

Chapter VI

The cash changeover and the production and issue of euro banknotes

I Changeover to the euro banknotes and coins in 2002

In order to ensure a smooth changeover to the euro banknotes and coins, a Eurosystem Cash Changeover Co-ordination Committee (CashCo) was established in March 2001, comprising representatives from the ECB and one representative from each of the national central banks (NCBs) of the 12 participating Member States. The European Commission and Europol had observer status at CashCo meetings. Within the field of competence of the Eurosystem, the Committee bore overall responsibility for co-ordinating the introduction of the euro banknotes and coins and withdrawing the legacy currencies in the period up to the end of February 2002. It monitored the preparatory work relating to the issuance of, and changeover to, the euro banknotes and coins and established a Eurosystem-wide information exchange framework for the period prior to and following 1 January 2002.

I.1 The changeover inside the euro area

The Governing Council of the ECB agreed on certain Eurosystem-related provisions on the 2002 cash changeover in an ECB Guideline of 10 January 2001. In accordance with these provisions, frontloading by NCBs to credit institutions and sub-frontloading of banknotes and coins to professional target groups was allowed as from 1 September 2001. This four-month lead time was required in order to ensure that sufficient euro banknotes and coins were available for widespread circulation from 1 January 2002. The lead time permitted efficient transportation and logistics. In fact, the scale and timing of frontloading and sub-frontloading varied considerably from one country to another, depending on the national changeover scenario, the national infrastructure (e.g. the structure of the central bank branch network and its role in the currency supply, the storage facilities available in bank branches, etc.) as well as the size and geography of the country concerned.

In 11 countries the national authorities provided euro coins to credit institutions as from September 2001 because their bulk made them more difficult to transport than banknotes and their lower value meant that the risk to credit institutions was lower than for banknotes; in one country the frontloading of coins did not begin until December 2001. Five countries began frontloading banknotes in September 2001; the remaining seven countries postponed the distribution of banknotes until October, November or December 2001.

All 12 countries supplied credit institutions and retailers with both euro banknotes and coins prior to 1 January 2002. Moreover, all countries sub-frontloaded euro coins to the cash-operated machine industry in order that it could load machines with coins prior to €-day. In total, euro banknotes to a value of €133 billion were frontloaded to credit institutions, an amount corresponding to around 50% of the national banknotes in circulation at the end of 2001. As for coins, a total of 37.5 billion, worth €12.4 billion, were frontloaded by the end of 2001. This meant that, in terms of volume, around 80% of the banknotes and over 97% of the coins needed had been distributed to banks before 1 January 2002, which paved the way for a smooth changeover. Broadly speaking, sub-frontloading to professional target groups was also in line with initial forecasts and represented an overall amount of between 10% and 20% of the frontloaded amount.

According to the ECOFIN Council statement of November 1999, euro coins could be provided to the general public from mid-December 2001 in order to help people to become familiar with them and to reduce the stocks needed by retailers to provide change at the beginning of 2002. All euro area countries offered the public starter kits, and the demand for these was great. In a number of countries, the level of demand was such that banks were authorised to make up their own kits and even to sell some of

their bulk stocks. The countervalue of the starter kits ranged from €3.88 to €15.25 and in most cases corresponded to a national banknote denomination in order to facilitate the exchange. In one country, a small starter kit was also provided to each citizen free of charge. Distribution through a wide range of outlets started in three countries on 14 December 2002 and in the others on 15 or 17 December 2001. Overall, the general public acquired more than 150 million starter kits comprising over 4.2 billion coins worth €1.6 billion. This means that, on average, each member of the public had 14 coins at the beginning of 2002.

In addition, retailers were supplied with retail starter kits with countervalues ranging from €30.41 to €315.

Given that, in terms of transactions, most of the banknotes enter circulation via automated teller machines (ATMs), the quick adaptation of these machines was a key factor in the changeover. In total, more than 200,000 ATMs in bank branches and elsewhere (e.g. in shopping centres) had to be converted. The speed at which the ATMs were converted varied slightly from country to country depending on factors such as conversion capacity, location, number and type of ATMs. In addition, the policy with regard to ATMs which had not yet been converted by the time the euro banknotes and coins entered circulation varied slightly across the euro area. In six countries they were removed from service, whereas in four countries they continued dispensing national banknotes. Four days after the entry into circulation of the euro banknotes and coins, virtually all ATMs were issuing only euro. As a result, an average of 75% of cash transactions were taking place in euro by the end of the first week, and this figure was well over 90% by the end of the second week. Naturally, this figure varied from country to country and from sector to sector. In any case, euro banknotes and coins were introduced considerably faster than originally foreseen.

To achieve a smooth changeover, it was also essential to put the low-denomination euro banknotes (i.e. €5, €10 and €20) into circulation on a large scale at the beginning of 2002. This considerably reduced the need for retailers to hold large amounts of cash during the first few days of 2002. In all euro area countries one, two or three of the low-denomination euro banknotes were dispensed by ATMs at the start of 2002. In countries where welfare payments are made largely in cash, these transactions were effected in low denominations. Moreover, banks frequently paid out low-denomination euro banknotes over the counter. As a result, low-denomination banknotes (i.e. €5, €10 and €20) accounted for 82.4% of the total number of banknotes in circulation in early 2002 and for 43% of the circulation value. This far exceeded the proportion of national banknotes with a similar countervalue prior to the changeover.

As for the withdrawal of national coins, most national authorities encouraged the public to deposit hoarded coins at banks before the turn of the year in order to reduce the workload of banks, retailers and cash-in-transit companies during the dual circulation period; in addition, coins were collected through a range of charity schemes which had been introduced in some countries. At the same time, there was a considerable influx of hoarded national banknotes, particularly in high denominations. In total, national banknotes in circulation fell by €110 billion during the course of 2001 to €270 billion at the end of the year.

In conclusion, the changeover was an unprecedented undertaking, directly affecting the lives of over 300 million people in the 12 euro area countries. The financial institutions, cash-in-transit companies, the security forces, retailers and the cash-operated machine industry needed to be closely involved in the preparations at an early stage, as a smooth changeover could only be achieved in a short period of time through systematic and co-ordinated interaction between all the leading players.

However, the success of the euro cash changeover ultimately depended not only on the co-operation of all the professional parties directly involved, but also on the positive attitude of and swift acceptance by the public. In retrospect, it can be said that, given the scale of the task, the introduction of euro banknotes and coins went very smoothly and successfully.

1.2 The changeover outside the euro area

A significant number of banknotes issued by the NCBs of euro area countries were circulating outside the euro area, especially in the accession countries and other neighbouring countries. For example, it was estimated in a study relating to the mid-1990s that around 30% to 40% of Deutsche Mark banknotes in circulation were held outside Germany, with the majority probably held in eastern and south-eastern Europe (including Turkey). Every effort was therefore made to ensure that the cash changeover outside the euro area also proceeded smoothly. The framework for the changeover outside the euro area was built upon three pillars:

- In accordance with the ECB Guideline of 10 January 2001 stipulating certain provisions on the 2002 cash changeover, banks were allowed, under strict conditions, to distribute frontloaded euro banknotes to their branches and headquarters located outside the euro area as from 1 December 2001. In addition, the Guideline allowed frontloaded banks, from the same date, to sub-frontload to their subsidiaries outside the euro area, as well as to other banks with registered and/or head offices and branch networks outside the euro area. However, sub-frontloading to retailers was not allowed outside the euro area.
- The Governing Council decided in an ECB Guideline of 13 September 2001 on certain provisions on frontloading outside the euro area, that central banks and monetary

authorities of non-participating Member States and other countries could be frontloaded upon request as from 1 December 2001, subject to specific terms and conditions. All operational and practical arrangements for such frontloading were taken care of bilaterally by the euro area NCB concerned and the counterparty central bank. Central banks outside the euro area were allowed to sub-frontload credit institutions having their registered and/or head office in their respective jurisdictions as from 1 December 2001, in accordance with certain rules.

- The Governing Council decided that non-euro area credit institutions operating in the worldwide wholesale banknote market could be frontloaded by NCBs and were allowed to sub-frontload euro banknotes to their customer banks outside the euro area from 1 December 2001. The detailed terms and conditions, which were in principle the same as those imposed on foreign central banks, were also laid down in the ECB Guideline of 13 September 2001.

The introduction of the euro banknotes also proceeded smoothly outside the euro area. 26 central banks located outside the euro area, mainly in central and eastern Europe, the Mediterranean area and in Africa, were frontloaded. The total amount of euro banknotes provided to central banks and banks outside the euro area was some €4.6 billion.

1.3 Exchange of national banknotes at national central banks

The substitutability of national currency units between 1999 and 2002 is ensured by Article 52 of the Statute of the ESCB, which governs the exchange of banknotes denominated in the national currencies of the countries participating in the euro area. Since 1 January 1999, in accordance with a decision of the Governing Council, each participating NCB

or its authorised agent has been offering, at one location at least, to exchange the banknotes of other participating countries at the official conversion rate free of bank charges. The Governing Council decided to extend the Article 52 arrangement beyond 2001 until the end of March 2002.

Against this background, some 500 NCB branches throughout the euro area were involved in the exchange of national banknotes of other euro area countries. From a practical point of view, the exchange within the framework of Article 52 ran smoothly in

all the participating Member States from 1999 onwards.

In addition, the NCBs may repatriate the national banknotes of other participating countries, appoint an agent to perform this repatriation service on their behalf or use existing commercial repatriation channels. The value of banknotes repatriated to their respective issuing country under this arrangement between 1999 and the end of 2001 was €14.4 billion; the number of banknotes repatriated was 293.4 million.

2 Production of euro banknotes and coins

2.1 Production of banknote requirements for the launch

Each NCB was responsible for procuring euro banknotes to meet its national requirements for the launch. Estimates of the volumes needed by the NCBs were reviewed annually and most recently in late 2001 in order to take account of the actual demand during the frontloading phase. Estimates as at end-2001 amounted to some 15 billion banknotes, with a total face value of around €633 billion. 15 printing works were involved in the production of the banknotes.

Throughout the year, production progress was carefully monitored by the ECB in terms of both quantity and quality. During this period, the visual appearance of the banknotes was also regularly sampled. The ECB continued to audit the Quality Management Systems operating in the printing works and thus helped to ensure consistent quality. The manufacturers of cash handling machines, who have a special interest in the quality and consistency of euro banknotes, were involved in an extensive testing programme to help them adjust their sensors and machines in time for the launch.

2.2 Production of a Central Reserve Stock of banknotes to cover risks

A Central Reserve Stock of euro banknotes was established by the ECB as part of its euro launch risk management. The risks to be covered included production quantity or quality shortfalls due to unforeseen circumstances and a higher-than-expected demand for some euro denominations. Approximately 10% over and above the launch volume of 15 billion banknotes was produced for the Central Reserve Stock. The ECB was responsible for the procurement of these banknotes, which were produced in accordance with the same demanding standards as all other euro banknotes.

Some banknotes from this stock were used to meet additional commercial bank requirements during frontloading and helped the launch phase to go smoothly.

2.3 Support for the production of euro coins

The Member States are responsible for the production of euro coins. National estimates of the total volume needed for the launch amounted to more than 51 billion coins with a face value of around €16 billion. Production involved 16 mints in 12 countries.

The ECB acted as an independent assessor of euro coin quality. It assisted in the implementation and maintenance of a common quality management system in all mints. The performance of each mint was checked by conducting regular quality audits.

The quality of the coins was assessed on the basis of both monthly quality reports by the mints and the ECB's own measurements of reference coins. The decision-making bodies were given regular updates on the quality of euro coins.

3 Protection of euro banknotes against counterfeiting

3.1 Research and development

Research and development work aims to build technological "foundations" upon which the further development of the first banknote series will be based.

These activities are decentralised but are co-ordinated by the ECB. They are on the increase as the focus moves towards the post-launch period. The co-ordination of the research and development efforts of the NCBs, expert suppliers and the ECB was reviewed and improved in 2001 and further continuous improvement of the structure is expected in 2002.

The ECB is a member of various international central bank anti-counterfeit technical groups which are pursuing global initiatives.

3.2 Anti-counterfeiting activities

The European network of National Analysis Centres (NACs) was set up. The NACs are responsible for counterfeit analysis at a national level and for the transfer of data on counterfeit euro banknotes to the central database being established at the ECB. The staff of these centres have received training in the classification of counterfeit euro banknotes.

The Counterfeit Analysis Centre (CAC) at the ECB has been operating since the beginning of

2002. It is responsible for classifying the new euro counterfeits received from the NACs. Its staff, comprising counterfeit experts, technical specialists and administrative personnel, have been recruited and its equipment has been procured. The CAC now has the resources it needs to analyse counterfeits and to distinguish between counterfeit and genuine banknotes.

Progress towards establishing the Counterfeit Monitoring System (CMS), including a database that will store all the technical and statistical data on counterfeit euro banknotes and coins, has been slower than expected on account of technical difficulties. Accordingly, some of the functions of the system are not yet available. In the interim, other procedures have been established to ensure an efficient use of the information which is being stored in the database.

The most important provisions in relation to the CMS are laid down in the Decision of the European Central Bank of 8 November 2001 on certain conditions regarding access to the Counterfeit Monitoring System (CMS).

A co-operation agreement has been concluded between the ECB and the European Police Office (Europol) on measures to combat threats arising from euro counterfeiting and to enhance and co-ordinate assistance in this area provided by either party to the national and European authorities and to international organisations.

4 Issue of euro banknotes

The Governing Council of the ECB has decided that the ECB and the 12 NCBs of the euro area shall issue euro banknotes.

It was agreed that, while 92% of euro banknotes would be issued by the 12 NCBs, the remaining share would be issued by the ECB as from the beginning of 2002. Each NCB will show in its balance sheet a share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The

total banknote issue of the Eurosystem will be shown in its consolidated weekly financial statement, as published by the ECB.

In accordance with the principle of decentralisation for the execution of Eurosystem operations, the 12 NCBs of the euro area will put into and withdraw from circulation, and will physically process, all euro banknotes, including those issued by the ECB.

5 The Euro 2002 Information Campaign

As part of the preparations for the introduction of the euro banknotes and coins, the ECB and the 12 NCBs of the euro area have been conducting a "Euro 2002 Information Campaign". The Governing Council approved a campaign budget of €80 million, and this was reinforced by additional funds made available by NCBs.

The Eurosystem's campaign has been closely co-ordinated with similar initiatives undertaken by national authorities and the European Commission, and focused on the following key messages:

- the appearance of the banknotes and coins;
- the security features of the banknotes;
- the denominations; and
- the overall changeover modalities.

Three principle channels have been used to deliver these messages: a mass media campaign, public relations and press activities, and co-operation with other groups active in this area (the Partnership Programme). All elements of the campaign have been supported by a dedicated website, www.euro.ecb.int, which, as with all campaign materials, is in the 11 official languages of the European Community.

As 2001 progressed and public interest in the euro banknotes and coins grew, so the campaign became more high-profile. The unveiling of the security features to the

general public on 30 August 2001 saw the campaign enter a new phase, with new materials made available, incorporating, inter alia, the final visual appearance of the euro banknotes and their security features.

The mass media campaign

The mass media campaign was also launched on 30 August 2001. It comprised TV spots and print adverts which were run both nationally and internationally across the euro area. In some cases these efforts were complemented by additional mass media activities by NCBs.

National audiences were addressed in their respective languages via five TV spots and eight complementary print adverts, which were identical in all the euro area countries. They provided both general and detailed information on the banknotes and coins as well as on the security features of the banknotes. The spots were shown on 50 TV stations and the print adverts appeared in over 250 publications. The campaign came to an end with a final print burst throughout the euro area in late January/early February 2002.

At a global level, the campaign was aimed at international business executives and visitors to the euro area. Six international TV stations broadcast specially adapted versions of the TV spots, and nine international publications