

9 EURO BANKNOTES – A TANGIBLE SYMBOL OF INTEGRATION



The euro officially came into existence in 1999 as a unit of exchange and as a currency of the financial and foreign exchange markets. For most people, however, it arrived on 1 January 2002, when the banknotes and coins were introduced. During this three-year transitional period, the initial supply volumes of more than 15 billion euro banknotes were produced, an amount sufficient to cover 15,000 football pitches, as well as 52 billion euro coins. This tangible symbol of economic and monetary integration is in everyone's pocket nowadays. But the story goes back ten years before the actual cash changeover.¹

Three years to produce euro cash

This chapter is structured as follows. Section 9.1 briefly overviews the history of euro banknotes. Section 9.2 reviews the main steps in the cash changeover. Section 9.3 provides some statistics. Section 9.4 deals with currency management. Section 9.5 concerns the second series of banknotes currently in preparation.

9.1 EURO BANKNOTES: A BRIEF HISTORY

The European Council agreed in 1995 to name the common European currency unit “euro”. However, unbeknown to most people, the preparations for the euro banknotes had started three years earlier with discussions on some fundamental issues. In 1994 the European Monetary Institute (EMI) Council decided on a sequence for the banknotes of 1:2:5 (e.g. €10, €20 and €50), which was also applied to euro coins (e.g. 1 cent, 2 cent, 5 cent). The system is a decimal one and makes calculations easier. It also keeps the number of banknotes needed for the payment of any amount to a minimum. Most currencies worldwide follow this denomination sequence.

Denominations simplify handling

The denomination range of euro banknotes is based on the ranges that existed for the national currencies. The highest denomination was set at €500, taking account of the fact that banknotes worth between €200 and €500 were issued in Belgium, Germany, Italy, Luxembourg, the Netherlands and Austria. The lowest denomination was fixed at €5.

The option of having €1 and €2 banknotes has also been considered, following calls for their introduction. The ECB has closely studied this request and consulted cash stakeholders, such as the European banking and retail associations, but has concluded that there is no need for such low-value banknotes. In fact, banknotes with a low value – like €1 or €2 banknotes – would complicate cash handling and lead to a decline in the overall quality of banknotes in circulation, as they would be used as change in small purchases, although coins are more practical for this purpose. Furthermore, public surveys showed that only one-third of the population of the euro area would like to use such banknotes. In 2004 the Governing Council decided to keep the denomination structure of the banknotes unchanged for both the current and second series of euro banknotes.

Low-value banknotes: too costly

In early 1996 the EMI organised a design competition for euro banknotes on the basis of the preliminary specifications. In December of that year, the EMI Council selected the winning design series depicting the “ages and styles of Europe”. Prior to its selection, the winning design had been shortlisted by a jury of independent experts in marketing, design and art history, and it had been tested in a European-wide representative survey. The designs of the euro banknotes deliberately show no national features – they are truly European.²

¹ See “How the euro became our money”, ECB 2007.

² See “Euro banknote design exhibition”, ECB 2003.

Identical banknotes reduce costs and simplify currency management

The inclusion of national elements in the banknotes, such as heads of state or monarchs, had been considered but was eventually ruled out for various reasons. It was easier and more efficient to produce identical euro banknotes and for the NCBs to manage stocks of such banknotes. Banknotes have to be freely exchangeable across the whole euro area. Exchangeability allows for low stocks of banknotes at one NCB to be replenished by surplus stocks from another NCB, and does not create the impression that one country is “flooding” another country with “its” banknotes bearing its national symbols. In addition, it had been agreed not to repatriate banknotes that had been withdrawn from circulation to the issuing central bank. Another reason for excluding national elements was the “pooling” of banknote production as from 2002, meaning that in principle a certain denomination is procured by only two to four NCBs, thus achieving economies of scale. This division of labour would also be less efficient if the banknotes were not freely exchangeable.

Large-scale production of banknotes started back in mid-1999 after several test print runs and adjustments to the initial specifications. In peak periods, the 15 banknote printing works involved were producing 400 banknotes per second.

9.2 EURO CASH CHANGEOVER³

Euro cash changeover: smooth and fast ...

Replacing all the banknotes and coins circulating among more than 300 million people in a very short period was an unprecedented logistical operation. A successful changeover could only be achieved by close coordination and cooperation between all the parties involved. Therefore, the EU institutions, national authorities, credit institutions, security carriers, retailers, consumer organisations and the cash-operated industry had been closely involved in the preparations since 1997. In order to coordinate national changeover activities and to react quickly to any incident, the Eurosystem set up a Cash Changeover Coordination Committee. In early 2002, 8 billion euro banknotes and around 38 billion euro coins replaced 6 billion national banknotes and 29 billion national coins within a relatively short time-span. Despite the exchange of such enormous quantities, the euro area members agreed on very short dual circulation periods of between four weeks and two months in order to keep costs down. To further reduce the expensive simultaneous handling of two currencies, they also agreed that they would do their best to ensure that most cash transactions could be made in euro by mid-January 2002. In fact, 50% of cash transactions were already being conducted in the new currency one week after its launch.

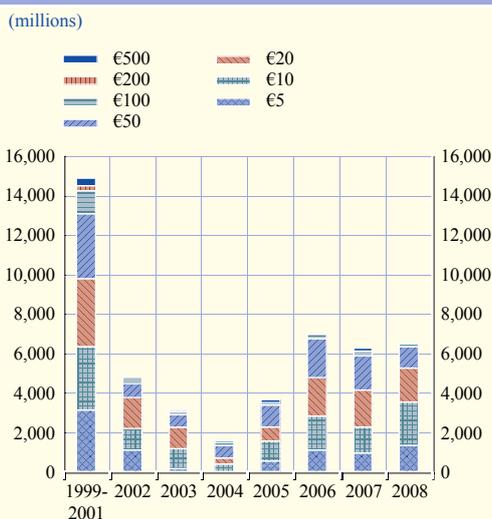
... thanks to early cash distribution and info campaign

The widespread early distribution of euro cash to banks, retailers and other businesses, which started in September 2001, was key to the rapid and smooth changeover: it ensured that the resources of the NCBs and the cash-in-transit companies were more evenly spread and thus bottlenecks in the cash supply minimised. The Eurosystem offered banks an incentive to build up banknote stocks early and to pass a proportion of them on to their business clients by introducing a deferred debiting model. It aimed to neutralise the banks' opportunity costs of holding cash which bears no interest. The approach was successful: in volume terms, close to 80% of the initial banknote demand and 97% of the total coin needs for the changeover had been distributed before 1 January 2002.

The Eurosystem conducted an €80 million “Euro 2002 Information Campaign” aimed at the public both inside and outside the euro area. Apart from providing information on the euro cash itself, e.g. on the designs and security features of the banknotes, the campaign covered the practical aspects of the changeover in order to encourage people, for instance, to minimise cash holdings in their

³ See “Evaluation of the 2002 cash changeover”, ECB 2002.

Chart 1 Euro banknote production volumes



Source: ECB.

national currencies and to offer exact amounts when paying, if possible, so that retailers would not need large amounts of small change.

Unlike the first members of the euro area, the more recent entrants – Slovenia in January 2007, and Cyprus and Malta in January 2008 – introduced the euro simultaneously as cash and as an electronic means of payment. Hence, the NCBs concerned did not have enough time to procure the required euro banknotes after their country’s adoption of the euro was approved. They were thus allowed to borrow euro banknotes from the Eurosystem’s banknote stocks provided that they “pay back” these banknotes in the years to come. The ECB, in cooperation with the various NCBs, conducted information campaigns similar to the Euro 2002 campaign in order to familiarise the people of Slovenia, Cyprus and Malta with the euro banknotes and coins.

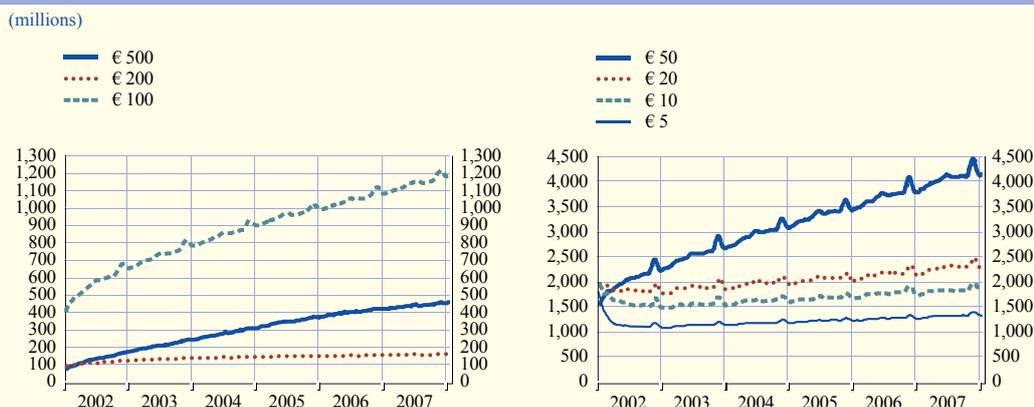
New euro area countries initially borrow banknotes

9.3 BANKNOTES IN CIRCULATION

After the cash changeover, the number of banknotes in circulation increased by more than the amount of the national currencies in circulation would have suggested. The strong growth was mainly due to euro area residents and non-residents adjusting their currency holdings. Banknotes are used as a means of payment, but also as a store of value. It is thus likely that euro area cash holders have adjusted their euro banknote holdings because of the different denominations, and prefer higher banknote denominations now available to them. This is, in particular, reasonable in an environment of low interest rates and low inflation expectations. The strong growth of currency in circulation in value terms is mainly in three denominations, €50, €100 and €500. However, the

Usage of euro banknotes is growing strongly

Chart 2 Euro banknotes in circulation



Source: ECB.

Banknote stocks: balanced by cross-border transfers

continually decreasing growth rates of high-denomination euro banknotes may indicate that this change in currency demand is slowly coming to an end. At the end of 2007 some 12 billion banknotes were in circulation, with a value of close to €677 billion. The value of euro banknotes in circulation was thus higher than that of US dollar banknotes in circulation, which equalled some €540 billion at end-2007, when the exchange rate was €1 = USD 1.4721. Cash users outside the euro area have started to hold more euro banknotes than they did national banknotes because of the greater convenience of holding the euro. It is estimated that, in value terms, between 10% and 20% – but potentially a figure closer to the upper end of the range – of euro banknotes circulate outside the euro area.

9.4 CURRENCY MANAGEMENT

Coordinated currency management and banknote development ensures that euro banknotes are readily accepted both inside and outside the euro area. Having a multi-national currency means that cash is “moved” from one country to another, mainly by tourists, but also by business travellers, as well as people hoarding cash, resulting in both shortages and surpluses of certain banknote denominations. These imbalances are corrected within the euro area by the Eurosystem’s common stock management system, which sets benchmark levels for the NCBs’ logistical stocks and permits ad hoc bulk transfers to be made from NCBs with a banknote surplus to NCBs with a shortage. This rebalancing system allows NCBs to keep lower logistical stocks. With the help of a database, the Currency Information System, the ECB monitors the level of logistical stocks, coordinates their cross-border use and pays for the cross-border transfers.

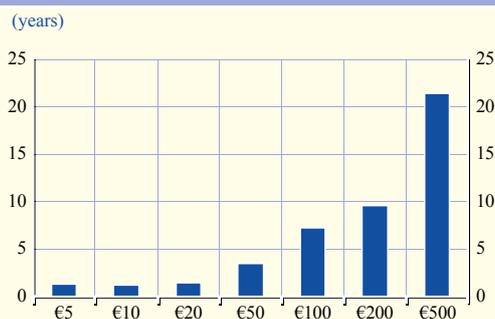
NCBs check authenticity and quality of banknotes ...

The euro banknotes’ quality deteriorates during circulation because they wear out or become dirty when passed from hand to hand, and vending machines, for example, may reject them. Consequently, the public might lose faith in them as a widely accepted means of payment. For this reason, the Eurosystem has to maintain the integrity of the banknotes, i.e. ensure that only genuine and good-quality banknotes are in circulation. The authenticity and “fitness” (quality) checks are performed by high-speed banknote sorting machines, which check various security features and fitness criteria, such as soiling, tears and other damage. Depending on how the cash cycles are organised nationally, banknotes end up in circulation for longer periods in some countries. The longer a banknote is in circulation, the more it wears out and becomes soiled. The Governing Council therefore decided in 2001 to set minimum fitness criteria, so that only banknotes of a certain quality would be re-issued by NCBs; all others would be destroyed. The Eurosystem closely monitors the quality of the banknotes in circulation by carrying out random checks every year. Over the longer term, the Eurosystem aims to enhance the durability of the euro banknotes, e.g. by having a more resistant substrate or protective coating for the low-denomination banknotes in particular, which are affected most by wear and tear.

... as do credit institutions and other cash handlers

In 2004 the Governing Council adopted a “Framework for the detection of counterfeits and fitness sorting by credit institutions and other professional cash handlers”, a set of rules

Chart 3 Average life spans of euro banknotes



Source: ECB.
1) As at 31 December 2007.

governing the “recycling” or re-circulation of banknotes. It requires fitness and authenticity checks to be carried out by banks and other professional cash handlers. It ensures that banknotes of sufficient quality remain in circulation if banks decide to re-issue the banknotes they have received from their customers, rather than depositing them with, and receiving new banknotes from, their central bank.

This recycling option enables credit institutions and other professional cash handlers to work more effectively and cost-efficiently since less cash has to be transported to the central bank; in other words, the cash cycle is shorter. According to the framework for banknote recycling, banknotes which are re-circulated via automated teller machines and other customer-operated devices have to be checked by banknote handling machines which have been tested and found to be in order by a central bank. These testing procedures require a machine to automatically detect and segregate counterfeits and unfit banknotes. A list of the banknote handling machines which have passed the test, and which banks must use, is provided on the ECB’s website.

As euro banknotes are used across borders in the euro area, greater convergence of NCBs’ cash services helps to ensure fair competition for cash stakeholders, especially cash-in-transit companies and banks, and could allow them to fully reap the benefits of a common currency when operating beyond national boundaries. A significant step towards convergence has been to define free-of-charge and charge-incurring NCB cash services. The latest achievements have been the provision of NCB cash services to euro area credit institutions established outside their jurisdiction upon request (“remote access”) and the possibility for NCB clients to lodge euro coins at all euro area central banks. The Eurosystem is still considering a number of further steps, such as common electronic data exchange with credit institutions for cash lodgements and withdrawals, and common banknote packaging standards for use by NCBs and their clients.

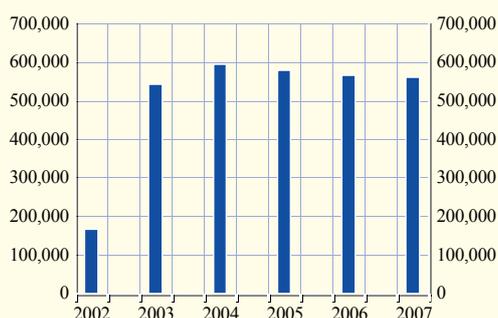
Single cash area requires convergence of NCBs’ cash services

9.5 SECOND SERIES OF EURO BANKNOTES

Central banks and other monetary authorities usually upgrade their banknotes after they have been in circulation for a few years to keep ahead of counterfeiters. The Eurosystem is also taking this precautionary measure and is currently developing a new series of euro banknotes. Not that there are many counterfeits: fewer than 600,000 of them – a tiny fraction of the 12 billion banknotes in circulation – are seized on average per year while in circulation, and they are mainly of low to medium quality.

Second banknote series to be issued in January 2011

Chart 4 Total number of euro counterfeit banknotes seized in circulation



Source: ECB.

The first denomination in the second series is planned to be put into circulation on 1 January 2011, and will be followed by the other denominations over a period of several years. The designs will be evolutionary, for they will incorporate the present “ages and styles of Europe” theme as well as state-of-the-art and user-friendly security features. The designs and features of the second series, in terms of functionality, are based on market research involving the public and people who handle cash professionally, and also on consultations

with the main stakeholders in the cash cycle. The ECB will announce well in advance when the current series ceases to be legal tender, i.e. when it can no longer be used to make payments. However, the NCBs will redeem euro banknotes of the “old” series for an unlimited period of time.

Today, the euro is a global currency. Together with its central bank partners in the Eurosystem, the ECB will continue to ensure that the banknotes remain a valuable and valued means of payment in the euro area and beyond.