

How Euro Banknotes in Circulation Affect Intra-Eurosystem Balances

Lenka Krsnakova,
Maria Oberleithner¹

The cash changeover to the euro created the need to present banknotes in circulation in an innovative manner to allocate them adequately across the balance sheets of the Eurosystem central banks. The solution adopted was to undertake regular accounting adjustments of the circulating banknotes. This article presents the relationships between the relevant balance sheet items – primarily intra-Eurosystem balances arising from such adjustment and the liability constituted by banknotes in circulation – and provides insights into the origins of this mechanism and its legal basis. The value of euro banknotes in circulation, as now reported by 18 Eurosystem central banks (i.e. including the ECB), has risen consistently over the last ten years and now stands at around EUR 900 billion.

JEL classification: M41

Keywords: banknotes in circulation, adjustment of banknotes in circulation, intra-Eurosystem balances, capital key

Before the cash changeover to the euro, today's euro area central banks used to report in their balance sheets all the banknotes that they had placed in circulation minus any banknotes they had taken out of circulation. Section 1 compares how they reported "banknotes in circulation" before the rollout of euro banknotes, how they accounted for them in the cash changeover year, and how they treat them now. Moreover, this section explains how the amount of banknotes in circulation is backed and describes the relevant legal framework.

The changeover to the euro created the need to establish a mechanism that would allow the amount of banknotes issued in the euro area as a whole to be shown adequately in the balance sheets of all Eurosystem central banks. The challenging aspect in this regard was the fact that euro banknotes circulate beyond the euro area and that they can be returned to any Eurosystem national central bank (NCB), regardless of whether they were issued by that NCB.

To ensure a smooth allocation of banknotes in circulation, the Governing Council of the ECB adopted a set of rules that provides for intra-Eurosys-

tem adjustments of euro banknotes in circulation. Section 2 contains a detailed description of how the monthly adjustment mechanism works in practice, while section 3 provides an overview of the accounting features that the Eurosystem created in this regard. Developments in the value of euro banknotes in circulation are described in section 4, while section 5 sums up and presents conclusions.

1 Banknotes in Circulation in a Central Bank's Balance Sheet

The value of the banknotes in circulation in a given currency area, excluding the value of coins in circulation, is the fundamental liability in a central bank's balance sheet (Handig and Holzfeind, 2007).

As of 1999 the central banks of the future euro area prepared for the cash changeover (Koch and Schneeberger in this issue) and corresponding balance sheet adjustments. Accordingly, the item "banknotes in circulation" that the Oesterreichische Nationalbank (OeNB) disclosed in its annual accounts for 1999 no longer showed the full amount of Schilling banknotes in circulation

Refereed by:
Clemens Jobst,
OeNB

¹ Oesterreichische Nationalbank, Financial Statements and Treasury Risk Monitoring Division, lenka.krsnakova@oenb.at, maria.oberleithner@oenb.at. The authors are grateful to Clemens Jobst for his valuable comments.

but the amount of banknotes issued by the OeNB minus those banknotes that had been returned to other Eurosystem central banks and were being held there prior to being transferred back to the OeNB.² This procedure ensured the uniform presentation of all banknotes in circulation across the euro area in the consolidated balance sheet of the ESCB.

The technical solution underlying this procedure was to create intra-ESCB balances (“intra-Eurosystem balances”) as a counterpart to banknotes in circulation. As soon as another euro area NCB accepted a Schilling banknote, it recorded the equivalent euro amount as an intra-ESCB claim on the OeNB. The OeNB, in turn, reduced the sum total disclosed under banknotes in circulation by the same amount.

1.1 Presentation of Banknotes in Circulation

Euro banknotes in circulation are reported as “liability item 1” in the balance sheets of the euro area NCBs and the ECB.

In the cash changeover year, each NCB reported national banknotes (expressed in euro) and euro banknotes in parallel. In the subsequent year, each

Table 1

Banknotes in Circulation in the OeNB’s Balance Sheet as at December 31, 2002

	EUR
Euro banknotes in circulation (liability item 1.1)	9,608,309,200.00
Schilling banknotes in circulation (liability item 1.2)	629,195,257.54
Banknotes in circulation (liability item 1)	10,237,504,457.54

Source: OeNB.

Table 2

Banknotes in Circulation in the OeNB’s Balance Sheet as at December 31, 2003

	EUR
Euro banknotes in circulation	11,691,232,000.00
Banknotes in circulation (liability item 1)	11,691,232,000.00

Source: OeNB.

NCB followed the harmonized balance sheet format and has since disclosed euro banknotes only (tables 1 and 2).

Before the changeover to the euro, each NCB disclosed in its balance sheet the banknotes it had issued minus those it had taken out of circulation. The changeover to the euro created the need for a new accounting regime also with regard to banknotes in circulation.

Within the euro area, banknotes in circulation increase whenever the OeNB or another NCB places banknotes in circulation (e.g. by supplying them to a commercial bank). Conversely, banknotes in circulation decrease whenever banknotes are taken out of circulation and deposited with the OeNB or another NCB (e.g. when banknotes are delivered to an NCB by a security firm).

1.2 Backing of Banknotes in Circulation

To ensure the value of the currency, banknotes in circulation need to be “backed,” i.e. collateralized by corresponding assets in the central bank’s balance sheet.

Under the Nationalbank Act, every single schilling banknote in circulation needed to be backed by means of selected OeNB assets until Decem-

² Article 49 of the Protocol (No 4) on the ESCB/ECB Statute (Official Journal of the European Union, 2010; OJ C 83, p. 230).

ber 31, 1998. Specifically, all banknotes issued by the OeNB plus sight liabilities in the OeNB's accounts needed to be fully backed by gold and foreign currency reserves unless backed by federal debt. This was meant to ensure smooth payment transactions with nonresidents and secure the value of the currency.³

When the euro was introduced – initially (in 1999) as an accounting cur-

rency – the provision about the backing of schilling banknotes in circulation had to be removed from the Nationalbank Act. While the European System of Central Banks and of the European Central Bank (ESCB/ECB Statute) does not contain a corresponding provision, euro banknotes in circulation are backed by underlying assets, even if they are not backed 1:1 by gold and/or foreign currency.

Box 1

Legal Framework

The ECB Guideline on the legal framework for accounting and financial reporting in the ESCB (Accounting Guideline) provides a framework for the balance sheets of all NCBs in the ESCB. Its provisions pertaining to the reporting and recording of banknotes in circulation and their allocation must be applied by all Eurosystem NCBs as part of the joint financial reporting system.

Banknotes in circulation are allocated in accordance with the banknote allocation key on the basis of ECB Decision ECB/2010/24¹ and Article 49 of the ESCB/ECB Statute. The term “banknote allocation key” is explained as follows in Article 1 of the Accounting Guideline:

Banknote allocation key

The percentages that result from taking into account the ECB's share in the total euro banknote issue and applying the subscribed capital key to the NCBs' share in such total.²

Annex IV of the Accounting Guideline defines banknotes in circulation and intra-Eurosystem balances, on the basis of Article 12, as follows:³

Asset item 9.4: Net claims related to the allocation of euro banknotes within the Eurosystem

For the NCBs: net claim related to the application of the banknote allocation key, i.e. including the ECB's banknote issue-related intra-Eurosystem balances, the compensatory amount and its balancing accounting entry.⁴

For the ECB: claims related to the ECB's banknote issue.

Liability item 1: Banknotes in circulation

a) Euro banknotes, plus/minus adjustments relating to the application of the banknote allocation key.

b) Banknotes denominated in national euro area currency units during the cash changeover year.

Liability item 10.3: Net liabilities related to allocation of euro banknotes within the Eurosystem

For the NCBs: net liability related to the application of the banknote allocation key, i.e. including the ECB's banknote issue-related intra-Eurosystem balances, the compensatory amount and its balancing accounting entry.

¹ Official Journal of the European Union, 2011c (Decision ECB/2010/24).

² Official Journal of the European Union, 2011d (Decision ECB/2010/29).

³ Official Journal of the European Union, 2011a (Guideline ECB/2010/20).

⁴ Official Journal of the European Union, 2011b (Decision ECB/2010/23).

³ Paragraph 62 of the Nationalbank Act, Federal Law Gazette No. 50/1984, as published in Federal Law Gazette I No. 60/1998.

2 Adjustment of Euro Banknotes in Circulation for Accounting Purposes

Within the euro area, the Governing Council of the ECB (which comprises the members of the Executive Board of the ECB and the governors of the euro area NCBs) has the exclusive right to authorize the issuance of banknotes.⁴ Both the ECB and the NCBs are entitled to issue euro banknotes. In practice, euro banknotes are issued by all euro area NCBs, but not the ECB. Technically, the ECB would thus not have been in a position to disclose banknotes in circulation in its balance sheet. In order to avoid such a scenario, it was agreed that the ECB should, as a rule, report 8% of total banknotes in circulation in its balance sheet (a percentage that has been left unchanged as the euro area has grown). The remaining 92% is to be presented in the balance sheets of the NCBs in proportion to their paid-up shares in the capital of the ECB (section 3.3). Those shares constitute the banknote allocation key on the basis of which euro banknotes in circulation are now adjusted on a monthly basis (i.e. on the last working day of every month) in the balance sheets of the Eurosystem central banks.

2.1 How Are NCBs' Shares in Euro Banknotes in Circulation Calculated?

The various euro area NCBs regularly report to the ECB how many banknotes they have put into and taken out of circulation. The ECB subsequently allocates each Eurosystem NCB its share in the total value of euro banknotes in circulation (shown under “Unadjusted banknotes in circulation” in table 3) on the basis of the banknote allocation key.

These are the shares of “banknotes in circulation (liability item 1)” that NCBs disclose in their balance sheets.

The difference between the net amounts of banknotes put into circulation by the individual NCBs and the amounts of banknotes allocated to them on the basis of the banknote allocation key gives rise to intra-Eurosystem balances. If the unadjusted share of banknotes in circulation is higher than the allocated share, that NCB reports a corresponding net liability arising from the allocation of euro banknotes in circulation within the Eurosystem. If the allocated share is higher than the unadjusted share, this gives rise to a net claim.

The total intra-Eurosystem balances represent the overall impact of the adjustment. They comprise the proportionate liabilities resulting from the ECB's (8%) share in euro banknotes in circulation, combined with the proportionate claims/liabilities resulting from the allocation of the remaining 92% of euro banknotes in circulation to the various NCBs. The ECB's share is allocated by dividing its 8% – here, around EUR 71 billion – among the various NCBs on the basis of the capital key (shown under “Adjustment resulting from ECB share” in table 3). The column headed “Adjustment resulting from NCBs' shares” is derived by subtracting the column headed “Adjustment resulting from ECB share” from the column headed “Total intra-Eurosystem balance.”

On the last working day of every month, the Eurosystem central banks adjust their balance sheets to reflect the amount of banknotes in circulation as calculated on the basis of the banknote allocation key (liability item 1) and

⁴ Article 16 of the Protocol (No 4) on the ESCB/ECB Statute (Official Journal of the European Union, 2010; OJ C 83, p. 237).

Table 3

Adjustment of Banknotes in Circulation at End-2011

Central bank of	Unadjusted banknotes in circulation	Banknote allocation key	Banknotes in circulation (liability item 1)	Total intra-Eurosystem balance	Eurosystem capital key	Adjustment resulting from ECB share	Adjustment resulting from NCBs' shares
	EUR	%	EUR		%	EUR	EUR
Belgium		3.18950	28,342,790,060	16,354,345,340	3.46660	-2,464,416,949	
Germany		24.89950	221,263,928,860	-170,489,441,885	27.06469	-19,240,354,177	
Estonia		0.23550	2,092,718,940	1,501,975,830	0.25582	-181,864,542	
Ireland		1.46050	12,978,411,940	-15,389,015,630	1.58738	-1,128,474,565	
Greece		2.58350	22,957,704,380	-18,437,110,570	2.80818	-1,996,344,353	
Spain		10.91850	97,024,848,180	26,453,929,795	11.86786	-8,436,889,160	
France		18.69850	166,160,106,580	77,322,436,905	20.32457	-14,448,782,288	
Italy		16.43100	146,010,466,680	-7,553,481,615	17.85981	-12,696,583,463	
Cyprus		0.18000	1,599,530,400	551,945,625	0.19565	-139,090,815	
Luxembourg		0.22950	2,039,401,260	-69,994,510,855	0.24968	-177,495,729	
Malta		0.08300	737,561,240	-130,048,930	0.09032	-64,211,391	
Netherlands		5.24400	46,599,652,320	27,278,180,115	5.69983	-4,052,023,284	
Austria	-10,112,724,375	2.55300	22,686,672,840	32,799,397,215	2.77503	-1,972,773,083	34,772,170,298
Portugal		2.30150	20,451,773,420	21,820,551,620	2.50163	-1,778,411,703	
Slovenia		0.43250	3,843,316,100	2,476,939,950	0.46991	-334,061,796	
Slovakia		0.91150	8,099,844,220	859,119,135	0.99099	-704,496,501	
Finland		1.64850	14,649,032,580	3,484,706,245	1.79204	-1,273,966,199	
ECB	-	8.00000	71,090,240,000	71,090,240,000	0.00000	71,090,240,000	-
Total	888,627,841,710	100.00000	888,628,000,000	158,290	99.99999	-0	158,290

Source: ECB, OeNB.

Note: With the exception of data for the OeNB and the ECB and the respective totals, data for the columns "Unadjusted banknotes in circulation" and "Adjustment resulting from NCBs' shares" are not shown.

Table 4

Banknotes in Circulation in the OeNB's Balance Sheet as at December 31, 2011

	EUR
Banknotes actually put into and taken out of circulation by the OeNB (unadjusted banknotes)	-10,112,724,375.00
ECB's 8% share of banknotes in circulation	-1,972,773,083.00
Claims related to the allocation of euro banknotes within the Eurosystem	34,772,170,298.00
Net claims related to the allocation of euro banknotes within the Eurosystem ¹	32,799,397,215.00
Banknotes in circulation (liability item 1)	22,686,672,840.00

Source: OeNB.

¹ Counterpart in asset item 9.4 "Net claims related to the allocation of euro banknotes within the Eurosystem".

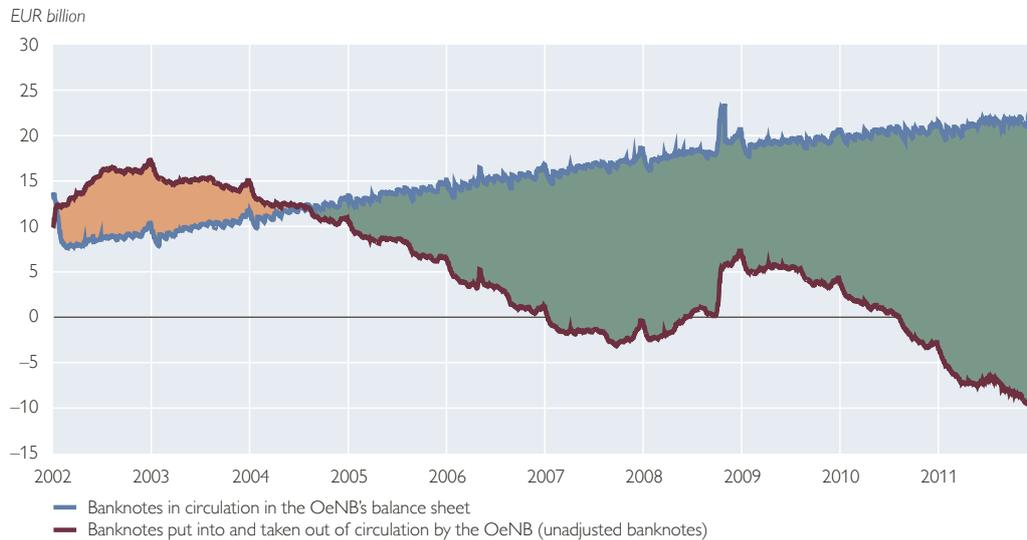
the corresponding intra-Eurosystem balances (asset item 9.4/liability item 10.3).

The final annual adjustment of banknotes in circulation is disclosed in the balance sheet of the respective year (table 4 for the OeNB's share of banknotes in circulation on December 31, 2011).

Chart 1 plots (i) the unadjusted amount of banknotes in circulation recorded by the OeNB, i.e. the euro banknotes it has put into circulation minus those it has taken out of circulation, against (ii) the amount of banknotes in circulation attributed to the OeNB on the basis of the adjustment of banknotes in circulation, as reported in the balance sheet of the OeNB. The former has been lower than the latter since mid-2004 and displays a negative trend, meaning that, in value terms, more banknotes are returning to the OeNB than are being issued. This is primarily on account of Austria's geographical position, tourism receipts, the interdependence of banks at the international level and the fact that Austria's banks are active players in Central, Eastern and Southeastern Europe (Schneeberger and Süß, 2007).

Chart 1

Banknotes in Circulation in the OeNB's Balance Sheet Relative to Unadjusted Banknotes



Source: OeNB.

Depending on which of the two different shares of banknotes in circulation is higher, the OeNB thus reports either interest-bearing intra-Eurosystem claims (green shading in chart 1) or liabilities (orange shading in chart 1).

3 Special Banknote Accounting Features of the Eurosystem

This section will explain the special features of the Eurosystem as regards the adjustment of banknotes in circulation. This primarily concerns intra-Eurosystem balances and the interest on such balances, the compensatory amount and the adjustment of the capital key.

3.1 Intra-Eurosystem Balances

Intra-euro area transactions give rise to intra-Eurosystem balances reported in the balance sheets of the corresponding central banks. Such balances can be found on both the asset and the liability side of the balance sheet, yet balances of the same kind (e.g. balances related to the allocation of euro banknotes in

circulation within the Eurosystem) can never be shown on both sides at the same time, as data are always reported on a net basis. Moreover, the central banks' balances cancel each other out, so they do not appear in the Eurosystem's consolidated weekly financial statement.

Table 5 lists all intra-Eurosystem claims and liabilities reported in the NCBs' balance sheets, including the two items "net claims/liabilities related to the allocation of euro banknotes within the Eurosystem," (section 2) that are used for the adjustment of banknotes in circulation. These two items are, under the Accounting Guideline, to be presented in a harmonized manner – as asset item 9.4 and liability item 10.3 respectively – in the balance sheet of every Eurosystem central bank.

The net claims/liabilities resulting from the allocation of euro banknotes in circulation within the Eurosystem carry interest, which is calculated on a daily basis. The interest rate applied is the current marginal interest rate in

Intra-Eurosystem Balances

Asset item 9

Intra-Eurosystem claims

Asset item 9.1: Participating interest in ECB

Asset item 9.2: Claims equivalent to the transfer of foreign reserves

Asset item 9.3: Claims related to the issuance of ECB debt certificates¹

Asset item 9.4: Net claims related to the allocation of euro banknotes within the Eurosystem

Asset item 9.5: Other claims within the Eurosystem (net)

Liability item 10

Intra-Eurosystem liabilities

Liability item 10.1: Liabilities equivalent to the transfer of foreign reserves¹

Liability item 10.2: Liabilities related to the issuance of ECB debt certificates

Liability item 10.3: Net liabilities related to the allocation of euro banknotes within the Eurosystem

Liability item 10.4: Other liabilities within the Eurosystem (net)

Source: OeNB.

¹ Relevant only for the annual accounts of the ECB.

the main refinancing operations (MRO rate).⁵ An intra-Eurosystem claim results in the NCB earning interest, while an intra-Eurosystem liability results in interest expense. These are reported as part of the net interest income in the NCB's profit and loss account. In 2011, this scheme resulted in the OeNB generating interest income totaling EUR 365 million. As the Eurosystem shares responsibility for the banknotes in circulation and as the circulating banknotes constitute a closed system, the total interest income and expense within the Eurosystem cancel each other out.

Under a decision by the Governing Council of the ECB, the ECB's seigniorage – interest income derived from banknotes in circulation – that stems from its technical 8% share in the euro banknotes in circulation is due, in full, to the NCBs of the Eurosystem in the year that it is generated. Such income is distributed provisionally at the beginning of January of the following year.⁶ Before the end of every financial year, the Governing Council

of the ECB decides whether, and to what extent, the ECB's income derived from banknotes in circulation should be retained, so that the income distributed does not exceed the ECB's net annual income for the year.

The Governing Council of the ECB may decide to allocate all or part of that income to the ECB's provision for exchange rate, interest rate, credit and gold price risks (risk provision). Income distributed to NCBs is reported as income from participating interests in the profit and loss account. Since the introduction of euro banknotes, all or part of the ECB's seigniorage has been distributed for the 2002, 2008, 2009 and 2011 financial years. In all other financial years, ECB income derived from interest on banknotes in circulation has been retained by the ECB and used to cover expenses or to build up the ECB's risk provision.

3.2 Compensatory Amounts

Prior to the introduction of the euro, each NCB earned income on its own currency and determined its own issu-

⁵ *Official Journal of the European Union, 2011b (Decision ECB/2010/23, Article 4).*

⁶ *Official Journal of the European Union, 2011c (Decision ECB/2010/24).*

ance level. The value of the banknotes that used to circulate in the various countries differed considerably from amounts to be allocated to the respective NCBs in line with the capital key, on account of the differing levels of demand in those countries. The allocation of seigniorage on the basis of the banknote allocation key following the changeover to the euro was thus going to significantly change the income of individual NCBs. The solution with a view to smoothing out the effects stemming from historical imbalances was to implement a system of compensatory amounts in the first five years following the changeover year.

The compensatory amounts are calculated as the difference, for each NCB joining the Eurosystem, between the average daily value of national banknotes in circulation over a 24-month period⁷ and the average value calculated on the basis of the banknote allocation key. The resulting difference is used to offset the impact of the banknote allocation key for a total of five years in progressively lower amounts, which may be positive or negative and sum to zero at the level of the Eurosystem. As of the sixth year following the year of the cash changeover, seigniorage is allocated exclusively on the basis of the banknote allocation key.

Every new accession to the euro area reactivates the system of compensatory amounts. At the time of writing, four compensatory amounts are being applied. These relate to the introduction of the euro in Estonia (in 2011), Slovakia (in 2009), Cyprus and Malta (in 2008), and Slovenia (in 2007).

These adjustments will cease to be applied at the end of 2016, 2014, 2013 and 2012, respectively.

3.3 Adjustment of the Capital Key

The capital key represents the weighted share of each NCB in the ECB. Its calculation⁸ is based on two components:

- 50% of the share of the respective Member State in the population of the Community in the penultimate year preceding the establishment of the ESCB;
- 50% of the share of the respective Member State in the gross domestic product at market prices of the Community as recorded in the last five years preceding the penultimate year before the establishment of the ESCB.

The percentages are rounded up or down to the nearest multiple of 0.05 percentage points. The statistical data used for the calculation are provided by the European Commission in accordance with rules⁹ laid down by the Governing Council of the ECB. The adjusted capital key applies with effect from the first day of the following year.

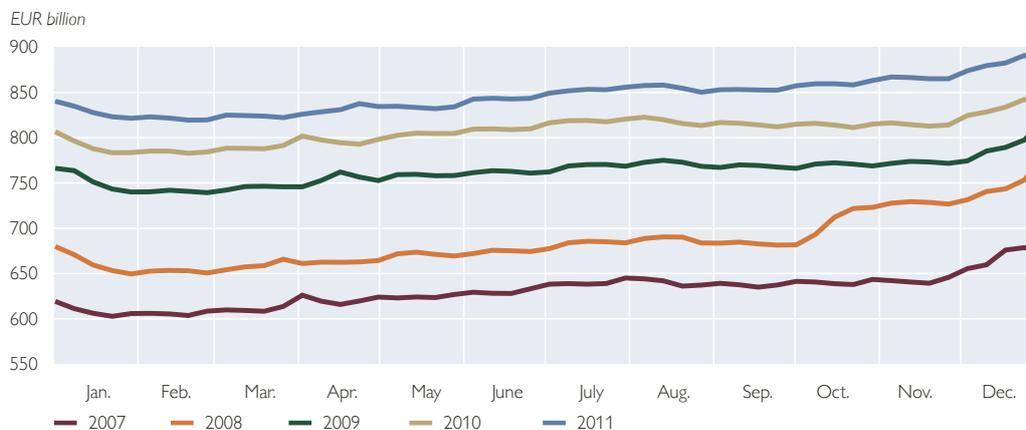
The capital key is adjusted at regular intervals and whenever a new Member State accedes to the European Union or Eurosystem. The adjustment is calculated in the same way in both cases (in line with the provisions of the ESCB/ECB Statute).

The regular adjustment of the capital key takes place every five years. The first such adjustment took place in 1999, and the most recent was in 2009, when the OeNB's share in the subscribed capital of the ECB was adjusted

⁷ The beginning of the two-year reference period is the 30th month prior to the cash changeover date.

⁸ Article 29 of the Protocol (No 4) on the ESCB/ECB Statute (Official Journal of the European Union, 2010; OJ C 83, p. 242).

⁹ Procedure pursuant to Article 42 of the Protocol (No 4) on the ESCB/ECB Statute (Official Journal of the European Union, 2010; OJ C 83, p. 247).

Value of Euro Banknotes in Circulation: A Five-Year Overview

to stand at 1.94170%. Following Eesti Pank's entry into the Eurosystem in 2011, the OeNB's share in the capital of the ECB paid up by Eurosystem NCBs is now 2.77503% (OeNB, 2011).

4 Developments in Euro Banknotes in Circulation

The euro is widely used as means of payment throughout the world, not just in Austria. Five years after the cash changeover, seven out of ten Austrians were convinced that the euro was a stable currency (Fluch et al., 2007). In 2011, 58% of Austrians were positively disposed towards the euro (Fluch and Schlögl in this issue).

One sign of the high degree of acceptance in respect of the euro is the fact that the value of euro banknotes in circulation has increased by an average of around 13% per year over the last ten years. In value terms, euro banknotes in circulation overtook U.S. dollar banknotes in circulation as early as 2006 (Koch and Schneeberger in this issue). At end-2006, the value of euro banknotes in circulation stood at EUR 628 billion, while that of U.S. dollar banknotes in circulation was equivalent to EUR 595 billion. The value of euro

banknotes in circulation increased by a factor of 3.2 between their introduction in 2002 and end-2011.

Chart 2 indicates annual developments in the value of euro banknotes in circulation over the last five years, demonstrating the consistent increases observed in the value of euro banknotes in circulation since the cash changeover in 2002.

This chart clearly shows the fluctuating demand for cash, which may be attributable to various factors. Reasons include seasonal demand for cash (on account of holidays, Christmas, etc.) as well as demand for cash stemming from particular events (e.g. the global financial crisis). A dramatic increase can be seen in the value of euro banknotes in circulation in autumn 2008 following financial market turbulence (chart 2). This led to the value of banknotes in circulation increasing markedly in 2008. Annual developments then returned to normal in the years that followed.

Chart 3 presents consolidated data on the value of banknotes in circulation at the level of the Eurosystem relative to the size of the consolidated balance sheet of the Eurosystem. Between 2002

and 2011, banknotes in circulation represented (on the respective balance sheet dates) between 32% and 57% of the total size of the consolidated balance sheet of the Eurosystem, thereby playing a substantial role in the Eurosystem balance sheet. At end-2011 the total value of euro banknotes in circulation was EUR 889 billion, while the size of the consolidated balance sheet of the Eurosystem was EUR 2,736 billion.

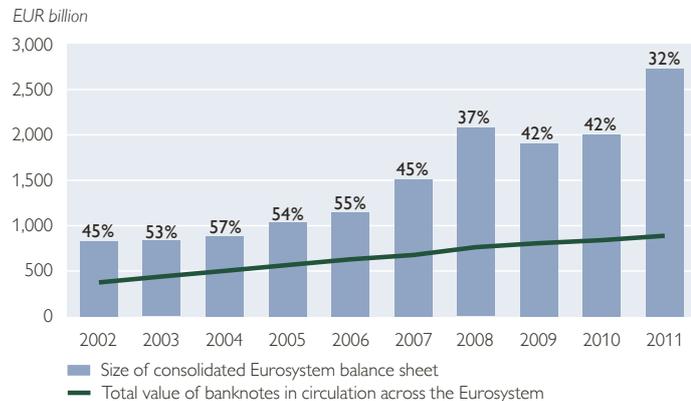
5 Summary and Conclusions

The introduction of the euro created the need to develop a new regime for reporting the amount of banknotes in circulation as a whole in the euro area as a liability in the balance sheets of the individual Eurosystem NCBs. Before the changeover to the euro, the NCBs simply reported the precise value of the banknotes in circulation they had placed in circulation, minus the banknotes they had removed from circulation. Apart from that, no adjustment was necessary, as the national banknotes could only be redeemed by the issuing central bank.

When euro cash was introduced in the euro area – which more and more EU Member States have since joined – an innovative solution for presenting banknotes in circulation in the balance sheets of Eurosystem central banks was called for, because euro banknotes can be returned to any Eurosystem NCB, regardless of which euro area NCB issued them in the first place.

Chart 3

Euro Banknotes in Circulation Relative to the Eurosystem's Balance Sheet



Source: ECB (consolidated weekly financial statement of the Eurosystem).

To provide for an adequate allocation of banknotes in circulation among the Eurosystem central banks, the Governing Council of the ECB established an adjustment regime which smooths out any irregular patterns resulting from the migration of banknotes, both as regards the reporting of banknotes in circulation in NCBs' balance sheets and as regards NCBs' income (Handig and Holzfeind, 2007).

The value of euro banknotes in circulation has steadily risen over the last ten years and stood at around EUR 900 billion at end-2011. The success of the euro is also evident from the Eurosystem's financial statements. In 2002, euro banknotes in circulation were reported in the balance sheets of 13 Eurosystem central banks; today, they are reported by 18 central banks.

References

All websites as retrieved on February 24, 2012.

Fluch, M., E. Gnan and S. Schlögl. 2007. Euro Cash in Austria Five Years after Its Introduction – What the Public Thinks. In: *Monetary Policy & the Economy Q1/07*. OeNB. 30–54.

Handig, M. and R. Holzfeind. 2007. Euro Banknotes in Circulation and the Allocation of Monetary Income within the Eurosystem. In: *Monetary Policy & the Economy Q1/07*. OeNB. 150–165.

OeNB. 2011. Annual Report 2010.

www.oenb.at/bilanz2010/en/kapitalschlüssel/kapitalschlüssel.jsp

Official Journal of the European Union. 2010. Protocol (No 4) on the Statute of the European System of Central Banks and of the European Central Bank.

Exchange of banknotes in the currencies of the Member States (Article 49), Banknotes (Article 16), Key for capital subscription (Article 29), General Provisions (Articles 34-39).

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:115:0201:0328:en:PDF>

Official Journal of the European Union. 2011a. Guideline of the European Central Bank of 11 November 2010 on the legal framework for accounting and financial reporting of the European System of Central Banks (recast) (ECB/2010/20).

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:035:0031:0068:EN:PDF>

Official Journal of the European Union. 2011b. Decision of the European Central Bank of 25 November 2010 on the allocation of monetary income of the national central banks of Member States whose currency the euro is (recast) (ECB/2010/23).

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:035:0017:0025:EN:PDF>

Official Journal of the European Union. 2011c. Decision of the European Central Bank of 25 November 2010 on the interim distribution of the income of the European Central Bank on euro banknotes in circulation and arising from securities purchased under the securities markets programme (ECB/2010/24).

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:006:0035:0036:EN:PDF>

Official Journal of the European Union. 2011d. Decision of the European Central Bank of 13 December 2010 on the issue of euro banknotes (ECB/2010/29).

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:035:0026:0030:EN:PDF>

Schneeberger, D. and G. Süß. 2007. Austria's Experience with Euro Migration since the Cash Changeover. In: *Monetary Policy & the Economy Q1/07*. OeNB. 128–137.