



EUROPEAN CENTRAL BANK

EUROSYSTEM

THE IMPLEMENTATION OF MONETARY POLICY IN THE EURO AREA

FEBRUARY 2011

**GENERAL
DOCUMENTATION
ON EUROSYSTEM
MONETARY POLICY
INSTRUMENTS
AND PROCEDURES**



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ABBREVIATIONS

CCBM	correspondent central banking model
CET	Central European Time
CIs	credit institutions
CRD	Capital Requirements Directive
CSD	central securities depository
EC	European Community
ECAF	Eurosystem credit assessment framework
ECAI	external credit assessment institution
ECB	European Central Bank
EEA	European Economic Area
EEC	European Economic Community
ESA 95	European System of Accounts 1995
ESCB	European System of Central Banks
EU	European Union
ICAS	in-house credit assessment system
ICSD	international central securities depository
IDC	intraday credit
IRB	internal ratings-based system
ISIN	International Securities Identification Number
MFI	monetary financial institution
MMF	money market fund
NCB	national central bank
PD	probability of default
PSE	public sector entity
RMBD	retail mortgage-backed debt instrument
RoW	rest of the world
RT	rating tool
RTGS	real-time gross settlement
SSS	securities settlement system
TARGET	the Trans-European Automated Real-time Gross settlement Express Transfer system, as defined in Guideline ECB/2005/16
TARGET2	the Trans-European Automated Real-time Gross settlement Express Transfer system, as defined in Guideline ECB/2007/2
UCITS	undertaking for collective investment in transferable securities

INTRODUCTION

This document presents the operational framework chosen by the Eurosystem¹ for the single monetary policy in the euro area. The document, which forms part of the Eurosystem's legal framework for monetary policy instruments and procedures, is intended to serve as the 'General Documentation' on the monetary policy instruments and procedures of the Eurosystem, and is aimed, in particular, at providing counterparties with the information they need in relation to the Eurosystem's monetary policy framework.

The General Documentation in itself neither confers rights nor imposes obligations on counterparties. The legal relationship between the Eurosystem and its counterparties is established in appropriate contractual or regulatory arrangements.

This document is divided into seven chapters. Chapter 1 gives an overview of the operational framework for the monetary policy of the Eurosystem. In Chapter 2, eligibility criteria for counterparties taking part in Eurosystem monetary policy operations are specified. Chapter 3 describes open market operations, while Chapter 4 presents the standing facilities available to counterparties. Chapter 5 specifies procedures applied in the execution of monetary policy operations. In Chapter 6, the eligibility criteria for underlying assets in monetary policy operations are defined. Chapter 7 presents the Eurosystem's minimum reserve system.

The appendices contain examples of monetary policy operations, a glossary, criteria for the selection of counterparties for Eurosystem foreign exchange intervention operations, a presentation of the reporting framework for the money and banking statistics of the European Central Bank, a list of the Eurosystem websites, a description of the procedures and sanctions to be applied in the event of non-compliance with counterparty obligations and additional legal requirements for the creation of valid security over credit claims when these are used as collateral with the Eurosystem.

¹ The Governing Council of the European Central Bank, in accordance with Article 282(1) of the Treaty on the Functioning of the European Union, uses the term 'Eurosystem' to denote those components of the European System of Central Banks that carry out its basic tasks, i.e. the European Central Bank and the national central banks of those Member States which have adopted the single currency in accordance with the Treaty on the Functioning of the European Union.

CHAPTER 1 OVERVIEW OF THE MONETARY POLICY FRAMEWORK

1.1 THE EUROPEAN SYSTEM OF CENTRAL BANKS

The European System of Central Banks (ESCB) consists of the European Central Bank (ECB) and the national central banks (NCBs) of the European Union (EU) Member States¹. The activities of the ESCB are carried out in accordance with the Treaty on the Functioning of the European Union and the Statute of the European System of Central Banks and of the European Central Bank (hereinafter the ‘Statute of the ESCB’). The ESCB is governed by the decision-making bodies of the ECB. In this respect, the Governing Council of the ECB is responsible for the formulation of monetary policy, while the Executive Board is empowered to implement monetary policy according to the decisions made and guidelines laid down by the Governing Council. To the extent deemed possible and appropriate and with a view to ensuring operational efficiency, the ECB has recourse to the NCBs² for carrying out the operations which form part of the tasks of the Eurosystem. The NCBs may, if necessary for the implementation of monetary policy, share amongst the Eurosystem members individual information, such as operational data, related to counterparties participating in Eurosystem operations³. The Eurosystem’s monetary policy operations are executed under uniform terms and conditions in all Member States⁴.

1.2 Objectives of the Eurosystem

The primary objective of the Eurosystem is to maintain price stability, as defined in Article 127(1) of the Treaty. Without prejudice to the primary objective of price stability, the Eurosystem has to support the general economic policies in the EU. In pursuing its objectives, the Eurosystem has to act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources.

1.3 Eurosystem monetary policy instruments

In order to achieve its objectives, the Eurosystem has at its disposal a set of monetary policy instruments; the Eurosystem conducts open market operations, offers standing facilities and requires credit institutions to hold minimum reserves on accounts with the Eurosystem.

¹ It should be noted that the NCBs of those Member States which have not adopted the single currency in accordance with the Treaty on the Functioning of the European Union retain their powers in the field of monetary policy according to national law and are thus not involved in the conduct of the single monetary policy.

² Throughout this document, the term ‘NCBs’ refers to the NCBs of the Member States which have adopted the single currency in accordance with the Treaty.

³ Such information is subject to the requirement concerning professional secrecy set out in Article 37 of the Statute of the ESCB.

⁴ Throughout this document, the term ‘Member State’ refers to a Member State which has adopted the single currency in accordance with the Treaty.

1.3.1 Open market operations

Open market operations play an important role in the monetary policy of the Eurosystem for the purposes of steering interest rates, managing the liquidity situation in the market and signalling the stance of monetary policy. Five types of instruments are available to the Eurosystem for the conduct of open market operations. The most important instrument is the *reverse transaction* (applicable on the basis of repurchase agreements or collateralised loans). The Eurosystem may also use *outright transactions*, the *issuance of ECB debt certificates*, *foreign exchange swaps* and the *collection of fixed-term deposits*. Open market operations are initiated by the ECB, which also decides on the instrument to be used and on the terms and conditions for its execution. They can be executed on the basis of standard tenders, quick tenders or bilateral procedures⁵. With regard to their aims, regularity and procedures, the Eurosystem's open market operations can be divided into the following four categories (see also Table 1):

- The *main refinancing operations* are regular liquidity-providing reverse transactions with a weekly frequency and a maturity of normally one week. These operations are executed by the national central banks on the basis of standard tenders. The main refinancing operations play a pivotal role in pursuing the objectives of the Eurosystem's open market operations.
- The *longer-term refinancing operations* are liquidity-providing reverse transactions with a monthly frequency and a maturity of normally three months. These operations are aimed at providing counterparties with additional longer-term refinancing and are executed by the national central banks on the basis of standard tenders. In these operations, the Eurosystem does not, as a rule, intend to send signals to the market and therefore normally acts as a rate taker.
- *Fine-tuning operations* are executed on an ad hoc basis with the aim of managing the liquidity situation in the market and steering interest rates, in particular in order to smooth the effects on interest rates caused by unexpected liquidity fluctuations in the market. Fine-tuning operations may be conducted on the last day of a reserve maintenance period to counter liquidity imbalances which may have accumulated since the allotment of the last main refinancing operation. Fine-tuning operations are primarily executed as reverse transactions, but may also take the form of either foreign exchange swaps or the collection of fixed-term deposits. The instruments and procedures applied in the conduct of fine-tuning operations are adapted to the types of transactions and the specific objectives pursued in the operations. Fine-tuning operations are normally

⁵ The different procedures for the execution of Eurosystem open market operations, i.e. standard tenders, quick tenders and bilateral procedures, are specified in Chapter 5. For *standard tenders*, a maximum of 24 hours elapses between the tender announcement and the certification of the allotment result. All counterparties fulfilling the general eligibility criteria specified in Section 2.1 may participate in standard tenders. *Quick tenders* are normally executed within a time frame of 90 minutes. The Eurosystem may select a limited number of counterparties to participate in quick tenders. The term 'bilateral procedures' refers to any case in which the Eurosystem conducts a transaction with one or a few counterparties without using tender procedures. Bilateral procedures include operations executed through stock exchanges or market agents.

executed by the NCBs through quick tenders or bilateral procedures. The Governing Council of the ECB can decide that, under exceptional circumstances, fine-tuning bilateral operations may be executed by the ECB itself.

- In addition, the Eurosystem may carry out *structural operations* through the issuance of ECB debt certificates, reverse transactions and outright transactions. These operations are executed whenever the ECB wishes to adjust the structural position of the Eurosystem vis-à-vis the financial sector (on a regular or non-regular basis). Structural operations in the form of reverse transactions and the issuance of debt instruments are carried out by the NCBs through standard tenders. Structural operations in the form of outright transactions are normally executed by the NCBs through bilateral procedures. The Governing Council of the ECB can decide that, under exceptional circumstances, structural operations may be executed by the ECB itself.

1.3.2 Standing facilities

Standing facilities are aimed at providing and absorbing overnight liquidity, signal the general stance of monetary policy and bound overnight market interest rates. Two standing facilities are available to eligible counterparties on their own initiative, subject to their fulfilment of certain operational access conditions (see also Table 1):

- Counterparties can use the *marginal lending facility* to obtain overnight liquidity from the national central banks against eligible assets. Under normal circumstances, there are no credit limits or other restrictions on counterparties' access to the facility apart from the requirement to present sufficient underlying assets. The interest rate on the marginal lending facility normally provides a ceiling for the overnight market interest rate.
- Counterparties can use the *deposit facility* to make overnight deposits with the national central banks. Under normal circumstances, there are no deposit limits or other restrictions on counterparties' access to the facility. The interest rate on the deposit facility normally provides a floor for the overnight market interest rate.

The standing facilities are administered in a decentralised manner by the national central banks.

1.3.3 Minimum reserves

The Eurosystem's minimum reserve system applies to credit institutions in the euro area and primarily pursues the aims of stabilising money market interest rates and creating (or enlarging) a structural liquidity shortage. The reserve requirement of each institution is determined in relation to elements of its balance sheet. In order to pursue the aim of stabilising interest rates, the Eurosystem's minimum reserve system enables institutions to

make use of averaging provisions. Compliance with the reserve requirement is determined on the basis of the institutions' average daily reserve holdings over the maintenance period. Institutions' holdings of required reserves are remunerated at the rate of the Eurosystem's main refinancing operations.

Table 1 Eurosystem monetary policy operations

Monetary policy operations	Types of transactions		Maturity	Frequency	Procedure
	Provision of liquidity	Absorption of liquidity			
Open market operations					
Main refinancing operations	Reverse transactions	-	One week	Weekly	Standard tenders
Longer-term refinancing operations	Reverse transactions	-	Three months	Monthly	Standard tenders
Fine-tuning operations	Reverse transactions Foreign exchange swaps	Reverse transactions Collection of fixed-term deposits Foreign exchange swaps	Non-standardised	Non-regular	Quick tenders Bilateral procedures
Structural operations	Reverse transactions	Issuance of ECB debt certificates	Standardised/non-standardised	Regular and non-regular	Standard tenders
	Outright purchases	Outright sales	-	Non-regular	Bilateral procedures
Standing facilities					
Marginal lending facility	Reverse transactions	-	Overnight	Access at the discretion of counterparties	
Deposit facility	-	Deposits	Overnight	Access at the discretion of counterparties	

1.4 Counterparties

The Eurosystem's monetary policy framework is formulated with a view to ensuring the participation of a broad range of counterparties. Institutions subject to minimum reserve requirements according to Article 19.1 of the Statute of the ESCB may access the standing facilities and participate in open market operations based on standard tenders as well as outright transactions. The Eurosystem may select a limited number of counterparties to participate in fine-tuning operations. For foreign exchange swaps conducted for monetary policy purposes, active players in the foreign exchange market are used. The set of counterparties for these operations is limited to those institutions selected for Eurosystem foreign exchange intervention operations which are established in the euro area.

1.5 Underlying assets

Pursuant to Article 18.1 of the Statute of the ESCB, all Eurosystem credit operations (i.e. liquidity-providing monetary policy operations and intraday credit) have to be based on adequate collateral. The Eurosystem accepts a wide range of assets to underlie its operations. The Eurosystem has developed a single framework for eligible collateral common to all Eurosystem credit operations (also referred to as the 'Single List'). On 1 January 2007, this single framework replaced the two-tier system that had been in place since the start of stage three of economic and monetary union. The single framework covers marketable and non-marketable assets that fulfil uniform euro area-wide eligibility criteria specified by the Eurosystem. No distinction is made between marketable and non-marketable assets with regard to the quality of the assets and their eligibility for the various types of Eurosystem monetary policy operations, except that non-marketable assets are not used by the Eurosystem for outright transactions. All eligible assets may be used on a cross-border basis by means of the correspondent central banking model (CCBM) and, in the case of marketable assets, through eligible links between EU securities settlement systems (SSSs).

1.6 Modifications to the monetary policy framework

The Governing Council of the ECB may, at any time, change the instruments, conditions, criteria and procedures for the execution of Eurosystem monetary policy operations.

CHAPTER 2 ELIGIBLE COUNTERPARTIES

2.1 General eligibility criteria

Counterparties for Eurosystem monetary policy operations must fulfil certain eligibility criteria¹. These criteria are defined with a view to giving a broad range of institutions access to Eurosystem monetary policy operations, enhancing equal treatment of institutions across the euro area and ensuring that counterparties fulfil certain operational and prudential requirements:

- Only institutions subject to the Eurosystem's minimum reserve system according to Article 19.1 of the Statute of the ESCB are eligible to be counterparties. Institutions which are exempt from their obligations under the Eurosystem's minimum reserve system (see Section 7.2) are not eligible to be counterparties to Eurosystem standing facilities and open market operations.
- Counterparties must be financially sound. They should be subject to at least one form of harmonised EU/EEA supervision by national authorities². In view of their specific institutional nature under EU law, financially sound institutions within the meaning of Article 123(2) of the Treaty that are subject to supervision of a standard comparable to supervision by competent national authorities can be accepted as counterparties. Financially sound institutions that are subject to non-harmonised supervision by competent national authorities of a standard comparable to harmonised EU/EEA supervision can also be accepted as counterparties, e.g. branches established in the euro area of institutions incorporated outside the EEA.
- Counterparties must fulfil any operational criteria specified in the relevant contractual or regulatory arrangements applied by the respective national central bank (or the ECB), so as to ensure the efficient conduct of Eurosystem monetary policy operations.

These general eligibility criteria are uniform throughout the euro area. Institutions fulfilling the general eligibility criteria may:

- access the Eurosystem's standing facilities; and
- participate in Eurosystem open market operations that are based on standard tenders.

An institution may access the Eurosystem's standing facilities and open market operations based on standard tenders only through the NCB of the Member State in which it is incorporated. If an institution has establishments (its head office or branches) in more than one Member State, each establishment has access to these operations through the NCB of the Member State in which it is

¹ For outright transactions, no restrictions are placed a priori on the range of counterparties.

² Harmonised supervision of credit institutions is based on Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast) (OJ L 177, 30.6.2006, p. 1).

established, notwithstanding the fact that the bids of an institution may only be submitted by one establishment (either the head office or a designated branch) in each Member State.

2.2 Selection of counterparties for quick tenders and bilateral operations

For outright transactions, no restrictions are placed a priori on the range of counterparties.

For foreign exchange swaps executed for monetary policy purposes, counterparties must be able to conduct large-volume foreign exchange operations efficiently under all market conditions. The range of counterparties to foreign exchange swaps corresponds to the counterparties established in the euro area which are selected for Eurosystem foreign exchange intervention operations. The criteria and procedures applied for the selection of counterparties to foreign exchange intervention operations are presented in Appendix 3.

For other operations based on quick tenders and bilateral procedures (fine-tuning reverse transactions and the collection of fixed-term deposits), each national central bank selects a set of counterparties from among the institutions established in its Member State which fulfil the general counterparty eligibility criteria. In this respect, activity in the money market is the prime selection criterion. Other criteria which might be taken into account are, for example, the efficiency of the trading desk and the bidding potential.

In quick tenders and bilateral operations, the national central banks deal with the counterparties which are included in their respective set of fine-tuning counterparties. Quick tenders and bilateral operations may also be executed with a broader range of counterparties.

The Governing Council of the ECB can decide that, under exceptional circumstances, fine-tuning bilateral operations may be carried out by the ECB itself. If the ECB were to carry out bilateral operations, the selection of counterparties would in such cases be made by the ECB according to a rotation scheme among those counterparties in the euro area which are eligible for quick tenders and bilateral operations in order to ensure equitable access.

2.3 Sanctions in the event of non-compliance with counterparty obligations

The ECB shall impose sanctions, in accordance with Council Regulation (EC) No 2532/98 of 23 November 1998 concerning the powers of the European Central Bank to impose sanctions³, European Central Bank Regulation (EC) No 2157/1999 of 23 September 1999 on the powers of the European Central Bank to impose sanctions (ECB/1999/4)⁴, Council Regulation (EC) No 2531/98 of 23 November 1998 concerning the application of minimum reserves by the European Central Bank⁵, as amended, and Regulation (EC) No 1745/2003 of the European Central Bank of 12 September 2003 on the application of minimum reserves (ECB/2003/9)⁶, on institutions which do not comply with

³ OJ L 318 of 27 November 1998, page 4.

⁴ OJ L 264 of 12 October 1999, page 21.

⁵ OJ L 318 of 27 November 1998, page 1.

⁶ OJ L 250 of 2 October 2003, page 10.

obligations arising from ECB Regulations and Decisions relating to the application of minimum reserves. The relevant sanctions and the procedural rules for their application are specified in the above-mentioned Regulations. In addition, in the case of serious infringements of the minimum reserve requirements, the Eurosystem may suspend counterparties' participation in open market operations.

In accordance with the provisions of the contractual or regulatory arrangements applied by the respective national central bank (or by the ECB), the Eurosystem can and will impose financial penalties on counterparties, or suspend counterparties' participation in open market operations, if counterparties fail to comply with their obligations under the contractual or regulatory arrangements applied by the national central banks (or by the ECB) as set out below.

This relates to cases of infringement of (a) tender rules, if a counterparty fails to transfer a sufficient amount of underlying assets or cash⁷ to settle (at the settlement day), or to collateralise, until the maturity of the operation by means of corresponding margin calls, the amount of liquidity it has been allotted in a liquidity-providing operation, or if it fails to transfer a sufficient amount of cash to settle the amount it has been allotted in a liquidity-absorbing operation; and (b) bilateral transaction rules, if a counterparty fails to transfer a sufficient amount of eligible underlying assets, or if it fails to transfer a sufficient amount of cash to settle the amount agreed in bilateral transactions, or if it fails to collateralise an outstanding bilateral transaction at any time until its maturity by means of corresponding margin calls.

This also applies to cases of non-compliance by a counterparty with the rules for the use of underlying assets (if a counterparty is using assets which are or have become ineligible, or which may not be used by the counterparty, e.g. owing to close links between, or the identity of, issuer/guarantor and counterparty), and to non-compliance with the rules for end-of-day procedures and access conditions for the marginal lending facility (if a counterparty which has a negative balance on the settlement account at the end of the day does not fulfil the access conditions for the marginal lending facility).

In addition, a suspension measure taken vis-à-vis a non-complying counterparty may be applied to branches of the same institution established in other Member States. Where, as an exceptional measure, this is required on account of the seriousness of a case of non-compliance, as evidenced by its frequency or duration, for instance, a counterparty may be suspended from all future monetary policy operations for a certain period of time.

Financial penalties imposed by national central banks in the event of non-compliance in relation to a breach of the rules concerning tender operations, bilateral transactions, underlying assets, end-of-day procedures or the access conditions to the marginal lending facility are calculated at a pre-specified penalty rate (as set out in Appendix 6).

⁷ When applicable, as regards margin calls.

2.4 Suspension, limitation or exclusion on grounds of prudence or events of default

In accordance with the provisions in the contractual or regulatory arrangements applied by the respective NCB (or by the ECB), the Eurosystem may suspend, limit or exclude counterparties' access to monetary policy instruments on the grounds of prudence.

In addition, a suspension, limitation or exclusion of counterparties may be warranted in some of the cases which fall within the notion of the 'default' of a counterparty as defined in the contractual or regulatory arrangements applied by the NCBs.

Finally, on the grounds of prudence, the Eurosystem may also reject assets, limit the use of assets or apply supplementary haircuts to assets submitted as collateral in Eurosystem credit operations by specific counterparties.

CHAPTER 3 OPEN MARKET OPERATIONS

Open market operations play an important role in the Eurosystem's monetary policy. They are used for steering interest rates, managing the liquidity situation in the market and signalling the stance of monetary policy. With regard to their aims, regularity and procedures, Eurosystem open market operations can be divided into four categories: main refinancing operations, longer-term refinancing operations, fine-tuning operations and structural operations. As for the instruments used, reverse transactions are the main open market instrument of the Eurosystem and can be employed in all four categories of operations, whereas ECB debt certificates may be used for structural absorption operations. Structural operations may also be conducted by means of outright transactions i.e. purchases and sales. In addition, the Eurosystem has two other instruments available for the conduct of fine-tuning operations: foreign exchange swaps and the collection of fixed-term deposits. In the following sections, specific features of the different types of open market instruments used by the Eurosystem are presented in detail.

3.1 Reverse transactions

3.1.1 General considerations

Type of instrument

Reverse transactions refer to operations where the Eurosystem buys or sells eligible assets under repurchase agreements or conducts credit operations against eligible assets as collateral. Reverse transactions are used for main refinancing operations and longer-term refinancing operations. In addition, the Eurosystem can use reverse transactions for structural and fine-tuning operations.

Legal nature

The national central banks may execute reverse transactions either in the form of repurchase agreements (i.e. the ownership of the asset is transferred to the creditor, while the parties agree to reverse the transaction through a re-transfer of the asset to the debtor at a future point in time) or as collateralised loans (i.e. an enforceable security interest is provided over the assets but, assuming fulfilment of the debt obligation, the ownership of the asset is retained by the debtor). Further provisions for reverse transactions based on repurchase agreements are specified in the contractual arrangements applied by the respective national central bank (or the ECB). Arrangements for reverse transactions based on collateralised loans take account of the different procedures and formalities required to enable the establishment and subsequent realisation of a relevant interest in the collateral (e.g. a pledge, an assignment or a charge) which apply in different jurisdictions.

Interest terms

The difference between the purchase price and the repurchase price in a repurchase agreement corresponds to the interest due on the amount of money borrowed or lent over the maturity of the

operation, i.e. the repurchase price includes the respective interest to be paid. The interest rate on a reverse transaction in the form of a collateralised loan is determined by applying the specified interest rate on the credit amount over the maturity of the operation. The interest rate applied to Eurosystem reverse open market operations is a simple interest rate based on the day-count convention ‘actual/360’.

3.1.2 Main refinancing operations

The main refinancing operations are the most important open market operations conducted by the Eurosystem, playing a pivotal role in pursuing the aims of steering interest rates, managing the liquidity situation in the market and signalling the stance of monetary policy.

The operational features of the main refinancing operations can be summarised as follows:

- they are liquidity-providing reverse operations;
- they are executed regularly each week¹;
- they normally have a maturity of one week²;
- they are executed in a decentralised manner by the national central banks;
- they are executed through standard tenders (as specified in Section 5.1);
- all counterparties fulfilling the general eligibility criteria (as specified in Section 2.1) may submit bids for the main refinancing operations; and
- marketable and non-marketable assets (as specified in Chapter 6) are eligible as underlying assets for the main refinancing operations.

3.1.3 Longer-term refinancing operations

The Eurosystem also executes regular refinancing operations, normally with a three-month maturity, which are aimed at providing additional longer-term refinancing to the financial sector. In these operations, the Eurosystem does not, as a rule, intend to send signals to the market and therefore normally acts as a rate taker. Accordingly, longer-term refinancing operations are usually executed in the form of variable rate tenders and, from time to time, the ECB indicates the operation volume to be allotted in forthcoming tenders. Under exceptional circumstances, the Eurosystem may also execute longer-term refinancing operations through fixed rate tenders.

The operational features of the longer-term refinancing operations can be summarised as follows:

- they are liquidity-providing reverse operations;

¹ The main and the longer-term refinancing operations are executed in accordance with the Eurosystem’s pre-announced tender operations calendar (see also Section 5.1.2), which can be found on the ECB’s website (www.ecb.europa.eu), as well as on the Eurosystem websites (see Appendix 5).

² The maturity of the main and the longer-term refinancing operations may occasionally vary depending on, inter alia, bank holidays in Member States.

- they are executed regularly each month³;
- they normally have a maturity of three months⁴;
- they are executed in a decentralised manner by the national central banks;
- they are executed through standard tenders (as specified in Section 5.1);
- all counterparties fulfilling the general eligibility criteria (as specified in Section 2.1) may submit bids for the longer-term refinancing operations; and
- marketable and non-marketable assets (as specified in Chapter 6) are eligible as underlying assets for the longer-term refinancing operations.

3.1.4 Fine-tuning reverse operations

The Eurosystem can execute fine-tuning operations in the form of reverse open market transactions. Fine-tuning operations aim to manage the liquidity situation in the market and to steer interest rates, in particular in order to smooth the effects on interest rates caused by unexpected liquidity fluctuations in the market. Fine-tuning operations may be conducted on the last day of a reserve maintenance period to counter liquidity imbalances which may have accumulated since the allotment of the last main refinancing operation. The potential need for rapid action in the case of unexpected market developments makes it desirable to retain a high degree of flexibility in the choice of procedures and operational features in the conduct of these operations.

The operational features of the fine-tuning reverse operations can be summarised as follows:

- they can take the form of liquidity-providing or liquidity-absorbing operations;
- their frequency is not standardised;
- their maturity is not standardised;
- liquidity-providing fine-tuning reverse transactions are normally executed through quick tenders, although the possibility of using bilateral procedures is not excluded (see Chapter 5);
- liquidity-absorbing fine-tuning reverse transactions are executed, as a rule, through bilateral procedures (as specified in Section 5.2);
- they are normally executed in a decentralised manner by the NCBs (the Governing Council of the ECB can decide that, under exceptional circumstances, bilateral fine-tuning reverse operations may be executed by the ECB);
- the Eurosystem may select, according to the criteria specified in Section 2.2, a limited number of counterparties to participate in fine-tuning reverse operations; and

³ See footnote 1 above.

⁴ See footnote 2 above.

- marketable and non-marketable assets (as specified in Chapter 6) are eligible as underlying assets for fine-tuning reverse operations.

3.1.5 Structural reverse operations

The Eurosystem may execute structural operations in the form of reverse open market transactions aimed at adjusting the structural position of the Eurosystem vis-à-vis the financial sector.

The operational features of these operations can be summarised as follows:

- they are liquidity-providing operations;
- their frequency can be regular or non-regular;
- their maturity is not standardised a priori;
- they are executed through standard tenders (as specified in Section 5.1);
- they are executed in a decentralised manner by the national central banks;
- all counterparties fulfilling the general eligibility criteria (as specified in Section 2.1) may submit bids for structural reverse operations; and
- marketable and non-marketable assets (as specified in Chapter 6) are eligible as underlying assets for structural reverse operations.

3.2 Outright transactions

Type of instrument

Outright open market transactions refer to operations where the Eurosystem buys or sells eligible assets outright on the market. Such operations are executed only for structural purposes.

Legal nature

An outright transaction implies a full transfer of ownership from the seller to the buyer with no connected reverse transfer of ownership. The transactions are executed in accordance with the market conventions for the debt instrument used in the transaction.

Price terms

In the calculation of prices, the Eurosystem acts in accordance with the most widely accepted market convention for the debt instruments used in the transaction.

Other operational features

The operational features of Eurosystem outright transactions can be summarised as follows:

- they can take the form of liquidity-providing (outright purchase) or liquidity-absorbing (outright sale) operations;

- their frequency is not standardised;
- they are executed through bilateral procedures (as specified in Section 5.2);
- they are normally executed in a decentralised manner by the NCBs (the Governing Council of the ECB can decide that, under exceptional circumstances, outright transactions may be executed by the ECB);
- no restrictions are placed a priori on the range of counterparties to outright transactions; and
- only marketable assets (as specified in Chapter 6) are used as underlying assets in outright transactions.

3.3 Issuance of ECB debt certificates

Type of instrument

The ECB may issue debt certificates with the aim of adjusting the structural position of the Eurosystem vis-à-vis the financial sector so as to create (or enlarge) a liquidity shortage in the market.

Legal nature

ECB debt certificates constitute a debt obligation of the ECB vis-à-vis the holder of the certificate. They are issued and held in book-entry form in securities depositories in the euro area. The ECB does not impose any restrictions on the transferability of the certificates. Further provisions related to ECB debt certificates will be contained in the terms and conditions for such certificates.

Interest terms

ECB debt certificates are issued at a discount, i.e. they are issued at below the nominal amount and are redeemed at maturity at the nominal amount. The difference between the issue amount and the redemption amount equals the interest accrued on the issue amount, at the agreed interest rate, over the maturity of the certificate. The interest rate applied is a simple interest rate based on the day-count convention ‘actual/360’. The calculation of the issue amount is shown in Box 1.

Box 1 Issuance of ECB debt certificates

The issue amount is:

$$P_T = N \times \frac{1}{1 + \frac{r_I \times D}{36,000}}$$

where:

N = nominal amount of the ECB debt certificate

r_I = interest rate (in %)

D = maturity of the ECB debt certificate (in days)

P_T = issue amount of the ECB debt certificate

Other operational features

The operational features of the issuance of ECB debt certificates can be summarised as follows:

- the certificates are issued in order to absorb liquidity from the market;
- the certificates can be issued on a regular or non-regular basis;
- the certificates have a maturity of less than 12 months;
- the certificates are issued through standard tenders (as specified in Section 5.1);
- the certificates are tendered and settled in a decentralised manner by the national central banks;
and
- all counterparties fulfilling the general eligibility criteria (as specified in Section 2.1) may submit bids for the subscription of ECB debt certificates.

3.4 Foreign exchange swaps

Type of instrument

Foreign exchange swaps executed for monetary policy purposes consist of simultaneous spot and forward transactions in euro against a foreign currency. They are used for fine-tuning purposes, mainly with the aim of managing the liquidity situation in the market and steering interest rates.

Legal nature

Foreign exchange swaps executed for monetary policy purposes refer to operations where the Eurosystem buys (or sells) euro spot against a foreign currency and, at the same time, sells (or buys) it back in a forward transaction on a specified repurchase date. Further provisions for foreign exchange swaps are specified in the contractual arrangement applied by the respective national central bank (or the ECB).

Currency and exchange rate terms

As a rule, the Eurosystem operates only in widely traded currencies and in accordance with standard market practice. In each foreign exchange swap operation, the Eurosystem and the counterparties agree on the swap points for the transaction. The swap points are the difference between the exchange rate of the forward transaction and the exchange rate of the spot transaction. The swap points of the euro vis-à-vis the foreign currency are quoted according to general market conventions. The exchange rate terms of foreign exchange swaps are specified in Box 2.

Other operational features

The operational features of foreign exchange swaps can be summarised as follows:

- they can take the form of liquidity-providing or liquidity-absorbing operations;

- their frequency is not standardised;
- their maturity is not standardised;
- they are executed through quick tenders or bilateral procedures (see Chapter 5);
- they are normally executed in a decentralised manner by the NCBs (the Governing Council of the ECB can decide that, under exceptional circumstances, bilateral foreign exchange swaps may be executed by the ECB); and
- the Eurosystem may select, according to the criteria specified in Section 2.2 and Appendix 3, a limited number of counterparties to participate in foreign exchange swaps.

Box 2 Foreign exchange swaps

S = spot (on the transaction date of the foreign exchange swap) of the exchange rate between the euro (EUR) and a foreign currency ABC

$$S = \frac{x \times ABC}{1 \times EUR}$$

FM = forward exchange rate between the euro and a foreign currency ABC on the repurchase date of the swap (M)

$$F_M = \frac{y \times ABC}{1 \times EUR}$$

ΔM = forward points between the euro and ABC at the repurchase date of the swap (M)

$$\Delta_M = F_M - S$$

N(.) = spot amount of currency; N(.)_M is the forward amount of currency:

$$N(ABC) = N(EUR) \times S \quad \text{or} \quad N(EUR) = \frac{N(ABC)}{S}$$

$$N(ABC)_M = N(EUR)_M \times F_M \quad \text{or} \quad N(EUR)_M = \frac{N(ABC)_M}{F_M}$$

3.5 Collection of fixed-term deposits

Type of instrument

The Eurosystem may invite counterparties to place remunerated fixed-term deposits with the national central bank in the Member State in which the counterparty is established. The collection of fixed-term deposits is envisaged only for fine-tuning purposes in order to absorb liquidity in the market.

Legal nature

The deposits accepted from counterparties are for a fixed term and with a fixed rate of interest. No collateral is given by the national central banks in exchange for the deposits.

Interest terms

The interest rate applied to the deposit is a simple interest rate based on the day-count convention ‘actual/360’. Interest is paid at maturity of the deposit.

Other operational features

The operational features of the collection of fixed-term deposits can be summarised as follows:

- the deposits are collected in order to absorb liquidity;
- the frequency with which deposits are collected is not standardised;
- the maturity of the deposits is not standardised;
- the collection of deposits is normally executed through quick tenders, although the possibility of using bilateral procedures is not excluded (see Chapter 5);
- the collection of deposits is normally executed in a decentralised manner by the NCBs (the Governing Council of the ECB can decide that, under exceptional circumstances, the bilateral collection of fixed-term deposits⁵ may be executed by the ECB); and
- the Eurosystem may select, according to the criteria specified in Section 2.2, a limited number of counterparties for the collection of fixed-term deposits.

⁵ Fixed-term deposits are held on accounts with the NCBs; this would be the case even if such operations were to be executed in a centralised manner by the ECB.

CHAPTER 4 STANDING FACILITIES

4.1 The marginal lending facility

Type of instrument

Counterparties may use the marginal lending facility to obtain overnight liquidity from national central banks at a pre-specified interest rate against eligible assets (as set out in Chapter 6). The facility is intended to satisfy counterparties' temporary liquidity needs. Under normal circumstances, the interest rate on the facility provides a ceiling for the overnight market interest rate. The terms and conditions of the facility are identical throughout the euro area.

Legal nature

The national central banks may provide liquidity under the marginal lending facility either in the form of overnight repurchase agreements (i.e. the ownership of the asset is transferred to the creditor, while the parties agree to reverse the transaction through a re-transfer of the asset to the debtor on the next business day) or as overnight collateralised loans (i.e. an enforceable security interest is provided over the assets but, assuming fulfilment of the debt obligation, ownership of the asset is retained by the debtor). Further provisions for repurchase agreements are specified in the contractual arrangements applied by the respective national central bank. Arrangements for providing the liquidity in the form of collateralised loans take account of the different procedures and formalities required to enable the establishment and subsequent realisation of a relevant interest in the collateral (a pledge, an assignment or a charge) which apply in different jurisdictions.

Access conditions

Institutions fulfilling the general counterparty eligibility criteria specified in Section 2.1 may access the marginal lending facility. Access to the marginal lending facility is granted through the NCB in the Member State in which the institution is established. Access to the marginal lending facility is granted only on days when TARGET2¹ is operational². On days when the SSSs are not operational, access to the marginal lending facilities is granted on the basis of underlying assets which have already been pre-deposited with the NCBs.

At the end of each business day, counterparties' debit positions on their settlement account with the national central banks are automatically considered to be a request for recourse to the marginal lending facility. The procedures for end-of-day access to the marginal lending facility are specified in Section 5.3.3.

¹ Since 19 May 2008, the decentralised technical infrastructure of TARGET has been replaced by TARGET2. TARGET2 consists of the single shared platform (through which all payment orders are submitted and processed and through which payments are received in the same technical manner) and, while applicable, the proprietary home accounting systems of NCBs.

² In addition, access to the marginal lending facility is only granted to counterparties with access to an account with the NCB where the transaction can be settled, for example in the single shared platform of TARGET2.

A counterparty may also be granted access to the marginal lending facility by sending a request to the national central bank in the Member State in which the counterparty is established. For the national central bank to process the request on the same day in TARGET2, the request must be received by the national central bank at the latest 15 minutes following the TARGET2 closing time^{3, 4}. As a general rule, the TARGET2 closing time is 6 p.m. ECB time (CET). The deadline for requesting access to the marginal lending facility is postponed by an additional 15 minutes on the last Eurosystem business day of a reserve maintenance period. The request must specify the amount of credit and, if underlying assets for the transaction have not already been pre-deposited with the national central bank, the underlying assets to be delivered for the transaction.

Apart from the requirement to present sufficient underlying eligible assets, there is no limit to the amount of funds that can be advanced under the marginal lending facility.

Maturity and interest terms

The maturity of credit extended under the facility is overnight. For counterparties participating directly in TARGET2, the credit is repaid on the next day on which (i) TARGET2; and (ii) the relevant SSSs are operational, at the time at which those systems open.

The interest rate is announced in advance by the Eurosystem and is calculated as a simple interest rate based on the day-count convention ‘actual/360’. The ECB may change the interest rate at any time, effective, at the earliest, from the following Eurosystem business day^{5, 6}. Interest under the facility is payable with the repayment of the credit.

Suspension of the facility

Access to the facility is granted only in accordance with the objectives and general monetary policy considerations of the ECB. The ECB may adapt the conditions of the facility or suspend it at any time.

4.2 The deposit facility

Type of instrument

Counterparties can use the deposit facility to make overnight deposits with national central banks. The deposits are remunerated at a pre-specified interest rate. Under normal circumstances, the interest rate

³ In some Member States, the NCB or some of its branches may not be open for the purpose of conducting monetary policy operations on certain Eurosystem business days due to national or regional bank holidays. In such cases, the NCB is responsible for informing the counterparties in advance of the arrangements to be made for access to the marginal lending facility on the bank holiday.

⁴ TARGET2 closing days are announced on the ECB’s website (www.ecb.europa.eu), and on the Eurosystem websites (see Appendix 5).

⁵ Throughout this document, the term ‘Eurosystem business day’ refers to any day on which the ECB and at least one national central bank are open for the purpose of conducting Eurosystem monetary policy operations.

⁶ The Governing Council usually decides on interest rate changes when assessing its monetary policy stance at its first meeting of the month. Usually such decisions become effective only from the beginning of the new reserve maintenance period.

on the facility provides a floor for the overnight market interest rate. The terms and conditions of the deposit facility are identical throughout the euro area⁷.

Legal nature

The overnight deposits accepted from counterparties are remunerated at a fixed rate of interest. No collateral is given to the counterparty in exchange for the deposits.

Access conditions⁸

Institutions fulfilling the general counterparty eligibility criteria specified in Section 2.1 may access the deposit facility. Access to the deposit facility is granted through the national central bank in the Member State in which the institution is established. Access to the deposit facility is granted only on days when TARGET2 is open⁹.

To be granted access to the deposit facility, the counterparty must send a request to the national central bank in the Member State in which the counterparty is established. For the national central bank to process the request on the same day in TARGET2, the request must be received by the national central bank at the latest 15 minutes following the TARGET2 closing time, which is, as a general rule, 6 p.m. ECB time (CET)^{10, 11}. The deadline for requesting access to the deposit facility is postponed by an additional 15 minutes on the last Eurosystem business day of a reserve maintenance period. The request must specify the amount to be deposited under the facility.

There is no limit to the amount a counterparty may deposit under the facility.

Maturity and interest terms

The maturity of deposits under the facility is overnight. For counterparties participating directly in TARGET2, deposits held under the facility mature on the next day on which TARGET2 is operational, at the time at which this system opens.

The interest rate is announced in advance by the Eurosystem and is calculated as a simple interest rate based on the day-count convention ‘actual/360’. The ECB may change the interest rate at any time, effective, at the earliest, from the following Eurosystem business day¹². Interest on the deposits is payable on maturity of the deposit.

⁷ Operational differences resulting from the existence of different account structures in the national central banks may exist across euro area countries.

⁸ Owing to the existence of different account structures across the national central banks, the ECB may allow national central banks to apply access conditions which are slightly different from those referred to here. The national central banks will provide information on any such deviations from the access conditions described in this document.

⁹ In addition, access to the deposit facility is only granted to counterparties with access to an account with the NCB where the transaction can be settled, for example in the single shared platform of TARGET2.

¹⁰ See footnote 2 in this chapter.

¹¹ See footnote 5 in this chapter.

¹² See footnote 6 in this chapter.

Suspension of the facility

Access to the facility is granted only in accordance with the objectives and general monetary policy considerations of the ECB. The ECB may adapt the conditions of the facility or suspend it at any time.

CHAPTER 5 PROCEDURES

5.1 Tender procedures

5.1.1 General considerations

Eurosystem open market operations are normally executed in the form of tenders. The Eurosystem's tender procedures are performed in six operational steps, as specified in Box 3.

The Eurosystem distinguishes between two different types of tender procedures: standard tenders and quick tenders. The procedures for standard and quick tenders are identical, except for the time frame and the range of counterparties.

Standard tenders

For standard tenders, a maximum of 24 hours elapses from the announcement of the tender to the certification of the allotment result (where the time between the submission deadline and the announcement of the allotment result is approximately two hours). Chart 1 gives an overview of the normal time frame for the operational steps for standard tenders. The ECB may decide to adjust the time frame in individual operations, if deemed appropriate.

The main refinancing operations, the longer-term refinancing operations and structural operations (with the exception of outright transactions) are always executed in the form of standard tenders. Counterparties fulfilling the general eligibility criteria specified in Section 2.1 may participate in standard tenders.

Quick tenders

Quick tenders are normally executed within 90 minutes of the announcement of the tender, with certification taking place immediately after the announcement of the allotment result. The normal time frame for the operational steps for quick tenders is specified in Chart 2. The ECB may decide to adjust the time frame in individual operations, if deemed appropriate. Quick tenders are only used for the execution of fine-tuning operations. The Eurosystem may select, according to the criteria and procedures specified in Section 2.2, a limited number of counterparties to participate in quick tenders.

Fixed rate and variable rate tenders

The Eurosystem has the option of conducting either fixed rate (volume) or variable rate (interest) tenders. In a fixed rate tender, the ECB specifies the interest rate in advance and participating counterparties bid the amount of money they want to transact at the fixed interest rate¹. In a variable

¹ In fixed rate foreign exchange swap tenders, the ECB fixes the swap points of the operation and the counterparties offer the amount of currency kept fixed that they wish to sell (and buy back) or buy (and sell back) at that rate.

rate tender, counterparties bid the amounts of money and the interest rates at which they want to enter into transactions with the national central banks².

Box 3 Operational steps for tender procedures

Step 1 Tender announcement

- a. Announcement by the ECB through public wire services and the ECB's website
- b. Announcement by the NCBs through national wire services and directly to individual counterparties (if deemed necessary)

Step 2 Counterparties' preparation and submission of bids

Step 3 Compilation of bids by the Eurosystem

Step 4 Tender allotment and announcement of tender results

- a. ECB allotment decision
- b. Announcement of the allotment results through public wire services and the ECB's website

Step 5 Certification of individual allotment results

Step 6 Settlement of the transactions (see Section 5.3)

5.1.2 Tender operations calendar

Main and longer-term refinancing operations

The main and the longer-term refinancing operations are executed according to an indicative calendar published by the Eurosystem³. The calendar is published at least three months before the start of the year for which it is valid. The normal trade days for the main and the longer-term refinancing operations are specified in Table 2. The ECB aims to ensure that counterparties in all Member States can participate in the main and the longer-term refinancing operations. Therefore, when compiling the calendar for these operations, the ECB makes appropriate adjustments to the normal schedule to take into account bank holidays in the individual Member States.

² In variable rate foreign exchange swap tenders, the counterparties bid the amount of the currency kept fixed and the swap point quotation at which they wish to enter into the operation.

³ The calendar for the Eurosystem's tender operations can be found on the ECB's website (www.ecb.europa.eu), as well as on the Eurosystem websites (see Appendix 5).

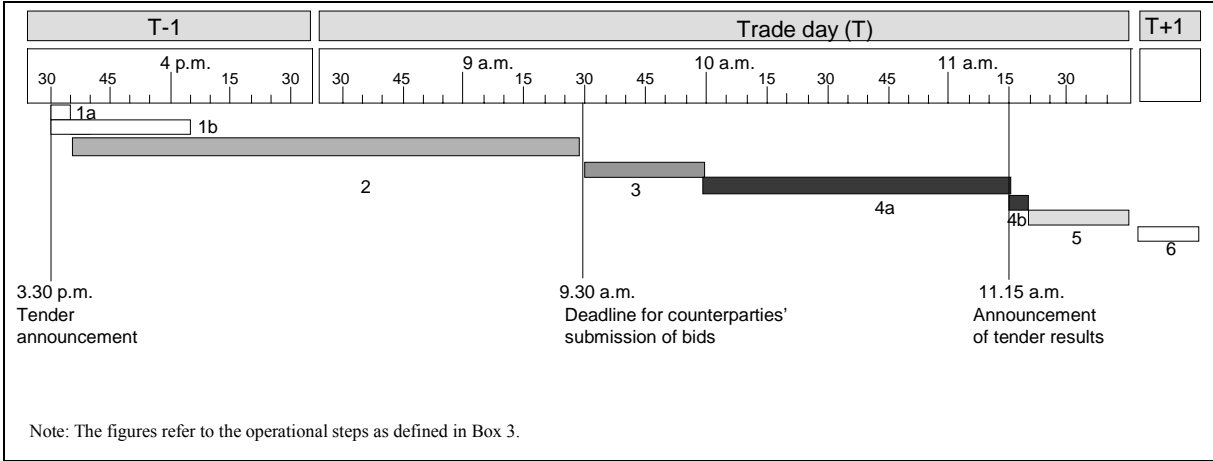
Structural operations

Structural operations through standard tenders are not executed according to any pre-specified calendar. However, they are normally conducted and settled only on days which are NCB business days⁴ in all Member States.

Fine-tuning operations

Fine-tuning operations are not executed according to any pre-specified calendar. The ECB may decide to conduct fine-tuning operations on any Eurosystem business day. Only national central banks of Member States in which the trade day, the settlement day and the reimbursement day are NCB business days participate in such operations.

Chart 1 Normal time frame for the operational steps in standard tenders (times are stated in ECB time (CET))



⁴ Throughout this document, the term ‘NCB business day’ refers to any day on which the national central bank of a specific Member State is open for the purpose of conducting Eurosystem monetary policy operations. In some Member States, branches of the national central bank may be closed on NCB business days owing to local or regional bank holidays. In such cases, the relevant national central bank is responsible for informing the counterparties in advance of the arrangements to be made for transactions involving those branches.

Chart 2 Normal time frame for the operational steps in quick tenders

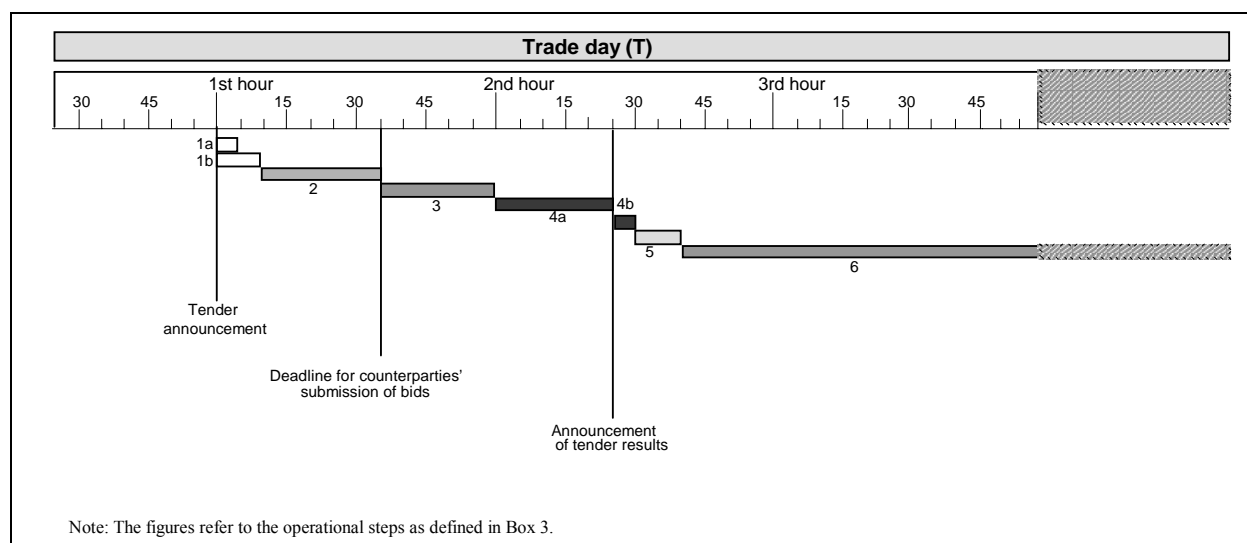


Table 2 Normal trade days for the main and the longer-term refinancing operations

Type of operation	Normal trade day (T)
Main refinancing operations	Each Tuesday
Longer-term refinancing operations	The last Wednesday of each calendar month ¹

1) Owing to the Christmas period, the December operation is brought forward normally by one week, i.e. to the preceding Wednesday of the month.

5.1.3 Announcement of tender operations

Eurosystem standard tenders are publicly announced by means of wire services and the ECB's website. In addition, NCBs may announce the tender operation directly to counterparties without access to wire services. The public tender announcement message normally contains the following information:

- the reference number of the tender operation;
- the date of the tender operation;
- the type of operation (provision or absorption of liquidity and the type of monetary policy instrument to be used);
- the maturity of the operation;
- the type of auction (fixed rate or variable rate tender);
- the method of allotment ('Dutch' or 'American' auction, as defined in Section 5.1.5);
- the intended operation volume (normally only in the case of longer-term refinancing operations);
- the fixed tender interest rate/price/swap point (in the case of fixed rate tenders);

- the minimum/maximum accepted interest rate/price/swap point (if applicable);
- the start date and the maturity date of the operation (if applicable), or the value date and the maturity date of the instrument (in the case of the issuance of ECB debt certificates);
- the currencies involved and the currency, the amount of which is kept fixed (in the case of foreign exchange swaps);
- the reference spot exchange rate to be used for the calculation of bids (in the case of foreign exchange swaps);
- the maximum bid limit (if any);
- the minimum individual allotment amount (if any);
- the minimum allotment ratio (if any);
- the time schedule for the submission of bids;
- the denomination of the certificates (in the case of the issuance of ECB debt certificates); and
- the ISIN code of the issue (in the case of the issuance of ECB debt certificates).

With a view to enhancing transparency in its fine-tuning operations, the Eurosystem normally announces quick tenders publicly in advance. However, under exceptional circumstances, the ECB may decide not to announce quick tenders publicly in advance. The announcement of quick tenders follows the same procedures as those for standard tenders. In a quick tender which is not announced publicly in advance the selected counterparties are contacted directly by the NCBs. In a quick tender, which is announced publicly, the NCB may contact the selected counterparties directly.

5.1.4 Preparation and submission of bids by counterparties

Counterparties' bids must be in a form that follows the pro forma example provided by the national central banks for the relevant operation. The bids must be submitted to the national central bank of a Member State in which the institution has an establishment (head office or branch). The bids of an institution may only be submitted by one establishment (either the head office or a designated branch) in each Member State.

In fixed rate tenders, counterparties must state in their bids the amount of money that they are willing to transact with the national central banks⁵.

In variable rate tenders, counterparties may submit bids for up to 10 different interest rate/price/swap point levels. In exceptional circumstances the Eurosystem may impose a limit on the number of bids that may be submitted as regards variable rate tenders. In each bid, counterparties must state the

⁵ In fixed rate foreign exchange swaps, the amount of the currency kept fixed that the counterparty is willing to transact with the Eurosystem must be stated.

amount of money that they are willing to transact with the NCBs and the relevant interest rate^{6, 7}. The interest rates bid must be expressed as multiples of 0,01 percentage points. In the case of a variable rate foreign exchange swap tender, the swap points must be quoted according to standard market conventions and bids must be expressed as multiples of 0,01 swap points.

For the main refinancing operations, the minimum bid amount is EUR 1 000 000. Bids exceeding this amount must be expressed as multiples of EUR 100 000. The same minimum bid and multiple amounts are applied in fine-tuning and structural operations. The minimum bid amount is applied to each individual interest rate/price/swap point level.

For the longer-term refinancing operations, each national central bank defines a minimum bid amount in the range from EUR 10 000 to EUR 1 000 000. Bids exceeding the defined minimum bid amount must be expressed as multiples of EUR 10 000. The minimum bid amount is applied to each individual interest rate level.

The ECB may impose a maximum bid limit in order to prevent disproportionately large bids. Any such maximum bid limit is always specified in the public tender announcement message.

Counterparties are expected always to be in a position to cover the amounts allotted to them with a sufficient amount of eligible underlying assets⁸. The contractual or regulatory arrangements applied by the relevant NCB allow the imposition of penalties if a counterparty fails to transfer a sufficient amount of underlying assets or cash to settle the amount it has been allotted in a tender operation.

Bids are revocable up to the tender submission deadline. Bids submitted after the deadline specified in the tender announcement message are invalid. Respect of the deadline is judged by the national central banks. The national central banks discard all the bids of a counterparty if the aggregate amount bid exceeds any maximum bid limit established by the ECB. The national central banks also discard any bid which is below the minimum bid amount or which is below any minimum or above any maximum accepted interest rate/price/swap point. Furthermore, the national central banks may discard bids which are incomplete or which do not follow the pro forma example. If a bid is discarded, the respective national central bank informs the counterparty about its decision prior to the tender allotment.

5.1.5 Tender allotment procedures

Fixed rate tender operations

In the allotment of a fixed rate tender, the bids received from counterparties are added together. If the aggregate amount bid exceeds the total amount of liquidity to be allotted, the submitted bids will be satisfied pro rata, according to the ratio of the amount to be allotted to the aggregate amount bid (see

⁶ With regard to the issuance of ECB debt certificates, the ECB may decide that bids are to be expressed in the form of a price rather than an interest rate. In such cases, prices must be quoted as a percentage of the nominal amount.

⁷ In variable rate foreign exchange swaps, the amount of the currency kept fixed that the counterparty is willing to transact with the Eurosystem and the relevant swap point level must be stated.

⁸ Or to settle in cash in the case of liquidity-absorbing operations.

Box 4). The amount allotted to each counterparty is rounded to the nearest euro. However, the ECB may decide to allot a minimum amount/ratio to each bidder in fixed rate tenders.

Box 4 Allotment of fixed rate tenders

The percentage of allotment is:

$$all\% = \frac{A}{\sum_{i=1}^n a_i}$$

The amount allotted to the *i*th counterparty is:

$$all_i = all\% \times (a_i)$$

where:

- A = total amount allotted
- n = total number of counterparties
- a_i* = bid amount of the *i*th counterparty
- all% = percentage of allotment
- all_{*i*} = total amount allotted to the *i*th counterparty

Variable rate tenders in euro

In the allotment of liquidity-providing variable rate tenders in euro, bids are listed in descending order of offered interest rates. Bids with the highest interest rate levels are satisfied first and subsequently bids with successively lower interest rates are accepted until the total liquidity to be allotted is exhausted. If, at the lowest interest rate level accepted (i.e. the marginal interest rate), the aggregate amount bid exceeds the remaining amount to be allotted, the remaining amount is allocated pro rata among the bids according to the ratio of the remaining amount to be allotted to the total amount bid at the marginal interest rate (see Box 5). The amount allotted to each counterparty is rounded to the nearest euro.

In the allotment of liquidity-absorbing variable rate tenders (which may be used for the issuance of ECB debt certificates and the collection of fixed-term deposits), bids are listed in ascending order of offered interest rates (or descending order of offered prices). Bids with the lowest interest rate (highest price) levels are satisfied first and subsequently bids with successively higher interest rates (lower price bids) are accepted until the total liquidity to be absorbed is exhausted. If, at the highest interest rate (lowest price) level accepted (i.e. the marginal interest rate/price), the aggregate bid amount exceeds the remaining amount to be allotted, the remaining amount is allocated pro rata among the bids according to the ratio of the remaining amount to be allotted to the total bid amount at the marginal interest rate/price (see Box 5). For the issuance of ECB debt certificates, the amount allotted to each counterparty is rounded to the nearest multiple of the denomination of the ECB debt certificates. For other liquidity-absorbing operations, the amount allotted to each counterparty is rounded to the nearest euro.

The ECB may decide to allot a minimum amount to each successful bidder in variable rate tenders.

Box 5 Allotment of variable rate tenders in euro

(the example refers to bids quoted in the form of interest rates)

The percentage of allotment at the marginal interest rate is:

$$all\%(r_m) = \frac{A - \sum_{s=1}^{m-1} a(r_s)}{a(r_m)}$$

The allotment to the i th counterparty at the marginal interest rate is:

$$all(r_m)_i = all\%(r_m) \times a(r_m)_i$$

The total amount allotted to the i th counterparty is:

$$all_i = \sum_{s=1}^{m-1} a(r_s)_i + all(r_m)_i$$

where:

A = total amount allotted

r_s = sth interest rate bid by the counterparties

n = total number of counterparties

$a(r_s)_i$ = amount bid at the sth interest rate (r_s) by the i th counterparty

$a(r_s)$ = total amount bid at the sth interest rate (r_s)

$$a(r_s) = \sum_{i=1}^n a(r_s)_i$$

r_m = marginal interest rate:

$r_1 \geq r_s \geq r_m$ for a liquidity-providing tender

$r_m \geq r_s \geq r_1$ for a liquidity-absorbing tender

r_{m-1} = interest rate before the marginal interest rate (last interest rate at which bids are completely satisfied):

$r_{m-1} > r_m$ for a liquidity-providing tender

$r_m > r_{m-1}$ for a liquidity-absorbing tender

$all\%(r_m)$ = percentage of allotment at the marginal interest rate

$all(r_s)_i$ = allotment to the i th counterparty at the sth interest rate

all_i = total amount allotted to the i th counterparty

Variable rate foreign exchange swap tenders

In the allotment of liquidity-providing variable rate foreign exchange swap tenders, bids are listed in ascending order of swap point quotations⁹. The bids with the lowest swap point quotations are satisfied first and subsequently successively higher swap point quotations are accepted until the total amount of the fixed currency to be allotted is exhausted. If, at the highest swap point quotation accepted (i.e. the marginal swap point quotation), the aggregate amount bid exceeds the remaining amount to be allotted, the remaining amount is allocated pro rata among the bids according to the ratio of the remaining amount to be allotted to the total amount bid at the marginal swap point quotation (see Box 6). The amount allotted to each counterparty is rounded to the nearest euro.

In the allotment of liquidity-absorbing variable rate foreign exchange swap tenders, bids are listed in descending order of offered swap point quotations. The bids with the highest swap point quotations are satisfied first and subsequently successively lower swap point quotations are accepted until the total amount of the fixed currency to be absorbed is exhausted. If, at the lowest swap point quotation accepted (i.e. the marginal swap point quotation), the aggregate amount bid exceeds the remaining amount to be allotted, the remaining amount is allocated pro rata among the bids according to the ratio of the remaining amount to be allotted to the total amount bid at the marginal swap point quotation (see Box 6). The amount allotted to each counterparty is rounded to the nearest euro.

Type of auction

For variable rate tenders, the Eurosystem may apply either single rate or multiple rate auction procedures. In a single rate auction (Dutch auction), the allotment interest rate/price/swap point applied for all satisfied bids is equal to the marginal interest rate/price/swap point (i.e. that at which the total allotment is exhausted). In a multiple rate auction (American auction), the allotment interest rate/price/swap point is equal to the interest rate/price/swap point offered for each individual bid.

Box 6 Allotment of variable rate foreign exchange swap tenders

The percentage of allotment at the marginal swap point quotation is:

$$all\%(\Delta_m) = \frac{A - \sum_{s=1}^{m-1} a(\Delta_s)}{a(\Delta_m)}$$

The allotment to the *i*th counterparty at the marginal swap point quotation is:

$$all(\Delta_m)_i = all\%(\Delta_m) \times a(\Delta_m)_i$$

The total amount allotted to the *i*th counterparty is:

⁹ Swap point quotations are listed in ascending order, taking into account the sign of the quotation, which depends on the sign of the interest rate differential between the foreign currency and the euro. If, for the maturity of the swap, the foreign currency interest rate is higher than the corresponding interest rate for the euro, the swap point quotation is positive (i.e. the euro is quoted at a premium to the foreign currency). Conversely, if the foreign currency interest rate is lower than the corresponding interest rate for the euro, the swap point quotation is negative (i.e. the euro is quoted at a discount to the foreign currency).

$$all_i = \sum_{s=1}^{m-1} a(\Delta_s)_i + all(\Delta_m)_i$$

where:

A = total amount allotted

Δ_s = s th swap point quotation bid by the counterparties

n = total number of counterparties

$a(\Delta_s)_i$ = amount bid at the s th swap point quotation (Δ_s) by the i th counterparty

$a(\Delta_s)$ = total amount bid at the s th swap point quotation (Δ_s)

$$a(\Delta_s) = \sum_{i=1}^n a(\Delta_s)_i$$

Δ_m = marginal swap point quotation:

$\Delta_m \geq \Delta_s \geq \Delta_1$ for a liquidity-providing foreign exchange swap

$\Delta_1 \geq \Delta_s \geq \Delta_m$ for a liquidity-absorbing foreign exchange swap

Δ_{m-1} = swap point quotation before the marginal swap point quotation (last swap point quotation at which bids are completely satisfied),

$\Delta_m > \Delta_{m-1}$ for a liquidity-providing foreign exchange swap

$\Delta_{m-1} > \Delta_m$ for a liquidity-absorbing foreign exchange swap

$all\%(\Delta_m)$ = percentage of allotment at the marginal swap point quotation

$all(\Delta_s)_i$ = allotment to the i th counterparty at the s th swap point quotation

all_i = total amount allotted to the i th counterparty

5.1.6 Announcement of tender results

The results of standard and quick tenders are announced publicly by means of wire services and the ECB's website. In addition, NCBs may announce the allotment result directly to counterparties without access to wire services. The public tender result message normally contains the following information:

- the reference number of the tender operation;
- the date of the tender operation;
- the type of operation;
- the maturity of the operation;
- the total amount bid by Eurosystem counterparties;
- the number of bidders;

- the currencies involved (in the case of foreign exchange swaps);
- the total amount allotted;
- the percentage of allotment (in the case of fixed rate tenders);
- the spot exchange rate (in the case of foreign exchange swaps);
- the marginal interest rate/price/swap point accepted and the percentage of allotment at the marginal interest rate/price/swap point (in the case of variable rate tenders);
- the minimum bid rate, maximum bid rate and weighted average allotment rate (in the case of multiple rate auctions);
- the start date and the maturity date of the operation (if applicable) or the value date and the maturity date of the instrument (in the case of the issuance of ECB debt certificates);
- the minimum individual allotment amount (if any);
- the minimum allotment ratio (if any);
- the denomination of the certificates (in the case of the issuance of ECB debt certificates); and
- the ISIN code of the issue (in the case of the issuance of ECB debt certificates).

The national central banks will directly certify the individual allotment result to successful counterparties.

5.2 Procedures for bilateral operations

General considerations

The NCBs may execute operations on the basis of bilateral procedures. These procedures may be used for fine-tuning open market operations and structural outright operations¹⁰. They are defined in a broad sense as any procedures where the Eurosystem conducts a transaction with one or a few counterparties without a tender. In this respect, two different types of bilateral procedures can be distinguished: operations where counterparties are contacted directly by the Eurosystem, and operations executed through stock exchanges and market agents.

Direct contact with counterparties

In this procedure, the national central banks directly contact one or a few domestic counterparties, which are selected according to the criteria specified in Section 2.2. According to the precise instructions given by the ECB, the national central banks decide whether to enter into a deal with the counterparties. The transactions are settled through the national central banks.

¹⁰ The Governing Council of the ECB can decide that, under exceptional circumstances, these operations may also be executed by the ECB itself.

If the Governing Council of the ECB were to decide that, under exceptional circumstances, bilateral operations could also be executed by the ECB itself (or by one or a few national central banks acting as the operating arm of the ECB), the procedures for such operations would be adapted accordingly. In this case, the ECB (or the national central bank(s) acting as the operating arm of the ECB) would directly contact one or a few counterparties in the euro area, selected according to the criteria specified in Section 2.2. The ECB (or the national central bank(s) acting as the operating arm of the ECB) would decide whether to enter into a deal with the counterparties. The transactions would nevertheless be settled in a decentralised manner through the national central banks.

Bilateral operations through direct contact with counterparties can be applied for reverse transactions, outright transactions, foreign exchange swaps and the collection of fixed-term deposits.

Operations executed through stock exchanges and market agents

The national central banks can execute outright transactions through stock exchanges and market agents. For these operations, the range of counterparties is not restricted a priori and the procedures are adapted to the market conventions for the debt instruments transacted.

Announcement of bilateral operations

Bilateral operations are normally not announced publicly in advance. In addition, the ECB may decide not to announce the results of bilateral operations publicly.

Operating days

The ECB may decide to conduct fine-tuning bilateral operations on any Eurosystem business day. Only national central banks of Member States where the trade day, the settlement day and the reimbursement day are NCB business days participate in such operations.

Outright bilateral operations for structural purposes are normally only conducted and settled on days which are NCB business days in all Member States.

5.3 Settlement procedures

5.3.1 General considerations

Money transactions relating to the use of Eurosystem standing facilities or to participation in open market operations are settled on the counterparties' accounts with the national central banks or on the accounts of settlement banks participating in TARGET2. Money transactions are settled only after (or at the moment of) the final transfer of the assets underlying the operation. This implies that underlying assets need either to have been pre-deposited in a safe custody account at the national central banks or to be settled with said national central banks on an intraday delivery-versus-payment basis. The transfer of underlying assets is executed via the counterparties' securities settlement accounts with SSSs fulfilling the ECB's minimum standards¹¹. Counterparties without a safe custody account with a

¹¹ The description of the standards for the use of eligible SSSs in the euro area and an updated list of the eligible links between these systems can be found on the ECB's website (www.ecb.europa.eu).

national central bank or a securities settlement account with an SSS fulfilling the ECB's minimum standards may settle the transactions of underlying assets through the securities settlement account or the safe custody account of a correspondent credit institution.

Further provisions related to the settlement procedures are defined in the contractual arrangements applied by the national central banks (or the ECB) for the specific monetary policy instruments. The settlement procedures may differ slightly between national central banks owing to differences in national law and operational practices.

Table 3 Normal settlement dates for Eurosystem open market operations ¹⁾

Monetary policy instrument	Settlement date for operations based on standard tenders	Settlement date for operations based on quick tenders or bilateral procedures
Reverse transactions	T+1 ²⁾	T
Outright transactions	-	According to market convention for underlying assets
Issuance of ECB debt certificates	T+2	-
Foreign exchange swaps	-	T, T+1 or T+2
Collection of fixed-term deposits	-	T

1) T refers to the trade day. The settlement date refers to Eurosystem business days.

2) If the normal settlement date for the main or the longer-term refinancing operations coincides with a bank holiday, the ECB may decide to apply a different settlement date, with the option of same-day settlement. The settlement dates for the main and the longer-term refinancing operations are specified in advance in the Eurosystem's tender operations calendar (see Section 5.1.2).

5.3.2 Settlement of open market operations

Open market operations based on standard tenders (i.e. main refinancing operations, longer-term refinancing operations and structural operations) are normally settled on the first day following the trade day on which TARGET2 and all relevant SSSs are open. However, the issuance of ECB debt certificates is settled on the second day following the trade day on which TARGET2 and all relevant SSSs are open. As a matter of principle, the Eurosystem aims to settle the transactions related to its open market operations at the same time in all Member States with all counterparties that have provided sufficient underlying assets. However, owing to operational constraints and the technical features of SSSs, the timing within the day of the settlement of open market operations may differ across the euro area. The time of settlement of the main and the longer-term refinancing operations normally coincides with the time of reimbursement of a previous operation of corresponding maturity.

The Eurosystem aims to settle open market operations based on quick tenders and bilateral procedures on the trade day. However, the Eurosystem may occasionally apply for operational reasons other settlement dates for these operations, in particular for outright transactions and foreign exchange swaps (see Table 3).

5.3.3 End-of-day procedures

The end-of-day procedures are specified in documentation related to TARGET2. As a general rule, the TARGET2 closing time is 6 p.m. ECB time (CET). No further payment orders are accepted for processing in TARGET2 after the closing time, although remaining payment orders accepted before the closing time are still processed. Counterparties' requests for access to the marginal lending facility or to the deposit facility must be submitted to the respective national central bank at the latest 15 minutes following the TARGET2 closing time. The deadline for requesting access to the Eurosystem's standing facilities is postponed by an additional 15 minutes on the last Eurosystem business day of a minimum reserve maintenance period.

Any negative balances on the settlement accounts in TARGET2 of eligible counterparties remaining after the finalisation of the end-of-day control procedures are automatically considered to be a request for recourse to the marginal lending facility (see Section 4.1).

CHAPTER 6 ELIGIBLE ASSETS

6.1 General considerations

Article 18.1 of the Statute of the ESCB allows the ECB and the national central banks to transact in financial markets by buying and selling underlying assets outright or under repurchase agreements and requires all Eurosystem credit operations to be based on adequate collateral. Consequently, all Eurosystem liquidity-providing operations are based on underlying assets provided by the counterparties either in the form of the transfer of ownership of assets (in the case of outright transactions or repurchase agreements) or in the form of a pledge, an assignment or a charge granted over relevant assets (in the case of collateralised loans)¹.

With the aims of protecting the Eurosystem from incurring losses in its monetary policy operations and of ensuring the equal treatment of counterparties, as well as of enhancing operational efficiency and transparency, underlying assets have to fulfil certain criteria in order to be eligible for Eurosystem monetary policy operations. The Eurosystem has developed a single framework for eligible assets common to all Eurosystem credit operations. This single framework, also referred to as the ‘Single List’, entered into effect on 1 January 2007 and replaced the two-tier system which had been in place from the start of stage three of economic and monetary union.

The single framework comprises two distinct asset classes – marketable assets and non-marketable assets. No distinction is made between the two asset classes with regard to the quality of the assets and their eligibility for the various types of Eurosystem monetary policy operations, except that non-marketable assets are not used by the Eurosystem for outright transactions. The assets eligible for Eurosystem monetary policy operations can also be used as underlying assets for intraday credit.

The eligibility criteria for the two asset classes are uniform across the euro area and are set out in Section 6.2². To ensure that the two asset classes comply with the same credit standards, a Eurosystem credit assessment framework (ECAAF) has been set up, which relies on different credit assessment sources. The procedures and rules establishing and controlling the Eurosystem’s requirement of ‘high credit standards’ for all eligible collateral are outlined in Section 6.3. The risk control measures and valuation principles for underlying assets are set out in Sections 6.4 and 6.5. Eurosystem counterparties may use eligible assets on a cross-border basis (see Section 6.6).

¹ Liquidity-absorbing outright and reverse open market operations are also based on underlying assets. For underlying assets used in liquidity-absorbing reverse open market operations, the eligibility criteria are identical to those applied for underlying assets used in liquidity-providing reverse open market operations. However, no valuation haircuts are applied in liquidity-absorbing operations.

² During the interim period until 31 December 2011 for a specific asset class of the non-marketable assets, credit claims, a limited number of eligibility and operational criteria may diverge across the euro area (see Section 6.2.2).

6.2 Eligibility specifications for underlying assets

The ECB establishes, maintains and publishes a list of eligible marketable assets³. The Eurosystem shall only provide counterparties with advice regarding eligibility as Eurosystem collateral if already issued marketable assets or outstanding non-marketable assets are submitted to the Eurosystem as collateral. There shall thus be no pre-issuance advice.

6.2.1 Eligibility criteria for marketable assets

Debt certificates issued by the ECB and all debt certificates issued by the national central banks of the Eurosystem prior to the date of adoption of the euro in their respective Member State are eligible.

To determine the eligibility of other marketable assets, the following eligibility criteria are applied (see also Table 4):

Type of asset

It must be a *debt instrument* having:

- (a) a fixed, unconditional principal amount⁴; and
- (b) a coupon that cannot result in a negative cash flow. In addition, the coupon should be one of the following: (i) a zero coupon; (ii) a fixed rate coupon; or (iii) a floating rate coupon linked to an interest rate reference. The coupon may be linked to a change in the rating of the issuer itself. Furthermore, inflation-indexed bonds are also eligible.

These features must be maintained until the redemption of the obligation. Debt instruments may not afford rights to the principal and/or the interest that are subordinated to the rights of holders of other debt instruments of the same issuer.

Requirement (a) does not apply to *asset-backed securities*, with the exception of bonds issued by credit institutions in accordance with the criteria set out in Article 22 of the UCITS Directive⁵ (referred to as ‘covered bank bonds’). The Eurosystem assesses the eligibility of asset-backed securities other than covered bank bonds against the following criteria.

³ This list is published and updated daily on the ECB’s website (www.ecb.europa.eu). Marketable assets issued by non-financial corporations without a rating from an external credit assessment institution (ECAI) for the issue, issuer or guarantor are not included in the public list of eligible marketable assets. For these debt instruments, the eligibility status is dependent on the credit assessment of the credit assessment source chosen by the respective counterparty in accordance with the ECAF rules applicable to credit claims as set out in Section 6.3.3.

⁴ Bonds with warrants or other similar rights are not eligible.

⁵ Council Directive 85/611/EEC of 20 December 1985 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (OJ L 375 of 31 December 1985, page 3), as last amended by Directive 2005/1/EC (OJ L 79 of 24 March 2005, page 9).

The cash flow generating assets backing the asset-backed securities must fulfil the following requirements:

- (a) the acquisition of such assets must be governed by the law of an EU Member State;
- (b) they must be acquired from the originator or from an intermediary by the securitisation special-purpose vehicle in a manner which the Eurosystem considers to be a ‘true sale’ that is enforceable against any third party, and be beyond the reach of the originator and its creditors, or the intermediary and its creditors, including in the event of the originator’s or the intermediary’s insolvency;
- (c) they must be originated and sold to the issuer by an originator or, if applicable, an intermediary incorporated in the EEA;
- (d) they must not consist, in whole or in part, actually or potentially, of tranches of other asset-backed securities⁶. In addition, they must not consist, in whole or in part, actually or potentially, of credit-linked notes, swaps or other derivatives instruments^{7, 8}, or synthetic securities.; and
- (e) if they are credit claims, the obligors and the creditors must be incorporated (or, if natural persons, resident) in the EEA and, if relevant, the related security must be located in the EEA. The law governing those credit claims must be the law of an EEA country. If they are bonds, the issuers must be incorporated in the EEA, they must be issued in an EEA country under the law of an EEA country and any related security must be located in the EEA⁹.

In cases where originators or, if applicable, intermediaries, were incorporated in the euro area, or in the United Kingdom, the Eurosystem has verified that there were no severe clawback provisions in those jurisdictions. If the originator or, if applicable, the intermediary, is incorporated in another EEA country, the asset-backed securities can only be considered eligible if the Eurosystem ascertains that its rights would be protected in an appropriate manner against claw back provisions considered relevant by the Eurosystem under the law of the relevant EEA country. For this purpose, an independent legal assessment in a form acceptable to the Eurosystem must be submitted setting out the applicable clawback rules in the country, before the asset-backed securities can be considered eligible¹⁰. To decide whether its rights are adequately protected against claw back rules, the Eurosystem may require other documents, including a solvency certificate from the transferee, for the suspect period. Claw back rules which the Eurosystem considers to be severe and therefore not acceptable include rules whereby the sale of underlying assets can be invalidated by the liquidator

⁶ This requirement does not exclude asset-backed securities where the issuance structure includes two special-purpose vehicles and the ‘true sale’ requirement is met in respect of those special-purpose vehicles so that the debt instruments issued by the second special-purpose vehicle are directly or indirectly backed by the original pool of assets and all cash flows from the cash flow generating assets are transferred from the first to the second special-purpose vehicle.

⁷ This restriction does not encompass swaps used in asset-backed securities transactions strictly for hedging purposes.

⁸ Asset-backed securities which are on the list of eligible marketable assets as of 10 October 2010 are exempted from this requirement and remain eligible until 9 October 2011.

⁹ Asset-backed securities which are on the list of eligible marketable assets as of 10 October 2010 are exempted from this requirement and remain eligible until 9 October 2011.

¹⁰ Asset-backed securities which are on the list of eligible marketable assets as of 10 October 2010 are exempted from this requirement and remain eligible until 9 October 2011.

solely on the basis that it was concluded within a certain period (suspect period) before the declaration of insolvency of the seller (originator/intermediary), or where such invalidation can only be prevented by the transferee if they can prove that they were not aware of the insolvency of the seller (originator/intermediary) at the time of the sale.

Within a structured issue, in order to be eligible, a tranche (or sub-tranche) may not be subordinated to other tranches of the same issue. A tranche (or sub-tranche) is considered to be non-subordinated vis-à-vis other tranches (or sub-tranches) of the same issue if, in accordance with the priority of payment applicable after the delivery of an enforcement notice, as set out in the prospectus, no other tranche (or sub-tranche) is given priority over that tranche or sub-tranche in respect of receiving payment (principal and interest), and thereby such tranche (or sub-tranche) is last in incurring losses among the different tranches or sub-tranches of a structured issue. For structured issues where the prospectus provides for the delivery of an acceleration and an enforcement notice, non-subordination of a tranche (or sub-tranche) must be ensured under both acceleration and enforcement notice-related priority of payments.

The Eurosystem reserves the right to request from any relevant third party (such as the issuer, the originator or the arranger) any clarification and/or legal confirmation that it considers necessary to assess the eligibility of asset-backed securities.

Credit standards

The debt instrument must meet the high credit standards specified in the ECAF rules for marketable assets as set out in Section 6.3.2.

Place of issue

The debt instrument must be deposited/registered (issued) in the EEA with a central bank or with a central securities depository (CSD) which fulfils the minimum standards established by the ECB¹¹. In case a marketable debt instrument is issued by a non-financial corporation¹² that is not rated by an accepted external credit assessment institution (ECAI), the place of issue must be the euro area.

¹¹ International debt securities in global bearer form issued on or after 1 January 2007, through the ICSDs Euroclear Bank (Belgium) and Clearstream Banking Luxembourg must, in order to be eligible, be issued in the form of new global notes and must be deposited with a common safekeeper which is an ICSD or, if applicable, a CSD that fulfils the minimum standards established by the ECB. International debt securities in global bearer form that were issued in the form of classical global notes prior to 1 January 2007 and fungible securities issued under the same ISIN code on or after that date remain eligible until maturity. International debt securities issued in global registered form through the ICSDs Euroclear Bank (Belgium) and Clearstream Banking Luxembourg after 30 September 2010 must, in order to be eligible, be issued under the new safekeeping structure for international debt securities. International debt securities in global registered form issued before or on that date remain eligible until their maturity. International debt securities in individual note form will cease to be eligible if issued after 30 September 2010. International debt securities in individual note form issued before or on that date remain eligible until their maturity.

¹² Non-financial corporations are defined as in the European System of Accounts 1995 (ESA 95).

Settlement procedures

The debt instrument must be transferable in book-entry form. It must be held and settled in the euro area through an account with the Eurosystem or with an SSS that fulfils the standards established by the ECB, so that perfection and realisation are subject to the law of a Member State.

If the CSD where the asset is issued and the SSS where it is held are not identical, then the two institutions have to be connected by a link approved by the ECB¹³.

Acceptable markets

The debt instrument must be admitted to trading on a regulated market as defined in the Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments¹⁴, or traded on certain non-regulated markets as specified by the ECB¹⁵. The assessment of non-regulated markets by the Eurosystem is based on three principles – safety, transparency and accessibility^{16, 17}.

Type of issuer/guarantor

The debt instrument may be issued or guaranteed by central banks, public sector entities, private sector entities, or international or supranational institutions. Debt instruments other than covered bank bonds that are issued by credit institutions are only eligible if they are admitted to trading on a regulated market as defined above.

Place of establishment of the issuer/guarantor

The *issuer* must be established in the EEA or in one of the non-EEA G10 countries^{18 19}. In the latter case, the debt instruments can only be considered eligible if the Eurosystem ascertains that its rights would be protected in an appropriate manner, as determined by the Eurosystem, under the laws of the

¹³ The description of the standards for the use of eligible SSSs in the euro area and an updated list of the eligible links between these systems can be found on the ECB's website (www.ecb.europa.eu).

¹⁴ OJ L 145 of 30 April 2004, page 1.

¹⁵ A list of acceptable non-regulated markets is published on the ECB's website (www.ecb.europa.eu) and updated at least once a year.

¹⁶ 'Safety', 'transparency' and 'accessibility' are defined by the Eurosystem exclusively in terms of the performance of the Eurosystem's collateral management function. The selection process is not aimed at assessing the intrinsic quality of the various markets. The principles are to be understood as follows. *Safety* is taken to mean certainty with regard to transactions, in particular certainty on the validity and enforceability of transactions. *Transparency* is taken to mean unimpeded access to information on the market's rules of procedure and operation, the financial features of the assets, the price formation mechanism, and the relevant prices and quantities (quotes, interest rates, trading volumes, outstanding amounts, etc.). *Accessibility* refers to the Eurosystem's ability to take part in and have access to the market; a market is accessible for collateral management purposes if its rules of procedure and operation allow the Eurosystem to obtain information and conduct transactions when needed for these purposes.

¹⁷ Marketable assets, which were accepted as tier two assets, and which have been issued prior to 31 May 2007 and are traded on non-regulated markets that currently fulfil the Eurosystem's requirements for safety and accessibility, but not for transparency, remain eligible until 31 December 2010, provided they fulfil the other eligibility criteria, and become ineligible after that date. This does not apply to uncovered marketable assets issued by credit institutions that were accepted as tier two assets and became ineligible on 31 May 2007.

¹⁸ Non-EEA G10 countries currently include the United States, Canada, Japan and Switzerland.

¹⁹ Marketable assets issued before 1 January 2007 by an entity not established in the EEA or in one of the non-EEA G10 countries, but guaranteed by an entity established in the EEA, remain eligible until 31 December 2011, provided they fulfil the other eligibility criteria and the requirements applicable to guarantees as set out in Section 6.3.2, and become ineligible after that date.

respective non-EEA G10 country. For this purpose, a legal assessment in a form and with substance acceptable to the Eurosystem will have to be submitted before the assets can be considered eligible. In the case of an asset-backed security, the issuer must be established in the EEA.

The *guarantor* must be established in the EEA, unless a guarantee is not needed to establish the high credit standards for marketable assets, as set out in Section 6.3.2.

International or supranational institutions are eligible issuers/guarantors irrespective of their place of establishment. In case a marketable debt instrument is issued by a non-financial corporation that is not rated by an ECAI, the issuer/guarantor must be established in the euro area.

Currency of denomination

The debt instrument must be denominated in euro²⁰.

6.2.2 Eligibility criteria for non-marketable assets

Three types of non-marketable assets are eligible as collateral in the single framework for eligible assets: fixed-term deposits from eligible counterparties, credit claims and non-marketable retail mortgage-backed debt instruments (RMBDs)²¹.

Credit claims

To be eligible, a credit claim²² has to fulfil the following *eligibility criteria* (see also Table 4):

- *Type of asset*: It must be a credit claim which is a debt obligation of a debtor vis-à-vis a Eurosystem counterparty. Credit claims that have a ‘reducing balance’ (i.e. where the principal and interest are paid off according to a pre-agreed schedule) are also eligible. Undrawn credit lines (e.g. undrawn facilities of revolving credit claims), current account overdrafts and letters of credit (which authorise the use of credit but are not credit claims per se) are not eligible. The share of a syndicate member institution in a syndicated loan is considered an eligible type of credit claim. Credit claims may not afford rights to the principal and/or the interest that are subordinated to the rights of holders of other credit claims (or other tranches or sub-tranches in the same syndicated loan) or debt instruments of the same issuer.

The credit claim must have (a) a fixed, unconditional principal amount and (b) an interest rate that cannot result in a negative cash flow. In addition, the interest rate should be one of the following: (i) zero coupon-style; (ii) fixed; or (iii) floating linked to another interest rate reference.

²⁰ Expressed as such or in the national denominations of the euro.

²¹ Between 1 January 2007 and 31 December 2011, an intermediate regime is in place for credit claims, allowing each NCB to choose the minimum threshold for the size of credit claims eligible for collateral purposes, apart from cross-border use, and to decide whether a handling fee should be applied. From 1 January 2012, a fully unified regime will be in place.

²² Credit claims are also referred to as bank loans. *Schuldscheindarlehen* and Dutch registered private claims on the government or other eligible debtors that are covered by a government guarantee (e.g. housing associations) are deemed to be equivalent to credit claims.

Furthermore, credit claims with interest rate linked to the inflation rate are also eligible. These features must be maintained until the redemption of the obligation.

- *Type of debtor/guarantor*: Eligible debtors and guarantors are non-financial corporations²³, public sector entities and international or supranational institutions. Each debtor is individually and severally liable for the full repayment of the credit claim in question (co-debtors jointly liable for individual credit claims are excluded).
- *Place of establishment of the debtor and guarantor*: The debtor must be established in the euro area. The guarantor must also be established in the euro area, unless a guarantee is not needed to establish the high credit standards for non-marketable assets, as set out in Section 6.3.3. This requirement does not apply to international or supranational institutions.
- *Credit standards*: The quality of credit claims is assessed through the underlying creditworthiness of the debtor or guarantor. Credit claims must meet the high credit standards specified in the ECAF rules for non-marketable assets, as set out in Section 6.3.3.
- *Minimum size*: At the time of submission for use as collateral (mobilisation) by the counterparty, the credit claim must meet a minimum size threshold. In an interim period (1 January 2007 to 31 December 2011), each national central bank may apply a minimum size of its choice for domestic credit claims. For cross-border use, a common minimum threshold of EUR 500 000 is applicable in the interim period. As from 1 January 2012 a common minimum threshold of EUR 500 000 will be applicable to all credit claims throughout the euro area.
- *Handling procedures*: The credit claim must be handled according to the Eurosystem procedures as defined in the respective national documentation.
- *Governing laws*: The credit claim agreement and the agreement between the counterparty and the NCB mobilising the credit claim as collateral ('mobilisation agreement') must both be governed by the law of a Member State. Furthermore, the total number of different governing laws that are applicable to (a) the counterparty; (b) the creditor; (c) the debtor; (d) the guarantor (if relevant); (e) the credit claim agreement; and (f) the mobilisation agreement may not exceed two.
- *Currency of denomination*: The credit claim must be denominated in euro²⁴.

Non-marketable retail mortgage-backed debt instruments

The following eligibility criteria are applied to RMBDs (see also Table 4):

- *Type of asset*: It must be a debt instrument (a promissory note or a bill of exchange) that is secured by a pool of residential mortgages and that falls short of full securitisation. Substitution of assets in the underlying pool must be possible and a mechanism needs to be in place to ensure

²³ As defined in the ESA 95.

²⁴ See footnote 20 in this chapter.

that the Eurosystem enjoys priority over creditors other than those exempted for public policy reasons²⁵.

The RMBD must have (a) a fixed, unconditional principal amount and (b) an interest rate that cannot result in a negative cash flow.

- *Credit standards*: The RMBD must meet high credit standards, which are assessed through the part of the ECAF that addresses RMBDs, as set out in Section 6.3.3.
- *Type of issuer*: Eligible issuers are credit institutions that are eligible counterparties.
- *Place of establishment of the issuer*: The issuer must be established in the euro area.
- *Handling procedures*: The RMBD must be handled according to the Eurosystem procedures as defined in the respective national documentation.
- *Currency of denomination*: The RMBD must be denominated in euro²⁶.

6.2.3 Additional requirements for the use of eligible assets

Additional legal requirements for credit claims

In order to ensure that a valid security is created over credit claims and that the credit claim can be swiftly realised in the event of a counterparty default, additional legal requirements have to be met. These legal requirements relate to:

- the verification of the existence of credit claims;
- the notification of the debtor about the mobilisation of the credit claim or the registration of such mobilisation;
- the absence of restrictions related to banking secrecy and confidentiality;
- the absence of restrictions on the mobilisation of the credit claim;
- the absence of restrictions on the realisation of the credit claim.

The content of these legal requirements is set out in Appendix 7. Further details of the specific features of the national jurisdictions are provided in the respective national documentation.

Rules for the use of eligible assets

Marketable assets can be used for all monetary policy operations which are based on underlying assets, i.e. reverse and outright open market transactions and the marginal lending facility. Non-marketable assets can be used as underlying assets for reverse open market transactions and the

²⁵ Irish mortgage-backed promissory notes are currently the only instruments in this asset class.

²⁶ See footnote 20 in this chapter.

marginal lending facility. They are not used in Eurosystem outright transactions. All marketable and non-marketable assets can also be used as underlying assets for intraday credit.

Irrespective of the fact that a marketable or non-marketable asset fulfils all eligibility criteria, a counterparty may not submit as collateral any asset issued or guaranteed by itself or by any other entity with which it has close links²⁷.

‘Close links’ means a situation in which the counterparty is linked to an issuer/debtor/guarantor of eligible assets by reason of the fact that:

- (i) the counterparty owns directly, or indirectly, through one or more other undertakings, 20 % or more of the capital of the issuer/debtor/guarantor; or
- (ii) the issuer/debtor/guarantor owns directly, or indirectly through one or more other undertakings, 20 % or more of the capital of the counterparty; or
- (iii) a third party owns more than 20 % of the capital of the counterparty and more than 20 % of the capital of the issuer/debtor/guarantor, either directly or indirectly, through one or more undertakings

For monetary policy implementation purposes, in particular for the monitoring of compliance with the rules for the use of eligible assets concerning close links, the Eurosystem internally shares information on capital holdings provided by supervisory authorities for such purposes. The information is subject to the same secrecy standards as applied by supervisory authorities.

The above provisions concerning close links do not apply to: (a) close links between the counterparty and an EEA public sector entity which has the right to levy taxes, or in the case where a debt instrument is guaranteed by an EEA public sector entity which has the right to levy taxes; (b) covered bank bonds issued in accordance with the criteria set out in Article 22(4) of the UCITS Directive; or (c) cases in which debt instruments are protected by specific legal safeguards comparable to those instruments given under (b) such as in the case of (i) non-marketable RMBDs which are not securities; or (ii) residential real estate loan-backed structured covered bank bonds or commercial mortgage loan-backed structured covered bank bonds, i.e. certain covered bank bonds not declared UCITS compliant by the European Commission, that fulfil all the criteria that apply to asset-backed securities, as set out in Sections 6.2 and 6.3 and the following additional criteria²⁸:

In the case of residential real estate loan-backed structured covered bank bonds:

- Any residential real estate loans underlying the structured covered bank bonds must be denominated in euro; the issuer (and the debtor and guarantor, if they are legal persons) must be

²⁷ In the event of a counterparty using assets that, owing to an identity with the issuer/debtor/guarantor or the existence of close links, it may not or no longer use to secure an outstanding credit, it is obliged to immediately notify the relevant national central bank thereof. The assets are valued at zero on the next valuation date and a margin call may be triggered (see also Appendix 6). In addition, the counterparty has to remove the asset on the earliest possible date.

²⁸ Residential real estate loan-backed structured covered bank bonds submitted before 10 October 2010 that do not comply with these criteria can continue to be used until 31 March 2011. Commercial mortgage loan-backed structured covered bank bonds submitted before 1 February 2011 that do not comply with these criteria can continue to be used until 31 March 2011.

incorporated in a Member State, their underlying assets must be located in a Member State, and the law governing the loan must be that of a Member State.

- Residential real estate loans are eligible for the cover pool of relevant structured covered bank bonds, if they are guaranteed by an eligible guarantee or secured by a mortgage. An eligible guarantee must be payable within 24 months upon default. Eligible guarantees for the purposes of such guaranteed loans can be provided in different contractual formats, including contracts of insurance, provided that they are granted by a public sector entity or a financial institution subject to public supervision. The guarantor for the purposes of such guaranteed loans must not have close links to the issuer of the covered bank bonds, and must be rated at least [A+/A1/AH] by an accepted ECAI over the life of the transaction.
- High quality substitute collateral up to 10% of the cover pool is accepted. This threshold can only be exceeded after an in-depth review by the relevant NCB.
- The maximum portion of each individual eligible loan that can be funded through the structured covered bank bond issuance is 80% loan-to-value (LTV). The LTV calculation must be based on a conservative market valuation.
- The minimum mandatory over-collateralisation is 8%.
- The maximum loan amount for residential real estate loans is EUR 1 million.
- The stand-alone credit assessment of the cover pool must correspond to an annual PD level of 10 basis points in line with the 'single A' threshold (see Section 6.3.1).
- A long-term minimum threshold of 'single A' ('A-' by Fitch or Standard & Poor's, or 'A3' by Moody's, or 'AL' by DBRS) must be applied to the issuer and related entities which are part of or relevant to the transaction relating to the structured covered bank bond.

In the case of commercial mortgage loan-backed structured covered bank bonds:

- Any commercial mortgage loans underlying the structured covered bank bonds must be denominated in euro; the issuer (and the debtor and guarantor, if they are legal persons) must be incorporated in a Member State, their underlying assets must be located in a Member State, and the law governing the loan must be that of a Member State.
- High quality substitute collateral up to 10% of the cover pool is accepted. This threshold can only be exceeded after an in-depth review by the relevant NCB.
- The maximum portion of each individual eligible loan that can be funded through the structured covered bank bond issuance is 60% LTV. The LTV calculation must be based on a conservative market valuation.
- The minimum mandatory over-collateralisation is 10%.
- The share of each borrower in the cover pool, after aggregating all individual loan amounts outstanding from a given borrower, must not exceed 5% of the cover pool's total.

- The stand-alone credit assessment of the cover pool must correspond to credit quality step 1 in line with the Eurosystem rating scale (see Section 6.3.1).
- Credit quality step 2 must be applied to the issuer and related entities which are part of or relevant to the transaction relating to the structured covered bank bond.
- All underlying commercial mortgage loans need to be revalued at least on an annual basis. Price decreases of properties must be fully reflected in the revaluation. In the case of price increases, a 15% haircut is applied. Loans that do not fulfil the LTV threshold requirement must be replaced by new loans, or must be over-collateralised, subject to the relevant NCB's approval. The primary valuation methodology to be applied is the market value, i.e. the estimated price that would be obtained if the assets were sold on the market using reasonable efforts. This estimation must be based on the most conservative assumption. Statistical methods can also be applied but only as a secondary valuation methodology.
- Liquidity cushion in the form of cash in euro deposited with an eligible counterparty must be maintained at all times to cover all interest payments related to covered bank bonds for the subsequent six-month period.
- Whenever the short-term credit rating of the borrower of an underlying commercial mortgage loan falls below credit quality step 2 in the nine months before a hard bullet covered bank bond matures, such borrower must post an amount of cash in euro sufficient to cover the relevant part of the covered bank bond principal payment as well as related expenses scheduled to be paid by the issuer under the covered bank bond to the liquidity cushion.
- In case of liquidity stress, the original maturity date can be extended up to 12 months to compensate for maturity mismatches between the amortising loans in the cover pool and the bullet redemption of the covered bank bond. However, the covered bank bond will become ineligible for own use after the original maturity date.

Furthermore, for residential real estate loan-backed structured covered bank bonds or commercial mortgage loan-backed structured covered bank bonds, counterparties have to provide legal confirmation from a reputable law firm confirming the fulfilment of the following conditions:

- The issuer of the covered bank bonds is a credit institution incorporated in an EU Member State, and is not a special-purpose vehicle, even if such covered bank bonds are guaranteed by a credit institution incorporated in an EU Member State.
- The issuer/issue of the covered bank bonds is subject, by the law of the Member State where the issuer is incorporated or where the covered bank bonds were issued, to special public supervision designed to protect covered bank bond holders.
- In the event of the insolvency of the issuer, covered bank bond holders have priority as regards reimbursement of the principal and payment of interest deriving from the (underlying) eligible assets.

- Sums deriving from the issue of the covered bank bonds must be invested (according to the investment rules set out by the covered bank bond documentation) in conformity with the relevant national covered bank bond legislation or other legislation applicable to the assets in question.

Moreover, a counterparty may not submit as collateral any asset-backed security if the counterparty (or any third party with which it has close links) provides a currency hedge to the asset-backed security by entering into a currency hedge transaction with the issuer as a hedge counterparty or provides liquidity support for 20 % or more of the outstanding amount of the asset-backed security.

All eligible marketable and non-marketable assets must be usable in a cross-border context throughout the euro area. This implies that all Eurosystem counterparties must be able to use eligible assets either through links with their domestic SSSs in the case of marketable assets or through other eligible arrangements to receive credit from the national central bank of the Member State in which the counterparty is established (see Section 6.6).

Table 4 Eligible assets for Eurosystem monetary policy operations

Eligibility criteria	Marketable assets ¹⁾	Non-marketable assets ²⁾	
Type of asset	ECB debt certificates Other marketable debt instruments ³⁾	Credit claims	RMBDs
Credit standards	The asset must meet high credit standards. The high credit standards are assessed using ECAF rules for marketable assets. ³⁾	The debtor/guarantor must meet high credit standards. The creditworthiness is assessed using ECAF rules for credit claims.	The asset must meet high credit standards. The high credit standards are assessed using ECAF rules for RMBDs.
Place of issue	EEA ³⁾	Not applicable	Not applicable
Settlement/handling procedures	Place of settlement: euro area Instruments must be centrally deposited in book-entry form with central banks or a SSS fulfilling the ECB's minimum standards	Eurosystem procedures	Eurosystem procedures
Type of issuer/debtor/guarantors	Central banks Public sector Private sector International and supranational institutions	Public sector Non-financial corporations International and supranational institutions	Credit institutions
Place of establishment of the issuer, debtor and guarantor	Issuer ³⁾ : EEA or non-EEA G10 countries Debtor: EEA Guarantor ³⁾ : EEA	Euro area	Euro area
Acceptable markets	Regulated markets Non-regulated markets accepted by the ECB	Not applicable	Not applicable
Currency	Euro	Euro	Euro
Minimum size	Not applicable	Minimum size threshold at the time of submission of the credit claim Between 1 January 2007 and 31 December 2011: - for domestic use: choice of the NCB, - for cross-border use: common threshold of EUR 500 000. As from 1 January 2012: common minimum threshold of EUR 500 000 throughout the euro area	Not applicable
Governing laws	For asset-backed securities the acquisition of the underlying assets must be governed by the law of an EU Member State. The law governing underlying credit claims must be the law of an EEA country	Governing law for credit claim agreement and mobilisation: law of a Member State The total number of different laws applicable to (a) the counterparty; (b) the creditor; (c) the debtor;	Not applicable

		(d) the guarantor (if relevant); (e) the credit claim agreement; and (f) the mobilisation agreement shall not exceed two	
Cross-border use	Yes	Yes	Yes

- 1) Further details are set out in Section 6.2.1.
- 2) Further details are set out in Section 6.2.2.
- 3) The credit standard of non-rated marketable debt instruments issued or guaranteed by non-financial corporations is determined on the basis of the credit assessment source chosen by the respective counterparty in accordance with the ECAF rules applicable to credit claims, as set out in Section 6.3.3. In the case of these marketable debt instruments, the following eligibility criteria for marketable assets have been amended: place of establishment of the issuer/guarantor: euro area; place of issue: euro area.

6.3 Eurosystem credit assessment framework

6.3.1 Scope and elements

The Eurosystem credit assessment framework (ECAF) defines the procedures, rules and techniques which ensure that the Eurosystem requirement of high credit standards for all eligible assets is met.

Within the general framework, in the establishment of high credit standards, the Eurosystem differentiates between marketable and non-marketable assets (see Section 6.3.2 and 6.3.3) in order to take account of the different legal nature of these assets and for operational efficiency reasons.

In the assessment of the credit standard of eligible assets, the Eurosystem takes into account credit assessment information from credit assessment systems belonging to one of four sources, namely external credit assessment institutions (ECAIs), NCBs' in-house credit assessment systems (ICASs), counterparties' internal ratings-based (IRB) systems or third-party providers' rating tools (RTs). Additionally, in the assessment of the credit standard, the Eurosystem takes into account institutional criteria and features guaranteeing similar protection for the instrument holder such as guarantees.

With regard to the ECAI source, the assessment must be based on a public rating. The Eurosystem reserves the right to request any clarification that it considers necessary. For asset-backed securities, ratings must be explained in a publicly available credit rating report, namely a detailed pre-sale or new issue report, including, *inter alia*, a comprehensive analysis of structural and legal aspects, a detailed collateral pool assessment, an analysis of the transaction participants, as well as an analysis of any other relevant particularities of a transaction. Moreover ECAIs must publish regular surveillance reports for asset-backed securities. The publication of these reports should be in line with the frequency and timing of coupon payments. These reports should at least contain an update of the key transaction data (e.g. composition of the collateral pool, transaction participants, capital structure), as well as performance data.

The Eurosystem's benchmark for establishing its minimum requirement for high credit standards (its 'credit quality threshold') is defined in terms of a credit assessment of credit quality step 3 in the

Eurosystem's harmonised rating scale²⁹. The Eurosystem considers a PD over a one-year horizon of 0,40 % as equivalent to a credit assessment of credit quality step 3, subject to regular review. The ECAF follows the definition of a default event given in the Capital Requirements Directive (CRD)³⁰. The Eurosystem publishes the lowest rating grade meeting the required credit quality threshold for each accepted ECAI, without assuming any responsibility for its assessment of the ECAI, again subject to regular review. With regard to asset-backed securities, the Eurosystem's benchmark for establishing its minimum requirements for high credit standards is defined in terms of a 'triple A' credit assessment³¹ at issuance. Over the lifetime of the asset-backed security, the Eurosystem's minimum threshold of credit quality step 2 of the Eurosystem's harmonised rating scale ('single A') must be retained³². With regard to RMBDs, the Eurosystem's benchmark for establishing its minimum requirement for high credit standards is defined in terms of a credit assessment of credit quality step 2 in the Eurosystem's harmonised rating scale ('single A'). The Eurosystem considers a PD over a one-year horizon of 0,10 % as equivalent to a credit assessment of credit quality step 2, subject to regular review.

The Eurosystem reserves the right to determine whether an issue, issuer, debtor or guarantor fulfils its requirements for high credit standards on the basis of any information it may consider relevant and may reject, limit the use of assets or apply supplementary haircuts on such grounds if required to ensure adequate risk protection of the Eurosystem in line with Article 18.1 of the Statute of the ESCB. Such measures can also be applied to specific counterparties, in particular if the credit quality of the counterparty appears to exhibit a high correlation with the credit quality of the collateral assets submitted by the counterparty. In case such a rejection is based on prudential information, the use of any such information transmitted either by counterparties or by supervisors shall be strictly commensurate with, and necessary for, the performance of the Eurosystem's tasks of conducting monetary policy.

Assets issued or guaranteed by entities subject to a freezing of funds and/or other measures imposed by the EU under Article 75 of the Treaty or by an EU Member State restricting the use of their funds, or in respect of which the ECB's Governing Council has issued a decision suspending or excluding their access to open market operations or the Eurosystem's standing facilities, may be excluded from the list of eligible assets.

²⁹ The Eurosystem's harmonised rating scale is published on the ECB's website (www.ecb.europa.eu). A credit quality step 3 credit assessment means a minimum long-term rating of 'BBB-' by Fitch or Standard & Poor's, of 'Baa3' by Moody's, or of 'BBB' by DBRS.

³⁰ The CRD comprises Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast) (OJ L 177, 30.6.2006, p. 1) and Directive 2006/49/EC of the European Parliament and of the Council of 14 June 2006 on the capital adequacy of investment firms and credit institutions (recast) (OJ L 177 of 30.6.2006, p. 201).

³¹ 'Triple A' means a long-term rating of 'AAA' by Fitch, Standard & Poor's or DBRS, or 'Aaa' by Moody's or, if this is not available, a short-term rating of 'F1+' by Fitch, or 'A-1+' by Standard & Poor's, or 'R-1H' by DBRS.

³² 'Single A' means a minimum long-term rating of 'A-' by Fitch or Standard & Poor's, or 'A3' by Moody's, or 'AL' by DBRS.

6.3.2 Establishment of high credit standards for marketable assets

The high credit standards for marketable assets are established on the basis of the following set of criteria:

- *ECAI credit assessment*: At least one credit assessment from an accepted ECAI (as set out in Section 6.3.4) for the issue (or, in its absence, for the issuer) must comply with the Eurosystem's credit quality threshold^{33, 34}. The ECB publishes the credit quality threshold for any accepted ECAI, as established under Section 6.3.1³⁵.
- *ECAI credit assessment of asset-backed securities*: For asset-backed securities issued on or after 1 March 2010, the Eurosystem requires at least two credit assessments from any accepted ECAs for the issue. To determine the eligibility of these securities, the 'second-best rule' is applied, which means that not only the best, but also the second-best available ECAI credit assessment must comply with the credit quality threshold for asset-backed securities. Based on this rule, the Eurosystem requires for both credit assessments an 'AAA'/'Aaa' level at issuance and a 'single A' level over the life of the security in order for the securities to be eligible.

From 1 March 2011 all asset-backed securities, regardless of their date of issuance, must have at least two credit assessments from any accepted ECAI for the issue, and the second-best rule must be complied with in order for the securities to remain eligible.

Concerning asset-backed securities issued before 1 March 2010 that have only one credit assessment, a second assessment must be obtained before 1 March 2011. For asset-backed securities issued before 1 March 2009 both credit assessments must comply with the 'single A' level over the life of the security. For asset-backed securities issued between 1 March 2009 and 28 February 2010, the first credit assessment must comply with the 'AAA'/'Aaa' level at issuance and the 'single A' level over the life of the security, while the second credit assessment must comply with the 'single A' level both at issuance³⁶ and over the life of the security.

Fungible tap issuances of asset-backed securities are considered to be new issuances of asset-backed securities. All asset-backed securities issued under the same ISIN code must comply with the eligibility criteria in place at the date of the latest fungible tap issuance. For fungible tap issues of asset-backed securities which are not compliant with the eligibility criteria in place at the date of the latest fungible tap issuance, all the asset-backed securities issued under the same ISIN code are considered ineligible. This rule shall not apply in the case of fungible tap issuances of asset-backed securities which were on the Eurosystem list of eligible assets on 10 October 2010 if the

³³ If multiple and possibly conflicting ECAI assessments are available for the same issuer/debtor or guarantor, the first-best rule (i.e. the best available ECAI credit assessment) is applied.

³⁴ The high credit standards for covered bank bonds issued from 1 January 2008 are assessed on the basis of the above-listed set of criteria. Covered bank bonds issued prior to 1 January 2008 are deemed to fulfil high credit standards if they comply strictly with the criteria set out in Article 22(4) of the UCITS Directive.

³⁵ This information is published on the ECB's website (www.ecb.europa.eu).

³⁶ Concerning the second ECAI assessment, credit assessment at issuance refers to the credit assessment when first issued or published by the ECAI.

latest tap issuance occurred before that date. Non-fungible tap issuances are considered to be different asset-backed securities.

- *Guarantees:* In the absence of an (acceptable) ECAI credit assessment of the issuer, high credit standards can be established on the basis of guarantees provided by financially sound guarantors. The financial soundness of the guarantor is assessed on the basis of ECAI credit assessments meeting the Eurosystem's credit quality threshold. The guarantee must meet the following requirements:
 - A guarantee is deemed acceptable if the guarantor has unconditionally and irrevocably guaranteed the obligations of the issuer in relation to the payment of principal, interest and any other amounts due under the debt instruments to the holders thereof until they are discharged in full.
 - The guarantee has to be payable on first demand (independently from the underlying debt obligation). Guarantees given by public entities entitled to levy taxes should either be payable on first demand or otherwise provide for prompt and punctual payment following default. The obligations of the guarantor under the guarantee need to rank at least equally and rateably (*pari passu*) with all other unsecured obligations of the guarantor.
 - The guarantee must be governed by the law of an EU Member State and be legally valid, and binding and enforceable against the guarantor.
 - A legal confirmation concerning the legal validity, binding effect and enforceability of the guarantee will have to be submitted in a form and with substance acceptable to the Eurosystem before the asset supported by the guarantee can be considered eligible. If the guarantor is established in a jurisdiction other than the one of the law governing the guarantee, the legal confirmation must also confirm that the guarantee is valid and enforceable under the law governing the establishment of the guarantor. The legal confirmation should be submitted for review to the national central bank that is reporting a certain asset supported by a guarantee for inclusion in the list of eligible assets³⁷. The need for a legal confirmation does not apply to guarantees given in respect of debt instruments with an individual asset rating or to guarantees given by public entities entitled to levy taxes. The requirement of enforceability is subject to any insolvency or bankruptcy laws, general principles of equity and other similar laws and principles applicable to the guarantor and generally affecting creditors' rights against the guarantor.

³⁷ The national central bank reporting a certain asset is normally the national central bank of the country in which the asset will be admitted to trading/traded on an acceptable market. In the event that an asset is admitted to trading/traded on multiple markets, any queries should be addressed to the ECB's Eligible Assets Hotline (Eligible-Assets.hotline@ecb.int).

In the absence of an ECAI credit assessment for the issue, issuer or guarantor, the high credit standards are established as follows:

- *Euro area public sector issuers or guarantors:* If a marketable asset is issued or guaranteed by a regional government, local authority or public sector entity (PSE) established in the euro area as defined in the CRD, the following procedure applies:
 - The issuer or guarantor is allocated to one of three classes in accordance with the CRD³⁸ as explained in Table 5.
 - An implicit credit assessment for issuers or guarantors belonging to classes 1 and 2 is derived from the ECAI credit assessment of the central government of the country where the issuer or guarantor is established. This implicit credit assessment has to meet the Eurosystem credit quality threshold. No implicit credit assessment is derived for issuers/guarantors belonging to class 3.
- *Euro area non-financial corporate issuers or guarantors:* If the high credit standards for marketable assets which are issued/guaranteed by non-financial corporations³⁹ established in the euro area cannot be established on the basis of an ECAI credit assessment for the issue, issuer or guarantor, the ECAF rules for credit claims will be applicable and counterparties are allowed to make use of their own IRB system, NCBs' in-house credit assessment systems or third-party rating tools. The non-rated marketable debt instruments issued by non-financial corporations are not included in the public list of eligible marketable assets.

Table 5 Implicit credit assessments for euro area regional government, local authority and public sector entity issuers, debtors or guarantors without an ECAI credit assessment

	<i>Allocation of issuers, debtors or guarantors following the CRD</i>	<i>ECAF derivation of the implicit credit assessment of the issuer, debtor or guarantor belonging to the corresponding class</i>
Class 1	Regional governments, local authorities and PSEs that, according to competent supervisory authorities, can be treated equally to the central government for capital requirements purposes	Allocated the ECAI credit assessment of the central government of the country in which it is established
Class 2	Regional governments, local authorities and PSEs that according to competent supervisory authorities can be treated equally to [credit] institutions for capital requirements purposes	Allocated a credit assessment one credit quality step ¹⁾ below the ECAI credit assessment of the central government of the country in which it is established
Class 3	Other PSEs	Treated like private sector issuers or debtors

1) Information on the credit quality steps is published on the ECB's website (www.ecb.europa.eu).

³⁸ Lists of entities belonging to the three classes, as well as the criteria for classifying issuers, debtors or guarantors into the three classes are expected to be made available, together with links to the relevant websites of the national supervisory authorities, on the website of the Committee of European Banking Supervisors (CEBS): http://www.ebs.org/SD/Rules_AdditionalInformation.htm

³⁹ See footnote 12 in this chapter.

6.3.3 Establishment of high credit standards for non-marketable assets

Credit claims

In order to establish the requirement for high credit standards for the debtors or guarantors of credit claims, counterparties have to select one main credit assessment source from among those that are available and accepted by the Eurosystem. A counterparty will select one system from an available credit assessment source, except in the case of ECAIs, where all accepted ECAI systems may be used.

Counterparties have to stick to the selected source for a minimum period of one year so as to preclude ‘hopping’ between credit assessments (i.e. looking for the best credit assessment that guarantees eligibility among all available sources or systems on a debtor-by-debtor basis). Counterparties wishing to change credit assessment sources after the minimum period of one year have to submit a reasoned request to the relevant NCB.

Counterparties may be allowed to use more than one system or source upon submission of a reasoned request. The main credit assessment source chosen is expected to cover the largest number of submitted debtors by the counterparty. The use of more than one credit assessment source or system should be supported by the existence of an adequate business case. In principle, such a case could stem from a lack of sufficient coverage of the primary credit assessment source or system.

Counterparties must inform the national central bank promptly of any credit event, including a delay of payments by the submitted debtors, that is known to the counterparty and, if necessary, withdraw or replace the assets. Furthermore, counterparties are responsible for ensuring that they use the most recent credit assessment updates available from their selected credit assessment system or source for the debtors⁴⁰ or guarantors of submitted assets.

Credit assessments of debtors/guarantors: The high credit standards of the debtors or guarantors of credit claims are established according to rules differentiating between public sector and non-financial corporate debtors/guarantors:

- *Public sector debtors or guarantors:* The following rules are applied in a sequential order:
 - (i) A credit assessment from the system or source selected by the counterparty exists and is used to establish whether the public sector debtor or guarantor meets the credit quality threshold.
 - (ii) In the absence of a credit assessment under (i), an ECAI credit assessment of the debtor or guarantor is used⁴¹.
 - (iii) If no credit assessment is available under either (i) or (ii), the same procedure as for marketable assets applies:

⁴⁰ In the case of marketable assets issued by non-financial corporations but not rated by an accepted ECAI, this requirement applies to the credit assessment of issuers.

⁴¹ See footnote 33 in this chapter.

- The debtor or guarantor is allocated to one of three classes in accordance with the CRD⁴² as explained in Table 5.
- An implicit credit assessment for debtors or guarantors belonging to classes 1 and 2 is derived from the ECAI credit assessment of the central government of the country where the debtor or guarantor is established. This implicit assessment has to meet the Eurosystem credit quality threshold.

If a credit assessment from the system or source selected by the counterparty (or from an ECAI in case (ii) for public sector debtors or guarantors) exists but is below the credit quality threshold, the debtor or guarantor is ineligible.

- *Non-financial corporate debtors or guarantors:* If the source selected by the counterparty provides a credit assessment equal to or exceeding the credit quality threshold, the debtor or guarantor is eligible^{43, 44}.

If a credit assessment from the system or source selected by the counterparty exists but is below the credit quality threshold, the debtor or guarantor is ineligible. If no credit assessment is available to establish the credit standards, the debtor or guarantor is considered ineligible.

Guarantees: A guarantee must meet the following requirements:

- A guarantee is deemed acceptable if the guarantor has unconditionally and irrevocably guaranteed the obligations of the debtor in relation to the payment of principal, interest and any other amounts due under the credit claim to the holder thereof until they are discharged in full. In this regard, a guarantee deemed acceptable does not need to be specific to the credit claim but might apply to the debtor only, provided that it also covers the credit claim in question.
- The guarantee has to be payable on first demand (independently from the underlying credit claim). Guarantees given by public entities entitled to levy taxes should either be payable on first demand or otherwise provide for prompt and punctual payment following default. The obligations of the guarantor under the guarantee need to rank at least equally and rateably (*pari passu*) with all other unsecured obligations of the guarantor.
- The guarantee must be governed by the law of an EU Member State and be legally valid, and binding and enforceable against the guarantor.
- A legal confirmation concerning the legal validity, binding effect and enforceability of the guarantee will have to be submitted in a form and with substance acceptable to the Eurosystem before the asset supported by the guarantee can be considered eligible. The legal confirmation should also state that the guarantee is not a personal one, only enforceable by the creditor of the

⁴² See footnote 38 in this chapter.

⁴³ If the counterparty has chosen an ECAI as a credit assessment source, it may use the first-best rule (see footnote 33 in this chapter).

credit claim. If the guarantor is established in a jurisdiction other than the one of the law governing the guarantee, the legal confirmation must also confirm that the guarantee is valid and enforceable under the law governing the establishment of the guarantor. The legal confirmation should be submitted for review to the national central bank in the jurisdiction of the law governing the credit claim. The need for a legal confirmation does not apply to guarantees given by public entities entitled to levy taxes. The requirement of enforceability is subject to any insolvency or bankruptcy laws, general principles of equity and other similar laws and principles applicable to the guarantor and generally affecting creditors' rights against the guarantor.

Non-marketable retail mortgage-backed debt instruments

The high credit standards for non-marketable RMBDs must be in line with credit quality step 2 of the Eurosystem's harmonised rating scale⁴⁵. A jurisdiction-specific credit assessment framework for these debt instruments will be specified in the applicable national documentation by the NCBs.

6.3.4 Acceptance criteria for credit assessment systems

The ECAF builds on credit assessment information from four sources. Under each source, there might be a set of credit assessment systems.

The accepted ECAIs, ICASs and third-party RTs and their providers are listed on the ECB's website (www.ecb.europa.eu)⁴⁶.

External credit assessment institution source

The ECAI source encompasses those institutions whose credit assessments may be used by credit institutions for determining the risk weight of exposures according to the CRD⁴⁷. For the purposes of the ECAF, the general acceptance criteria for ECAIs are the following:

- ECAIs must be formally recognised by the relevant EU supervisory authority for the euro area countries in which they will be used, in line with the CRD.
- ECAIs must fulfil operational criteria and provide relevant coverage so as to ensure the efficient implementation of the ECAF. In particular, the use of their credit assessments is subject to the availability to the Eurosystem of information on these assessments, as well as information for the comparison and the assignment (mapping) of the assessments with the ECAF credit quality steps and the credit quality threshold and for the implementation of performance monitoring (see Section 6.3.5).

⁴⁴ For specific credit assessment systems, the credit quality threshold can be adjusted following the performance monitoring process (see Section 6.3.5).

⁴⁵ As specified in the Eurosystem's harmonised rating scale, published on the ECB's website (www.ecb.europa.eu).

⁴⁶ The Eurosystem only publishes the information in conjunction with its Eurosystem credit operations and does not assume any responsibility for its evaluation of the accepted credit assessment systems.

⁴⁷ ECAIs are commonly referred to as rating agencies in financial markets.

The Eurosystem reserves the right to decide whether it accepts an ECAI for its lending operations, making use, among other factors, of its performance monitoring process.

NCB in-house credit assessment system source

The ICAS source currently consists of the four credit assessment systems operated by the Deutsche Bundesbank, the Banco de España, the Banque de France and the Oesterreichische Nationalbank. National central banks deciding to develop their own ICAS would be subject to a validation procedure by the Eurosystem. ICASs are subject to the Eurosystem performance monitoring process (see Section 6.3.5).

Furthermore, the counterparty must inform the ICAS NCB promptly about any credit event that is known only to the counterparty, including a delay of payments by the submitted debtors.

Moreover, in countries in which RMBDs are mobilised, the respective national central bank implements a credit assessment framework for this type of asset in accordance with the ECAF. Such frameworks are subject to a yearly performance monitoring process.

Internal ratings-based system source

A counterparty intending to use an IRB system to assess the credit quality of the debtors, issuers or guarantors of eligible debt instruments has to obtain the permission of its home national central bank. For that purpose, it must file a request, together with the following documents⁴⁸:

- A copy of the decision of the relevant banking supervisory authority within the EU authorising the counterparty to use its IRB system for capital requirements purposes on a consolidated or unconsolidated basis, together with any specific conditions for such use. Such a copy is not requested when such information is transmitted directly by the relevant supervisory authority to the relevant national central bank.
- Information on its approach to assigning probabilities of default to debtors, as well as data on the rating grades and associated one-year probabilities of default used to determine eligible rating grades.
- A copy of the Pillar 3 (market discipline) information that the counterparty is required to publish on a regular basis in accordance with the requirements on market discipline under Pillar 3 of the Basel II framework and the CRD.
- The name and the address of both the competent banking supervisor and the external auditor.

The request has to be signed by the counterparty's chief executive officer (CEO), chief financial officer (CFO) or a manager of similar seniority, or by an authorised signatory on behalf of one of them.

⁴⁸ If necessary, the listed documentation should be translated in a working language of the home national central bank.

The above provisions apply to all counterparties regardless of their status – parent, subsidiary or branch – and regardless of whether the endorsement of the IRB system comes from the supervisor in the same country (for a parent company and possibly for subsidiaries) or from a supervisor in the home country of the parent (for branches and possibly for subsidiaries).

Any branch or subsidiary of a counterparty may rely on the IRB system of its parent if the Eurosystem has accepted the use of the IRB system for ECAF purposes.

Counterparties using an IRB system as described above are also subject to the Eurosystem performance monitoring process (see Section 6.3.5). In addition to the information requirements for this process, the counterparty is under an obligation to communicate the following information on an annual basis (or as and when required by the relevant national central bank) unless such information is transmitted directly by the relevant supervisory authority to the relevant national central bank:

- a copy of the most up-to-date assessment of the counterparty's IRB system by the counterparty's supervisor translated in a working language of the home national central bank;
- any changes to the counterparty's IRB system recommended or required by the supervisor, together with the deadline by which such changes must be implemented;
- the annual update of the Pillar 3 (market discipline) information that the counterparty is required to publish on a regular basis in accordance with the requirements of the Basel II framework and the CRD;
- information on the competent banking supervisor and the external auditor.

This yearly communication has to be signed by the counterparty's CEO, CFO or a manager of similar seniority, or by an authorised signatory on behalf of one of them. The relevant supervisor and, where applicable, the external auditor of the counterparty receive a copy of this letter from the Eurosystem.

Third-party rating tool source

The RT source consists of entities that assess the credit quality of debtors by using primarily quantitative models in a systematic and mechanical manner, relying among other information on audited accounts, and whose credit assessments are not intended for general public disclosure. An RT provider wishing to participate in the ECAF has to submit a request to the NCB of the country in which it is incorporated, using the template provided by the Eurosystem, supplemented by additional documentation as specified in the template. Counterparties wishing to use a specific RT provider for ECAF purposes that is not accepted by the Eurosystem have to submit a request to the NCB of the country in which they are incorporated, using the template provided by the Eurosystem, supplemented by additional documentation as specified in the template. The Eurosystem decides whether to accept the RT provider based on evaluation of compliance with the acceptance criteria set by the Eurosystem⁴⁹.

⁴⁹ The acceptance criteria are listed on the ECB's website (www.ecb.europa.eu).

Furthermore, the counterparty must inform the RT provider of any credit event that is known only to the counterparty, including a delay of payments by the submitted debtors.

The RT provider participating in the ECAF needs to subject itself by agreement to the Eurosystem performance monitoring process⁵⁰ (see Section 6.3.5). The RT provider is obliged to set up and maintain the necessary infrastructure for monitoring the so-called static pool. Construction and evaluation of the static pool have to be in line with the general requirements on performance monitoring under the ECAF. The RT provider has to undertake to inform the Eurosystem of the results of the performance evaluation as soon as it has been carried out by the RT provider. Therefore, RT providers prepare a report on the RT’s static pool performance. They have to undertake to keep internal records of static pools and default details for five years.

6.3.5 Performance monitoring of credit assessment systems

The ECAF performance monitoring process consists of an annual ex post comparison of the observed default rate for the set of all eligible debtors (the static pool) and the credit quality threshold of the Eurosystem given by the benchmark PD. It aims to ensure that the results from credit assessments are comparable across systems and sources. The monitoring process takes place one year after the date on which the static pool was defined.

The first element of the process is the annual compilation by the credit assessment system provider of the static pools of eligible debtors, i.e. pools consisting of all corporate and public debtors, receiving a credit assessment from the system satisfying one of the following conditions:

Static pool	Condition
Static Pool for credit quality steps 1 and 2	$PD(i,t)^* \leq 0,10\%$
Static Pool for credit quality step 3	$0,10\% < PD(i,t) \leq 0.40\%$

* PD(i,t) denotes the probability of default assigned by the credit assessment system to debtor i at time t.

All debtors fulfilling one of these conditions at the beginning of period t constitute the corresponding static pool at time t. At the end of the foreseen 12-month period, the realised default rate for the static pools of debtors at time t is computed. On an annual basis, the rating system provider has to agree to submit to the Eurosystem the number of eligible debtors contained in the static pools at time t and the number of those debtors in the static pool (t) that defaulted in the subsequent 12-month period.

The realised default rate of the static pool of a credit assessment system recorded over a one-year horizon serves as input to the ECAF performance monitoring process which comprises an annual rule and a multi-period assessment. In case of a significant deviation between the observed default rate of the static pool and the credit quality threshold over an annual and/or a multi-annual period, the

⁵⁰ The counterparty must inform the RT provider promptly about any credit event that may indicate a deterioration of the credit quality.

Eurosystem consults the rating system provider to analyse the reasons for that deviation. This procedure may result in a correction of the credit quality threshold applicable to the system in question.

The Eurosystem may decide to suspend or exclude the credit assessment system in cases where no improvement in performance is observed over a number of years. In addition, in the event of an infringement of the rules governing the ECAF, the credit assessment system will be excluded from the ECAF.

6.4 Risk control measures

6.4.1 General principles

Risk control measures are applied to the assets underlying Eurosystem credit operations in order to protect the Eurosystem against the risk of financial loss if underlying assets have to be realised owing to the default of a counterparty. The risk control measures at the disposal of the Eurosystem are described in Box 7.

The Eurosystem applies specific risk control measures according to the types of underlying assets offered by the counterparty. The ECB determines the appropriate risk control measures for both marketable and non-marketable eligible assets. The risk control measures are broadly harmonised across the euro area⁵¹ and ought to ensure consistent, transparent and non-discriminatory conditions for any type of eligible asset across the euro area.

The Eurosystem reserves the right to apply additional risk control measures if required to ensure adequate risk protection of the Eurosystem in line with Article 18.1 of the Statute of the ESCB. Such risk control measures, which shall be applied in a consistent, transparent and non-discriminatory manner, can also be applied at the level of individual counterparties if required to ensure such protection.

Box 7 Risk control measures

The Eurosystem applies the following risk control measures:

- Valuation haircuts

The Eurosystem applies ‘valuation haircuts’ in the valuation of underlying assets. This implies that the value of the underlying asset is calculated as the market value of the asset less a certain percentage (haircut).

- Variation margins (marking to market)

The Eurosystem requires the haircut-adjusted market value of the underlying assets used in its liquidity-providing reverse transactions to be maintained over time. This implies that if the value, measured on a

⁵¹ Owing to operational differences across Member States, some differences in terms of risk control measures may prevail. For instance, in respect of the procedures for counterparties’ delivery of underlying assets to the NCBs (in the form of a pool of collateral pledged with the NCB or as repurchase agreements based on individual assets specified for each transaction), minor differences may occur with regard to the timing of the valuation and other operational features of the risk control framework. Furthermore, in the case of non-marketable assets, the precision of valuation techniques may differ, which is reflected in the overall level of haircuts (see Section 6.4.3).

regular basis, of the underlying assets falls below a certain level, the NCB will require the counterparty to supply additional assets or cash (i.e. it will make a margin call). Similarly, if the value of the underlying assets, following their revaluation, exceeds a certain level, the counterparty may retrieve the excess assets or cash. (The calculations relevant for the execution of margin calls are presented in Box 8.)

- Limits in relation to the use of unsecured debt instruments

The Eurosystem applies limits to the use of unsecured debt instruments as described in Section 6.4.2.

The following risk control measures may also be applied by the Eurosystem at any time if required to ensure adequate risk protection of the Eurosystem in line with Article 18.1 of the Statute of the ESCB:

- Initial margins

The Eurosystem may apply initial margins in its liquidity-providing reverse transactions. This means that counterparties would need to provide underlying assets with a value at least equal to the liquidity provided by the Eurosystem plus the value of the initial margin.

- Limits in relation to issuers/debtors or guarantors

The Eurosystem may apply additional limits, other than those applied to the use of unsecured debt instruments, to the exposure vis-à-vis issuers/debtors or guarantors. Such limits can also be applied to specific counterparties, in particular if the credit quality of the counterparty appears to exhibit a high correlation with the credit quality of the collateral submitted by the counterparty.

- Application of supplementary haircuts

The Eurosystem may apply supplementary haircuts if required to ensure adequate risk protection of the Eurosystem in line with Article 18.1 of the Statute of the ESCB.

- Additional guarantees

The Eurosystem may require additional guarantees from financially sound entities in order to accept certain assets.

- Exclusion

The Eurosystem may exclude certain assets from use in its monetary policy operations. Such exclusion may also be applied to specific counterparties, in particular if the credit quality of the counterparty appears to exhibit a high correlation with the credit quality of the collateral submitted by the counterparty.

6.4.2 Risk control measures for marketable assets

The risk control framework for eligible marketable assets includes the following main elements:

- Eligible marketable assets are allocated to one of five liquidity categories, based on issuer classification and asset type. The allocation is described in Table 6.
- Individual debt instruments are subject to specific valuation haircuts. The haircuts are applied by deducting a certain percentage from the market value of the underlying asset. The haircuts applied to debt instruments included in categories I to IV differ according to the residual maturity and coupon structure of the debt instruments as described in Table 7 for eligible marketable fixed coupon and zero coupon debt instruments⁵².

⁵² The valuation haircut levels applied to fixed coupon debt instruments are also applicable to debt instruments, the coupon of which is linked to a change in the rating of the issuer itself or to inflation-indexed bonds.

- The Eurosystem limits the use of unsecured debt instruments issued by a credit institution or by any other entity with which the credit institution has close links as defined in Section 6.2.3. Such assets may only be used as collateral by a counterparty to the extent that the value assigned to that collateral by the Eurosystem after the application of haircuts does not exceed 10 % of the total value of the collateral submitted by that counterparty after the haircuts. This limit does not apply to such assets that are guaranteed by a public sector entity which has the right to levy taxes, or if the value after haircuts of the assets does not exceed EUR 50 million. In the event of a merger between two or more issuers of such assets or the establishment of a close link between such issuers, these issuers are treated as one issuer group, in the context of this limitation, only up until one year after the date of the merger or the establishment of the close link.
- Individual debt instruments included in category V are subject to a unique haircut of 16 % regardless of maturity or coupon structure.
- Individual asset-backed securities, covered bank bonds (jumbo covered bank bonds, traditional covered bank bonds and other covered bank bonds) and unsecured credit institution debt instruments that are theoretically valued in accordance with Section 6.5 are subject to an additional valuation haircut. This haircut is directly applied at the level of theoretical valuation of the individual debt instrument in the form of a valuation markdown of 5 %.

Table 6 Liquidity categories for marketable assets¹

<i>Category I</i>	<i>Category II</i>	<i>Category III</i>	<i>Category IV</i>	<i>Category V</i>
Central government debt instruments	Local and regional government debt instruments	Traditional covered bank bonds	Credit institution debt instruments (unsecured)	Asset-backed securities
Debt instruments issued by central banks ²	Jumbo covered bank bonds ³	Debt instruments issued by non-financial corporations and other issuers ⁴	Debt instruments issued by financial corporations other than credit institutions (unsecured)	
	Agency debt instruments ⁴	Other covered bank bonds ⁵		
	Supranational debt instruments			

1 In general, the issuer classification determines the liquidity category. However, all asset-backed securities are included in category V, regardless of the classification of the issuer, and jumbo covered bank bonds are included in category II, while traditional covered bank bonds, other covered bank bonds and other debt instruments issued by credit institutions are included in category III and IV.

2 Debt certificates issued by the ECB and debt instruments issued by the NCBs prior to the adoption of the euro in their respective Member State are included in liquidity category I.

3 Only instruments with an issuing volume of at least EUR 1 billion, for which at least three market-makers provide regular bid and ask quotes, fall into the asset class of jumbo covered bank bonds.

4 Only marketable assets issued by issuers that have been classified as agencies by the ECB are included in liquidity category II. Marketable assets issued by other agencies are included in liquidity category III or IV, depending on the issuer and asset type.

5 Non-UCITS compliant covered bonds, including both structured covered bonds and multi-issuer covered bonds are included in liquidity category III.

- The valuation haircuts applied to all marketable inverse floating rate debt instruments included in categories I to IV are the same and are described in Table 8.
- The haircut applied to marketable debt instruments included in liquidity categories I to IV with variable rate coupons⁵³ is that applied to the zero-to-one-year maturity bucket of fixed coupon instruments in the liquidity category and credit quality category to which the instrument is assigned.
- The risk control measures applied to a marketable debt instrument included in categories I to IV with more than one type of coupon payment solely depend on the coupon payments during the remaining life of the instrument. The valuation haircut applied to such an instrument is set equal to the highest of the haircuts applicable to debt instruments with the same residual

⁵³ A coupon payment is considered a variable rate payment if the coupon is linked to a reference interest rate and if the resetting period corresponding to this coupon is no longer than one year. Coupon payments for which the resetting period is longer than one year are treated as fixed rate payments, with the relevant maturity for the haircut being the residual maturity of the debt instrument.

maturity, and coupon payments of any one of the types occurring in the remaining life of the instrument are considered.

- No valuation haircuts are applied in liquidity-absorbing operations.
- Depending on both the jurisdiction and national operational systems, national central banks allow for the pooling of underlying assets and/or require the earmarking of the assets used in each individual transaction. In pooling systems, the counterparty makes a pool of sufficient underlying assets available to the central bank to cover the related credits received from the central bank, thus implying that individual assets are not linked to specific credit operations. By contrast, in an earmarking system, each credit operation is linked to specific identifiable assets.
- The assets are subject to daily valuation. On a daily basis, national central banks calculate the required value of underlying assets taking into account changes in outstanding credit volumes, the valuation principles outlined in Section 6.5 and the required valuation haircuts.

Table 7 Levels of valuation haircuts applied to eligible marketable assets

Credit quality	Residual maturity (years)	Liquidity categories								Category V*
		Category I		Category II*		Category III*		Category IV*		
		fixed coupon	zero coupon	fixed coupon	zero coupon	fixed coupon	zero coupon	fixed coupon	zero coupon	
Steps 1 and 2 (AAA to A-)**	0-1	0,5	0,5	1,0	1,0	1,5	1,5	6,5	6,5	16
	1-3	1,5	1,5	2,5	2,5	3,0	3,0	8,5	9,0	
	3-5	2,5	3,0	3,5	4,0	5,0	5,5	11,0	11,5	
	5-7	3,0	3,5	4,5	5,0	6,5	7,5	12,5	13,5	
	7-10	4,0	4,5	5,5	6,5	8,5	9,5	14,0	15,5	
	>10	5,5	8,5	7,5	12,0	11,0	16,5	17,0	22,5	
		Liquidity categories								
Credit quality	Residual maturity (years)	Category I		Category II*		Category III*		Category IV*		Category V*
		fixed coupon	zero coupon	fixed coupon	zero coupon	fixed coupon	zero coupon	fixed coupon	zero coupon	
Step 3 (BBB+ to BBB-)**	0-1	5,5	5,5	6,0	6,0	8,0	8,0	15,0	15,0	Not eligible
	1-3	6,5	6,5	10,5	11,5	18,0	19,5	27,5	29,5	
	3-5	7,5	8,0	15,5	17,0	25,5	28,0	36,5	39,5	
	5-7	8,0	8,5	18,0	20,5	28,0	31,5	38,5	43,0	
	7-10	9,0	9,5	19,5	22,5	29,0	33,5	39,0	44,5	
	>10	10,5	13,5	20,0	29,0	29,5	38,0	39,5	46,0	

* Individual asset-backed securities, covered bank bonds (jumbo covered bank bonds, traditional covered bank bonds and other covered bank bonds) and uncovered bank bonds that are theoretically valued in accordance with Section 6.5 are subject to an additional valuation haircut. This haircut is directly applied at the level of the theoretical valuation of the individual debt instrument in the form of a valuation markdown of 5 %.

** Ratings as specified in the Eurosystem's harmonised rating scale, published on the ECB's website (www.ecb.europa.eu).

Table 8 Levels of valuation haircuts applied to eligible marketable inverse floating rate debt instruments included in categories I to IV

<i>Credit quality</i>	<i>Residual maturity (years)</i>	<i>Inverse floater coupon</i>
Steps 1 and 2 (AAA to A-)	0-1	7,5
	1-3	11,5
	3-5	16,0
	5-7	19,5
	7-10	22,5
	>10	28,0
<hr/>		
<i>Credit quality</i>	<i>Residual maturity (years)</i>	<i>Inverse floater coupon</i>
Step 3 (BBB+ to BBB-)	0-1	21,0
	1-3	46,5
	3-5	63,5
	5-7	68,0
	7-10	69,0
	>10	69,5

- If, after valuation, the underlying assets do not match the requirements as calculated on that day, symmetric margin calls are performed. In order to reduce the frequency of margin calls, national central banks may apply a trigger point. If applied, this trigger point is 0.5 % of the amount of liquidity provided. Depending on the jurisdiction, national central banks may require margin calls to be effected either through the supply of additional assets or by means of cash payments. This implies that if the market value of the underlying assets falls below the lower trigger point, counterparties have to supply additional assets (or cash). Similarly, if the market value of the underlying assets, following their revaluation, were to exceed the upper trigger point, the national central bank would return the excess assets (or cash) to the counterparty (see Box 8).
- In pooling systems, counterparties may substitute underlying assets on a daily basis.
- In earmarking systems, the substitution of underlying assets may be permitted by national central banks.

- The ECB may at any time decide to remove individual debt instruments from the published list of eligible marketable assets⁵⁴.

Box 8 Calculation of margin calls

The total amount of eligible assets J (for $j = 1$ to J ; value $C_{j,t}$ at time t) a counterparty must provide for a set of liquidity-providing operations I (for $i = 1$ to I ; amount $L_{i,t}$ at time t) is determined by the following formula:

$$\sum_{i=1}^I L_{i,t} \leq \sum_{j=1}^J (1 - h_j) C_{j,t} \quad (1)$$

where:

h_j is the valuation haircut applied to eligible asset j .

Let τ be the time period between revaluations. The margin call base at time $t + \tau$ equals:

$$M_{t+\tau} = \sum_{i=1}^I L_{i,t+\tau} - \sum_{j=1}^J (1 - h_j) C_{j,t+\tau} \quad (2)$$

Depending on the operational features of the national central banks' collateral management systems, national central banks may also take into account interest accrued on liquidity provided in outstanding operations in the calculation of the margin call base.

Margin calls are effected only if the margin call base exceeds a certain trigger point level.

Let $k = 0.5\%$ denote the trigger. In an earmarking system ($I = 1$), a margin call is effected when:

$$M_{t+\tau} > k \cdot L_{i,t+\tau} \quad (\text{the counterparty pays the margin call to the national central bank}); \text{ or}$$

$$M_{t+\tau} < -k \cdot L_{i,t+\tau} \quad (\text{the national central bank pays the margin call to the counterparty}).$$

In a pooling system, the counterparty has to bring more assets into the pool if:

$$M_{t+\tau} > k \cdot \sum_{i=1}^I L_{i,t+\tau}$$

Conversely, the amount of intraday credit (IDC) available to the counterparty in a pooling system can be expressed as follows:

$$IDC = -M_{t+\tau} + k \cdot \sum_{i=1}^I L_{i,t+\tau} \quad (\text{if positive})$$

In both earmarking and pooling systems, margin calls shall ensure that the relation expressed in (1) above is re-established.

⁵⁴ If, at the time of exclusion from the list of eligible marketable assets, a debt instrument is being used in a Eurosystem credit operation, it will have to be removed as soon as possible.

6.4.3 Risk control measures for non-marketable assets

Credit claims

The risk control framework for eligible credit claims includes the following main elements:

- Individual credit claims are subject to specific valuation haircuts. The haircuts differ according to the residual maturity, type of interest payment (fixed or variable), the credit quality category and the valuation methodology applied by the NCB (see Section 6.5), as described in Table 9⁵⁵.
- The haircut applied to credit claims with variable rate interest payments is that applied to the credit claims with fixed interest payments classified in the zero-to-one-year maturity bucket corresponding to the same credit quality and the same valuation methodology (valuation based on a theoretical price assigned by the NCB or on the outstanding amount assigned by the NCB). An interest payment is considered a variable rate payment if it is linked to a reference interest rate and if the resetting period corresponding to this payment is no longer than one year. Interest payments for which the resetting period is longer than one year are treated as fixed rate payments, with the relevant maturity for the haircut being the residual maturity of the credit claim.
- The risk control measures applied to a credit claim with more than one type of interest payment depend only on the interest payments during the remaining life of the credit claim. If there is more than one type of interest payment during the remaining life of the credit claim, the remaining interest payments are treated as fixed rate payments, with the relevant maturity for the haircut being the residual maturity of the credit claim.
- The national central banks apply the same trigger point (if applicable) for the execution of margin calls for marketable and non-marketable assets.

Table 9 Levels of valuation haircuts applied to credit claims with fixed interest payments

<i>Credit quality</i>	<i>Residual maturity (years)</i>	<i>Valuation methodology</i>	
		<i>Fixed interest payment and valuation based on a theoretical price assigned by the NCB</i>	<i>Fixed interest payment and valuation based on the outstanding amount assigned by the NCB</i>
Steps 1 and 2 (AAA to A-)	0-1	8,0	10,0
	1-3	11,5	17,5
	3-5	15,0	24,0
	5-7	17,0	29,0
	7-10	18,5	34,5
	>10	20,5	44,5

⁵⁵ The valuation haircuts applied to credit claims with fixed rate interest payments are also applicable to credit claims, the interest payments of which are linked to the inflation rate.

<i>Credit quality</i>	<i>Residual maturity (years)</i>	<i>Fixed interest payment and valuation based on a theoretical price assigned by the NCB</i>	<i>Fixed interest payment and valuation based on the outstanding amount assigned by the NCB</i>
Step 3 (BBB+ to BBB-)	0-1	15,5	17,5
	1-3	28,0	34,0
	3-5	37,0	46,0
	5-7	39,0	51,0
	7-10	39,5	55,5
	>10	40,5	64,5

Non-marketable retail mortgage-backed debt instruments

Non-marketable retail mortgage-backed debt instruments are subject to a valuation haircut of 24 %.

Fixed-term deposits

Fixed-term deposits are not subject to any valuation haircut.

6.5 Valuation principles for underlying assets

When determining the value of underlying assets used in reverse transactions, the Eurosystem applies the following principles:

Marketable assets

- For each eligible marketable asset, the Eurosystem defines the most representative price source to be used for the calculation of the market value.
- The value of a marketable asset is calculated on the basis of the most representative price on the business day preceding the valuation date. If more than one price is quoted, the lowest of these prices (normally the bid price) is used. In the absence of a representative price for a particular asset on the business day preceding the valuation date, the last trading price is used. If the reference price obtained is older than five days or has not moved for at least five days, the Eurosystem defines a theoretical price.
- The market or theoretical value of a debt instrument is calculated including accrued interest.
- Depending on differences in national legal systems and operational practices, the treatment of income flows (e.g. coupon payments) related to an asset which are received during the life of a reverse transaction may differ between national central banks. If the income flow is transferred to the counterparty, national central banks ensure that the relevant operations will still be fully covered by a sufficient amount of underlying assets before the transfer of the income takes place. The national central banks aim to ensure that the economic effect of the treatment of income flows

is equivalent to a situation in which the income is transferred to the counterparty on the payment day⁵⁶.

Non-marketable assets

Non-marketable assets are assigned a value corresponding either to the theoretical price or to the outstanding amount.

If the national central bank opts for the valuation corresponding to the outstanding amount, the non-marketable assets may be subject to higher haircuts (see Section 6.4.3).

6.6 Cross-border use of eligible assets

Eurosystem counterparties may use eligible assets on a cross-border basis, i.e. they may obtain funds from the national central bank of the Member State in which they are established by making use of assets located in another Member State. Underlying assets must be usable on a cross-border basis throughout the euro area for the handling of all types of operations in which the Eurosystem provides liquidity against eligible assets.

A mechanism has been developed by the national central banks (and by the ECB) to ensure that all eligible assets issued/deposited in the euro area may be used on a cross-border basis. This is the correspondent central banking model (CCBM), under which national central banks act as custodians ('correspondents') for each other (and for the ECB) in respect of assets accepted in their local depository or settlement system. Specific solutions can be used for non-marketable assets, i.e. credit claims and RMBDs, which cannot be transferred through an SSS⁵⁷. The CCBM may be used to collateralise all kinds of Eurosystem credit operations. In addition to the CCBM, eligible links between SSSs can be used for the cross-border transfer of marketable assets⁵⁸.

6.6.1 Correspondent central banking model

The correspondent central banking model is illustrated in Chart 3 below.

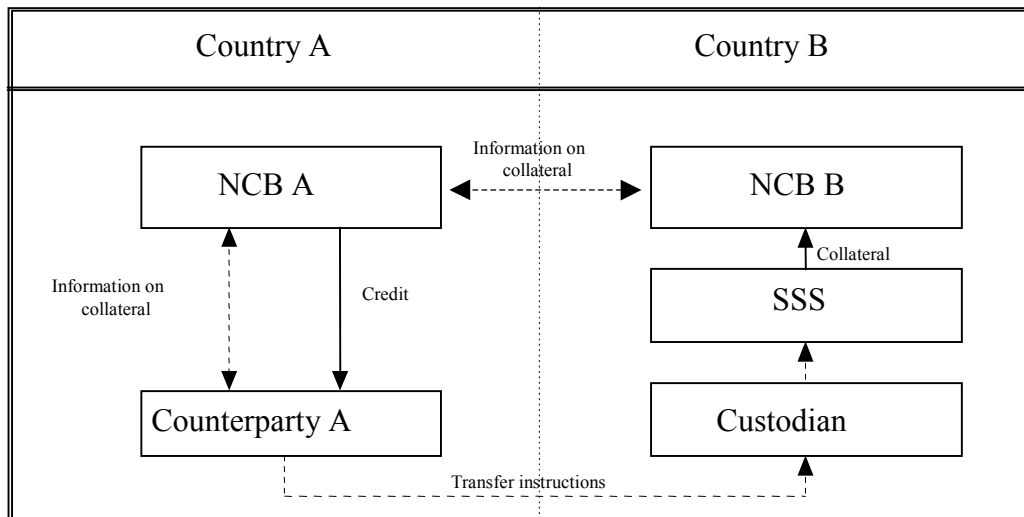
⁵⁶ National central banks may decide not to accept debt instruments with an income flow (e.g. a coupon payment) occurring in the period up to the maturity date of the monetary policy operation as underlying assets in reverse transactions (see Section 6.2.3).

⁵⁷ Details are provided in the brochure entitled 'Correspondent central banking model (CCBM) procedure for Eurosystem counterparties', which is available on the ECB's website (www.ecb.europa.eu).

⁵⁸ Eligible assets may be used through an account of a central bank in an SSS located in a country other than that of the central bank in question if the Eurosystem has approved the use of such an account. Since 1999, De Nederlandsche Bank has been authorised to use its account with Euroclear Belgium to settle collateral transactions in the Eurobonds issued in that ICSD. Since August 2000, the Central Bank and Financial Services Authority of Ireland has been authorised to open such an account with Euroclear. This account can be used for all eligible assets held in Euroclear, i.e. including eligible assets transferred to Euroclear through eligible links.

Chart 3 The correspondent central banking model

Use of eligible assets deposited in country B by a counterparty established in country A in order to obtain credit from the national central bank of country A.



All national central banks maintain securities accounts with each other for the purpose of the cross-border use of eligible assets. The precise procedure of the CCBM depends on whether the eligible assets are earmarked for each individual transaction or whether they are held in a pool of underlying assets⁵⁹.

- In an earmarking system, as soon as a counterparty's bid for credit is accepted by the national central bank of the Member State in which the counterparty is established (i.e. the 'home central bank'), the counterparty instructs (via its own custodian, if necessary) the SSS in the country in which its marketable assets are held to transfer them to the central bank of that country for the account of the home central bank. Once the home central bank has been informed by the correspondent central bank that the collateral has been received, it transfers the funds to the counterparty. Central banks do not advance funds until they are certain that the counterparties' marketable assets have been received by the correspondent central bank. Where necessary to meet settlement deadlines, counterparties may be able to pre-deposit assets with correspondent central banks for the account of their home central bank using the CCBM procedures.
- In a pooling system, the counterparty is able at any time to provide the correspondent central bank with marketable assets for the account of the home central bank. Once the home central bank has been informed by the correspondent central bank that the marketable assets have been received, it will add these marketable assets to the pool account of the counterparty.

⁵⁹ See footnote 57 in this chapter.

Specific procedures for cross-border use have been developed for non-marketable assets, i.e. credit claims and RMBDs⁶⁰. When credit claims are used as collateral in a cross-border context, a CCBM variant is applied to credit claims, which is based on a transfer of ownership to, an assignment to, a pledge in favour of the home central bank, or a charge in favour of the correspondent central bank acting as the agent for the home central bank. A further ad hoc variant based on the charge in favour of the correspondent central bank acting as the agent for the home central bank has been implemented to allow the cross-border use of RMBDs.

The CCBM is available to counterparties (both for marketable and non-marketable assets) from 9 a.m. to 4 p.m. ECB time (CET) on each Eurosystem business day. A counterparty wishing to make use of the CCBM must advise the national central bank from which it wishes to receive credit – i.e. its home central bank – before 4 p.m. ECB time (CET). Furthermore, the counterparty must ensure that the collateral for securing monetary policy operations is delivered to the account of the correspondent central bank by 4.45 p.m. ECB time (CET) at the latest. Instructions or deliveries not respecting this deadline will only be considered for credit given on the following business day. When the counterparties foresee a need to use the CCBM late in the day, they should, where possible, deliver the assets in advance (i.e. pre-deposit them). In exceptional circumstances or when required for monetary policy purposes, the ECB may decide to extend the CCBM's closing time until the TARGET2 closing time.

6.6.2 Links between securities settlement systems

In addition to the CCBM, eligible links between EU SSSs can be used for the cross-border transfer of marketable assets.

A direct or relayed link between two SSSs allows a participant in one SSS to hold securities issued in another SSS without being a participant in that other SSS⁶¹. Before these links can be used to transfer collateral for Eurosystem credit operations, they have to be assessed and approved against the standards for the use of EU SSSs^{62,63}.

From a Eurosystem perspective, the CCBM and the links between EU SSSs fulfil the same role of allowing counterparties to use collateral on a cross-border basis, i.e. both enable counterparties to use collateral to obtain credit from their home central bank, even if this collateral was issued in an SSS of another country. The CCBM and the links between SSSs perform this function in different ways. In the CCBM, the cross-border relationship is between the national central banks. They act as custodians

⁶⁰ See footnote 57 in this chapter.

⁶¹ A link between two SSSs consists of a set of procedures and arrangements for the cross-border transfer of securities through a book-entry process. A link takes the form of an omnibus account opened by an SSS (the investor SSS) in another SSS (the issuer SSS). A direct link implies that no intermediary exists between the two SSSs. Relayed links between SSSs may also be used for the cross-border transfer of securities to the Eurosystem. A relayed link is a contractual and technical arrangement that allows two SSSs not directly connected to each other to exchange securities transactions or transfers through a third SSS acting as the intermediary.

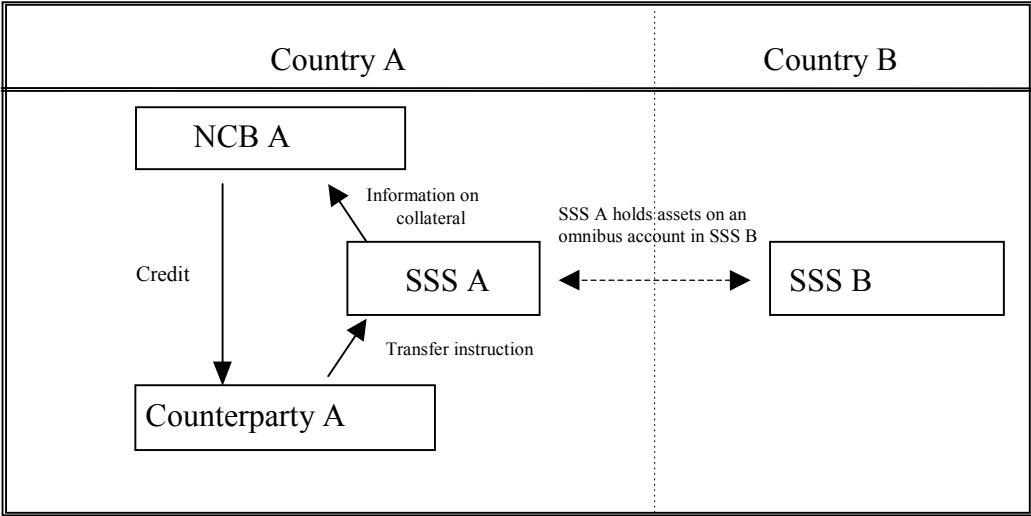
⁶² The updated list of eligible links can be found on the ECB's website (www.ecb.europa.eu).

⁶³ See the publication entitled 'Standards for the use of EU securities settlement systems in ESCB credit operations', European Monetary Institute, January 1998, on the ECB's website (www.ecb.europa.eu).

for one another. Using the links, the cross-border relationship is between the SSSs. They open omnibus accounts with one another. Assets deposited with a correspondent central bank can only be used to collateralise Eurosystem credit operations. Assets held through a link can be used for Eurosystem credit operations, as well as for any other purpose selected by the counterparty. When using links between SSSs, the counterparties hold the assets on their own account with their home SSS and have no need for a custodian.

Chart 4 Links between securities settlement systems

Use of eligible assets issued in the SSS of country B held by a counterparty established in country A through a link between the SSSs in countries A and B in order to obtain credit from the national central bank of country A.



6.7 Acceptance of non-euro-denominated collateral in contingencies

In certain situations the Governing Council may decide to accept as eligible collateral certain marketable debt instruments issued by one or more non-euro area G10 central governments in their domestic currency. Upon such decision the applicable criteria shall be clarified and the procedures to be applied for the selection and mobilisation of foreign collateral, including the sources and principles of valuation, the risk control measures and the settlement procedures shall also be communicated to counterparties.

Notwithstanding the provisions of section 6.2.1, such assets may be deposited/registered (issued), held and settled outside the EEA and, as stated above, may be denominated in currencies other than the euro. Any such assets used by a counterparty must be owned by the counterparty.

Counterparties that are branches of credit institutions incorporated outside the EEA or Switzerland cannot use such assets as collateral.

CHAPTER 7 MINIMUM RESERVES¹

7.1 General considerations

The ECB requires credit institutions to hold minimum reserves on accounts with the national central banks within the framework of the Eurosystem's minimum reserve system. The legal framework for this system is laid down in Article 19 of the Statute of the ESCB, Council Regulation (EC) No 2531/98 of 23 November 1998 concerning the application of minimum reserves by the European Central Bank² and Regulation (EC) No 1745/2003 of the European Central Bank on the application of minimum reserves (ECB/2003/9)³. The application of Regulation ECB/2003/9 ensures that the terms and conditions of the Eurosystem's minimum reserve system are uniform throughout the euro area.

The amount of minimum reserves to be held by each institution is determined in relation to its reserve base. The Eurosystem's minimum reserve system enables counterparties to make use of averaging provisions, implying that compliance with reserve requirements is determined on the basis of the average of the end-of-calendar-day balances on the counterparties' reserve accounts over a maintenance period. Institutions' holdings of required reserves are remunerated at the rate on the Eurosystem's main refinancing operations.

The Eurosystem's minimum reserve system primarily pursues the following monetary functions:

- *Stabilisation of money market interest rates*

The averaging provision of the Eurosystem's minimum reserve system aims to contribute to the stabilisation of money market interest rates by giving institutions an incentive to smooth the effects of temporary liquidity fluctuations.

- *Creation or enlargement of a structural liquidity shortage*

The Eurosystem's minimum reserve system contributes to creating or enlarging a structural liquidity shortage. This may be helpful in improving the ability of the Eurosystem to operate efficiently as a supplier of liquidity.

In the application of minimum reserves, the ECB is bound to act in pursuance of the objectives of the Eurosystem as defined in Article 127 of the Treaty and Article 2 of the Statute of the ESCB, which implies, *inter alia*, the principle of not inducing significant undesirable delocation or disintermediation.

7.2 Institutions subject to minimum reserve requirements

Pursuant to Article 19.1 of the Statute of the ESCB, the ECB requires credit institutions established in Member States to hold minimum reserves. This implies that branches in the euro area of credit

¹ The content of this chapter is provided for information purposes only.

² OJ L 318 of 27 November 1998, page 1.

³ OJ L 250 of 2 October 2003, page 10.

institutions not incorporated in the euro area are also subject to the Eurosystem's minimum reserve system. However, branches established outside the euro area of credit institutions incorporated in the euro area are not subject to this system.

Institutions will be automatically exempt from reserve requirements from the start of the maintenance period within which their authorisation is withdrawn or surrendered, or within which a decision to submit the institution to winding-up proceedings is taken by a judicial authority or any other competent authority of a Member State. According to Council Regulation (EC) No 2531/98 and Regulation ECB/2003/9, the ECB may also exempt institutions from their obligations under the Eurosystem's minimum reserve system on a non-discriminatory basis if they are subject to reorganisation measures or the freezing of funds and/or other measures imposed by the EU under Article 75 of the Treaty or by a Member State restricting the use of their funds or in respect of which the ECB's Governing Council has issued a decision suspending or excluding their access to open market operations or the Eurosystem's standing facilities or if the purposes of the Eurosystem's minimum reserve system would not be met by imposing these obligations on those particular institutions. If its decision on any such exemption is based on the purposes of the Eurosystem's minimum reserve system, the ECB takes into account one or more of the following criteria:

- the institution is authorised to pursue special-purpose functions only;
- the institution is prohibited from exercising active banking functions in competition with other credit institutions; and/or
- the institution is under a legal obligation to have all its deposits earmarked for purposes related to regional and/or international development assistance.

The ECB establishes and maintains a list of institutions subject to the Eurosystem's minimum reserve system. The ECB also makes public a list of any institutions exempt from their obligations under this system for reasons other than their being subject to reorganisation measures or the freezing of funds and/or other measures imposed by the EU under Article 75 of the Treaty or by a Member State restricting the use of their funds or in respect of which the ECB's Governing Council issued a decision suspending or excluding their access to open market operations or the Eurosystem's standing facilities⁴. Counterparties may rely on these lists in deciding whether their liabilities are owed to another institution that is itself subject to reserve requirements. The lists, available to the public after close of business on the last Eurosystem business day of each calendar month, are valid for the calculation of the reserve base for the maintenance period beginning in the calendar month two months later. For example, the list published at the end of February would be valid for the calculation of the reserve base for the maintenance period beginning in April.

⁴ The lists are available to the public on the ECB's website (www.ecb.europa.eu).

7.3 Determination of minimum reserves

Reserve base and reserve ratios

The reserve base of an institution is defined in relation to elements of its balance sheet. The balance sheet data are reported to the national central banks within the general framework of the ECB's money and banking statistics (see Section 7.5)⁵. For institutions subject to full reporting requirements, the balance sheet data referring to the end of a given calendar month are used to determine the reserve base for the maintenance period starting in the calendar month two months later. For example, the reserve base calculated from the balance sheet of the end of February would be used to calculate the reserve requirements to be fulfilled by counterparties in the maintenance period beginning in April.

The reporting framework for the ECB's money and banking statistics includes the possibility of relieving small institutions of some of the reporting burden. Institutions to which this provision applies only need to report a limited set of balance sheet data on a quarterly basis (as end-of-quarter data) and with a reporting deadline which is longer than that set for larger institutions. For these institutions, the balance sheet data reported for a specific quarter are used to determine, with a lag of two months, the reserve base for the consecutive three reserve maintenance periods. For example, the balance sheet of the end of the first quarter – March – would be valid for the calculation of the reserve base for the maintenance periods beginning in June, July and August.

According to Council Regulation (EC) No 2531/98, the ECB is entitled to include liabilities resulting from the acceptance of funds together with liabilities resulting from off-balance-sheet items in the reserve base of institutions. In the Eurosystem's minimum reserve system, only the liability categories 'deposits' and 'debt securities issued' are actually included in the reserve base (see Box 9).

Liabilities vis-à-vis other institutions included in the list of institutions subject to the Eurosystem's minimum reserve system and liabilities vis-à-vis the ECB and the participating NCBs are not included in the reserve base. In this respect, for the liability category 'debt securities issued', the issuer needs to be able to prove the actual amount of these instruments held by other institutions subject to the Eurosystem's minimum reserve system in order to be entitled to deduct them from the reserve base. If such proof cannot be presented, issuers may apply a standardised deduction of a fixed percentage⁶ to this balance sheet item.

The reserve ratios are determined by the ECB subject to the maximum limit specified in Council Regulation (EC) No 2531/98. The ECB applies a uniform non-zero reserve ratio to most of the items included in the reserve base. This reserve ratio is specified in Regulation ECB/2003/9. The ECB sets a zero reserve ratio on the following liability categories: 'deposits with an agreed maturity of over two years', 'deposits redeemable at notice of over two years', 'repos' and 'debt securities with an agreed maturity of over two years' (see Box 9). The ECB may change the reserve ratios at any time. Changes

⁵ The reporting framework for the ECB's money and banking statistics is presented in Appendix 4.

⁶ See Regulation ECB/2003/9. Further information relating to the standardised deduction ratio can be found on the ECB's website (www.ecb.europa.eu), as well as on the Eurosystem websites (see Appendix 5).

in reserve ratios are announced by the ECB in advance of the first maintenance period for which the change is effective.

Calculation of reserve requirements

The reserve requirement of each individual institution is calculated by applying, to the amount of eligible liabilities, the reserve ratios for the corresponding categories of liabilities.

Each institution deducts an allowance of EUR 100 000 from its reserve requirement in each Member State in which it has an establishment. The granting of such an allowance is without prejudice to the legal obligations of institutions subject to the Eurosystem's minimum reserve system⁷.

The reserve requirement for each maintenance period is rounded to the nearest euro.

Box 9 Reserve base and reserve ratios

A. Liabilities included in the reserve base and to which the positive reserve ratio is applied

Deposits *

- Overnight deposits
- Deposits with an agreed maturity of up to and including two years
- Deposits redeemable at notice of up to and including two years

Debt securities issued

- Debt securities with an original maturity of up to and including two years

B. Liabilities included in the reserve base and to which a zero reserve ratio is applied

Deposits *

- Deposits with an agreed maturity of over two years
- Deposits redeemable at notice of over two years
- Repos

Debt securities issued

- Debt securities with an original maturity of over two years

C. Liabilities excluded from the reserve base

- Liabilities vis-à-vis other institutions subject to the Eurosystem's minimum reserve system
- Liabilities vis-à-vis the ECB and the participating NCBs

- * Regulation (EC) No 25/2009 of the European Central Bank of 19 December 2008 concerning the balance sheet of the monetary financial institutions sector (Recast) (ECB/2008/32) (OJ L 15, 20.1.2009, p. 14) explicitly requires the reporting of deposit liabilities at nominal value. Nominal value means the amount of principal that a debtor is contractually obliged to repay to a creditor. This amendment had become necessary because Council Directive 86/635/EEC of 8 December 1986 on the annual accounts and consolidated accounts of banks and other financial institutions (OJ L 372, 31.12.1986, p. 1) had been amended to the effect that certain financial instruments could be priced at fair value.

7.4 Maintenance of reserve holdings

Maintenance period

The ECB publishes a calendar of the reserve maintenance periods at least three months before the start of each year⁸. The maintenance period begins on the settlement day of the first main refinancing operation following the meeting of the Governing Council, at which the monthly assessment of the monetary policy stance is pre-scheduled. Under special circumstances, the published calendar may be amended, depending, among other things, on changes in the schedule of Governing Council meetings.

Reserve holdings

Each institution must hold its minimum reserves on one or more reserve accounts with the NCB in the Member State in which it is incorporated. For institutions with more than one establishment in a Member State, the head office is responsible for fulfilling the aggregate minimum reserves of all the domestic establishments of the institution⁹. An institution with establishments in more than one Member State is required to hold minimum reserves with the NCB of each Member State in which it has an establishment, in relation to its reserve base in the corresponding Member State.

Institutions' settlement accounts with the national central banks may be used as reserve accounts. Reserve holdings on settlement accounts may be used for intraday settlement purposes. The daily reserve holding of an institution is calculated as the end-of-day balance on its reserve account.

An institution may apply to the national central bank in the Member State in which the institution is resident for permission to hold all its minimum reserves indirectly through an intermediary. The possibility of holding minimum reserves through an intermediary is, as a rule, restricted to institutions which are constituted in such a way that part of the administration (e.g. treasury management) is normally effected by the intermediary (e.g. networks of savings banks and cooperative banks may centralise their reserve holdings). The holding of minimum reserves through an intermediary is subject to the provisions specified in Regulation ECB/2003/9.

⁷ For institutions allowed to report statistical data as a group on an aggregated basis according to the provisions of the reporting framework for the ECB's money and banking statistics (see Appendix 4), only one such allowance will be granted to the group as a whole, unless the institutions provide data on the reserve base and reserve holdings in a sufficiently detailed manner to enable the Eurosystem to verify their accuracy and quality and to determine the relevant reserve requirement of each individual institution included in the group.

⁸ The calendar is normally announced in an ECB press release, to be found on the ECB's website (www.ecb.europa.eu). In addition, such a calendar is published in the *Official Journal of the European Union* and on the Eurosystem websites (see Appendix 5).

⁹ If an institution has no head office in a Member State in which it is established, it has to designate a principal branch which would then be responsible for fulfilling the aggregate minimum reserve requirements of all the establishments of the institution in the relevant Member State.

Remuneration of reserve holdings

Holdings of required reserves are remunerated at the average, over the maintenance period, of the ECB's rate (weighted according to the number of calendar days) on the main refinancing operations, calculated using the formula specified in Box 10. Reserve holdings exceeding the required reserves are not remunerated. The remuneration is paid on the second NCB business day following the end of the maintenance period over which the remuneration was earned.

Box 10 Calculation of the remuneration of holdings of required reserves

The holding of required reserves is remunerated according to the following formula:

$$R_t = \frac{H_t \cdot n_t \cdot r_t}{100 \cdot 360}$$

$$r_t = \sum_{i=1}^{n_t} \frac{MR_i}{n_t}$$

where:

R_t = remuneration to be paid on holdings of required reserves for the maintenance period t .

H_t = average daily holdings of required reserves for the maintenance period t .

n_t = number of calendar days in the maintenance period t .

r_t = rate of remuneration on holdings of required reserves for the maintenance period t . Standard rounding of the rate of remuneration to two decimals shall be applied.

i = i th calendar day of the maintenance period t .

MR_i = marginal interest rate for the most recent main refinancing operation settled on or before calendar day i .

7.5 Reporting, acknowledgement and verification of the reserve base

The reserve base items for the application of minimum reserves are calculated by the institutions subject to minimum reserves themselves and are reported to the national central banks within the general framework of the ECB's money and banking statistics (see Appendix 4). Article 5 of Regulation ECB/2003/9 defines procedures for the notification and acknowledgement of the reserve base and the reserve requirement of the institution.

The procedure for the notification and acknowledgement of an institution's minimum reserves is as follows. Either the relevant national central bank or the institution takes the initiative to calculate that institution's minimum reserves for the relevant maintenance period. The calculated minimum reserves are notified by the calculating party at the latest three NCB business days before the start of the maintenance period. The relevant national central bank may specify an earlier date as a time limit for the notification of minimum reserves. It may also specify additional time limits for the institution to notify any revisions to the reserve base, and any revisions to the notified minimum reserves. The

notified party shall acknowledge the calculated minimum reserves at the latest on the NCB business day preceding the start of the maintenance period. If the notified party has not replied to the notification by the end of the NCB business day preceding the start of the maintenance period, it shall be deemed to have acknowledged the amount of minimum reserves of the institution for the relevant maintenance period. Once acknowledged, the institution's minimum reserves for the relevant maintenance period cannot be revised.

For institutions that are allowed to act as intermediaries for indirect reserve holdings of other institutions, special reporting requirements are specified in Regulation ECB/2003/9. The holding of reserves through an intermediary does not change the statistical reporting obligations of institutions holding reserves via an intermediary.

The ECB and the national central banks have the right, within the scope of Council Regulation (EC) No 2531/98, to verify the accuracy and quality of collected data.

7.6 Non-compliance with minimum reserve obligations

Non-compliance with the minimum reserve obligations arises if an institution's average end-of-calendar-day balance on its reserve account(s) over the maintenance period is less than its reserve requirement for the corresponding maintenance period.

Where an institution fails to comply with all or part of the reserve requirement, the ECB may, in accordance with Council Regulation (EC) No 2531/98, impose any one of the following sanctions:

- a payment of up to 5 percentage points above the marginal lending rate, applied to the amount of the reserve requirement which the relevant institution failed to provide; or
- a payment of up to two times the marginal lending rate, applied to the amount of the reserve requirement which the relevant institution failed to provide; or
- the requirement for the relevant institution to establish non-interest-bearing deposits with the ECB or the national central banks of up to three times the amount of the reserve requirement which the relevant institution failed to provide. The maturity of the deposit may not exceed the period during which the institution failed to comply with the reserve requirement.

Where an institution fails to comply with other obligations under ECB Regulations and Decisions related to the Eurosystem's minimum reserve system (e.g. if relevant data are not transmitted in time or are not accurate), the ECB is empowered to impose sanctions in accordance with Council Regulation (EC) No 2532/98 of 23 November 1998 concerning the powers of the European Central Bank to impose sanctions and European Central Bank Regulation (EC) No 2157/1999 of 23 September 1999 on the powers of the European Central Bank to impose sanctions (ECB/1999/4)¹⁰.

¹⁰ OJ L 264 of 12 October 1999, page 21.

The Executive Board of the ECB may specify and publish the criteria according to which it will apply the sanctions provided for in Article 7 (1) of Council Regulation (EC) No 2531/98¹¹.

In addition, in the case of serious infringements of the minimum reserve requirements, the Eurosystem may suspend counterparties from participation in open market operations.

¹¹ Such criteria were published in a notice entitled 'Notice of the European Central Bank on the imposition of sanctions for breaches of the obligation to hold minimum reserves', OJ C 39 of 11 February 2000, page 3.

EXAMPLES OF MONETARY POLICY OPERATIONS AND PROCEDURES

List of examples

- Example 1 Liquidity-providing reverse transaction by fixed rate tender
- Example 2 Liquidity-providing reverse transaction by variable rate tender
- Example 3 Issuance of ECB debt certificates by variable rate tender
- Example 4 Liquidity-absorbing foreign exchange swap by variable rate tender
- Example 5 Liquidity-providing foreign exchange swap by variable rate tender
- Example 6 Risk control measures

Example 1: Liquidity-providing reverse transaction by fixed rate tender

The ECB decides to provide liquidity to the market by means of a reverse transaction organised with a fixed rate tender procedure.

Three counterparties submit the following bids:

Counterparty	Bid (EUR millions)
Bank 1	30
Bank 2	40
Bank 3	70
Total	140

The ECB decides to allot a total of EUR 105 million.

The percentage of allotment is:

$$\frac{105}{(30 + 40 + 70)} = 75 \%$$

The allotment to the counterparties is:

Counterparty	Bid (EUR millions)	Allotment (EUR millions)
Bank 1	30	22,5

Bank 2	40	30,0
Bank 3	70	52,5
Total	140	105,0

Example 2: Liquidity-providing reverse transaction by variable rate tender

The ECB decides to provide liquidity to the market by means of a reverse transaction organised with a variable rate tender procedure.

Three counterparties submit the following bids:

Interest rate (%)	Amount (EUR millions)				Total bids	Cumulative bids
	Bank 1	Bank 2	Bank 3			
3,15					0	0
3,10		5	5		10	10
3,09		5	5		10	20
3,08		5	5		10	30
3,07	5	5	10		20	50
3,06	5	10	15		30	80
3,05	10	10	15		35	115
3,04	5	5	5		15	130
3,03	5		10		15	145
Total	30	45	70		145	

The ECB decides to allot EUR 94 million, implying a marginal interest rate of 3,05 %.

All bids above 3.05% (for a cumulative amount of EUR 80 million) are fully satisfied. At 3,05 % the percentage of allotment is:

$$\frac{94 - 80}{35} = 40 \%$$

The allotment to Bank 1 at the marginal interest rate is, for example:

$$0,4 \times 10 = 4$$

The total allotment to Bank 1 is:

$$5 + 5 + 4 = 14$$

The allotment results can be summarised as follows:

	Amount (EUR millions)			
Counterparties	Bank 1	Bank 2	Bank 3	Total
Total bids	30,0	45,0	70,0	145
Total allotment	14,0	34,0	46,0	94

If the allotment procedure follows a single rate (Dutch) auction, the interest rate applied to the amounts allotted to the counterparties is 3,05 %.

If the allotment procedure follows a multiple rate (American) auction, no single interest rate is applied to the amounts allotted to the counterparties; for example, Bank 1 receives EUR 5 million at 3,07 %, EUR 5 million at 3,06 % and EUR 4 million at 3,05 %.

Example 3: Issuance of ECB debt certificates by variable rate tender

The ECB decides to absorb liquidity from the market by issuing debt certificates using a variable rate tender procedure.

Three counterparties submit the following bids:

Interest rate (%)	Amount (EUR millions)				Cumulative bids
	Bank 1	Bank 2	Bank 3	Total	
3,00				0	0
3,01	5		5	10	10
3,02	5	5	5	15	25
3,03	5	5	5	15	40
3,04	10	5	10	25	65
3,05	20	40	10	70	135
3,06	5	10	10	25	160
3,08	5		10	15	175
3,10		5		5	180
Total	55	70	55	180	

The ECB decides to allot a nominal amount of EUR 124,5 million, implying a marginal interest rate of 3,05 %.

All bids below 3,05 % (for a cumulative amount of EUR 65 million) are fully satisfied. At 3,05 % the percentage of allotment is:

$$\frac{124,5 - 65}{70} = 85 \%$$

The allotment to Bank 1 at the marginal interest rate is, for example:

$$0,85 \times 20 = 17$$

The total allotment to Bank 1 is:

$$5 + 5 + 5 + 10 + 17 = 42$$

The allotment results can be summarised as follows:

Counterparties	Amount (EUR millions)			Total
	Bank 1	Bank 2	Bank 3	
Total bids	55,0	70,0	55,0	180,0
Total allotment	42,0	49,0	33,5	124,5

Example 4: Liquidity-absorbing foreign exchange swap by variable rate tender

The ECB decides to absorb liquidity from the market by executing a foreign exchange swap on the EUR/USD rate by means of a variable rate tender procedure. (Note: The euro is traded at a premium in this example.)

Three counterparties submit the following bids:

Swap points (x 10 000)	Amount (EUR millions)				Cumulative bids
	Bank 1	Bank 2	Bank 3	Total	
6,84				0	0
6,80	5		5	10	10
6,76	5	5	5	15	25
6,71	5	5	5	15	40
6,67	10	10	5	25	65
6,63	25	35	40	100	165
6,58	10	20	10	40	205
6,54	5	10	10	25	230
6,49		5		5	235
Total	65	90	80	235	

The ECB decides to allot EUR 158 million, implying 6,63 marginal swap points. All bids above 6,63 (for a cumulative amount of EUR 65 million) are fully satisfied. At 6,63 the percentage of allotment is:

$$\frac{158 - 65}{100} = 93 \%$$

The allotment to Bank 1 at the marginal swap points is, for example:

$$0,93 \times 25 = 23,25$$

The total allotment to Bank 1 is:

$$5 + 5 + 5 + 10 + 23,25 = 48,25$$

The allotment results can be summarised as follows:

Counterparties	Amount (EUR millions)			Total
	Bank 1	Bank 2	Bank 3	
Total bids	65,0	90,0	80,0	235,0
Total allotment	48,25	52,55	57,20	158,0

The ECB fixes the spot EUR/USD exchange rate for the operation at 1,1300.

If the allotment procedure follows a single rate (Dutch) auction, at the start date of the operation the Eurosystem buys EUR 158 000 000 and sells USD 178 540 000. At the maturity date of the operation, the Eurosystem sells EUR 158 000 000 and buys USD 178 644 754 (the forward exchange rate is $1,130663 = 1,1300 + 0,000663$).

Example 4 (continued)

If the allotment procedure follows a multiple rate (American) auction, the Eurosystem exchanges the amounts of euro and US dollars shown in the following table:

Spot transaction			Forward transaction		
Exchange rate	Buy EUR	Sell USD	Exchange rate	Sell EUR	Buy USD
1,1300			1,130684		
1,1300	10 000 000	11 300,000	1,130680	10 000 000	11 306 800
1,1300	15 000 000	16 950 000	1,130676	15 000 000	16 960 140
1,1300	15 000 000	16 950 000	1,130671	15 000 000	16 960 065
1,1300	25 000 000	28 250 000	1,130667	25 000 000	28 266 675
1,1300	93 000 000	105 090 000	1,130663	93 000 000	105 151 659
1,1300			1,130658		
1,1300			1,130654		
1,1300			1,130649		
Total	158 000 000	178 540 000		158 000000	178 645 339

Example 5: Liquidity-providing foreign exchange swap by variable rate tender

The ECB decides to provide liquidity to the market by executing a foreign exchange swap on the EUR/USD rate by means of a variable rate tender procedure. (Note: The euro is traded at a premium in this example.)

Three counterparties submit the following bids:

Swap points (x 10 000)	Amount (EUR millions)				Cumulative bids
	Bank 1	Bank 2	Bank 3	Total	
6,23					
6,27	5		5	10	10
6,32	5		5	10	20
6,36	10	5	5	20	40
6,41	10	10	20	40	80
6,45	20	40	20	80	160
6,49	5	20	10	35	195
6,54	5	5	10	20	215
6,58		5		5	220
Total	60	85	75	220	

The ECB decides to allot EUR 197 million, implying 6,54 marginal swap points. All bids below 6,54 (for a cumulative amount of EUR 195 million) are fully satisfied. At 6,54 the percentage of allotment is:

$$\frac{197 - 195}{20} = 10\%$$

The allotment to Bank 1 at the marginal swap points is, for example:

$$0,10 \times 5 = 0,5$$

The total allotment to Bank 1 is:

$$5 + 5 + 10 + 10 + 20 + 5 + 0,5 = 55,5$$

The allotment results can be summarised as follows:

Counterparties	Amount (EUR millions)			Total
	Bank 1	Bank 2	Bank 3	
Total bids	60,0	85,0	75,0	220
Total allotment	55,5	75,5	66,0	197

The ECB fixes the spot EUR/USD exchange rate for the operation at 1,1300.

If the allotment procedure follows a single rate (Dutch) auction, at the start date of the operation the Eurosystem sells EUR 197 000 000 and buys USD 222 610 000. At the maturity date of the operation, the Eurosystem buys EUR 197 000 000 and sells USD 222 738 838 (the forward exchange rate is $1,130654 = 1,1300 + 0,000654$).

Example 5 (continued)

If the allotment procedure follows a multiple rate (American) auction, the Eurosystem exchanges the amounts of euro and US dollars shown in the following table:

Spot transaction			Forward transaction		
Exchange rate	Sell EUR	Buy USD	Exchange rate	Buy EUR	Sell USD
1,1300			1,130623		
1,1300	10 000 000	11 300 000	1,130627	10 000 000	11 306 270
1,1300	10 000 000	11 300 000	1,130632	10 000 000	11 306 320
1,1300	20 000 000	22 600 000	1,130636	20 000 000	22 612 720
1,1300	40 000 000	45 200 000	1,130641	40 000 000	45 225 640
1,1300	80 000 000	90 400 000	1,130645	80 000 000	90 451 600
1,1300	35 000 000	39 550 000	1,130649	35 000 000	39 572 715
1,1300	2 000 000	2 260 000	1,130654	2 000 000	2 261 308
1,1300			1,130658		
Total	197 000 000	222 610 000		197 000 000	222 736 573

Example 6: Risk control measures

This example illustrates the risk control framework applied to underlying assets used in the Eurosystem's liquidity-providing operations¹². The example is based on the assumption that a counterparty participates in the following Eurosystem monetary policy operations:

- a main refinancing operation starting on 28 July 2004 and ending on 4 August 2004 where the counterparty is allotted EUR 50 million at an interest rate of 4,24 %;
- a longer-term refinancing operation starting on 29 July 2004 and ending on 21 October 2004 where the counterparty is allotted EUR 45 million at an interest rate of 4,56 %; and
- a main refinancing operation starting on 4 August 2004 and ending on 11 August 2004 where the counterparty is allotted EUR 35 million at an interest rate of 4,26 %.

The characteristics of the underlying marketable assets used by the counterparty to cover these operations are specified in Table 1 below.

Table 1: Underlying marketable assets used in the transactions						
Characteristics						
Name	Asset class	Maturity date	Coupon definition	Coupon frequency	Residual maturity	Haircut
Asset A	Jumbo covered bank bond	30.08.2008	Fixed rate	6 months	4 years	3,50 %
Asset B	Central government bond	19.11.2008	Variable rate	12 months	4 years	0,50 %
Asset C	Corporate bond	12.05.2015	Zero coupon rate		> 10 years	15,00 %
Prices in percentages (including accrued interest)*						
28.07.2004	29.07.2004	30.07.2004	02.08.2004	03.08.2004	04.08.2004	05.08.2004
102,63	101,98	100,55	101,03	100,76	101,02	101,24
	98,35	97,95	98,15	98,56	98,73	98,57
					55,01	54,87

* The prices shown for a specific valuation date correspond to the most representative price on the business day preceding this valuation date.

¹² The example is based on the assumption that, in the calculation of the need for a margin call, accrued interest on the liquidity provided is taken into account and a trigger point of 0,5 % of the liquidity provided is applied.

Earmarking system

First, it is assumed that the transactions are carried out with a national central bank using a system where underlying assets are earmarked for each transaction. The valuation of underlying assets is carried out on a daily basis. The risk control framework can then be described as follows (see also Table 2 below):

1. On 28 July 2004, the counterparty enters into a repurchase transaction with the national central bank, which purchases EUR 50,6 million of Asset A. Asset A is a jumbo covered bank bond with a fixed coupon maturing on 30 August 2008. It thus has a residual maturity of four years, therefore requiring a valuation haircut of 3,5 %. The market price of Asset A on its reference market on that day is 102,63 %, which includes the accrued interest on the coupon. The counterparty is required to provide an amount of Asset A, which – after deduction of the 3,5 % valuation haircut – exceeds the allotted amount of EUR 50 million. The counterparty therefore delivers Asset A for a nominal amount of EUR 50,6 million, the adjusted market value of which is EUR 50 113 203 on that day.
 2. On 29 July 2004, the counterparty enters into a repurchase transaction with the national central bank, which purchases EUR 21 million of Asset A (market price 101,98 %, valuation haircut 3,5 %) and EUR 25 million of Asset B (market price 98,35 %). Asset B is a central government bond with variable rate coupon payments, to which a 0,5 % valuation haircut is applied. The adjusted market value of Asset A and Asset B on that day is EUR 45 130 810, thus exceeding the required amount of EUR 45 000 000.
On 29 July 2004, the assets underlying the main refinancing operation initiated on 28 July 2004 are revalued. With a market price of 101,98 %, the haircut-adjusted market value of Asset A is still within the lower and upper trigger amounts. The initially pledged collateral is consequently considered to cater for both the initial amount of liquidity provided and the accrued interest amounting to EUR 5 889.
 3. On 30 July 2004, the underlying assets are revalued: the market price of Asset A is 100,55 % and the market price of Asset B is 97,95 %. Accrued interest amounts to EUR 11 778 on the main refinancing operation initiated on 28 July 2004 and EUR 5 700 on the longer-term refinancing operation initiated on 29 July 2004. As a result, the adjusted market value of Asset A in the first transaction falls below the transaction's amount to be covered (i.e. the liquidity provided plus the accrued interest) by EUR 914 218, but also below the lower trigger level of EUR 49 761 719. The counterparty delivers EUR 950 000 of Asset A in nominal value terms, which – after deducting a 3,5 % haircut from the market value based on a price of 100,55 % – restores sufficient collateral coverage¹³.
- A margin call is also needed on the second transaction since the adjusted market value of the underlying assets used in this transaction (EUR 44 741 520) is below the lower trigger level (EUR 44 780 672). The counterparty therefore provides EUR 270 000 of Asset B with an adjusted market value of EUR 263 143.
4. On 2 and 3 August 2004, the underlying assets are revalued, without resulting in any margin call for the transactions entered into on 28 and 29 July 2004.
 5. On 4 August 2004, the counterparty repays the liquidity provided under the main refinancing operation initiated on 28 July 2004, including the accrued interest of EUR 41 222. The national central bank returns EUR 51 550 000 of Asset A in nominal value.

¹³ National central banks may perform margin calls in cash rather than securities.

On the same day the counterparty enters into a new repurchase transaction with the national central bank, which purchases EUR 75 million of Asset C in nominal value terms. Since Asset C is a zero coupon corporate bond with a residual maturity of more than ten years requiring a valuation haircut of 15 %, the corresponding haircut-adjusted market value on that day is of EUR 35 068 875.

The revaluation of assets underlying the long-term refinancing operation initiated on 29 July 2004 reveals that the adjusted market value of the assets provided exceeds the upper trigger level by approximately EUR 262 000 and leads to the national central bank returning EUR 262 000 of Asset B in nominal value to the counterparty¹⁴.

Pooling system

Second, it is assumed that the transactions are carried out with a national central bank using a pooling system. Assets included in the pool of assets used by the counterparty are not earmarked for specific transactions.

The same sequence of transactions is used in this example as in the above example illustrating an earmarking system. The main difference is that, on the revaluation dates, the adjusted market value of all the assets in the pool has to cover the total amount of all of the counterparty's outstanding operations with the national central bank. The margin call of EUR 1 178 398 occurring on 30 July 2004 is identical in this example to the one required in the earmarking system case. The counterparty delivers EUR 1 300 000 of Asset A in nominal value terms, which – after deducting a 3,5 % haircut from the market value based on a price of 100,55 % – restores sufficient collateral coverage.

Moreover, on 4 August 2004, when the main refinancing operation entered into on 28 July 2004 matures, the counterparty may keep the assets on its pledge account. An asset can also be exchanged for another asset as shown in the example, where EUR 51,9 million of Asset A in nominal value are replaced with EUR 75,5 million of Asset C in nominal value to cover the liquidity provided and the accrued interest under all refinancing operations.

The risk control framework in the pooling system is described in Table 3.

¹⁴ If a margin had to be paid to the counterparty by the national central bank in relation to the second transaction, such a margin could, in certain cases, be netted out with the margin paid to the national central bank by the counterparty in relation to the first transaction. As a result, there would only be one margin settlement.

Example 6 (continued)

Table 2: Earmarking system											
Date	Outstanding transactions	Start date	End date	Interest rate	Liquidity provided	Accrued interest	Total amount to be covered	Lower trigger amount	Upper trigger amount	Adjusted market value	Margin call
28.07.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	-	50 000 000	49 750 000	50 250 000	50 113 203	-
29.07.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	5 889	50 005 889	49 755 859	50 255 918	49 795 814	-
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	-	45 000 000	44 775 000	45 225 000	45 130 810	-
30.07.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	11 778	50 011 778	49 761 719	50 261 837	49 097 560	-914 218
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	5 700	45 005 700	44 780 672	45 230 729	44 741 520	-264 180
02.08.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	29 444	50 029 444	49 779 297	50 279 592	50 258 131	-
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	22 800	45 022 800	44 797 686	45 247 914	45 152 222	-
03.08.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	35 333	50 035 333	49 785 157	50 285 510	50 123 818	-
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	28 500	45 028 500	44 803 358	45 253 643	45 200 595	-
04.08.2004	Main refinancing	04.08.2004	11.08.2004	4,26	35 000 000	-	35 000 000	34 825 000	35 175 000	35 068 875	-

	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	34 200	45 034 200	44 809 029	45 259 371	45 296 029	261 829
05.08.2004	Main refinancing	04.08.2004	11.08.2004	4,26	35 000 000	4 142	35 004 142	34 829 121	35 179 162	34 979 625	-
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	39 900	45 039 900	44 814 701	45 265 100	45 043 420	-

Example 6 (continued)

Table 3: Pooling system

Date	Outstanding transactions	Start date	End date	Interest rate	Liquidity provided	Accrued interest	Total amount to be covered	Lower trigger amount¹	Upper trigger amount²	Adjusted market value	Margin call
28.07.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	-	50 000 000	49 750 000	Not applicable	50 113 203	-
29.07.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	5 889	95 005 889	94 530 859	Not applicable	94 926 624	-
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	-					
30.07.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	11 778	95 017 478	94 542 390	Not applicable	93 839 080	- 1 178 398
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	5 700					
02.08.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	29 444	95 052 244	94 576 983	Not applicable	95 487 902	-
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	22 800					
03.08.2004	Main refinancing	28.07.2004	04.08.2004	4,24	50 000 000	35 333	95 063 833	94 588 514	Not applicable	95 399 949	-

¹ In a pooling system, the lower trigger amount is the lowest threshold for margin calls. In practice most national central banks require additional collateral whenever the haircut adjusted market value of the collateral pool falls below the total amount to be covered.

² In a pooling system, the notion of upper trigger amount is not relevant, since the counterparty will constantly target an excess amount of collateral provided in order to minimise operational transactions.

	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	28 500					
04.08.2004	Main refinancing	04.08.2004	11.08.2004	4,26	35 000 000	-	80 034 200	79 634 029	Not applicable	80 333 458	-
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	34 200					
05.08.2004	Main refinancing	04.08.2004	11.08.2004	4,26	35 000 000	4 142	80 044 042	79 643 821	Not applicable	80 248 396	-
	Longer-term refinancing	29.07.2004	27.10.2004	4,56	45 000 000	39 900					

GLOSSARY

Actual/360: the **day-count convention** applied for the calculation of interest on a credit, implying that the interest is calculated over the actual number of calendar days over which the credit is extended, on the basis of a 360-day year. This day-count convention is applied in **Eurosystem** monetary policy operations.

American auction: see **multiple rate auction**.

Asset-backed securities (ABS): debt instruments that are backed by a pool of ringfenced financial assets (fixed or revolving), that convert into cash within a finite time period. In addition, rights or other assets may exist that ensure the servicing or timely distribution of proceeds to the holders of the security. Generally, asset-backed securities are issued by a specially created investment vehicle which has acquired the pool of financial assets from the originator/seller. In this regard, payments on the asset-backed securities depend primarily on the cash flows generated by the assets in the underlying pool and other rights designed to assure timely payment, such as liquidity facilities, guarantees or other features generally known as credit enhancements.

Averaging provision: a provision allowing **counterparties** to fulfil their **reserve requirements** on the basis of their average **reserve holdings** over the **maintenance period**. The averaging provision contributes to the stabilisation of money market interest rates by giving institutions an incentive to smooth the effects of temporary liquidity fluctuations. The **Eurosystem's** minimum reserve system provides for averaging.

Bilateral procedure: a procedure whereby the central bank deals directly with only one or a few **counterparties**, without making use of tender procedures. Bilateral procedures include operations executed through stock exchanges or market agents.

Book-entry system: an accounting system that permits the transfer of securities and other financial assets without the physical movement of paper documents or certificates (e.g. the electronic transfer of securities). See also **dematerialisation**.

Central securities depository (CSD): an entity which holds and administers securities or other financial assets, holds the issuance accounts, and enables transactions to be processed by book entry. Assets may exist either physically (but immobilised within the CSD) or in a dematerialised form (i.e. only as electronic records).

Close links: a situation in which the **counterparty** is linked to an issuer/debtor/guarantor of eligible assets by reason of the fact that: (a) the counterparty owns directly, or indirectly through one or more other undertakings, 20% or more of the capital of the issuer/debtor/guarantor; or (b) the issuer/debtor/guarantor owns directly, or indirectly through one or more other undertakings, 20% or more of the capital of the counterparty; or (c) a third party owns more than 20% of the capital of the

counterparty and more than 20% of the capital of the issuer/debtor/guarantor, either directly or indirectly through one or more other undertakings.

Collateral pooling system: a central bank system for managing collateral, in which **counterparties** open a pool account to deposit assets collateralising their transactions with the central bank. In a pooling system, by contrast with an **earmarking system**, the underlying assets are not earmarked for individual transactions.

Collection of fixed-term deposits: a monetary policy instrument that may be used by the **Eurosystem** for fine-tuning purposes, where the Eurosystem offers remuneration on **counterparties'** fixed-term deposits on accounts with the **national central banks** in order to absorb liquidity from the market.

Correspondent banking: an arrangement under which one **credit institution** provides payment and other services to another credit institution. Payments through correspondents are often executed through reciprocal accounts (nostro and loro accounts) to which standing credit lines may be attached. Correspondent banking services are primarily provided across international boundaries but are also known as agency relationships in some domestic contexts. A loro account is the term used by a correspondent to describe an account held on behalf of a foreign credit institution; the foreign credit institution would in turn regard this account as its nostro account.

Correspondent central banking model (CCBM): a mechanism established by the **Eurosystem** with the aim of enabling **counterparties** to use underlying assets in a cross-border context. In the CCBM, **NCBs** act as custodians for one another. This means that each NCB has a securities account in its securities administration for each of the other NCBs and for the ECB. The CCBM is also available to counterparties of certain non-Eurosystem NCBs.

Counterparty: the opposite party in a financial transaction (e.g. any transaction with the central bank).

Credit institution: a credit institution within the meaning of Articles 2 and 4(1) of Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast)¹, as implemented in national law, that is subject to supervision by a competent authority; or another credit institution within the meaning of Article 123(2) of the Treaty that is subject to supervision of a standard comparable to supervision by a competent national authority.

Cross-border settlement: a settlement which takes place in a country other than the country or countries in which one or both of the parties to the trade are located.

Currency hedge transaction: an agreement entered into between the issuer and a hedge counterparty, pursuant to which a portion of the currency risk arising from the receipt of cash flows in non-euro currency is mitigated by swapping the cash flows for euro currency payments to be made by the hedge counterparty, including any guarantee by the hedge counterparty of those payments.

¹ OJ L 177, 30.6.2006, p. 1.

Custodian: an entity which undertakes the safekeeping and administration of securities and other financial assets on behalf of others.

Day-count convention: the convention regulating the number of days included in the calculation of interest on credits. The **Eurosystem** applies the day-count convention **actual/360** in its monetary policy operations.

Default event: an event referred to in the **Eurosystem credit assessment framework (ECAAF)** that is covered by the definition contained in the Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast) and Directive 2006/49/EC of the European Parliament and of the Council of 14 June 2006 on the capital adequacy of investment firms and credit institutions (recast) (together referred to as the ‘Capital Requirements Directive’ (CRD)). Thus, a default event occurs when ‘(a) the credit institution considers that the obligor is unlikely to pay its credit obligations to the credit institution, the parent undertaking or any of its subsidiaries in full, without recourse by the credit institution to actions such as realising security (if held),’ and/or ‘(b) the obligor is past due more than 90 days on any material credit obligation to the credit institution, the parent undertaking or any of its subsidiaries.’

Delivery-versus-payment or delivery-against-payment system: a mechanism in an exchange-for-value settlement system which ensures that the **final transfer** of assets (securities or other financial instruments) occurs if, and only if, the final transfer of another asset (or other assets) occurs.

Dematerialisation: the elimination of physical certificates or documents of title which represent ownership of financial assets, so that the financial assets exist only as accounting records.

Deposit facility: a **standing facility** of the **Eurosystem** which **counterparties** may use to make overnight deposits at a national central bank, which are remunerated at a pre-specified interest rate.

Depository: an agent with the primary role of recording securities either physically or electronically and keeping records of the ownership of these securities.

Deposits redeemable at notice: the instrument category consisting of deposits for which the holder has to respect a fixed period of notice before being able to withdraw the funds. In some cases, there is the possibility of withdrawing a certain fixed amount in a specific period or of earlier withdrawal subject to the payment of a penalty.

Deposits with agreed maturity: the instrument category consisting mainly of time deposits with a given maturity which, depending on national practices, may be either unconvertible prior to maturity or convertible only subject to a penalty. This category also encompasses some non-marketable debt instruments, such as non-marketable (retail) certificates of deposit.

Dutch auction: see **single rate auction**.

Earmarking system: a system for central banks’ collateral management where liquidity is provided against assets earmarked for each individual transaction.

EEA (European Economic Area) countries: the EU Member States and Iceland, Liechtenstein and Norway.

End-of-day: the time of the business day following closure of **TARGET2** at which the payments processed in TARGET2 are finalised for the day.

Euro area: the area encompassing the EU **Member States** which have adopted the euro as their single currency in accordance with the **Treaty** and in which a single monetary policy is conducted under the responsibility of the Governing Council of the ECB.

European System of Central Banks (ESCB): the European Central Bank (ECB) and the national central banks of the EU Member States. It should be noted that the national central banks of those Member States which have not adopted the single currency in accordance with the **Treaty** retain their powers in the field of monetary policy according to national law and are thus not involved in the conduct of the monetary policy of the **Eurosystem**.

Eurosystem: the European Central Bank (ECB) and the **national central banks** of the **Member States** of the **euro area**. The decision-making bodies of the Eurosystem are the Governing Council and the Executive Board of the ECB.

Eurosystem business day: any day on which the ECB and at least one **national central bank** are open for the purpose of conducting **Eurosystem** monetary policy operations.

Eurosystem credit assessment framework (ECAF): the set of procedures, rules and techniques that ensures that the **Eurosystem**'s requirement of high credit standards for all eligible assets is met. In the establishment of high credit standards, the Eurosystem differentiates between marketable and non-marketable assets. In the assessment of the credit standard of eligible assets, the Eurosystem takes into account credit assessment information from credit assessment systems belonging to one of four sources, namely **external credit assessment institutions (ECAIs)**, NCBs' **in-house credit assessment systems (ICASs)**, counterparties' **internal ratings-based (IRB) systems** or third-party providers' **rating tools (RTs)**. In addition, in the assessment of the credit standard, the Eurosystem takes into account institutional criteria and features that guarantee similar protection for the instrument holder such as guarantees. The Eurosystem's benchmark for establishing its minimum requirement for high credit standards (credit quality threshold) is defined in terms of a 'single A' credit assessment. The Eurosystem considers a probability of default (PD) of 0,10 % over a one-year horizon to be equivalent to a 'single A' credit assessment.

External credit assessment institution (ECAI): a credit quality assessment source provided for in the **Eurosystem credit assessment framework (ECAF)** that comprises those institutions whose credit assessments may be used by **credit institutions** for the determination of risk weight exposures according to the Capital Requirements Directive. These institutions are subject to a formal recognition and validation process by the national supervisors.

Final transfer: an irrevocable and unconditional transfer which effects a discharge of the obligation to make the transfer.

Fine-tuning operation: a non-regular **open market operation** executed by the **Eurosystem** mainly in order to deal with unexpected liquidity fluctuations in the market.

Fixed rate instrument: a financial instrument for which the coupon is fixed throughout the life of the instrument.

Fixed rate tender: a **tender procedure** where the interest rate is specified in advance by the central bank and participating **counterparties** bid the amount of money they want to transact at the fixed interest rate.

Floating rate instrument: a financial instrument for which the coupon is periodically reset relative to a reference index to reflect changes in short or medium-term market interest rates. Floating rate instruments have either **pre-fixed coupons** or **post-fixed coupons**.

Foreign exchange swap: the simultaneous spot purchase/sale and forward sale/purchase of one currency against another. The **Eurosystem** executes open market monetary policy operations in the form of foreign exchange swaps where the **national central banks** (or the ECB) buy (or sell) euro spot against a foreign currency and at the same time sell (or buy) it back in a forward transaction.

Gross settlement system: a transfer system in which the settlement of funds or the transfer of securities occurs on an instruction-by-instruction basis.

Haircut: see **valuation haircut**.

In-house credit assessment system (ICAS): a credit quality assessment source provided for in the **Eurosystem credit assessment framework (ECAAF)** that currently comprises the four credit assessment systems operated by the Deutsche Bundesbank, the Banco de España, the Banque de France and the Oesterreichische Nationalbank.

Initial margin: a risk control measure that may be applied by the Eurosystem in **reverse transactions**, implying that the collateral required for a transaction is equal to the credit extended to the **counterparty** plus the value of the initial margin.

Internal rating-based (IRB) system: a credit quality assessment source provided for in the **Eurosystem credit assessment framework (ECAAF)** that comprises the internal systems of those counterparties whose credit assessments may be used by credit institutions for the determination of risk weight exposures according to the Capital Requirements Directive. These systems are subject to a formal recognition and validation process by the national supervisors.

International Securities Identification Number (ISIN): an international identification code assigned to securities issued in financial markets.

Intraday credit: credit extended for a period of less than one business day. It may be extended by central banks to even out mismatches in payment settlements and can take the form of: (i) a collateralised overdraft, or (ii) a lending operation against a pledge or in a **repurchase agreement**.

Inverse floating rate instrument: a structured note where the rate of interest paid to the holder of the note varies inversely with changes in a certain reference interest rate.

Issuer: the entity which is obligated on a security or other financial instrument.

Link between securities settlement systems: a link consists of all the procedures and arrangements which exist between two **securities settlement systems (SSSs)** for the transfer of securities between the two SSSs concerned through a book-entry process.

Liquidity support in an ABS transaction: any structural feature that can be used to cover any temporary cash flow shortfalls that may occur during the lifetime of the transaction.

Longer-term refinancing operation: a regular **open market operation** executed by the **Eurosystem** in the form of a **reverse transaction**. Longer-term refinancing operations are executed through monthly **standard tenders** and normally have a maturity of three months.

Lump-sum allowance: a fixed amount which an institution deducts in the calculation of its **reserve requirement** within the minimum reserve framework of the **Eurosystem**.

Main refinancing operation: a regular **open market operation** executed by the **Eurosystem** in the form of a **reverse transaction**. Main refinancing operations are conducted through weekly **standard tenders** and normally have a maturity of one week.

Maintenance period: the period over which compliance with reserve requirements is calculated. The ECB publishes a calendar of the reserve maintenance periods at least three months before the start of each year. Maintenance periods begin on the settlement day of the first main refinancing operation following the meeting of the Governing Council at which the monthly assessment of the monetary policy stance is pre-scheduled. They normally end on the day preceding the similar settlement day in the following month. Under special circumstances, the published calendar may be amended, depending, among other things, on changes in the schedule of Governing Council meetings.

Margin call: a procedure related to the application of **variation margins**, implying that if the value, as regularly measured, of the underlying assets falls below a certain level, the central bank requires **counterparties** to supply additional assets (or cash). Similarly, if the value of the underlying assets, following their revaluation, were to exceed the amount owed by the counterparties plus the variation margin, the counterparty may ask the central bank to return the excess assets (or cash) to the counterparty.

Marginal interest rate: the interest rate at which the total tender allotment is exhausted.

Marginal lending facility: a **standing facility** of the **Eurosystem** which **counterparties** may use to receive overnight credit from a national central bank at a pre-specified interest rate against eligible assets.

Marginal swap point quotation: the **swap point** quotation at which the total tender allotment is exhausted.

Marking to market: see **variation margin**.

Maturity bucket: a class of assets, the **residual maturity** of which is within a certain range of values, e.g. the three-to-five-year maturity bucket.

Maturity date: the date on which a monetary policy operation expires. In the case of a **repurchase agreement** or swap, the maturity date corresponds to the **repurchase date**.

Maximum bid limit: the limit on the largest acceptable bid from an individual **counterparty** in a tender operation. The **Eurosystem** may impose maximum bid limits in order to avoid disproportionately large bids from individual counterparties.

Maximum bid rate: the upper limit to the interest rate at which **counterparties** may submit bids in **variable rate tenders**. Bids at a rate above the maximum bid rate announced by the ECB are discarded.

Member State: as used in this document, an EU Member State which has adopted the single currency in accordance with the **Treaty**.

Minimum allotment amount: the lower limit of the amount to be allotted to individual **counterparties** in a tender operation. The **Eurosystem** may decide to allot a minimum amount to each counterparty in its tender operations.

Minimum allotment ratio: the lower limit, expressed in percentage terms, of the ratio of bids at the **marginal interest rate** to be allotted in a tender operation. The Eurosystem may decide to apply a minimum allotment ratio in its tender operations.

Minimum bid rate: the lower limit to the interest rates at which **counterparties** may submit bids in **variable rate tenders**.

Monetary financial institution (MFI): one of a class of financial institutions which together form the money-issuing sector of the **euro area**. These include central banks, resident **credit institutions**, as defined in Community law, and all other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credit and/or invest in securities.

Multiple rate auction (American auction): an auction at which the allotment interest rate (or price/swap point) equals the interest rate offered in each individual bid.

National central bank (NCB): as used in this document, a central bank of an EU **Member State** which has adopted the single currency in accordance with the **Treaty**.

NCB business day: any day on which the **national central bank** of a specific **Member State** is open for the purpose of conducting **Eurosystem** monetary policy operations. In some Member States, branches of the national central bank may be closed on NCB business days owing to local or regional bank holidays. In such cases, the relevant national central bank is responsible for informing the **counterparties** in advance of the arrangements to be made for transactions involving those branches.

Open market operation: an operation executed on the initiative of the central bank in the financial market. With regard to their aims, regularity and procedures, Eurosystem open market operations can be divided into four categories: **main refinancing operations**, **longer-term refinancing operations**, **fine-tuning operations** and **structural operations**. As for the instruments used, **reverse transactions** are the main open market instrument of the Eurosystem and can be employed in all four categories of operations. In addition, the issuance of debt certificates and **outright transactions** are available for **structural operations**, while **foreign exchange swaps** and the **collection of fixed-term deposits** are available for the conduct of **fine-tuning operations**.

Outright transaction: a transaction whereby assets are bought or sold up to their maturity (spot or forward).

Pooling system: see **collateral pooling system**.

Post-fixed coupon: a coupon on **floating rate instruments** which is determined on the basis of the values taken by the reference index at a certain date (or dates) during the coupon accrual period.

Pre-fixed coupon: a coupon on **floating rate instruments** which is determined on the basis of the values taken by the reference index at a certain date (or dates) before the start of the coupon accrual period.

Purchase date: the date on which the sale of purchased assets by the seller to the buyer becomes effective.

Purchase price: the price at which purchased assets are sold or are to be sold to the buyer by the seller.

Quick tender: the **tender procedure** used by the **Eurosystem** for **fine-tuning operations** when it is deemed desirable to have a rapid impact on the liquidity situation in the market. Quick tenders are normally executed within a time frame of 90 minutes and are normally restricted to a limited set of **counterparties**.

Rating tools (RTs): a credit quality assessment source provided for in the ECAF that is provided by those entities that assess the credit quality of debtors by using primarily quantitative models in a systematic and mechanical manner, relying among other information on audited accounts, and whose credit assessments are not intended for general public disclosure. These entities have to be individually accepted by the Eurosystem before becoming part of the ECAF.

Repo operation: a liquidity-providing **reverse transaction** based on a **repurchase agreement**.

Repurchase agreement: an arrangement whereby an asset is sold while the seller simultaneously obtains the right and obligation to repurchase it at a specific price on a future date or on demand. Such an agreement is similar to collateralised borrowing, with the difference that ownership of the securities is not retained by the seller. The **Eurosystem** uses repurchase agreements with a fixed maturity in its **reverse transactions**.

Repurchase date: the date on which the buyer is obliged to sell back assets to the seller in relation to a transaction under a **repurchase agreement**.

Repurchase price: the price at which the buyer is obliged to sell back assets to the seller in relation to a transaction under a **repurchase agreement**. The repurchase price equals the sum of the **purchase price** and the price differential corresponding to the interest on the extended liquidity over the maturity of the operation.

Reserve account: an account with the **national central bank** on which a **counterparty's reserve holdings** are maintained. The counterparties' **settlement accounts** with the **national central banks** may be used as reserve accounts.

Reserve base: the sum of the balance sheet items which constitute the basis for calculating the **reserve requirement** of a credit institution.

Reserve holdings: **counterparties'** holdings on their **reserve accounts** which serve to fulfil **reserve requirements**.

Reserve ratio: the ratio defined by the central bank for each category of balance sheet items included in the **reserve base**. The ratios are used to calculate **reserve requirements**.

Reserve requirement: the requirement for institutions to hold minimum reserves with the central bank. Within the minimum reserve framework of the **Eurosystem**, the reserve requirement of a **credit institution** is calculated by multiplying the **reserve ratio** for each category of items in the **reserve base** with the amount of those items on the institution's balance sheet. In addition, institutions deduct a **lump-sum allowance** from their reserve requirement.

Residual maturity: the time remaining until the maturity date of a debt instrument.

Reverse transaction: an operation whereby the **national central bank** buys or sells assets under a **repurchase agreement** or conducts credit operations against collateral.

RTGS (real-time gross settlement) system: a settlement system in which processing and settlement take place on an order-by-order basis without netting continuously in real time. See also **TARGET2**.

Safe custody account: a securities account managed by the central bank on which **credit institutions** can place securities deemed suitable to back central bank operations.

Securities settlement system (SSS): a system which permits the holding and transfer of securities or other financial assets, either free of payment (FOP) or against payment (**delivery versus payment**).

Settlement account: an account held by a direct participant in **TARGET2** with the central bank for the purpose of processing payments.

Settlement agent: an institution which manages the settlement process (e.g. the determination of settlement positions, the monitoring of payment exchanges, etc.) for transfer systems or other arrangements requiring settlement.

Settlement date: the date on which a transaction is settled. The settlement might take place on the same day as the trade (same-day settlement) or one or several days after the trade (the settlement date is specified as the **trade date (T)** + the settlement lag).

Single rate auction (Dutch auction): an auction in which the allotment interest rate (or price/**swap point**) applied for all satisfied bids is equal to the **marginal interest rate**.

Solvency risk: the risk of loss owing to the failure (bankruptcy) of an **issuer** of a financial asset or to the insolvency of the **counterparty**.

Standard tender: a **tender procedure** used by the **Eurosystem** in its regular **open market operations**. Standard tenders are carried out within a time frame of 24 hours. All **counterparties** fulfilling the general eligibility criteria are entitled to submit bids in standard tenders.

Standardised deduction: the fixed percentage of the amount outstanding of debt securities with an agreed maturity of up to two years (including money market paper) which can be deducted from the

reserve base by the issuers which cannot present evidence that such outstanding amount is held by other institutions subject to the minimum reserve system of the **Eurosystem**, by the ECB or by a **national central bank**.

Standing facility: a central bank facility available to **counterparties** at their own initiative. The **Eurosystem** offers two overnight standing facilities: the **marginal lending facility** and the **deposit facility**.

Start date: the date on which the first leg of a monetary policy operation is settled. The start date corresponds to the **purchase date** for operations based on **repurchase agreements** and **foreign exchange swaps**.

Strip (separate trading of interest and principal): a **zero coupon bond** created in order to trade separately the claims on particular cash flows of a security and the principal of the same instrument.

Structural operation: an **open market operation** executed by the **Eurosystem** mainly in order to adjust the structural liquidity position of the financial sector vis-à-vis the Eurosystem.

Swap point: the difference between the exchange rate of the forward transaction and the exchange rate of the spot transaction in a **foreign exchange swap**.

TARGET: the predecessor of the **TARGET2** system, operating in a decentralised structure linking together national **RTGS systems** and the ECB payment mechanism. The TARGET system has been replaced by the TARGET2 system in accordance with the migration schedule specified in Article 13 of Guideline ECB/2007/2.

TARGET2 (Trans-European Automated Real-time Gross settlement Express Transfer system): the real-time gross settlement system for the euro, providing settlement of payments in euro in central bank money. TARGET2 is established and functions on the basis of a single platform, through which all payment orders are submitted and processed and through which payments are received in the same technical manner. TARGET2 is legally structured as a multiplicity of **RTGS systems** (TARGET2 component systems).

Tender procedure: a procedure in which the central bank provides liquidity to, or withdraws liquidity from, the market on the basis of bids submitted by **counterparties** in competition with each other. The most competitive bids are satisfied first until the total amount of liquidity to be provided or withdrawn by the central bank is exhausted.

Trade date (T): the date on which a trade (i.e. an agreement on a financial transaction between two **counterparties**) is struck. The trade date might coincide with the **settlement date** for the transaction (same-day settlement) or precede the settlement date by a specified number of business days (the settlement date is specified as T + the settlement lag).

Treaty: the Treaty on the Functioning of the European Union.

Trigger point: a pre-specified level of the value of the liquidity provided at which a **margin call** is executed.

Valuation date: the date on which the assets underlying credit operations are valued.

Valuation haircut: a risk control measure applied to underlying assets used in **reverse transactions**, implying that the central bank calculates the value of underlying assets as the market value of the assets reduced by a certain percentage (**haircut**). The **Eurosystem** applies valuation haircuts reflecting features of the specific assets, such as the residual maturity.

Valuation markdown: a risk control measure applied to underlying assets used in reverse transactions, meaning that the central bank applies a reduction of the theoretical market value of the assets by a certain percentage before applying any valuation haircut.

Variable rate tender: a **tender procedure** whereby the **counterparties** bid both the amount of money they want to transact with the central bank and the interest rate at which they want to enter into the transaction.

Variation margin (marking to market): a certain level of the market value of the underlying assets used in the Eurosystem's liquidity-providing **reverse transactions** that the Eurosystem requires to be maintained over time. This implies that if the value, measured on a regular basis, of the underlying assets falls below a certain level, the **national central bank** will require the **counterparty** to supply additional assets or cash (i.e. a **margin call**). Similarly, if the value of the underlying assets, following their revaluation, exceeds a certain level, the counterparty may retrieve the excess assets or cash. See also Section 6.4.

Volume tender: see **fixed rate tender**.

Zero coupon bond: a security paying only one cash flow during its life. For the purpose of this document, zero coupon bonds include securities issued at a discount and securities which deliver a single coupon at maturity. A **strip** is a special type of zero coupon bond.

**SELECTION OF COUNTERPARTIES FOR FOREIGN EXCHANGE
INTERVENTION OPERATIONS AND FOREIGN EXCHANGE SWAPS
FOR MONETARY POLICY PURPOSES**

The selection of counterparties for foreign exchange intervention operations and foreign exchange swaps for monetary policy purposes follows a uniform approach irrespective of the chosen organisational set-up for the Eurosystem's external operations. The selection policy does not entail a substantial departure from existing market standards, as it has been derived from the harmonisation of the national central banks' current best practices. The selection of counterparties to Eurosystem foreign exchange intervention operations is based, primarily, on two sets of criteria.

The first set of criteria is inspired by the principle of prudence. A first prudential criterion is creditworthiness, which is assessed using a combination of different methods (e.g. using credit ratings available from commercial agencies and the in-house analysis of capital and other business ratios); a second criterion is that the Eurosystem requires all its potential foreign exchange intervention counterparties to be subject to supervision by a recognised supervisor; and, as a third criterion, all the Eurosystem's foreign exchange intervention counterparties need to follow high ethical standards and have a good reputation.

Once the minimum prudence requirement is fulfilled, the second set of criteria inspired by efficiency considerations is applied. A first efficiency criterion relates to competitive pricing behaviour and the counterparty's ability to handle large volumes, even in turbulent market conditions. The quality and coverage of information provided by counterparties feature among other efficiency criteria.

The pool of potential foreign exchange intervention counterparties is sufficiently large and diverse to guarantee the necessary flexibility when implementing intervention operations. It enables the Eurosystem to choose from among different intervention channels. In order to be able to intervene efficiently in different geographical locations and time zones, the Eurosystem can use counterparties in any international financial centre. However, in practice, a substantial share of the counterparties tend to be located in the euro area. For foreign exchange swaps executed for monetary policy purposes, the range of counterparties corresponds to the counterparties located in the euro area which are selected for Eurosystem foreign exchange intervention operations.

The national central banks may apply limit-based systems in order to control credit exposures vis-à-vis individual counterparties in foreign exchange swaps conducted for monetary policy purposes.

THE REPORTING FRAMEWORK FOR THE MONEY AND BANKING STATISTICS OF THE EUROPEAN CENTRAL BANK¹

1. Introduction

Council Regulation (EC) No 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank² defines the natural and legal persons which are subject to reporting requirements (the so-called reference reporting population), the confidentiality regime and the appropriate provisions for enforcement in accordance with Article 5.4 of the Statute of the European System of Central Banks and of the European Central Bank (Statute of the ESCB). Furthermore, it entitles the ECB to use its regulatory power:

- to specify the actual reporting population;
- to define the ECB's statistical reporting requirements and impose them on the actual reporting population of participating Member States; and
- to specify the conditions under which the ECB and the national central banks (NCBs) may exercise the right to verify or to carry out the compulsory collection of statistical information.

2. General considerations

The purpose of Regulation (EC) No 25/2009 of the European Central Bank of 19 December 2008 concerning the balance sheet of the monetary financial institutions sector (Recast) (ECB/2008/32)³, is to enable the ECB and, in accordance with Article 5.2 of the Statute of the ESCB, the NCBs – which carry out the work to the extent possible – to collect the statistical material required for the fulfilment of the ESCB's tasks and, in particular, its task of defining and implementing the monetary policy of the Union in accordance with the first indent of Article 127(2) of the Treaty on the Functioning of the European Union. The statistical information collected in accordance with Regulation ECB/2008/32 is used to establish the consolidated balance sheet of the monetary financial institutions (MFI) sector, the principal aim of which is to provide the ECB with a comprehensive statistical picture of monetary developments

¹ The content of this annex is provided for information purposes only.

² OJ L 318, 27.11.1998, p. 8.

³ OJ L 15, 20.1.2009, p. 14.

covering the aggregated financial assets and liabilities of MFIs in the participating Member States, which are viewed as one economic territory.

For statistical purposes, the ECB's reporting requirements in the context of the consolidated balance sheet of the MFI sector are based on three main considerations.

First, the ECB must receive comparable, reliable and up-to-date statistical information which is collected under comparable terms and conditions throughout the euro area. Although the data are collected in a decentralised way by NCBs in accordance with Articles 5.1 and 5.2 of the Statute and, as far as necessary, in combination with further statistical requirements for Community or national purposes, a sufficient degree of harmonisation and compliance with minimum reporting standards is required in view of the need to establish a reliable statistical basis for the definition and conduct of the single monetary policy.

Second, the reporting obligations set out in Regulation ECB/2008/32 must observe the principles of transparency and legal certainty. The reason for this is that that Regulation is binding in its entirety and directly applicable throughout the euro area. It imposes obligations directly on natural and legal persons on which the ECB may impose sanctions whenever the ECB's reporting requirements are not fulfilled (see Article 7 of Regulation (EC) No 2533/98). The reporting obligations are therefore clearly defined and any discretion exercised by the ECB when verifying or compulsorily collecting statistical information follows identifiable principles. Third, the ECB must minimise the reporting burden involved, in conformity with the statistical principles that govern the development, production and dissemination of statistics by the ESCB (see Article 3a of Regulation (EC) No 2533/98). These principles are further defined in the public commitment on European statistics by the ESCB, as published on the ECB's website.

Therefore, the statistical material collected by NCBs under Regulation ECB/2008/32 is also used to calculate the reserve base in accordance with Regulation (EC) No 1745/2003 of the European Central Bank of 12 September 2003 on the application of minimum reserves (ECB/2003/9)⁴.

Regulation ECB/2008/32 only defines, in general terms, the actual reporting population and its reporting obligations, and the principles according to which the ECB and the NCBs normally exercise their competence to verify or compulsorily collect statistical information. The details of the statistical information to be reported in order to fulfil the ECB's statistical reporting requirements and the minimum standards to be followed are specified in Annexes I to IV to Regulation ECB/2008/32.

3. Actual reporting population; list of MFIs for statistical purposes

MFIs comprise resident credit institutions, as defined in Union law, and all other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other

than MFIs and, for their own account (at least in economic terms), to grant credit and/or invest in securities. The ECB establishes and maintains a list of institutions in accordance with this definition and following the classification principles specified in Annex I to Regulation ECB/2008/32. The competence to establish and maintain this list of MFIs for statistical purposes lies with the ECB's Executive Board. The population of MFIs resident in the euro area constitutes the actual reporting population. NCBs are entitled to grant derogations to small MFIs in accordance with Article 8 of Regulation ECB/2008/32. These derogations enable NCBs to apply the method of 'cutting off the tail'.

4. Statistical reporting obligations

To establish the consolidated balance sheet, the actual resident reporting population must report statistical information related to their balance sheet on a monthly basis. Further information is required on a quarterly basis. The statistical information to be reported is further specified in Annex I to Regulation ECB/2008/32. The relevant statistical data are collected by the NCBs, which must define the reporting procedures to be followed.

Regulation ECB/2008/32 does not prevent NCBs from collecting, from the actual reporting population, the statistical information necessary to fulfil the statistical requirements of the ECB as part of a broader statistical reporting framework which the NCBs establish under their own responsibility in accordance with Union or national law or established practice and which serves other statistical purposes. However, this should be without prejudice to the fulfilment of the statistical requirements set out in Regulation ECB/2008/32. In specific cases, the ECB may rely on statistical information collected for such purposes to fulfil its requirements.

The consequence of a derogation being granted by an NCB as defined above is that the small MFIs concerned are subject to reduced reporting obligations (implying, *inter alia*, only quarterly reporting) which are compulsory in the context of minimum reserves and are specified in Annex III to Regulation ECB/2008/32. Requirements for those small MFIs that are not credit institutions are set out in Article 8 to that Regulation. However, MFIs which have been granted a derogation have the option of fulfilling the full reporting requirements.

5. Use of statistical information under the ECB regulation on minimum reserves

To minimise the reporting burden and to avoid any duplication in the collection of statistical information, the statistical information related to the balance sheet reported by MFIs under Regulation ECB/2008/32 is also used to calculate the reserve base under Regulation ECB/2003/9.

Indeed, for statistical purposes, the reporting agents have to report data to their respective NCB in accordance with the framework of Table 1 below, which is included in Annex III to Regulation

⁴ OJ L 250, 2.10.2003, p. 10.

ECB/2008/32. In Table 1, the boxes marked with an ‘*’ are used by the reporting institutions to calculate their reserve base (see Box 9 in Chapter 7).

In order to make a correct calculation of the reserve base to which a positive reserve ratio is applied, a detailed breakdown is required for deposits with an agreed maturity of over two years, for deposits redeemable at notice of over two years and for repo liabilities of credit institutions vis-à-vis the (‘domestic’ and ‘other participating Member States’) ‘MFIs’, ‘credit institutions subject to reserve requirements, ECB and NCBs’ and ‘general government’ sectors, and vis-à-vis the ‘rest of the world’.

Furthermore, depending on the national collection systems and without prejudice to full compliance with the definitions and classification principles of the MFI balance sheet set out in Regulation ECB/2008/32, credit institutions subject to reserve requirements may alternatively report the data necessary to calculate the reserve base, except those on negotiable instruments, in accordance with Table 1a, provided that no bold printed positions of Table 1 are affected.

Annex III to Regulation ECB/2008/32 contains specific and transitional provisions and provisions on mergers involving credit institutions in respect of the application of the minimum reserve system.

Annex III to Regulation ECB/2008/32 includes, in particular, a reporting scheme for credit institutions in the ‘tail’. Credit institutions in the tail have to report, as a minimum, quarterly data necessary to calculate the reserve base in accordance with Table 1a. These institutions ensure that the reporting according to Table 1a is fully consistent with the definitions and classifications applicable in Table 1. The tail institutions’ reserve base data for three reserve maintenance periods are based on end-of quarter data collected by the NCBs.

Annex III also includes provisions on reporting on an aggregated basis as a group by credit institutions. On receiving authorisation from the ECB, credit institutions subject to minimum reserves within a single national territory may report statistical data regarding their consolidated reserve base as a group, provided that all the institutions concerned have renounced the benefit of any lump-sum allowance from the reserve requirement. The benefit of the lump-sum allowance remains, however, for the group as a whole. If a group of credit institutions has been permitted to hold minimum reserves through an intermediary but does not benefit from such group reporting, the relevant NCB may authorise the intermediary to carry out aggregated statistical reporting (other than in respect of the reserve base) on behalf of this group of credit institutions. In this case, the benefit of the lump-sum allowance remains for each member of the group. All the institutions concerned are included separately in the ECB’s list of MFIs.

Furthermore, the annex includes provisions to be applied in the case of mergers involving credit institutions. The terms ‘merger’, ‘merging institutions’ and ‘acquiring institution’ have the meaning laid down in Article 1 of Regulation ECB/2003/9. For the maintenance period within which a merger takes effect, the reserve requirements of the acquiring institution are calculated and have to be fulfilled as set out in Article 13 of that Regulation. For consecutive reserve maintenance periods, the reserve requirements of the acquiring institution are calculated on the basis of a reserve base and of statistical information in accordance with specific rules (see the table in Annex III to Regulation ECB/2008/32), if

applicable. Otherwise, the normal rules for the reporting of statistical information and the calculation of reserve requirements, as set out in Article 3 of Regulation ECB/2003/9, apply. Moreover, the relevant NCB may authorise the acquiring institution to fulfil its obligation to report statistical information through temporary procedures. This derogation from normal reporting procedures must be limited to the minimum time possible and, in any case, should not exceed six months after the merger has taken effect. This derogation is without prejudice to the obligation for the acquiring institution to fulfil its reporting obligations in accordance with Regulation ECB/2008/32 and, if applicable, its obligation to assume the reporting obligations of merging institutions.

TABLE 1: Data required to be provided at monthly frequency (stocks)

BALANCE SHEET ITEMS	A. Domestic									
	MFIs (3)			Non-MFIs						
	Credit institutions	of which: credit institutions subject to RRs, ECB and NCBs	General government (S.13)		Other resident sectors					
			Central Government (S.1311)	Other general government	Total	Other financial intermediaries + financial auxiliaries (S.123+S.124)		Insurance corporations and pension funds (S.125)	Non-financial corporations (S.11)	Households + non-profit institutions serving households (S.14+S.15)
(a)	(b)	(c)	(d)	(e)	(f)	of which: CCP (4)	of which: FVCS	(g)	(h)	(i)
LIABILITIES										
8 Currency in circulation										
9 Deposits	*	*	*							
up to 1 year										
over 1 year										
Of which Transferable deposits										
Of which up to 2 years										
Of which syndicated loans										
9e Euro	*	*								
9.1e Overnight				*	*					
Of which Transferable deposits										
9.2e With agreed maturity					*	*				
up to 1 year					*	*				
over 1 and up to 2 years					*	*				
over 2 years	*	*	*	*	*	*				
9.3e Redeemable at notice					*	*				
up to 3 months					*	*				
over 3 months					*	*				
of which over 2 years (2)	*	*	*	*	*	*				
9.4e Repos	*	*	*	*	*	*				
9x Foreign currencies					*	*				
9.1x Overnight					*	*				
9.2x With agreed maturity					*	*				
up to 1 year					*	*				
over 1 and up to 2 years					*	*				
over 2 years	*	*	*	*	*	*				
9.3x Redeemable at notice					*	*				
up to 3 months					*	*				
over 3 months					*	*				
of which over 2 years (2)	*	*	*	*	*	*				
9.4x Repos	*	*	*	*	*	*				
10 MMFs shares/units (3)										
11 Debt securities issued										
11e Euro										
up to 1 year										
over 1 and up to 2 years										
Of which up to 2 years and nominal capital guarantee below 100%										
over 2 years										
11x Foreign currencies										
up to 1 year										
over 1 and up to 2 years										
Of which up to 2 years and nominal capital guarantee below 100%										
over 2 years										
12 Capital and reserves										
13 Remaining liabilities										

BALANCE SHEET ITEMS	A. Domestic									
	MFIs	Non-MFIs								
		General government (S.13)	Other resident sectors							
			Total	Other financial intermediaries + financial auxiliaries (S.123+S.124)		Insurance corporations and pension funds (S.125)	Non-financial corporations (S.11)	Households + non-profit institutions serving households (S.14+S.15)		
		of which: CCP (4)	of which: FVCs		Total	Credit for consumption	Lending for house purchase	Other lending	of which: SP/UP (5)	
ASSETS										
1 Cash										
1e of which euro										
2 Loans										
up to 1 year										
over 1 year and up to 5 years										
over 5 years										
of which: syndicated loans										
of which: repos										
2e of which euro										
- of which: revolving loans and overdrafts										
- of which convenience credit card credit										
- of which extended credit card credit										
3 Securities other than shares										
3e Euro										
up to 1 year										
over 1 and up to 2 years										
over 2 years										
3x Foreign currencies										
up to 1 year										
over 1 and up to 2 years										
over 2 years										
4 MMF shares/units										
5 Shares and other equity										
6 Fixed assets										
7 Remaining assets										

Notes to Table 1

(1) Cells marked with an * are used in the calculation of the reserve base. With respect to debt securities, credit institutions will either present proof of liabilities to be excluded from the reserve base or apply a standardised deduction of a fixed percentage specified by the ECB. Cells in thin print are reported solely by credit institutions subject to reserve requirements (RRs). See also special rules on the application of minimum reserves in Annex III to Regulation ECB/2008/32.

(2) The reporting of this item is voluntary until further notice.

(3) Data under this item may be subject to different statistical collection procedures, as decided by an NCB in accordance with the rules contained in Annex I, Part 2 of Regulation ECB/2008/32.

(4) Central counterparties

(5) Sole proprietors/unincorporated partnerships

TABLE 1a: Simplified reporting of data required for minimum reserve requirements

	Reserve base calculated as the sum of the following columns in Table 1 (Liabilities): (a)-(b)+(c)+(d)+(e)+(j)-(k)+(l)+(m)+(n)+(s)
DEPOSIT LIABILITIES (Euro and foreign currencies combined)	
9 TOTAL DEPOSITS	
9.1e + 9,1 x	
9.2e + 9,2 x	
9.3e + 9,3 x	
9.4e + 9,4 x	
of which:	
9.2e + 9,2 x with agreed maturity over two years	
of which:	
9.3e + 9,3 x redeemable at notice over two years	Voluntary reporting
of which:	
9.4e + 9,4 x repos	
	Outstanding issues, column (t) in Table 1 (Liabilities)
NEGOTIABLE INSTRUMENTS (Euro and foreign currencies combined)	
11 DEBT SECURITIES ISSUED	
11 e + 11 x with agreed maturity up to two years	
11 DEBT SECURITIES ISSUED	
11 e + 11 x with agreed maturity over two years	

6. Verification and compulsory collection

The ECB itself and the NCBs normally exercise the competence to verify and compulsorily collect statistical information whenever minimum standards for transmission, accuracy, conceptual compliance and revisions are not fulfilled. These minimum standards are set out in Annex IV to Regulation ECB/2008/32.

7. Non-participating Member States

As a regulation under Article 34.1 of the Statute of the ESCB does not confer any rights or impose any obligations on Member States with a derogation (Article 42.1 of the Statute of the ESCB) and on Denmark (Article 2 of the Protocol on certain provisions relating to Denmark) and is not applicable to the United Kingdom (Article 8 of the Protocol on certain provisions relating to the United Kingdom of Great Britain and Northern Ireland), Regulation ECB/2008/32 is applicable only in the participating Member States.

However, Article 5 of the Statute of the ESCB concerning the competence of the ECB and the NCBs in the field of statistics and Regulation (EC) No 2533/98 are applicable in all Member States. This also implies, together with the second and third indents of Article 4(3) of the Treaty on European Union, an obligation on the non-participating Member States to design and implement at the national level all the measures that they consider appropriate in order to carry out the collection of statistical information needed to fulfil the ECB's statistical reporting requirements and the timely preparations in the field of statistics in order for them to become participating Member States. This obligation is made explicit in Article 4 and recital 17 to Regulation (EC) No 2533/98. For reasons of transparency, this special obligation is reiterated in the recitals to Regulation ECB/2008/32

THE EUROSISTEM WEBSITES

CENTRAL BANK	WEBSITE
European Central Bank	www.ecb.europa.eu
Nationale Bank van België/Banque Nationale de Belgique	www.nbb.be or www.bnb.be
Deutsche Bundesbank	www.bundesbank.de
Eesti Pank	www.eestipank.ee
Central Bank of Ireland	www.centralbank.ie
Bank of Greece	www.bankofgreece.gr
Banco de España	www.bde.es
Banque de France	www.banque-france.fr
Banca d'Italia	www.bancaditalia.it
Central Bank of Cyprus	www.centralbank.gov.cy
Banque centrale du Luxembourg	www.bcl.lu
Central Bank of Malta	www.centralbankmalta.org
De Nederlandsche Bank	www.dnb.nl
Oesterreichische Nationalbank	www.oenb.at
Banco de Portugal	www.bportugal.pt
Národná banka Slovenska	www.nbs.sk
Banka Slovenije	www.bsi.si
Suomen Pankki	www.bof.fi

PROCEDURES AND SANCTIONS TO BE APPLIED IN THE EVENT OF NON-COMPLIANCE WITH COUNTERPARTY OBLIGATIONS

1. FINANCIAL PENALTIES

In the event of an infringement by a counterparty of tender rules¹, of bilateral transaction rules², of the rules for the use of underlying assets³, or of end-of-day procedures and access conditions for the marginal lending facility⁴, the Eurosystem shall apply financial penalties as follows:

- (a) For infringements of rules related to tender operations, bilateral transactions and the use of underlying assets, for the first and the second infringements that occur within a 12-month period a financial penalty shall be applied to each infringement. The financial penalties that can be applied shall be computed at the marginal lending rate plus 2,5 percentage points.

For infringements of rules related to tender operations and bilateral transactions, the financial penalties shall be calculated on the basis of the amount of collateral or cash which the counterparty could not settle, multiplied by the coefficient $7/360$.

For infringements of rules related to the use of underlying assets⁵, the financial penalties shall be calculated on the basis of the amount of ineligible assets (or assets that may not be used by the counterparty), which are either: (i) provided by the counterparty to an NCB or the ECB; or (ii) not removed by the counterparty after 20 working days following an event after which the eligible assets become ineligible or may no longer be used by the counterparty, multiplied by the coefficient $1/360$.

- (b) The first time the rules for end-of-day procedures or for access to the marginal lending facility are infringed, the financial penalties that can be applied shall be computed at the marginal lending rate plus 5 percentage points. In the event of repeated infringements, the penalty interest rate shall be increased by a further 2,5 percentage points each time this occurs within a 12-month period, calculated on the basis of the amount of the unauthorised access to the marginal lending facility.

¹ This applies if a counterparty fails to transfer a sufficient amount of underlying assets or cash (when applicable, as regards margin calls) to settle on the settlement day, or to collateralise, until the maturity of the operation by means of corresponding margin calls, the amount of liquidity it has been allotted in a liquidity-providing operation, or if it fails to transfer a sufficient amount of cash to settle the amount it has been allotted in a liquidity-absorbing operation.

² This applies if a counterparty fails to transfer a sufficient amount of eligible underlying assets or if it fails to transfer a sufficient amount of cash to settle the amount agreed in bilateral transactions, or if it fails to collateralise an outstanding bilateral transaction at any time until its maturity by means of corresponding margin calls.

³ This applies if a counterparty is using assets that are or have become ineligible (or that it may not use) to secure an outstanding credit.

⁴ This applies if a counterparty has a negative balance on the settlement account at the end of the day and does not fulfil the access conditions for the marginal lending facility.

⁵ The following provisions also apply where (a) the counterparty has been using ineligible assets or has provided information affecting the collateral value negatively, for example on the outstanding amount of a used credit claim, which is or has been false or out of date; or (b) the counterparty is using assets which are ineligible owing to close links between the issuer/guarantor and the counterparty.

2. NON-FINANCIAL PENALTIES

The Eurosystem shall suspend a counterparty for infringements of rules related to tender operations and bilateral transactions, and of rules for underlying assets as set out below:

2.1 Suspension after infringements of rules related to tender operations and bilateral transactions

If a third infringement of the same type occurs within a 12-month period, the Eurosystem shall suspend counterparties from the subsequent open market operation(s) of the same type and executed under the same procedures, to be initiated during a certain period, in addition to a financial penalty calculated in accordance with the rules outlined in Section 1. The suspension shall be applied in accordance with the following scale:

- (a) if the amount of non-delivered collateral or cash is up to 40 % of the total collateral or cash to be delivered on the occasion of the third infringement, a suspension of one month shall be applied;
- (b) if the amount of non-delivered collateral or cash is between 40 % and 80 % of the total collateral or cash to be delivered on the occasion of the third infringement, a suspension of two months shall be applied; and
- (c) if the amount of non-delivered collateral or cash is between 80 % and 100 % of the total collateral or cash to be delivered on the occasion of the third infringement, a suspension of three months shall be applied.

These financial penalties and suspension measures shall also apply, without prejudice to Section 2.3, to any other successive infringement during each 12-month period.

2.2 Suspension after infringements of rules for underlying assets

If a third infringement occurs within a 12-month period, the Eurosystem shall suspend the counterparty from the subsequent open market operation, in addition to a financial penalty calculated in accordance with Section 1 above.

These financial penalties and suspension measures shall also apply, without prejudice to Section 2.3, to any other successive infringement during each 12-month period.

2.3 Suspension from access to all future monetary policy operations for a certain period in exceptional cases

In exceptional cases where required on account of the seriousness of the case(s) of non-compliance, and taking into account in particular the amounts involved, the frequency or the duration of the cases of non-compliance, consideration could be given, in addition to a financial penalty calculated in accordance with

Section 1 above, to the suspension of a counterparty from access to all future monetary policy operations for a period of three months.

2.4 Institutions located in other Member States

The Eurosystem may also decide whether the suspension measure proposed to be taken vis-à-vis the non-compliant counterparty should also apply to branches of the same institution located in other Member States.

CREATION OF A VALID SECURITY OVER CREDIT CLAIMS

In order to ensure that a valid security is created over credit claims and that the credit claims can be swiftly realised in the event of a counterparty default, the following additional legal requirements have to be met:

- *Verification of the existence of credit claims:* As a minimum, NCBs shall use the following measures to verify the existence of credit claims submitted to the Eurosystem as collateral: (i) self-certification and undertaking by the counterparty to the NCB, at least every quarter, with respect to the existence of the credit claims submitted as collateral, which could be replaced with cross-checks of information held in central credit registers, where these exist; (ii) one-off verification by NCBs, supervisors or external auditors of the procedures used by the counterparty to submit the information on the existence of credit claims to the Eurosystem; and (iii) random checks by the NCBs, relevant credit registers, supervisors or external auditors of the quality and accuracy of the self-certification.

The quarterly self-certification and undertaking under (i) above includes the requirement on Eurosystem counterparties to do the following in writing:

- confirm and warrant compliance of credit claims submitted to an NCB with the eligibility criteria applied by the Eurosystem;
- confirm and warrant that no credit claim submitted as an underlying asset is being simultaneously used as collateral to the benefit of any third party and undertake that the counterparty shall not mobilise any credit claim as collateral to any third party; and
- confirm and warrant to communicate to the relevant NCB immediately but no later than within the course of the next business day any event which materially affects the actual contractual relationship between the counterparty and the NCB in question, in particular early, partial or total repayments, downgrades and material changes in the conditions of the credit claim.

In order for such checks to take place as set out under (ii) and (iii) above (one-off verification and random checks), supervisors or, especially, NCBs or external auditors must be authorised to carry out this investigation, if necessary contractually or in accordance with the applicable national requirements.

- *Notification of the debtor about the mobilisation of the credit claim or registration of such mobilisation:* Regarding notification of the debtor about the mobilisation of the credit claim as collateral, taking into consideration the specific features of different jurisdictions involved, the following is required:

- a) In certain Member States where the notification of the debtor about the mobilisation of the credit claim as collateral is a precondition of valid mobilisation under national law, as specified by the applicable national documentation, ex ante notification of the debtor shall be a legal requirement for the eligibility of the credit claim. Ex ante notification of the debtor for eligibility purposes requires that the debtor be notified by the counterparty or the NCB (as specified by the applicable national documentation) about the credit claim being mobilised as collateral by the counterparty to the benefit of the NCB in advance or at the time of its actual mobilisation as collateral.
- b) In certain other Member States where registration with public effect of the mobilisation of the credit claim as collateral is a precondition for valid mobilisation or, in certain cases, a precondition for the priority of the credit claim under national law, as specified by the applicable national documentation, such registration shall be required in advance or at the time of its actual mobilisation as collateral.
- c) Finally, in Member States where ex ante notification of the debtor or registration with public effect of the mobilisation of the credit claim as collateral is not required in accordance with a) and b) above, as specified by applicable national documentation, ex post notification of the debtor is required. Ex post notification of the debtor requires that the debtor be notified by the counterparty or the NCB (as specified by the national documentation) about the credit claim being mobilised as collateral by the counterparty to the benefit of the NCB immediately following a credit event. ‘Credit event’ means default or similar events as further defined by the applicable national documentation.

There is no notification requirement in cases where the credit claims are bearer instruments for which applicable national law does not require notification. In such cases, there is a requirement to physically transfer such bearer instruments to the NCB in question in advance or at the time of its actual mobilisation as collateral.

The above are minimum requirements. NCBs may decide to require ex ante notification or registration in addition to the cases above, as specified by applicable national documentation.

- *Absence of restrictions related to banking secrecy and confidentiality:* The counterparty shall not be under the obligation to obtain the debtor’s approval for disclosure of information about the credit claim and the debtor that are required by the Eurosystem for the purpose of ensuring that a valid security is created over credit claims and that the credit claims can be swiftly realised in the event of a counterparty default. The counterparty and the debtor shall agree contractually that the debtor unconditionally consents to the disclosure of such details about the credit claim and the debtor to the Eurosystem. No such provision is necessary if there are no rules restricting the provision of such information under national law, as specified in the applicable national documentation.
- *Absence of restrictions on the mobilisation of the credit claim:* Counterparties shall ensure that credit claims are fully transferable and can be mobilised without restriction as collateral for the benefit of the Eurosystem. There should not be any restrictive stipulation regarding mobilisation in the credit

claim agreement or in other contractual arrangements between the counterparty and the debtor, unless national legislation specifically provides for the privileged position of the Eurosystem with respect to mobilisation of collateral, regardless of eventual contractual restrictions.

- *Absence of restrictions on the realisation of the credit claim:* The credit claim agreement or other contractual arrangements between the counterparty and the debtor should not contain any restrictions regarding the realisation of the credit claim used as collateral, including any form, time or other requirement with regard to realisation.

