



EUROPEAN CENTRAL BANK

EUROSYSTEM

June 2013

## Statistics on securities trading, clearing and settlement

### Methodological Note

#### A. Trading in securities exchanges

##### A1. Number of participants at the end of the year

A participant in a securities exchange is a legal entity that can submit (buy and sell) orders to the exchange on its own behalf or on behalf of its customers.

Domestic participants are those located in the same country as the securities exchange.

	Number of participants with access to the trading system		
		Domestic	Non-domestic
	1	2	3
<b>Total number of participants</b>			
<i>of which</i> Central banks			
<i>of which</i> Central clearing counterparties			
<i>of which</i> Credit institutions			
<i>of which</i> Others			

**A2. Number of listed securities at the end of the year**

The number of debt instruments and ‘other’ can be approximated with the number of ISIN<sup>1</sup> codes listed. In the case of equity, this refers to the number of listed companies (including investment funds) whose shares are listed on the stock market.

A company (investment fund) with several classes of shares is counted only once.

The distinction between domestic and non-domestic securities refers to the country of issue (rather than for example the country of residence of the issuer). Thus, a security that has been issued in the country of the securities exchange is considered domestic.

Depository receipts are considered domestic (equities).

	Total number of listed securities		
		Domestic	Non-domestic
	1	2	3
<b>Type of instrument</b>			
Debt instruments			
Equity			
<i>of which</i> investment fund shares/units			
Other (e.g. securitised derivatives)			

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<sup>1</sup> ISIN: International Securities Identification Number

**A3. Market capitalisation of listed companies at the end of the year**

Total market value of company, i.e. the total number of a company’s shares outstanding multiplied by the current market price per share. In this context, the market capitalisation of listed companies refers only to domestic equities and exclusive foreign listings. An exclusive listing means that the foreign shares listed at the respective exchange are not listed at any exchange in their home country.

If shares are listed on several exchanges they are only taken into account for the calculation of the market capitalisation on the exchange where the shares have been issued.

In case of exchanges that are part of a large international group (e.g. Euronext, OMX), all securities listed in one of the participating countries are included.

Investment fund shares/units are not included in the market capitalisation.

	<b>Total market capitalisation</b>
	1
Equity excluding investment fund shares/units	

#### A4. Executed trades

Each transaction is counted once, regardless of whether the transaction has been executed on an order-driven or on a quote-driven system.

Unsecuritised derivatives transactions and repo transactions are not included.

	Total number/value of executed trades		
	1	Electronic order book transactions	Negotiated deals
		2	3
<b>Type of instrument</b>			
Debt instruments			
Equity			
<i>of which</i> investment fund shares/units			
Other (e.g. securitised derivatives)			

## B. Clearing by central counterparties

A central clearing counterparty is an entity that interposes itself, in one or more markets, between the counterparties to the contracts traded, becoming the buyer to every seller and the seller to every buyer and thereby guaranteeing the performance of open contracts<sup>2</sup>.

### B1. Number of clearing members at the end of the year

Clearing members are broken down by central banks, CCPs, credit institutions, and other (types of institutions). They comprise the following types:

- individual or direct clearing members: CCP participants that are able to clear only their own obligations; and
- general clearing members: CCP participants that are able to clear their own obligations as well as those of clients/non-clearing members.

The number of clearing members refers to the last day of the year.

Domestic participants are those located in the same country as the CCP.

	Total number of clearing members			
	1	Domestic 2	Non-domestic EU 3	Non-domestic non-EU 4
<b>Type of institution</b>				
Central banks				
Central clearing counterparties				
Credit institutions				
Other				

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<sup>2</sup> Source of definition: ECB Glossary. <http://www.ecb.europa.eu/home/glossary/html/glosscc.en.html>

## B2. Non-OTC derivatives contracts cleared

The number and value of non-OTC derivatives contracts cleared are broken down by type of instrument<sup>3</sup> and payment (euro and other currencies). Non-OTC derivatives contracts are executed on a regulated market or multilateral trading facility (MTF). Derivative contracts executed or entered as pre-arranged trades on a regulated market or MTF are also included as non-OTC derivative contracts. Non-OTC derivative contracts are reported on a post-novation basis (rather than a pre-novation basis). When several contracts are traded in one transaction, the number of non-OTC derivatives contracts cleared refers to the number of individual contracts only.

Some CCPs may provide a guarantee that obligations from trades are being fulfilled, but do not interpose themselves between buyer and seller as long as buyer and seller are able to fulfil their obligations. These reporting institutions do not apply novation as a rule. Consequently, contracts are to be reported only once. If, however, one party involved fails to fulfil its obligations and the reporting institution interposes itself between buyer and seller to ensure that the other party is satisfied, then the original transaction is included twice (this applies also to repos and securities – see below) .

Transfers of underlying assets to fulfil obligations from open positions in derivatives on expiry of a derivatives contract are not counted as derivatives transactions.

	Total number/value of non-OTC derivatives contracts cleared		
	1	Payment denominated in EUR	Payment denominated in other currencies
		2	3
<b>Type of instrument</b>			
Financial futures			
Financial options			
Other financial derivatives			
Commodity futures			
Commodity options			
Other commodity derivatives			

<sup>3</sup> Financial futures, financial options, other financial derivatives, commodity futures, commodity options and other commodity derivatives.

### B3. OTC derivatives transactions cleared

The number and value of OTC derivatives contracts cleared are broken down by type of instrument<sup>4</sup> and payment (euro and other currencies). OTC derivatives transactions are not executed on a regulated market or multilateral trading facility (MTF). Derivative transactions executed or entered as pre-arranged trades on a regulated market or MTF are not reported as OTC derivative transactions (but as non-OTC derivatives contracts, see above).

	Total number/value of OTC derivatives transactions cleared		
	1	Payment denominated in EUR	Payment denominated in other currencies
		2	3
<b>Type of instrument</b>			
Financial futures			
Financial options			
Other financial derivatives			
Commodity futures			
Commodity options			
Other commodity derivatives			

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<sup>4</sup> Financial futures, financial options, other financial derivatives, commodity futures, commodity options and other commodity derivatives.

#### **B4. Repo transactions cleared**

The number and value of repo transactions cleared are broken down by type of instrument<sup>5</sup> and payment (euro and other currencies).

Each repo transaction is counted once, although this comprises two steps: the delivery of the underlying and the redelivery of the underlying.

For derivatives transactions, the numbers and values of repo transactions are reported on a post-novation basis.

	<b>Total number/value of repo transactions cleared</b>		
	1	Payment denominated in EUR	Payment denominated in other currencies
		2	3
<b>Type of instrument</b>			
Debt securities repos			
Equity repos			
Other repos			

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<sup>5</sup> Debt securities repos, equity repos and other repos.



## B5. Cash (outright) securities transactions cleared

The number and value of cash (outright) securities transactions cleared are broken down by type of instrument<sup>6</sup> and payment (euro and other currencies). In a cash (outright) securities transaction, securities are bought or sold outright in the market. Spot market securities transactions are considered as cash (outright) securities transactions. Transfers of underlying assets to fulfil obligations from open positions in derivatives on expiry of a derivatives contract are counted as cash (outright) securities transactions, if the underlying is a security. As for derivatives and repo transactions, numbers and values of outright securities transactions are reported on a post-novation basis.

	Total number/value of cash securities transactions cleared		
	1	Payment denominated in EUR	Payment denominated in other currencies
		2	3
<b>Type of instrument</b>			
Debt securities			
Equity			
<i>of which</i> investment fund shares			
Other securities			

<sup>6</sup> Debt securities, equity and other securities.

**B6. Contracts cleared through a clearing link**

The number and value of contracts/transactions cleared through a clearing link are broken down by type of instrument.<sup>7</sup> So, the contracts/transactions in this item are contained in the previous items.

A contract/transaction is cleared through a clearing link between two CCPs, e.g. CCP 1 and CCP 2, when the buying clearing member is clearing member of CCP 1 and the selling clearing member is clearing member of CCP 2. CCP 1 interposes itself between the buyer and CCP 2 (buys from CCP 2 and sells to the buyer). CCP 2 interposes itself between the seller and CCP 1 (buys from the seller and sells to CCP 1).

Note that in the novation process the transaction between the buyer and the seller is transformed into three transactions: one between the buyer and CCP 1, one between CCP 1 and CCP 2 and one between CCP 2 and the seller.

For other derivatives, repo and (cash) outright contracts/transactions, reporting is done (by each involved) CCP on a post-novation basis. However, each CCP reports only those transactions in which it is involved.

	<i>Of which: number/value of contracts cleared through a clearing link</i>
	1
<b>Type of instrument</b>	
Financial derivatives contracts	
Commodity derivatives contracts	
Repo transactions	
Cash (outright) securities transactions	

<sup>7</sup> Financial derivatives contracts, commodity derivatives contracts, repo transactions, and cash (outright) securities transactions.

## B7. Securities transfers

The number and value of contracts/transactions cleared through a clearing link are broken down by type of instrument and payment.

A securities transfer refers to a movement of securities from one account to another. Only securities transfers that result directly from the clearing by novation of derivative, repo or securities transactions are counted. Transfers from a clearing member to the CCP or from the CCP to a clearing member are counted only if the securities are transferred as collateral. Transfers from one clearing member to another clearing member without an operational involvement of an account of the CCP are only counted if the CCP legally interposes itself between buyer and seller.

Transfers for rebalancing purposes are not counted, e.g. from one account of the reporting CCP (for example with a CSD 1) to another account of the reporting CCP (for example with another CSD 2). Securities transfers to fulfil obligations from open positions in derivatives at expiration of a contract are counted (transfers from a clearing member to the CCP or vice versa).

	<b>Total number/value of securities transfers from one account (with CSD x) to another account (with CSD x)</b>						
	1	Securities transfers from an account of the reporting CCP to an account of a clearing member or vice versa			Securities transfers from the account of one clearing member directly to the account of another clearing member (no account of the CCP involved)		
		Free of payment	Payment in EUR	Payment in other currency	Free of payment	Payment in EUR	Payment in other currency
	2	3	4	5	6	7	
<b>Type of instrument</b>							
Debt securities							
Equity							
Other securities							

## C. Settlement in central securities depositories

A central securities depository (CSD) is an entity that: 1) enables securities transactions to be processed and settled by book entry; 2) provides custodial services (e.g. the administration of corporate actions and redemptions); and 3) plays an active role in ensuring the integrity of securities issues. Securities can be held in a physical (but immobilised) form or in a dematerialised form (whereby they exist only as electronic records).

A securities settlement system (SSS) is a system which allows the transfer of securities, either free of payment (FOP) or against payment (delivery versus payment).

### C1. Number of direct participants at the end of the year

Direct participants are direct account holders in a tiered system and account operators in case of non-tiered systems. If in a non-tiered system private investors have two types of accounts – holding accounts and trading accounts – and only the trading accounts are operated by an account operator (as, for example, in Cyprus or Slovakia), the number of direct participants is the number of trading account operators. Domestic participants are those located in the same country as the CSD.

	Direct participants		
	Total	Domestic	Non-domestic
	1	2	3
<b>Type of institution</b>			
1.11 Central banks			
1.12. Central Counterparties (CCPs)			
1.13 Central securities depositories (CSDs)			
1.14 Credit institutions			
1.15 Other			

**C2. Securities held on accounts with the reporting CSD at the end of the year**

Securities held on accounts with the reporting CSD comprise those issued or safe-kept in the reporting CSD, or transferred into the CSD through a link.

A security may be issued or safe-kept in a CSD in paper form and, later, some units of this security may be physically removed from the CSD and transferred, for example, to the owners; those units are not considered to be securities held on accounts with the reporting CSD.

	<b>Value of securities held on accounts with the reporting CSD by source</b>				
	1	Issued or safe-kept in the reporting CSD 2	Transferred into the reporting CSD through a (direct) link to		
			Total 3	Another CSD 4	A custodian bank 5
<b>Type of instrument</b>					
Bonds					
Short-term paper					
Equity					
Other					

	<b>Value of securities held on accounts with the reporting CSD by use</b>		
	Held on an account of:		
	6	another CSD 7	Other participants (e.g. credit institutions, brokers, dealers, central banks, CCPs) 8
<b>Type of instrument</b>			
Bonds			
Short-term paper			
Equity			
Other			

### C3. Delivery instructions

Delivery instructions cover all instructions to move securities between accounts.

Those instructions where one of the accounts involved is the account of a CCP are identified as “of which”.

Trades cleared by a CCP relate to delivery instructions on a post-netting basis.

Delivery instructions include instructions to block (and de-block) securities for collateralisation purposes on a borrowers’ securities account with the CSD, as well as securities movements owing to automatic securities lending or automatic collateralisation (including self-collateralisation).

If there is segregation on a participant’s account with the CSD, delivery instructions to move securities from the participant’s own account to his omnibus account and vice versa are included.

Similarly, if in a non-tiered system (like Finland), securities are transferred from one account to another and both accounts have the same account operator, delivery instructions related to these transactions are included.

An instruction to transfer two (or more) different securities is included as two (or more) instructions.

Delivery instructions for the settlement of transactions between two clearing members of the CCP and also delivery instructions to transfer collateral from a clearing member to the CCP and back are included.

	Total number/value of delivery instructions processed									
	Total	Internal transfer: transfer from one account with the reporting CSD to another account with the reporting CSD, neither of them being a link account of another CSD			Internal transfer: transfer from one account with the reporting CSD to another account with the reporting CSD, at least one of them is a link account of another CSD			Transfer through an account of the reporting CSD with (link of the reporting CSD to) another entity (i.e. only one account with the reporting CSD is credited or debited)		
		Free of payment	Payment in EUR	Payment in other currencies	Free of payment	Payment in EUR	Payment in other currencies	Free of payment	Payment in EUR	Payment in other currencies
	1	2	3	4	5	6	7	8	9	10
<b>Type of instrument</b>										
Bonds										
Short-term paper										
Equity										
Other										

	Of which: number/value of delivery instructions processed on an account of a CCP with the CSD									
	Total	Internal transfer: transfer from one account with the reporting CSD to another account with the reporting CSD, neither of them being a link account of another CSD			Internal transfer: transfer from one account with the reporting CSD to another account with the reporting CSD, where at least one of them is a link account of another CSD			Transfer through an account of the reporting CSD with (link of the reporting CSD to) another entity (i.e. only one account with the reporting CSD is credited or debited)		
		Free of payment	Payment in EUR	Payment in other currencies	Free of payment	Payment in EUR	Payment in other currencies	Free of payment	Payment in EUR	Payment in other currencies
1	2	3	4	5	6	7	8	9	10	
<b>Type of instrument</b>										
Bonds										
Short-term paper										
Equity										
Other										

#### C4. New issues and redemptions

The new issues correspond to the new ISIN codes of securities issued or safe-kept in the reporting CSD.

Redemptions correspond to the ISIN codes of securities issued or safe-kept in the reporting CSD that are deleted.

New or deleted ISIN codes of stripped securities are not considered.

	Number of new issues and redemptions		
	Total	Number of new issues	Number of redemptions
	1	2	3
<b>Type of instrument</b>			
Bonds			
Short-term paper			
Equity			
<i>of which investment fund shares/units</i>			
Other			



## **Annex 1: Valuation of transactions**

### **Derivatives transactions**

Derivatives transactions are valued at the market value of the underlying. In the case of option contracts, the exercise (strike) price of the underlying is used as the value of the contract (rather than the actual premium of the option to be paid by the option buyer). In the case of futures contracts, the market value of the underlying at the time of transaction or – for futures with notional underlying – the market price of the futures contract at the time of the transaction is used.

### **Repo transactions**

Each repo transaction is valued at the amount of money borrowed through it. The value excludes the interest to be paid by the borrower.

### **Securities transactions**

Transactions in securities, i.e. debt instruments and equity securities are valued at transaction values. In the case that free-of-payment transactions are cleared, the market value of the securities is used. In cases where market values are not available, the latest available price is used.

### **Transactions denominated in a currency other than the reporting currency**

The values of cleared contracts/transactions denominated in a currency other than the reporting currency, are converted to the reporting currency, taking the exchange rate on the day when the transaction takes place.