	100.0	29.6	51.3	3.4	15.7	100.0	14.8	53.9	2.7	28.6
2010	100.0	28.4	52.2	3.9	15.5	100.0	13.1	55.0	2.7	29.2
2011	100.0	28.1	51.4	4.8	15.6	100.0	14.3	54.8	3.1	27.7
2012	100.0	28.9	50.8	4.4	15.9	100.0	13.0	57.0	3.0	27.0
2013	100.0	27.5	51.6	5.0	15.8	100.0	13.4	58.2	4.3	24.1
2014	100.0	25.9	54.3	4.2	15.6	100.0	12.9	59.5	3.9	23.7
2015	100.0	22.3	58.2	3.7	15.8	100.0	9.9	64.2	2.9	23.0
2016	100.0	21.9	59.1	4.0	15.1	100.0	12.0	63.2	2.7	22.1
2017	100.0	23.8	56.3	3.7	16.2	100.0	14.8	58.2	2.3	24.6
2018	100.0	25.9	54.5	3.8	15.9	100.0	14.6	57.8	3.2	24.4
2019 Q1	100.0	25.2	54.6	4.1	16.1	100.0	14.6	57.4	3.1	25.0
Q2	100.0	25.9	54.1	3.9	16.1	100.0	15.6	56.1	2.8	25.4
Q3	100.0	25.2	54.4	4.6	15.8	100.0	15.2	56.7	2.7	25.3
Q4	100.0	25.2	54.4	3.8	16.6	100.0	15.4	56.5	2.5	25.6

Sources: BIS and ECB calculations.

Note: Excluding interbank loans.

1) Including loans to/from Japan, Switzerland, the United Kingdom and the United States in their domestic currency.

2) Excluding loans to/from Japan, Switzerland, the United Kingdom and the United States in their domestic currency.

Table A7: Outstanding international deposits, by currency

	All cross-border deposits ¹⁾					Deposits with banks outside the euro area from creditors outside the euro area ²⁾				
	Total	EUR	USD	JPY	Other	Total	EUR	USD	JPY	Other
Outstanding amounts (in USD billions, at current exchange rates, end of period)										
2006	5,862	1,587	3,160	176	939	1,540	290	859	39	351
2007	7,339	1,980	3,985	200	1,174	2,005	431	1,091	42	441
2008	6,877	1,867	3,828	211	971	1,788	391	973	51	373
2009	6,486	1,821	3,483	164	1,019	1,788	403	927	33	425
2010	6,898	1,892	3,857	167	983	1,809	375	985	26	422
2011	6,855	1,884	3,789	192	991	1,897	360	1,071	40	425
2012	7,118	1,941	3,860	178	1,140	1,955	348	1,088	50	470
2013	7,494	2,093	3,987	218	1,196	2,057	392	1,080	81	504
2014	7,095	1,886	3,806	232	1,171	2,052	390	1,076	69	517
2015	6,874	1,658	3,770	211	1,235	2,219	317	1,196	63	644
2016	6,970	1,646	3,940	234	1,149	2,293	394	1,254	68	576
2017	7,664	1,932	4,214	205	1,313	2,586	514	1,324	58	688
2018	7,712	2,075	4,127	215	1,295	2,580	492	1,362	63	663
2019 Q1	7,898	2,071	4,256	214	1,357	2,586	469	1,374	56	686
Q2	7,970	2,147	4,267	197	1,359	2,626	490	1,384	57	696
Q3	7,899	2,050	4,311	198	1,340	2,561	466	1,360	53	682
Q4	7,864	2,031	4,284	195	1,354	2,626	491	1,392	66	677
Percentages of outstanding amounts (at constant exchange rates, end of period)										
2006	100.0	24.0	56.0	3.4	16.6	100.0	16.5	57.2	2.9	23.4
2007	100.0	22.0	58.0	3.0	17.1	100.0	17.3	57.3	2.3	23.2
2008	100.0	23.2	59.1	2.7	15.0	100.0	18.5	57.1	2.5	21.9
2009	100.0	23.4	57.5	2.3	16.8	100.0	18.5	54.7	1.7	25.1
2010	100.0	24.3	58.8	1.9	15.0	100.0	18.1	56.6	1.1	24.2
2011	100.0	25.0	57.8	2.1	15.1	100.0	17.0	58.3	1.6	23.1
2012	100.0	24.3	56.8	2.1	16.8	100.0	15.6	57.5	2.1	24.8
2013	100.0	24.0	56.2	3.0	16.8	100.0	16.1	54.5	4.0	25.4
2014	100.0	25.0	54.5	3.7	16.8	100.0	17.8	53.0	3.8	25.5
2015	100.0	24.6	54.2	3.4	17.8	100.0	14.6	53.5	3.1	28.8
2016	100.0	24.7	55.5	3.6	16.2	100.0	18.1	54.0	3.2	24.8
2017	100.0	24.0	55.8	2.8	17.4	100.0	18.9	51.8	2.4	26.9
2018	100.0	26.5	53.8	2.8	16.9	100.0	18.8	53.0	2.5	25.8
2019 Q1	100.0	26.2	53.9	2.8	17.2	100.0	18.1	53.1	2.2	26.5
Q2	100.0	26.7	53.7	2.5	17.1	100.0	18.4	52.8	2.1	26.6
Q3	100.0	26.6	54.1	2.5	16.8	100.0	18.7	52.8	2.1	26.5
Q4	100.0	25.8	54.5	2.5	17.2	100.0	18.7	53.0	2.5	25.8
Percentages of outstanding amounts (at current exchange rates, end of period)										
2006	100.0	27.1	53.9	3.0	16.0	100.0	18.9	55.8	2.5	22.8
2007	100.0	27.0	54.3	2.7	16.0	100.0	21.5	54.4	2.1	22.0
2008	100.0	27.1	55.7	3.1	14.1	100.0	21.9	54.4	2.9	20.8
2009	100.0	28.1	53.7	2.5	15.7	100.0	22.5	51.9	1.9	23.8
2010	100.0	27.4	55.9	2.4	14.2	100.0	20.7	54.5	1.5	23.3
2011	100.0	27.5	55.3	2.8	14.5	100.0	19.0	56.5	2.1	22.4
2012	100.0	27.3	54.2	2.5	16.0	100.0	17.8	55.6	2.5	24.0
2013	100.0	27.9	53.2	2.9	16.0	100.0	19.1	52.5	3.9	24.5
2014	100.0	26.6	53.6	3.3	16.5	100.0	19.0	52.4	3.4	25.2
2015	100.0	24.1	54.8	3.1	18.0	100.0	14.3	53.9	2.8	29.0
2016	100.0	23.6	56.5	3.4	16.5	100.0	17.2	54.7	3.0	25.1
2017	100.0	25.2	55.0	2.7	17.1	100.0	19.9	51.2	2.3	26.6
2018	100.0	26.9	53.5	2.8	16.8	100.0	19.1	52.8	2.4	25.7
2019 Q1	100.0	26.2	53.9	2.7	17.2	100.0	18.2	53.1	2.2	26.5
Q2	100.0	26.9	53.5	2.5	17.0	100.0	18.6	52.7	2.2	26.5
Q3	100.0	26.0	54.6	2.5	17.0	100.0	18.2	53.1	2.1	26.6
Q4	100.0	25.8	54.5	2.5	17.2	100.0	18.7	53.0	2.5	25.8

Sources: BIS and ECB calculations.

Note: Excluding interbank deposits.

1) Including deposits to/from Japan, Switzerland, the United Kingdom and the United States in their domestic currency.

2) Excluding deposits to/from Japan, Switzerland, the United Kingdom and the United States in their domestic currency.

3.4 The euro in international trade in goods and services

Table A8: The euro's share as a invoicing/settlement currency in extra-euro area transactions of euro area countries

1. Exports and imports of goods

(as a percentage of the total, at current exchange rates)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	<i>Exports</i>									
Euro area	61.0	61.0	60.8	61.0	61.0	60.5	60.5	61.1	61.3	60.9
Belgium	52.3	55.3	56.6		56.8	55.4	53.7	52.0	56.2	53.4
France	51.8	52.4	49.3	48.9	48.3	46.0	45.6	51.5	51.3	49.8
Italy	67.4									
Greece	63.6	56.9	50.2	48.4	49.1	54.5	57.1	54.2	50.6	56.9
Spain	59.6	52.5	56.2	59.3						
Cyprus	25.9	49.1								
Latvia	82.5	79.7	78.6	81.2	78.7	79.8	82.0	79.3	79.4	80.5
Lithuania					62.2	66.8	69.2	69.9	70.4	70.6
Luxembourg	63.2	55.3								
Portugal	63.4	62.1	59.3	56.0	58.8	61.2	65.4	64.4	67.8	64.5
Slovenia	82.7	83.5	81.6	80.8						
Slovakia	94.4	96.0	96.5	96.0	95.0	93.4	94.5	94.3	94.3	92.1
Estonia	46.2	66.1	67.9	76.4	76.0	77.9	76.1	74.4	62.2	66.4
	<i>Imports</i>									
Euro area	52.2	51.0	50.8	50.7	53.1	53.2	52.7	51.6	51.3	51.3
Belgium	53.0	55.7	57.3		72.9	71.9	61.5	54.3	55.4	55.0
France	44.4	40.6	39.9	40.0	42.0	42.4	43.4	41.8	39.8	39.8
Italy	46.9									
Greece	43.1	35.8	28.6	33.3	34.8	41.2	45.0	42.1	38.9	38.8
Spain	59.5	51.7	52.0	47.9						
Cyprus	11.6	41.1								
Latvia	78.8	79.3	83.6	80.5	82.3	83.9	84.5	80.0	83.5	84.3
Lithuania					49.2	54.6	55.4	52.8	53.0	54.0
Luxembourg	55.0	48.8								
Portugal	51.4	45.9	39.8	37.4	43.2	47.9	53.9	53.9	53.3	52.8
Slovenia	61.9	64.2	54.1	59.0						
Slovakia	76.5	69.2	67.6	65.5	82.4	86.7	87.7	87.2	86.4	86.4
Estonia	42.4	55.9	61.6	68.8	67.2	68.7	70.3	70.3	64.2	67.7

Sources: National central banks and ECB calculations.

1) The computation of the euro area aggregate is based on the last observation reported by each Member State.

2. Exports and imports of services

(as a percentage of the total, at current exchange rates)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	<i>Exports</i>									
Euro area	52.8	62.9	61.5	62.9	63.3	61.4	62.3	63.6	64.0	61.9
Belgium	74.8	75.1	72.8	79.9	84.5	82.4	82.0	81.9	82.7	78.1
France	31.4	59.0	59.8	63.6	62.8	61.2	62.7	67.0	68.2	64.4
Italy	77.1	74.0	74.7	79.4	84.8	83.3	84.0	84.7	83.8	86.2
Greece	19.1	25.0	27.5	28.9	28.6	17.1	20.0	20.5	19.7	19.6
Spain	72.3	73.9	62.0	51.4						
Cyprus	38.9	45.0	54.2	56.5	35.0	23.3	23.7	25.2	27.8	26.0
Latvia	58.3	59.0	61.3	63.0	66.6	74.7	75.0	76.7	79.5	78.2
Lithuania					42.4	47.9	50.6	51.7	52.9	53.7
Luxembourg	45.7	48.3								
Portugal	61.8	64.0	62.6	66.6	67.3	68.0	71.1	67.0	68.4	62.6
Slovenia	80.1	85.4	85.8	90.7						
Slovakia					85.4	85.7	83.4	84.3	84.2	84.4
Estonia	44.4	57.1	61.4	65.9	69.6	64.3	65.0	63.1	68.7	72.3
	<i>Imports</i>									
Euro area	57.1	51.9	51.0	51.7	52.6	51.4	52.3	52.1	53.0	51.7
Belgium	72.2	70.2	67.9	72.9	76.3	73.8	73.5	73.7	75.9	72.5
France	49.8	35.7	36.0	37.2	38.5	39.0	41.1	39.7	41.2	38.1
Italy	64.4	64.3	61.8	61.0	64.0	61.8	61.7	62.9	61.4	63.6
Greece	29.8	40.1	33.0	38.9	39.6	27.0	31.3	28.1	24.3	23.6
Spain	61.8	62.6	63.3	64.7						
Cyprus	51.2	45.7	58.2	51.2	37.0	17.2	11.0	12.5	26.4	
Latvia	42.5	42.1	38.6	45.0	43.2	47.5	46.3	45.8	50.4	48.5
Lithuania					44.2	49.8	53.3	54.7	53.9	54.9
Luxembourg	48.0	45.8								
Portugal	78.2	73.8	73.2	74.0	72.6	72.1	70.9	71.5	74.8	74.8
Slovenia	67.1	69.2	66.4	67.9						
Slovakia					72.6	68.4	69.5	70.2	70.2	70.7
Estonia	43.9	53.3	57.8	60.7	62.0	56.1	56.5	50.4	48.5	62.3

Sources: National central banks and ECB calculations.

1) The computation of the euro area aggregate is based on the last observation reported by each Member State.

Table A9: The euro's share in total exports and imports of non-euro area EU Member States

1. Exports and imports of goods

(as a percentage of the total, at current exchange rates)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	<i>Exports</i>									
Bulgaria	56.1	52.9	48.6	55.9	57.9	59.7	64.7	63.2	61.6	64.0
Czech Republic	76.4	77.0	77.2	79.1	78.4	78.5	78.4	78.0	79.0	79.4
Croatia			81.0	80.0						
Hungary	60.7	61.2	58.6	58.1	58.4	56.8	66.4	71.3	71.8	71.7
Romania	71.3	67.1	70.1	73.2	77.0	76.9	76.3	78.9	81.3	81.3
	<i>Imports</i>									
Bulgaria	46.2	45.4	46.5	44.6	51.7	53.9	70.7	58.2	61.9	60.9
Czech Republic	68.5	68.0	68.0	68.9	68.4	68.0	68.4	69.0	68.0	67.7
Croatia			70.4	70.6						
Hungary	48.1	49.0	46.3	53.6	54.4	50.7	60.4	63.2	63.3	62.3
Romania	66.8	64.2	60.5	64.0	64.2	68.6	71.0	70.7	69.0	69.6

2. Exports and imports of services

(as a percentage of the total, at current exchange rates)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	<i>Exports</i>									
Bulgaria	82.5	76.5	76.9	80.1	76.8	72.8	58.6	72.9	71.8	72.7
Czech Republic	76.9	78.5	80.5	75.9	70.8	69.9	67.3	67.1	75.1	76.1
Hungary								62.4		
Romania	62.2	67.0	65.1	66.3	61.8	64.5	73.8	77.5	79.1	79.2
	<i>Imports</i>									
Bulgaria	66.5	65.2	66.4	66.5	63.0	55.4	51.0	50.3	56.9	51.6
Czech Republic	75.6	75.3	77.3	74.6	73.5	74.9	75.9	77.5	80.6	79.6
Hungary								62.6		
Romania	69.4	69.5	63.7	67.7	57.3	48.5	49.7	72.7	70.8	72.4

Source: National central banks.

3.5 The euro as a parallel currency: the use of euro-denominated bank loans and deposits in countries outside the euro area

Table A10: Outstanding euro-denominated bank loans in selected countries

	Outstanding amounts of euro-denominated loans (in EUR millions)		As a percentage of total loans		As a percentage of foreign currency loans		Outstanding amounts of foreign currency loans (in EUR millions)	
	Dec.-18	Dec.-19	Dec.-18	Dec.-19	Dec.-18	Dec.-19	Dec.-18	Dec.-19
Non-euro area EU Member States								
Bulgaria	9,944	10,414	33.7	32.3	96.7	97.2	10,282	10,713
Croatia	15,232	14,953	53.4	50.8	97.6	98.5	15,606	15,173
Czech Republic	15,246	16,866	13.2	13.8	93.9	95.2	16,241	17,724
Hungary	10,530	11,676	22.8	23.0	95.0	96.4	11,080	12,112
Poland	27,538	28,172	10.2	9.8	48.8	51.0	56,380	55,212
Romania	16,983	16,813	31.5	30.0	92.6	92.8	18,333	18,113
EU candidate and potential candidate countries								
Albania	1,929	2,036	46.4	45.5	92.1	93.2	2,095	2,183
Bosnia and Herzegovina	5,550	5,539	55.7	52.2	99.6	99.7	5,570	5,554
Republic of North Macedonia	2,077	2,265	40.4	41.4	99.0	99.0	2,097	2,287
Serbia	11,894	13,595	63.7	66.5	95.2	99.5	12,500	13,666
Turkey	72,185	72,932	19.8	19.9	48.2	51.4	149,893	141,845

Sources: ECB, Haver Analytics, national central banks and ECB staff calculations.

Notes: Loans to households and non-financial corporations (total economy in the case of Bosnia and Herzegovina owing to lack of data). Definitions of loans may vary across countries. Outstanding amounts as at December each year. Data may have been subject to revisions compared with previous issues of this report owing to methodological changes or updates. Where applicable, foreign exchange-indexed loans are included. Figures for loans indexed to foreign currency (and the euro) are estimates in the case of the Republic of North Macedonia. Montenegro and Kosovo (this designation is without prejudice to position on status, and is in line with UN Security Council Resolution 1244/99 and the International Court of Justice Opinion on the Kosovo declaration of independence) are excluded since they are unilaterally euroised economies. Figures reported in Table 1 do not include Turkey.

Table A11: Outstanding euro-denominated bank deposits in selected countries

	Outstanding amounts of euro-denominated deposits (in EUR millions)		As a percentage of total deposits		As a percentage of foreign currency deposits		Outstanding amounts of foreign currency deposits (in EUR millions)	
	Dec.-18	Dec.-19	Dec.-18	Dec.-19	Dec.-18	Dec.-19	Dec.-18	Dec.-19
Non-euro area EU Member States								
Bulgaria	11,706	12,203	29.5	28.0	79.9	79.1	14,658	15,427
Croatia	19,642	19,712	51.0	49.2	89.3	89.5	21,998	22,022
Czech Republic	9,706	11,009	6.3	6.7	76.6	76.3	12,672	14,424
Hungary	10,194	10,875	16.1	16.2	75.2	76.5	13,550	14,214
Poland	21,644	24,399	7.7	7.9	66.2	67.9	32,672	35,955
Romania	20,210	22,913	28.6	29.8	86.2	86.9	23,457	26,360
EU candidate and potential candidate countries								
Albania	3,989	4,307	44.3	44.9	86.4	87.5	4,618	4,922
Bosnia and Herzegovina	3,693	4,872	33.2	40.0	90.9	90.7	4,061	5,376
Republic of North Macedonia	2,084	2,229	35.8	35.0	84.8	86.5	2,457	2,577
Serbia	11,765	12,407	61.1	59.5	89.5	91.0	13,145	13,636
Turkey	60,082	71,306	18.3	19.2	36.6	37.0	164,340	192,647

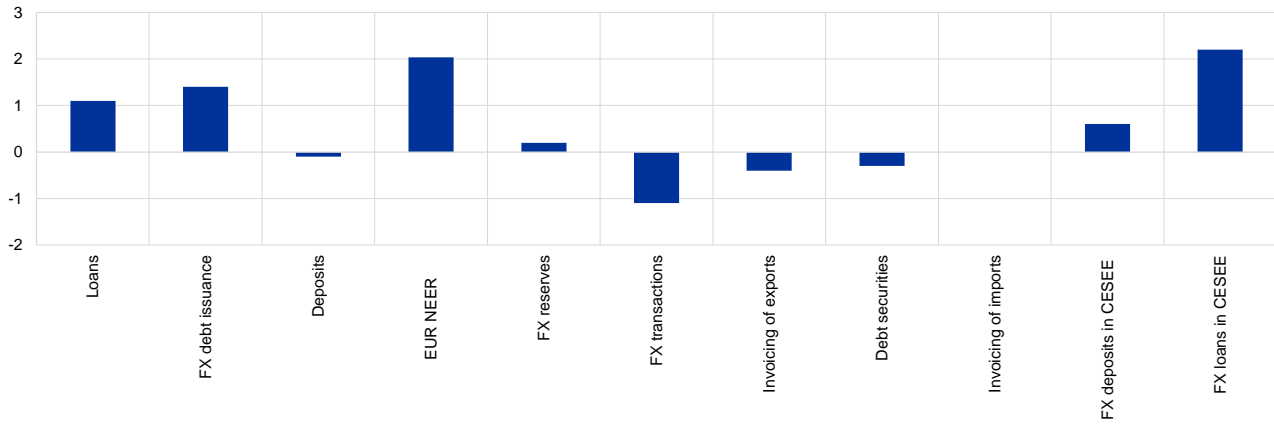
Sources: ECB, Haver Analytics, national central banks and ECB staff calculations.

Notes: Deposits from households and non-financial corporations (total economy in the case of Bosnia and Herzegovina and time deposits for Albania due to lack of data). Definitions of deposits may vary across countries. Outstanding amounts as of December each year. Data may have been subject to revisions compared with previous issues of this report owing to methodological changes or updates. Where applicable, foreign exchange-indexed deposits are included. For the Republic of North Macedonia, euro-denominated and euro-indexed deposits are estimates. Montenegro and Kosovo (this designation is without prejudice to position on status, and is in line with UN Security Council Resolution 1244/99 and the International Court of Justice Opinion on the Kosovo declaration of independence) are excluded since they are unilaterally euroised economies. Figures reported in Table 1 do not include Turkey.

3.6 Overview of the evolution in the international role of the euro

Chart A2: Evolution in the international role of the euro over the review period

(percentage changes)



Sources: BIS, CLS Bank International, Dealogic, IMF, national sources and ECB staff calculations.
Notes: For definitions of the measures, see Table 1.

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