

6 More banknotes, less counterfeits

The ECB and the euro area NCBs are responsible for issuing euro banknotes within the euro area and for maintaining confidence in the currency. The number and value of euro banknotes in circulation have been rising since their introduction in 2002, and at a faster pace than economic growth in recent years. Owing to a combination of factors, including enhanced security features in the new Europa series, cooperation with law enforcement, and communication and training efforts at European and national level, the number of counterfeits has further decreased to a very low level. The introduction of the new €100 and €200 banknotes with their new, innovative security features on 28 May 2019 will complete the Europa series.

6.1 Steady increase in banknote circulation

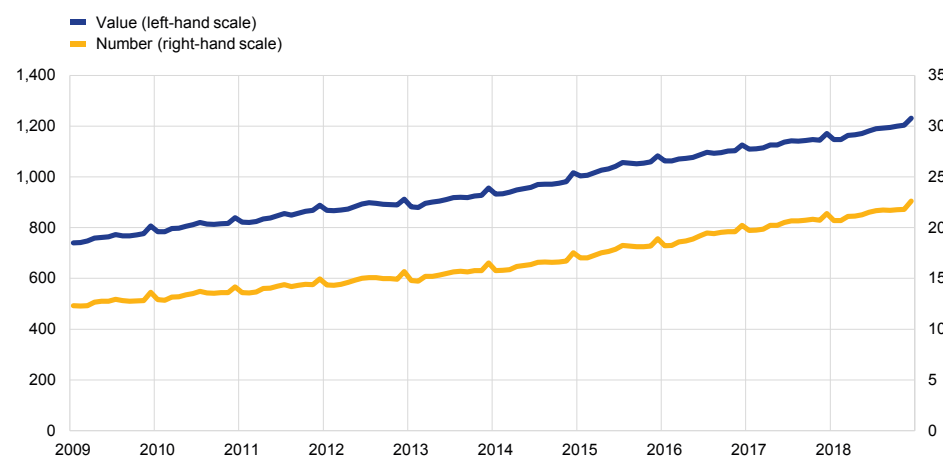
The number and value of euro banknotes in circulation have been growing continuously

In 2018 the number and value of euro banknotes in circulation grew by around 5.6% and 5.2% respectively. At the end of the year there were 22.6 billion euro banknotes in circulation, with a total value of €1,231 billion (see Charts 23 and 24). The €100 banknote had the highest annual growth rate, reaching 6.9% in 2018. The total value of €100 banknotes in circulation at the end of 2018 stood at €280 billion, which is equal to the combined value of all euro banknote denominations in circulation in May 2002. Growth in the €50 banknote remained dynamic, at 6.3%.

Chart 23

Number and value of euro banknotes in circulation

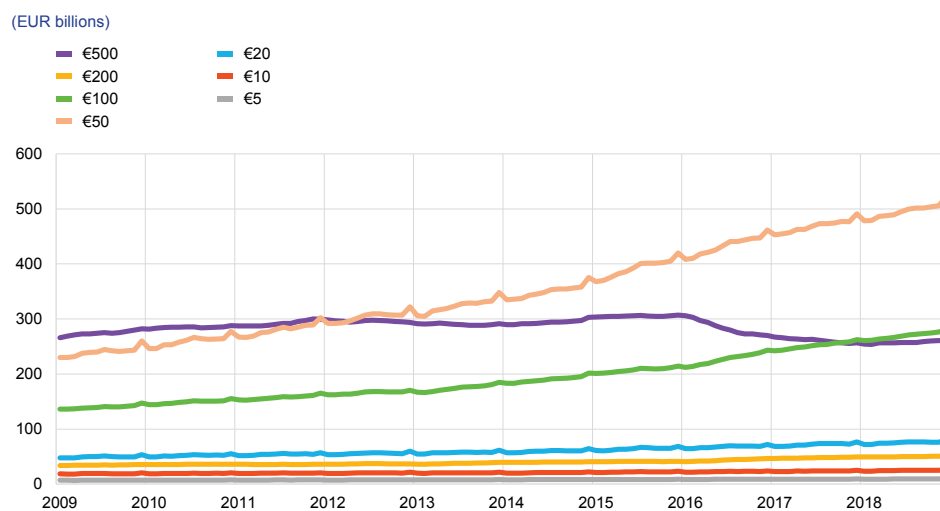
(left-hand scale: EUR billions; right-hand scale: billions)



Source: ECB.

Chart 24

Value of euro banknotes in circulation by denomination



Source: ECB.

By value, one-third of euro banknotes are held outside the euro area

It is estimated that, in terms of value, around one-third of the euro banknotes in circulation are held outside the euro area. These notes are predominantly held in neighbouring countries and are mainly the higher denominations. They are used as a store of value and for settling transactions in international markets.

Production of euro banknotes is shared among euro area NCBs, which were altogether allocated the production of around 4 billion banknotes in 2018.

The total number of euro coins in circulation increased by 3.7% in 2018, to 130.7 billion at the end of the year. The value of coins in circulation rose to €29.0 billion, 3.6% higher than at the end of 2017.

In 2018 euro area NCBs checked the authenticity and condition of some 31 billion banknotes, withdrawing around 5 billion from circulation as unfit. The Eurosystem also continued its efforts to help banknote equipment manufacturers to ensure that their machines meet the ECB's standards for checking euro banknotes for authenticity and condition prior to recirculation. In 2018 credit institutions and other professional cash handlers checked some 37 billion euro banknotes for authenticity and condition using such machines. Information about the Eurosystem survey on cash services offered by credit institutions and the acceptance of cash payments by retailers can be found in Box 6 below.

Box 6

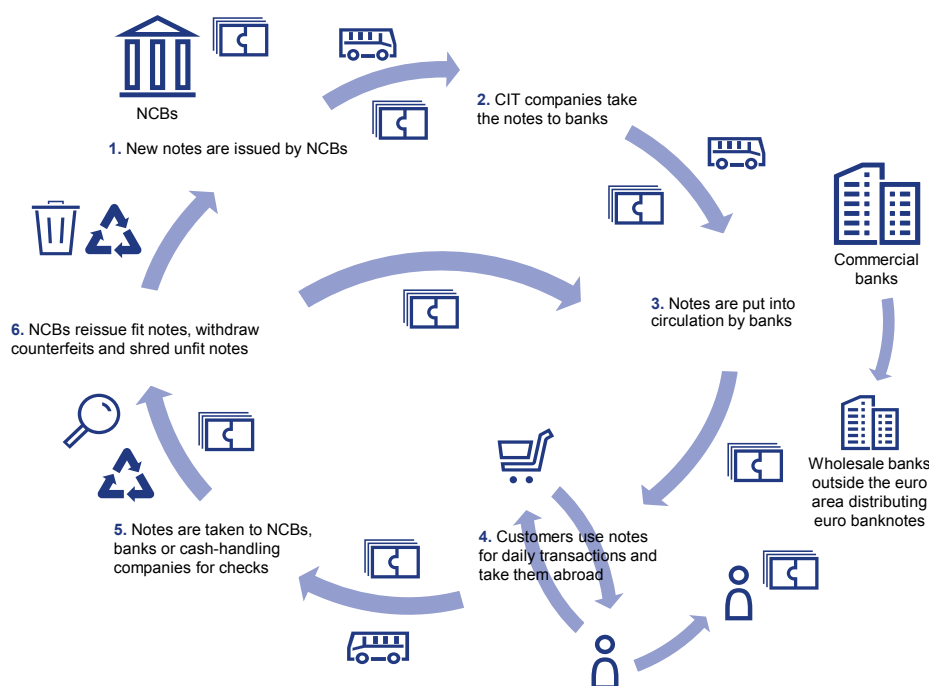
Eurosystem survey on cash services offered by credit institutions and the acceptance of cash payments by retailers

Despite the growing share of electronic payments, demand for cash continued to grow in 2018. In current discussions on the role of cash, it is often stated that cash is expensive and that credit institutions are reducing their cash services. As a follow-up to the ECB [study on the use of cash by households](#) conducted in 2016, the ECB and 19 Eurosystem NCBs carried out a survey of 87 credit

institutions, 55 professional cash-handling (or cash-in-transit – CIT) companies and 157 businesses (e.g. shops, retailers, restaurants) in 2018 with the aim of exploring how the different stakeholders in the cash cycle perceive cash (see Figure A) and how the efficiency of the cash infrastructure could be improved. The survey data were collected via interviews with the stakeholders. Therefore, the results of the survey are of a qualitative nature and the figures presented below should be viewed with caution.

Figure A

The cash cycle in the euro area



Source: ECB.

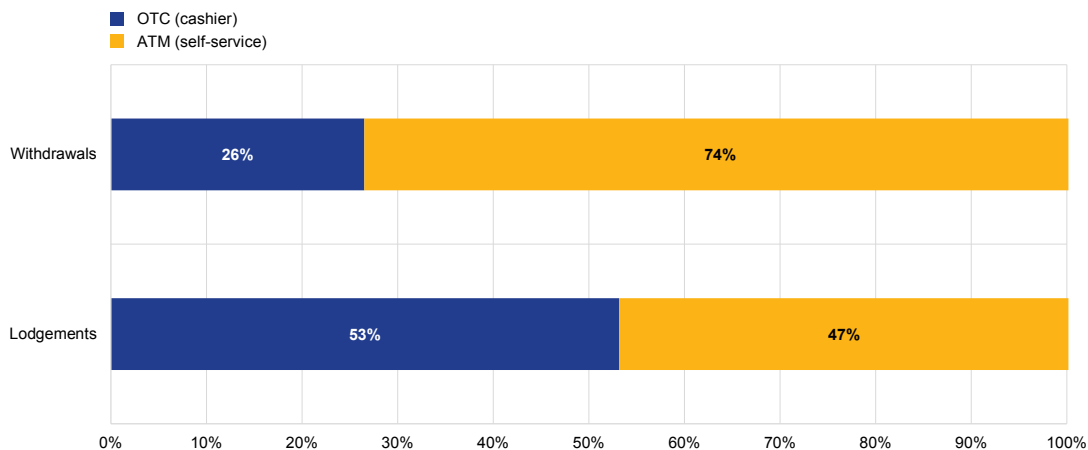
Cash services of credit institutions

While all credit institutions described their cash services to customers as resource and cost-intensive, 75% of them rated these services as important or very important, 20% were neutral, and only 5% rated cash services as unimportant. Cost pressures on banks continue to drive the automation of cash management processes and the extension of self-service banking. The gradual replacement of traditional automated teller machines (ATMs) (simple cash dispensers) with multi-purpose ATMs, in particular cash-recycling machines with the option to also deposit cash, is set to continue in the coming years, and this trend is supported by technical innovations in the industry. According to the survey, it is estimated that at present around 75% of all euro banknotes withdrawn by customers are withdrawn via self-service banking, while deposits of banknotes by customers are evenly split between attended (over-the-counter, OTC) services and unattended (automated) services (see Chart A).

Chart A

Degree of automation of banknote services at credit institutions

(percentages)



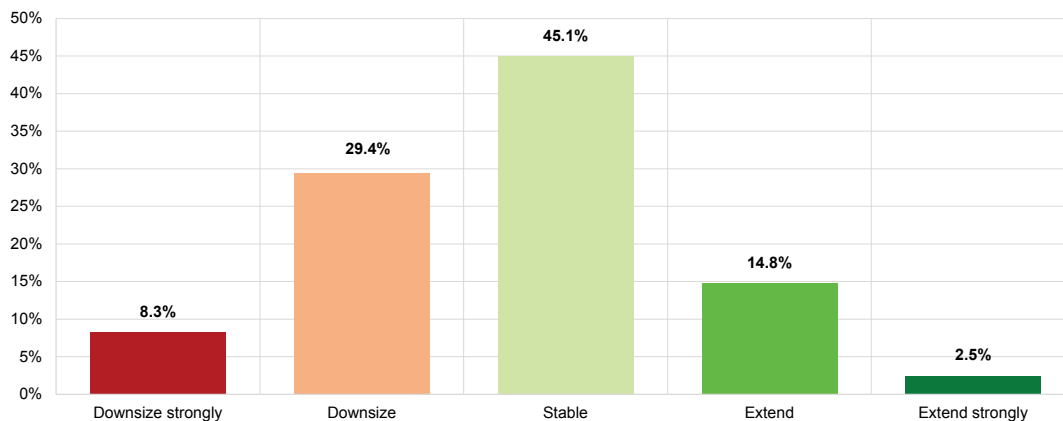
Source: 2018 survey of credit institutions by Eurosystem NCBs.

For cost-efficiency reasons, credit institutions carefully analyse the economic viability of ATM locations and underused machines are relocated or decommissioned. Other factors leading to a downsizing of ATM networks include, for example, bank mergers and interbank cooperation models which allow customers to use ATMs provided by other institutions free of charge. Such ATM network downsizing can currently be observed in the Netherlands, France and Portugal. By contrast, in Italy, Greece and Cyprus, ATM networks are growing. Chart B gives an overview of the banks' medium-term plans for the operation of ATM networks, which shows that the current diverging trends may continue in the years ahead. One efficient way of offering small-scale cash supplies to citizens is cashback schemes in which retailers disburse cash to customers in connection with card payments for goods or services. Cashback schemes are currently operated in 11 euro area countries, although only on a very limited scale in some of them, and are seen as an extra service that retailers can offer to their customers.

Chart B

Planned development of ATM networks by banks in the euro area

(percentage of banks)



Source: 2018 survey of credit institutions by Eurosystem NCBs.

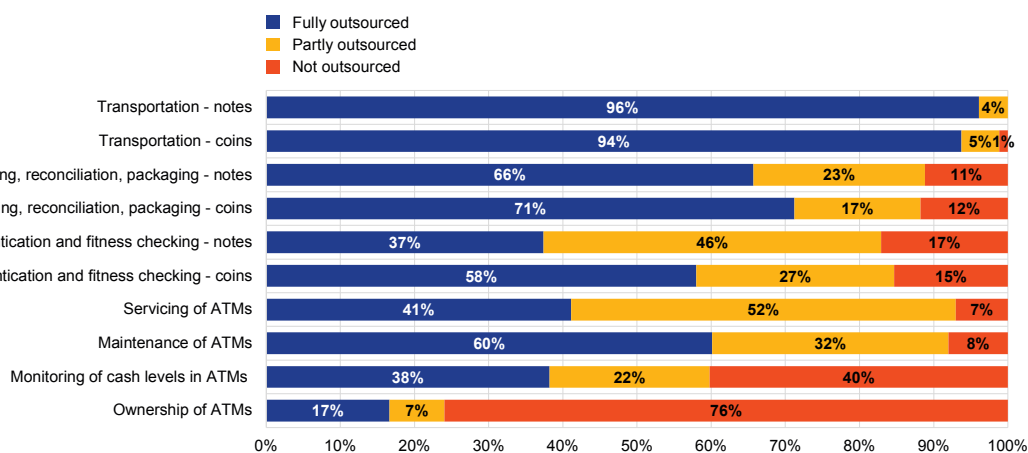
Note: The chart shows the responses from 81 credit institutions in 17 euro area countries (excluding Austria and Finland) to the question: "What are your current plans regarding your ATM network for the next five to seven years?"

The transportation of cash between retailers, commercial cash centres and NCBs and internal cash management processes are widely outsourced to professional cash-handling companies, especially in the case of coins. Chart C gives an overview of outsourcing of the main cash-handling activities. Major shifts in the coming years are not expected, suggesting that banks already manage their cash-handling operations efficiently.

Chart C

Degree of outsourcing of cash-related processes by banks

(percentages)



Source: 2018 survey of credit institutions by Eurosystem NCBs.

Note: Based on responses from 85 credit institutions in 18 euro area countries (excluding Austria).

There is potential for more efficiency in the area of coin handling, as the logistics were seen as laborious and the performance of coin-processing machines was rated as less satisfactory than that of banknote-processing machines. According to credit institutions, introducing more flexibility in the mandatory checking of coins and ending the use of €0.01 and €0.02 coins are possible ways to improve the efficiency of cash handling. Credit institutions mentioned that coin supply could also be

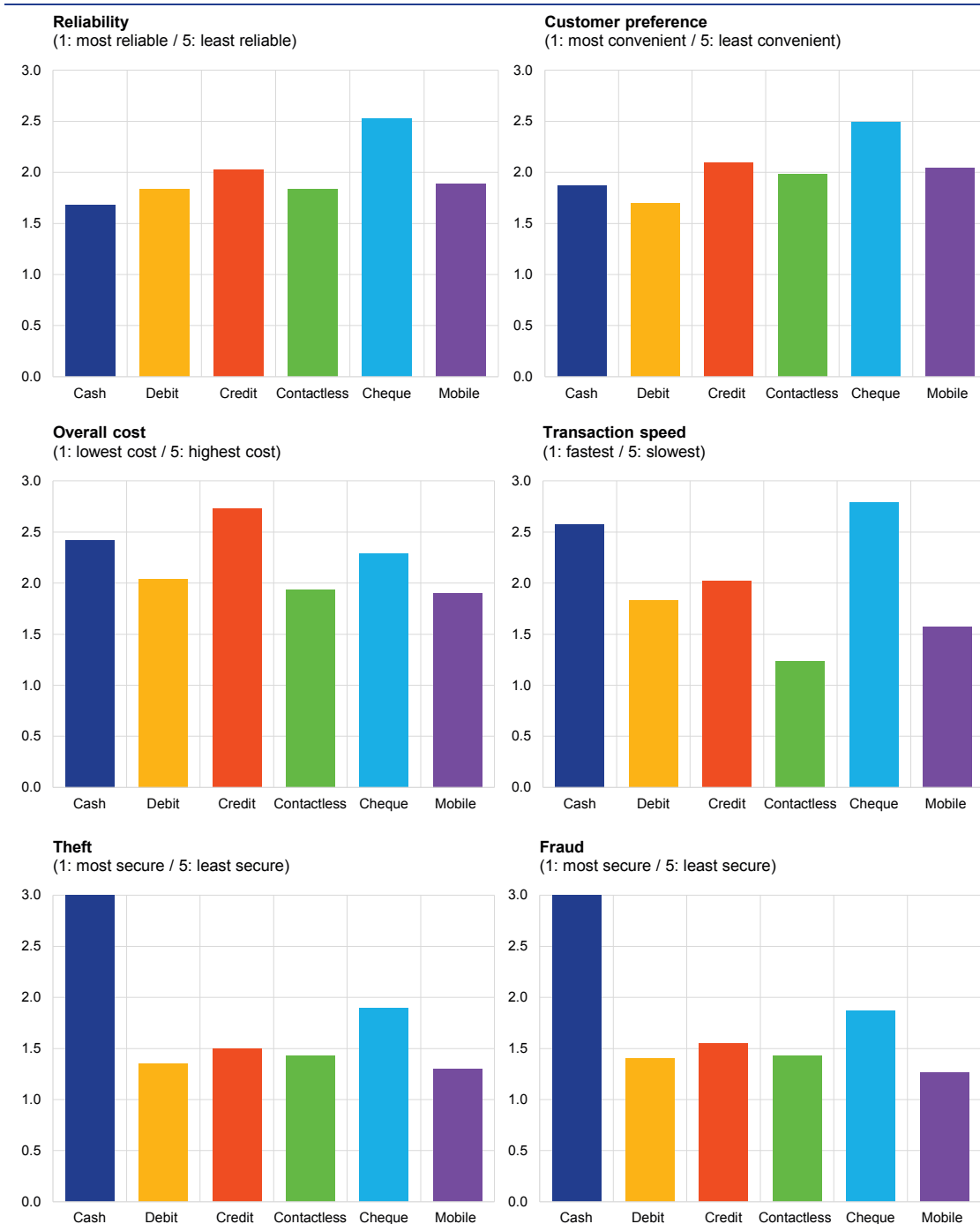
improved if NCBs and issuing authorities were to adjust their wholesale operations and offer more cash services closer to where they are needed by retailers.

Retailers' acceptance of cash payments

The wide variety of retail businesses made it difficult to obtain representative qualitative results from the survey. The survey nonetheless provides a good indication of retailers' views at euro area level, as companies of different sizes from various sectors were interviewed. Overall, retailers rated reliability of payment transactions and customers' settlement preference as the most relevant criteria when assessing payment instruments. Of secondary importance were transaction speed and total costs associated with payments, followed by security aspects. According to these criteria, cash scored well, especially among smaller retailers, whose internal cash-handling costs are generally lower than the fees for electronic payments, and in countries where banks charge low fees, or none at all, for their cash services (see Chart D).

Chart D

Retailers' criteria for accepting various different means of payment



Source: 2018 survey of retailers by Eurosystem NCBs.
 Note: The chart shows average ratings from 1 (best score) to 5 (worst score).

Retailers suggested several ways to make the cash cycle more efficient, including lowering bank fees for cash deposits, crediting cash deposits faster (instantly) to bank accounts and distributing more €5 notes via ATMs to reduce their need for change. Furthermore, retailers expressed a desire for more competition in the commercial cash-handling business. In some Member States retailers also called for greater involvement of the NCB in the coin supply, including direct access to NCB coin

services. Finally, the discontinuation of €0.01 and €0.02 coins (combined with rules on rounding the total amount payable to the nearest 5 cents) was frequently proposed as a measure to reduce costs.

The survey results suggest that the vast majority of credit institutions plan to continue to offer an appropriate range of cash services, with increased use of self-service banking. Nevertheless, as over one-third of the surveyed credit institutions plan to downsize their ATM networks, the ECB and Eurosystem NCBs will monitor the cash cycle and banks' cash services more closely in future. Although the survey results do not give rise to concerns about the acceptance of cash in the retail sector, in the evolving payments landscape it is important that cash is not disadvantaged, that it remains widely accepted for payments and that its role as legal tender is not undermined.

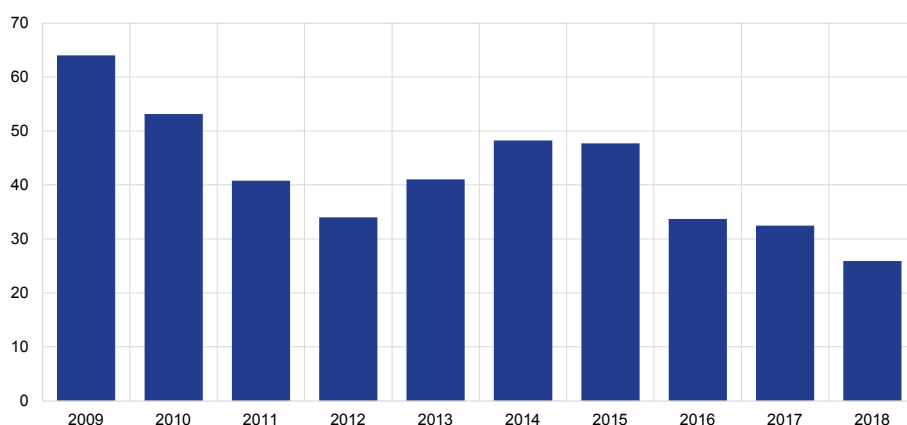
6.2 Euro banknote counterfeiting remained low and declined further

The total number of counterfeit euro banknotes decreased further in 2018, with around 563,000 counterfeits being withdrawn from circulation. This development is the result of a combination of factors, including enhanced security features in the new Europa series, cooperation with law enforcement, and communication and training efforts at European and national level. Compared with the number of genuine euro banknotes in circulation, the proportion of counterfeits has further decreased and is very low. Long-term developments in the quantity of counterfeits removed from circulation are shown in Chart 25. Counterfeiters mainly target €20 and €50 banknotes, which together accounted for more than 80% of the total number of counterfeits seized in 2018. The share of counterfeit €20 banknotes declined further in 2018.

Chart 25

Number of counterfeit banknotes per million genuine euro banknotes in circulation

(parts per million)



Source: ECB.

The ECB advises the public to remain alert and remember the “feel-look-tilt” test

In spite of a decline in the deceptiveness of counterfeits withdrawn from circulation, the ECB continues to advise the public to remain alert to the possibility of fraud, to

remember the “feel-look-tilt” test, and not to rely on just one security feature. In addition, training is offered to professional cash handlers on a continuous basis, both in Europe and beyond, and up-to-date information material is being made available to support the Eurosystem’s fight against counterfeiting. The ECB also cooperates with Europol, Interpol and the European Commission in pursuit of this goal.

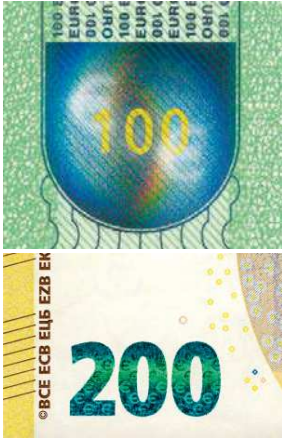
6.3 €100 and €200 banknotes with enhanced security features unveiled

New €100 and €200 banknotes with enhanced security features were unveiled on 17 September 2018. After the €5, €10, €20 and €50 banknotes, the €100 and €200 banknotes are the last two denominations of the [Europa series](#) and will enter into circulation on 28 May 2019. This marks the completion of several years of preparation and cooperation within the Eurosystem.

The second series of euro banknotes is complete



The Governing Council of the ECB decided to exclude the €500 from the Europa series, taking into account concerns that this denomination could facilitate illicit activities. In view of the international role of the euro and the widespread trust in euro banknotes, the €500 will remain legal tender and can therefore continue to be used as a means of payment and store of value. Euro banknotes will always retain their value, as any euro banknote can be exchanged for an unlimited period of time at euro area NCBs.



The satellite hologram and the enhanced emerald number are two new security features of the new €100 and €200 banknotes

The ECB and the euro area NCBs have been conducting an information campaign to prepare the general public and professional cash handlers for the introduction of the new €100 and €200 banknotes. Just like the other denominations, the new banknotes are easy to check using the “feel, look and tilt” method, but the two high-denomination banknotes also include new, innovative security features. In terms of value the €100 banknote is the second most used denomination (after the €50), and in terms of number in circulation it ranks third (after the €50 and €20 and ahead of the €5 and €10). The Eurosystem is supporting manufacturers and owners of banknote-handling machines and authentication devices in making preparations for the new banknotes. This includes facilitating equipment testing, the possibility to borrow non-issued banknotes of the Europa series from NCBs and publishing a list of banknote-processing machines which have successfully demonstrated that they can process the new Europa series banknotes.