



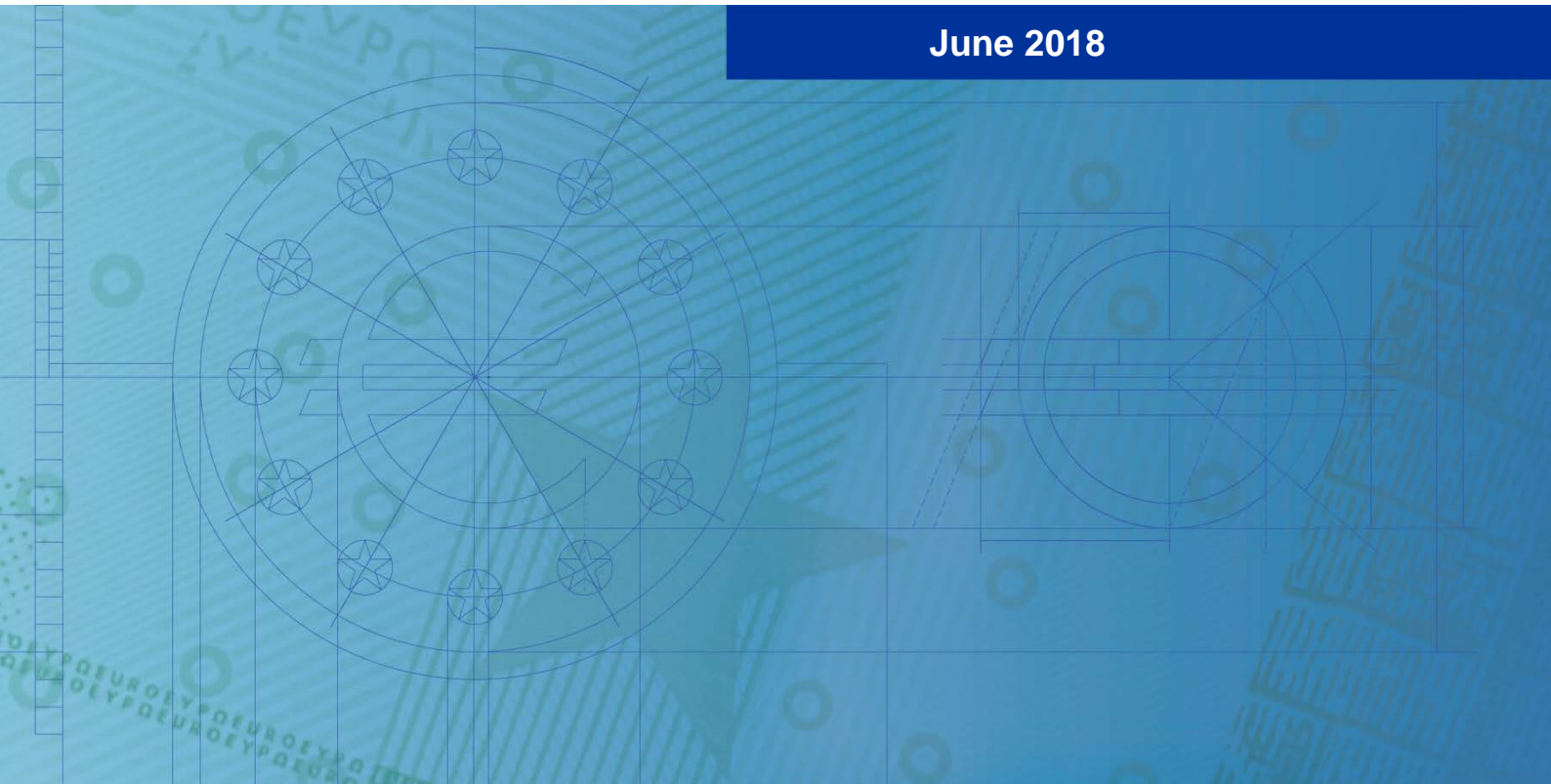
EUROPEAN CENTRAL BANK

EUROSYSTEM

# Securities trading, clearing and settlement statistics

For data reference period up to 2017

June 2018



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# Methodological notes

## 1 Trading in securities exchanges

### 1.1 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
Total number of participants			
of which Central banks			
of which Central clearing counterparties			
of which Credit institutions			
of which Others			

### 1.2 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).

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

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

### 1.3 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.

	Total market capitalisation
	1
Equity excluding investment fund shares/units	

### 1.4 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
Type of instrument			
Debt instruments			
Equity			
of which investment fund shares/units			
Other (e.g. securitised derivatives)			

## 2 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>.

### 2.1 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.

<sup>2</sup> Source of definition: [ECB Glossary](#).

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

## 2.2 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.

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

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

## 2.3 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
Type of instrument			
Financial futures			
Financial options			
Other financial derivatives			
Commodity futures			
Commodity options			
Other commodity derivatives			

## 2.4 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.

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

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

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

## 2.5 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
Type of instrument			
Debt securities			
Equity			
of which investment fund shares			
Other securities			

## 2.6 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

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

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



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
Type of instrument	
Financial derivatives contracts	
Commodity derivatives contracts	
Repo transactions	
Cash (outright) securities transactions	

## 2.7 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).

	Total number/value of securities transfers from one account (with CSD x) to another account (with CSD x)						
	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	
Type of instrument							
Debt securities							
Equity							
Other securities							

### 3 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).

#### 3.1 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
Type of institution			
1.11 Central banks			
1.12. Central Counterparties (CCPs)			
1.13 Central securities depositories (CSDs)			
1.14 Credit institutions			
1.15 Other			

### 3.2 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.

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

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

### 3.3 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
Type of instrument										
Bonds										
Short-term paper										
Equity										
Other										

### 3.4 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
Type of instrument			
Bonds			
Short-term paper			
Equity			
of which investment fund shares/units			
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.

# Compilation notes

## 1 Notes for data on Securities Exchanges (SEE)

Source of data for the following securities exchanges is the Federation of European Stock Exchanges (FESE):

Irish Stock Exchange, Athens Stock Exchange (Greece), BME Spanish Exchanges, Cyprus Stock Exchange, Société de la Bourse de Luxembourg, Malta Stock Exchange, CEESEG – Vienna (Austria), CEESEG – Ljubljana (Slovenia), Prague Stock Exchange (Czech Republic), Budapest Stock Exchange (Hungary), Gielda Papierow Wartosciowych w. Warszawie (Poland), Bursa de Valori Bucuresti (Romania), NYSE Euronext and NASDAQ OMX Nordic.

As of 2015, Bratislava Stock Exchange is no longer a member of FESE. As a result, as of reference period 2015, data for Bratislava Stock Exchange is reported by the National Bank of Slovakia.

As of July 2016, Ljubljana Stock Exchange is no longer a member of FESE. As a result, for reference period 2016 and 2017, a subset of the SEE data for Ljubljana Stock Exchange was reported by the National Bank of Slovenia.

As of 2017, Bulgarian Stock Exchange is no longer a member of FESE. As a result, for reference period 2017, the SEE data for Bulgarian Stock Exchange was reported by the National Bank of Bulgaria.

Furthermore, when it comes to FESE data collection, FESE has attempted to collect that on a more granular level. Several data providers (i.e. stock exchanges) have not yet fully implemented the increased granularity in their reporting schemes for 2017, and as a result some data is unavailable for 2017. Aggregates were created by summing up all the available data and not taking into account missing data. For example, if three values are necessary to create an aggregate but only 2 of the values are available, the total is created using only the two available values. This approach has been taken for calculating the quantity of listed (domestic and non-domestic) debt securities as well as for any items including debt securities (i.e. total listed securities).

Data for the London Stock Exchange is reported directly by the organisation itself.

All other SEE data are reported by the National Central Banks of the country in which the system(s) is(are) located.

Time series on securities exchanges are identified with the first dimension code of "SEE".

- At the moment data for the **Zagreb Stock Exchange (Croatia)** is not planned for inclusion.

- **Fonds des Rentes (Belgium):** On 31 March 2012, the Fonds des Rentes (Securities Regulation Fund) registered in Brussels, ceased to operate.
- **Deutsche Börse AG (Germany):** On 23 May 2011, Frankfurt Floor Trading was transferred to Xetra, the state-of-the-art and international established trading platform of Deutsche Börse AG. The trading venue “Frankfurt” is named “Xetra Frankfurt Specialist”. As of 31 December, 2017, the Eurex Bond GmbH has terminated its business operations.
- **BME (Spanish Exchanges):** Bolsas y Mercados Españoles (BME) is the company that manages the main official secondary markets (regulated markets) in Spain, and other multilateral electronic trading systems. BME is made up of, amongst others, the Madrid, Barcelona, Bilbao and Valencia stock exchanges.
- **TLX S.p.A. (Italy):** On 1 January 2010, the TLX S.p.A, registered in Italy, ceased to operate as a regulated market.
- **Euronext Amsterdam Cash Market (The Netherlands):** Euronext Amsterdam Cash Market reports the data on the securities exchange on Euronext Amsterdam NV. The information of number of participants to Euronext Amsterdam is not collected since the data would include information on the total number of participants to the whole Euronext group and not only to Euronext Amsterdam diminishing the relevance.
- **RM-SYSTEM Czech stock exchange (Czech Republic):** The number of participants declined from 2007 to 2008 as a consequence of an off-market exchange becoming a full stock exchange at the beginning of December 2008.
- **BondSpot S.A. (Poland):** As from 1 August 2013 BondSpot Regulated Market formally operates trading solely in debt instruments.
- **MTI Wholesale Market (Italy):** As from 31 December 2016 the MTI Wholesale Market, registered in Italy, is no longer active.

## 2 Notes for data on Central Clearing Counterparties (CCP)

Data for Nasdaq OMX DM are reported by NASDAQ OMX directly.

All other CCP data are reported by the National Central Banks of the country in which the system(s) is(are) located.

Time series on central clearing counterparties are identified with the first dimension code of “CCP”.

- **Central Counterparty Austria (Austria):** Trading on the non-OTC derivatives market has fallen sharply in 2013, because options and futures products were delisted as a preparation for the market shutdown. From 21/03/2014 trading of non-OTC derivatives has been completely stopped.



- **BME Clearing (Spain):** In October 2012, “MEFF Sociedad Rectora de Productos Derivados, S.A.U.” (MEFF), which cleared derivatives contracts, was authorised to perform the central counterparty activities for fixed income securities (activity carried out by MEFFCLEAR until that moment). As a consequence, MEFFCLEAR was taken over, and MEFF became the CCP for derivatives and fixed income securities (repo transactions).
- In September 2013, and in order to meet the requirements of the European Market Infrastructure Regulation, MEFF split up into two companies. A new company, called “MEFF Sociedad Rectora del Mercado de Productos Derivados” (MEFF Exchange) in charge of the derivatives trading activities was created, while “BME Clearing” assumed the entire activity of MEFF, providing clearing and settlement services.
- **European Central Counterparty N.V. (The Netherlands):** Previously known as European Multilateral Clearing Facility (EMCF). As from the end of 2013, EMCF and EuroCCP combined their strengths. The name of the new combined company is EuroCCP N.V. For the indicators on the “Number- and Value of securities transfers for settlement of cleared transactions”, the “totals” include transactions of the EuroCCP with the non-EU counterpart central securities depositories of Switzerland (SIX SIS) and Norway (VPS).
- **ICE Clear Netherlands (The Netherlands):** ICE Clear Netherlands is a central counterparty for derivatives. Previously named Holland Clearing House. As from May 2017, the ICE Clear Netherlands is no longer providing clearing services for the Dutch market.
- **KDPW\_CCP S.A. (Poland):** Since April 2014, KDPW\_CCP has been authorised under EMIR as a clearing house and central counterparty for trades concluded on the regulated and OTC market. In the same year netting was introduced. In the middle of 2015, KDPW\_CCP’s clearing members started to send OTC trades (i.e. FRA, IRS, OIS and basis swaps) for clearing in KDPW\_CCP. At the end of 2015, the first foreign investment company became our clearing member on the regulated market. As of 9 August 2016 the Polish Financial Supervision Authority has extended the authorisation of the clearing house KDPW\_CCP to clear EUR-denominated instruments in regulated and OTC markets. The extended authorisation of the clearing house allows it to accept collateral in EUR, including both cash and bonds.
- **Casa Romana de Compensatie SA (RCH) (Romania):** Romanian Clearing House (RCH) acted as central counterparty for financial, equity and commodities derivatives contracts traded at SIBEX Sibiu Stock Exchange, Romania. Romanian Clearing House was established in 1998, has been authorised as a CCP by the Romanian regulatory authority (i.e. the Romanian National Securities Commission) in 2005. Casa Romana de Compensatie ceased its activity at the end of 2014 and the transactions in derivatives concluded on SIBEX Sibiu Stock Exchange are now cleared by the Athens Exchange Clearing House – Athex Clear.

- **Casa de Compensare Bucuresti SA (CCB) (Romania):** Bucharest Clearing House (CCB) is authorised as a clearing house and central counterparty. Since 14 September 2007, it performs specific activities under the oversight of the Romanian Securities Commission. CCB is owned by (with a share of 52.5%) the Bucharest Stock Exchange (BVB). The CCB role is to perform the registration, guarantee, clearing and settlement of transactions involving financial derivatives (FD), concluded on the Bucharest Stock Exchange Derivatives Market, using an integrated platform with the trading system, thus offering one single point of access for the participants. CCB ensures the adequate carrying out of operations mentioned in the previous paragraph, by performing the functions of clearing house and central counterparty as well as administrating risks to which is exposed by means of using specific mechanisms, techniques and instruments. Case de Compensare Bucuresti SA has been inactive since 2014. As of 2016, the Financial Supervisory Authority in Romania withdrew the authorisation of CCB.
- **Nasdaq OMX DM (Sweden):** Repo transactions were reported for the first time, from 2013.
- **LME Clear (United Kingdom):** LME Clear is the clearing house of the London Metal Exchange. It was launched in September 2014.
- **CME CE (United Kingdom):** Launched in May 2011, CME Clearing Europe (CMECE) is a London-based clearing house which operates in an English law and European regulatory environment. As from October 2017, the CME Clearing Europe is no longer providing clearing services.
- **OMIClear (Portugal):** OMIClear runs the Iberian energy clearing house, central counterparty and settlement system, since July 2006, having obtained the re-authorization to operate as a CCP under EMIR in October 2014. Currently, OMIClear's main focus is on the clearing of Spanish, Portuguese, French and German power financial derivatives, exchange traded as well as bilaterally registered (OTC) at OMIP for several types of instruments: futures, swaps, forwards, options and Financial Transmissions Rights, covering multiple maturities and profiles (baseload, peakload and solar), with financial or physical delivery.

### 3 Notes for data on Centralised Securities Depositories (SST)

Data for Euroclear Sweden is reported directly by the organisation itself.

All other data are reported by the National Central Banks of the country in which the system(s) is(are) located.

Time series on centralised securities depositories are identified with the first dimension code of "SST".

- Data for the **Central Depository and Clearing Company Inc. (Središnje klirinško depozitarno društvo) (Croatia)** is not yet planned for inclusion.
- **Euroclear Belgium:** In January 2009, the platform ESES (Euroclear Settlement of Euronext-zone Securities) was launched in Belgium.
- **Euroclear France:** The figures since 2007 are based on a new methodology related to the implementation of the single platform ESES (Euroclear Settlement of Euronext-zone securities), launched in November 2007 in France. This may trigger a break in series when comparing the figures with those from previous years.
- **Monte Titoli (Italy):** Delivery instructions do not include corporate actions, deposits and withdrawals on securities, money transfers and roll over transactions.
- **Euroclear Netherlands:** Until 2009, bonds include short-term papers. As from 2009 bonds exclude short-term papers. In January 2009, the platform ESES (Euroclear Settlement of Euronext-zone Securities) was launched in The Netherlands.
- **OeKB (WSB SYSTEM)(Austria):** 'Number of direct participants': the domestic central securities depository (CSD) that participates in OeKB is OeKB itself.
- **Euroclear Finland:** Number of direct participants': Euroclear Finland's link participants are CSDs (free-of-payment links). 'Value of securities held in central securities depositories': Warrants and exchange-traded funds are included in "Equity" in 2004, and "Other" in 2005 and 2006.
- **SKD, RM-SYSTEM, SCP and CDCP (Czech Republic):** The CSD (CDCP) started its operations in the Czech Republic in 2010. Commonly with the SKD, which is a Securities Settlement System (SSS) and register for short-term securities run by Česká národní banka, they fulfil a role of institutions in the Czech Republic which fully carries out the functions of a CSD. The Securities Centre (SCP) stopped its activities in 2010 and at the same time the Central Securities Depository (CDCP, former UNIVYC) took over the records`
- **Regional SSSs (Spain): Bolsas y Mercados Españoles ("BME") decided to integrate all the services related to central securities depositories provided by the regional Securities Settlement Systems in the Sociedad de Gestión de los Sistemas de Registro, Compensación y Liquidación de Valores, S.A. ("IBERCLEAR").** Therefore, SCL Valencia, SCL Bilbao and SCL Barcelona transferred all their securities positions to IBERCLEAR on January 2016, September 2016 and December 2016 respectively and do no longer provide SSS services.

- **SC Depozitarul Sibex SA (Romania):** As of 2017, the SC Depozitarul Sibex SA is no longer active.
- **ECSD (Estonia):** Since 17 September 2017, the ECSD is no longer providing services.
- **Nasdaq CSD SE Estonian Securities Settlement System:** On 18 September 2017, the Nasdaq CSD SE Estonian SSS started operating.
- **LCD-DENOS (Latvia):** Since 17 September 2017, the LCD-DENOS is no longer providing services.
- **Nasdaq CSD SE Latvian Securities Settlement System:** On 18 September 2017, the Nasdaq CSD SE Latvian SSS started operating.
- **CSLD (Lithuania):** Since 17 September 2017, the CSLD is no longer providing services.
- **Nasdaq CSD SE Lithuanian Securities Settlement System:** On 18 September 2017, the Nasdaq CSD SE Lithuanian SSS started operating.

## Comparative tables

## Securities Exchange Statistics

	Number of participants		Number of executed trades (in thousands of transactions)		Value of executed trades (in millions of euro)	
	2016	2017	2016	2017	2016	2017
<b>Euro area countries</b>						
<b>Belgium</b>						
Euronext Brussels SA	205	-	19,222	-	121,110	-
<b>Germany</b>						
Deutsche Börse AG <sup>3)</sup>	195	170	147,361	150,140	1,508,352	1,565,929
<b>Ireland</b>						
Irish Stock Exchange Ltd	20	21	3,344	3,326	147,427	135,059
<b>Greece</b>						
Athens Stock Exchange	54	52	4,695	4,389	15,718	14,820
Bank of Greece	24	23	1	0	519	555
<b>Spain</b>						
Mercados de Deuda Pública en Anotaciones	99	43	506	515	5,643,749	7,769,543
BME (Spanish Exchanges)	87	57	54,904	51,393	6,639,026	6,685,717
<b>France</b>						
NYSE Euronext Paris	146	147	142,006	145,383	1,150,388	1,187,723
<b>Italy</b>						
Borsa Italiana SpA	117	104	87,194	80,273	974,030	953,148
MTI Wholesale Market (government securities)	73	55	216	213	1,384,746	1,215,566
MTI BONDVISION	376	189	145	156	923,718	979,151
MTI Wholesale Market (corporate and intl organisations' bonds) <sup>*)</sup>	-	-	0	-	0	-
<b>Cyprus</b>						
Cyprus Stock Exchange	19	15	35	29	587	170
<b>Luxembourg</b>						
Société de la Bourse de Luxembourg SA	28	26	16	16	200	198
<b>Malta</b>						
Malta Stock Exchange	17	17	34	31	688	572
<b>The Netherlands</b>						
Euronext Amsterdam Cash Market	-	-	62,121	69,387	513,434	586,606
<b>Austria</b>						
CEESEG - Vienna	79	79	6,655	6,793	28,350	33,768
<b>Portugal</b>						
Euronext Lisbon SA	100	94	5,343	5,446	22,273	25,874
<b>Slovenia</b>						
CEESEG - Ljubljana	14	14	85	50	334	347
<b>Slovakia</b>						
Bratislava Stock Exchange	15	14	8	7	7,193	7,240
<b>Non-euro area countries</b>						
<b>Bulgaria</b>						
Bulgarian Stock Exchange	52	51	57	78	685	963
<b>Czech Republic</b>						
Prague Stock Exchange	21	19	901	782	6,371	5,519
RM-SYSTEM Czech Stock Exchange	17	15	219	178	258	241
<b>Hungary</b>						
Budapest Stock Exchange	19	19	1,622	1,941	7,965	9,790
<b>Poland</b>						
Gielda Papierow Wartosciowych w Warszawie	52	53	18,656	21,095	49,091	64,023
BondSpot S.A.	15	14	0	0	135	56
<b>Romania</b>						
Bursa de Valori Bucuresti	38	37	901	947	2,180	2,459
<b>United Kingdom</b>						
London Stock Exchange Ltd	354	338	266,708	288,909	10,750,110	12,133,633
<i>NYSE Euronext<sup>1)</sup></i>	-	-	229,132	240,481	2,567,883	2,621,303
<i>NASDAQ OMX Nordic &amp; Baltics<sup>2)</sup></i>	306	116	120,670	140,751	2,329,966	2,346,368

1) Includes the exchanges in Brussels, Paris, Amsterdam, Lisbon and London.

2) Includes the exchanges in Helsinki, Copenhagen, Tallinn, Riga, Vilnius, Stockholm and Reykjavik.

3) The system was closed during year 2017.

\*) The system was closed.

## Securities clearing statistics

### 1 Number of participants in central counterparty clearing

	2013	2014	2015	2016	2017
<b>Euro area countries</b>					
EUREX Clearing AG ( <i>Germany</i> )	175	183	186	195	190
Hellenic Exchanges Holdings SA ( <i>Greece</i> )	22	27	25	24	19
BME Clearing ( <i>Spain</i> )	57	58	60	65	65
LCH.Clearnet SA ( <i>France</i> )	109	110	110	100	99
CC&G ( <i>Italy</i> )	83	81	82	87	86
European Central Counterparty N.V. ( <i>The Netherlands</i> )	49	48	45	43	44
ICE Clear Netherlands ( <i>The Netherlands</i> ) *)	-	2	3	4	-
CCP ( <i>Austria</i> )	67	57	53	50	49
OMIClear - C.C., S.A ( <i>Portugal</i> )	-	-	-	14	14
<b>Non-euro area countries</b>					
KELER CCP Zrt. ( <i>Hungary</i> )	31	29	25	21	21
KDPW_CCP S.A. ( <i>Poland</i> )	38	38	43	38	37
Casa Romana de Compensatie SA ( <i>Romania</i> ) *)	17	0	-	-	-
Casa de Compensare Bucuresti SA ( <i>Romania</i> ) *)	19	0	0	-	-
Nasdaq OMX DM ( <i>Sweden</i> )	93	97	92	92	88
LCH.Clearnet Ltd ( <i>United Kingdom</i> )	165	161	154	158	157
ICE Clear Europe ( <i>United Kingdom</i> )	81	80	73	78	80
CME CE ( <i>United Kingdom</i> ) *)	-	-	19	17	-
LME Clear Limited( <i>United Kingdom</i> )	-	42	42	44	46

\*) The system was closed.

## 2 Number of cash (outright) securities transactions cleared through central counterparty clearing (in thousands)

	2013	2014	2015	2016	2017
<b>Euro area countries</b>					
EUREX Clearing AG ( <i>Germany</i> )	224,052	188,019	236,147	233,987	246,942
Hellenic Exchanges Holdings SA ( <i>Greece</i> )	1	1	1	1	1
BME Clearing ( <i>Spain</i> )	-	-	-	69,734	101,961
LCH.Clearnet SA ( <i>France</i> )	358,556	392,147	482,870	467,723	488,400
transactions cleared in France	225,547	249,584	302,759	291,495	296,929
transactions cleared in Belgium	28,391	29,548	39,415	38,766	39,581
transactions cleared in Germany	-	-	-	-	-
transactions cleared in Spain	-	-	-	6	5
transactions cleared in Italy	324	506	384	388	368
transactions cleared in Luxembourg	37	44	34	29	31
transactions cleared in the Netherlands	93,146	96,748	126,905	126,240	140,337
transactions cleared in Portugal	10,922	15,520	13,207	10,693	11,068
transactions cleared in the United Kingdom	178	184	156	106	82
CC&G ( <i>Italy</i> )	132,266	150,858	163,053	170,417	156,344
European Central Counterparty N.V. ( <i>The Netherlands</i> )	673,352	1,267,535	1,738,966	1,960,011	1,633,387
transactions cleared in The Netherlands	882	845	41	-	-
transactions cleared in Germany	4,040	890	1,198	3,504	1,683
transactions cleared in Sweden	140,128	155,179	199,765	214,529	233,086
transactions cleared in the United Kingdom	528,024	1,110,573	1,537,594	1,723,652	1,377,817
transactions cleared in Norway	59	49	369	1,749	327
transactions cleared in Hungary	217	-	-	-	-
ICE Clear Netherlands( <i>The Netherlands</i> ) *)	-	4	5	4	-
CCP ( <i>Austria</i> )	7,849	9,341	12,296	13,307	13,589
OMIClear - C.C., S.A ( <i>Portugal</i> )	-	-	-	-	-
<b>Non-euro area countries</b>					
KELER CCP Zrt. ( <i>Hungary</i> )	1,541	1,380	1,552	1,640	1,957
KDPW_CCP S.A. ( <i>Poland</i> )	13,814	13,983	17,808	18,657	21,095
Casa Romana de Compensatie SA ( <i>Romania</i> ) *)	0	0	-	-	-
Casa de Compensare Bucuresti SA ( <i>Romania</i> ) *)	0	0	0	-	-
Nasdaq OMX DM ( <i>Sweden</i> )	-	-	-	-	-
LCH.Clearnet Ltd ( <i>United Kingdom</i> )	173,494	-	717,566	925,578	1,122,757
ICE Clear Europe ( <i>United Kingdom</i> )	0	0	0	0	0

\*) The system was closed.



### 3 Value of cash (outright) securities transactions cleared through central counterpart clearing (in billions of euro)

	2013	2014	2015	2016	2017
<b>Euro area countries</b>					
EUREX Clearing AG ( <i>Germany</i> )	2,543	3,003	3,757	3,097	3,088
Hellenic Exchanges Holdings SA ( <i>Greece</i> )	0	0	0	0	0
BME Clearing ( <i>Spain</i> )	-	-	-	762	1,295
LCH.Clearnet SA ( <i>France</i> )	5,317	7,143	7,385	6,894	6,608
transactions cleared in France	2,072	2,377	2,974	2,465	2,653
transactions cleared in Belgium	171	181	260	238	213
transactions cleared in Germany	-	-	-	-	-
transactions cleared in Spain	-	-	-	26	18
transactions cleared in Italy	1,717	2,910	2,380	2,648	2,200
transactions cleared in Luxembourg	1	1	0	0	0
transactions cleared in the Netherlands	784	908	1,159	1,020	1,155
transactions cleared in Portugal	57	78	56	44	47
transactions cleared in the United Kingdom	495	654	526	453	321
CC&G ( <i>Italy</i> )	2,719	3,663	3,764	3,422	3,173
European Central Counterparty N.V. ( <i>The Netherlands</i> )	3,731	7,039	10,877	10,684	9,969
transactions cleared in The Netherlands	5	7	0	-	-
transactions cleared in Germany	20	4	9	17	9
transactions cleared in Sweden	1,012	1,148	1,433	1,323	1,340
transactions cleared in the United Kingdom	2,693	5,879	9,433	9,127	8,164
transactions cleared in Norway	0	0	1	4	1
transactions cleared in Hungary	1	-	-	-	-
ICE Clear Netherlands ( <i>The Netherlands</i> ) *)	-	1	2	1	-
CCP ( <i>Austria</i> )	40	49	59	57	68
OMIClear - C.C., S.A ( <i>Portugal</i> )	-	-	-	-	-
<b>Non-euro area countries</b>					
KELER CCP Zrt. ( <i>Hungary</i> )	10	8	8	8	10
KDPW_CCP S.A. ( <i>Poland</i> )	63	50	50	45	57
Casa Romana de Compensatie SA ( <i>Romania</i> ) *)	0	0	-	-	-
Casa de Compensare Bucuresti SA ( <i>Romania</i> ) *)	0	0	0	-	-
Nasdaq OMX DM ( <i>Sweden</i> )	-	-	-	-	-
LCH.Clearnet Ltd ( <i>United Kingdom</i> )	-	-	2,623	3,368	13,376
ICE Clear Europe ( <i>United Kingdom</i> )	0	0	0	0	0

\*) The system was closed.

## Securities settlement statistics

### 1 Number of participants in central securities depositories (end of period)

	2013	2014	2015	2016	2017
<b>Euro area countries</b>					
<b>Belgium</b>					
NBB SSS	84	99	69	66	-
Euroclear Belgium	76	78	77	74	-
Euroclear Bank	1,474	1,539	1,602	1,617	-
<b>Germany</b>					
Clearstream Banking AG	359	298	288	270	302
<b>Estonia</b>					
ECSD <sup>1)</sup>	16	16	16	16	16
Nasdaq CSD SE Estonian Securities Settlement System	-	-	-	-	19
<b>Greece</b>					
BOGS	77	74	40	39	38
Hellenic Exchanges (HELEX)	70	59	62	61	43
<b>Spain</b>					
Iberclear	150	138	128	132	93
Regional SSSs <sup>*)</sup>	49	50	44	34	-
<b>France</b>					
Euroclear France	157	152	147	137	139
<b>Italy</b>					
Monte Titoli	233	224	183	184	184
<b>Cyprus</b>					
CDCR	35	37	33	35	36
<b>Latvia</b>					
LCD-DENOS <sup>1)</sup>	21	21	21	21	21
Nasdaq CSD SE Latvian Securities Settlement System	-	-	-	-	26
<b>Lithuania</b>					
CSDL <sup>1)</sup>	22	21	22	21	19
Nasdaq CSD SE Lithuanian Securities Settlement System	-	-	-	-	22
<b>Luxembourg</b>					
Clearstream Banking Luxembourg	1,300	1,371	1,421	1,334	1,043
VP Lux	15	16	16	16	14
LUX CSD	12	12	15	14	15
<b>Malta</b>					
MSE	14	14	14	17	17
<b>Netherlands</b>					
Euroclear Netherlands	69	71	69	69	69
<b>Austria</b>					
OEKB (WSB SYSTEM)	152	138	94	84	79
<b>Portugal</b>					
Interbolsa	37	38	36	40	40
<b>Slovenia</b>					
KDD	30	28	25	25	22
<b>Slovakia</b>					
CDCP SR	20	20	20	23	22
<b>Finland</b>					
Euroclear Finland	26	24	25	24	23
<b>Non-euro area countries</b>					
<b>Bulgaria</b>					
CDA	102	94	95	93	88
GSD	29	29	29	27	27
<b>Czech Republic</b>					
SKD	20	20	20	20	23
RM-SYSTEM	30	27	24	18	15
CDCP	27	26	28	28	25
<b>Denmark</b>					
VP Securities	177	167	161	157	156
<b>Hungary</b>					
KELER	169	154	149	145	137
<b>Poland</b>					
KDPW S.A.	68	63	61	60	64
SKARBNET4	46	44	42	43	44
<b>Romania</b>					
SC Depozitarul Central SA	57	52	51	51	47
SaFIR	38	38	35	36	35
SC Depozitarul Sibex SA <sup>*)</sup>	17	13	12	10	-
<b>Sweden</b>					
Euroclear Sweden AB	54	52	49	46	45
<b>United Kingdom</b>					
Euroclear UK and Ireland	26,643	23,648	23,648	17,050	15,351

1) The system was closed during year 2017.

\*) The system was closed.

## 2 Value of securities held on accounts with central securities depositories (end of period)

	Value of securities (EUR millions)					Increase in the value of securities (% per annum)				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
<b>Euro area countries</b>										
<b>Belgium</b>										
NBB SSS	541,709	557,305	575,431	612,534	-	2	3	3	6	-
Euroclear Belgium	202,744	224,852	271,106	237,006	-	28	11	21	-13	-
Euroclear Bank	10,614,296	11,791,413	12,273,202	12,641,026	-	-1	11	4	3	-
<b>Germany</b>										
Clearstream Banking AG	6,376,067	7,573,774	7,806,765	7,719,215	8,275,940	6	19	3	-1	7
<b>Estonia</b>										
ECSD <sup>1)</sup>	10,331	12,905	8,139	8,238	9,012	10	25	-37	1	9
Nasdaq CSD SE Estonian SSS	-	-	-	-	8,547	-	-	-	-	-
<b>Greece</b>										
BOGS	118,910	125,515	125,779	115,753	109,596	-38	6	0	-8	-5
Hellenic Exchanges (HELEX)	68,051	53,557	47,310	45,866	55,680	93	-21	-12	-3	21
<b>Spain</b>										
Iberclear	2,197,625	2,179,678	2,228,493	2,259,848	2,369,801	2	-1	2	1	5
Regional SSSs <sup>*)</sup>	52,029	48,766	12,470	2,806	-	-10	-6	-74	-77	-
<b>France</b>										
Euroclear France	5,630,116	5,756,799	6,073,838	6,278,449	6,693,923	6	2	6	3	7
<b>Italy</b>										
Monte Titoli	3,298,995	3,349,197	3,305,694	3,175,087	3,296,671	3	2	-1	-4	4
<b>Cyprus</b>										
CDCR	7,395	9,199	6,896	8,303	3,305	1	24	-25	20	-60
<b>Latvia</b>										
LCD-DENOS <sup>1)</sup>	3,226	3,266	4,427	4,070	3,967	15	1	36	-8	-3
Nasdaq CSD SE Latvian SSS	-	-	-	-	4,341	-	-	-	-	-
<b>Lithuania</b>										
CSDL <sup>1)</sup>	10,847	11,469	10,314	11,036	11,559	4	6	-10	7	5
Nasdaq CSD SE Lithuanian SSS	-	-	-	-	12,087	-	-	-	-	-
<b>Luxembourg</b>										
Clearstream Banking Luxembourg	5,206,336	5,588,676	5,979,505	6,220,119	7,328,126	5	7	7	4	18
VP Lux	40,001	33,215	16,579	12,697	8,150	1	-17	-50	-23	-36
LUX CSD	5,996	9,769	14,404	14,975	21,512	-	63	47	4	44
<b>Malta</b>										
MSE	9,447	10,042	12,959	14,732	14,984	9	6	29	14	2
<b>Netherlands</b>										
Euroclear Netherlands	959,303	1,028,016	993,406	1,006,512	1,067,927	10	7	-3	1	6
<b>Austria</b>										
OEKB (WSB SYSTEM)	509,066	505,180	523,169	559,256	610,116	5	-1	4	7	9
<b>Portugal</b>										
Interbolsa	592,820	557,185	566,443	618,089	644,991	13	-6	2	9	4
<b>Slovenia</b>										
KDD	25,553	27,603	26,100	28,217	30,885	9	8	-5	8	9
<b>Slovakia</b>										
CDCP SR	40,314	40,825	39,976	46,813	49,493	1	1	-2	17	6
<b>Finland</b>										
Euroclear Finland	274,118	289,348	309,298	340,431	366,092	3	6	7	10	8
<b>Non-euro area countries</b>										
<b>Bulgaria</b>										
CDA	32,462	34,073	33,213	33,638	34,962	0	5	-3	1	4
GSD	3,216	4,219	3,724	3,438	3,432	26	31	-12	-8	0
<b>Czech Republic</b>										
SKD	29,930	29,598	41,240	37,164	158,371	-18	-1	39	-10	326
RM-SYSTEM	0	0	0	0	0	-	-	-	-	-
CDCP	111,259	111,209	76,146	81,505	114,737	15	0	-32	7	41
<b>Denmark</b>										
VP Securities	907,575	979,700	1,036,381	1,070,682	1,154,465	2	8	6	3	8
<b>Hungary</b>										
KELER	132,765	110,593	118,483	120,789	138,788	19	-17	7	2	15
<b>Poland</b>										
KDPW S.A.	303,495	276,365	271,686	287,096	341,211	8	-9	-2	6	19
SKARBNET4	28,245	19,812	17,383	18,436	22,605	9	-30	-12	6	23
<b>Romania</b>										
SC Depozitarul Central SA	21,726	22,199	20,901	21,040	23,937	33	2	-6	1	14
SaFIR	24,455	25,491	26,338	28,451	30,238	7	4	3	8	6
SC Depozitarul Sibex SA <sup>*)</sup>	27	47	99	122	-	34	74	111	23	-
<b>Sweden</b>										
Euroclear Sweden AB	1,285,401	1,180,297	1,293,144	1,391,842	1,392,426	7	-8	10	8	0
<b>United Kingdom</b>										
Euroclear UK and Ireland	5,022,194	5,691,140	6,215,293	6,787,311	5,981,289	11	13	9	9	-12

1) The system was closed during year 2017.

\*) The system was closed.

### 3 Transactions processed by central securities depositories: Number of transactions

	Number of delivery instructions (thousands)					Increase in number of delivery instructions (% per annum)				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
<b>Euro area countries</b>										
<b>Belgium</b>										
NBB SSS	551	949	498	517	-	-5	72	-48	4	-
Euroclear Belgium	1,908	2,118	2,467	2,377	-	6	11	16	-4	-
Euroclear Bank	70,096	75,708	83,725	84,550	-	8	8	11	1	-
<b>Germany</b>										
Clearstream Banking AG	61,222	55,331	61,175	56,048	59,525	16	-10	11	-8	6
<b>Estonia</b>										
ECSD <sup>1)</sup>	86	74	78	89	72	-2	-14	5	14	-19
Nasdaq CSD SE Estonian SSS	-	-	-	-	20	-	-	-	-	-
<b>Greece</b>										
BOGS	155	196	111	91	134	-45	26	-43	-18	47
Hellenic Exchanges (HELEX)	7,346	7,568	6,242	4,859	4,547	16	3	-18	-22	-6
<b>Spain</b>										
Iberclear	28,297	33,256	31,761	14,905	8,226	9	18	-4	-53	-45
Regional SSSs <sup>*)</sup>	61	63	33	5	-	-28	3	-48	-85	-
<b>France</b>										
Euroclear France	24,382	24,296	25,612	25,562	26,174	3	0	5	0	2
<b>Italy</b>										
Monte Titoli	20,997	24,663	23,718	22,234	28,291	-1	17	-4	-6	27
<b>Cyprus</b>										
CDCR	40	45	52	37	30	-79	13	16	-29	-19
<b>Latvia</b>										
LCD-DENOS <sup>1)</sup>	42	31	34	30	23	-5	-26	10	-12	-23
Nasdaq CSD SE Latvian SSS	-	-	-	-	8	-	-	-	-	-
<b>Lithuania</b>										
CSDL <sup>1)</sup>	99	86	69	77	64	4	-13	-20	12	-17
Nasdaq CSD SE Lithuanian SSS	-	-	-	-	45	-	-	-	-	-
<b>Luxembourg</b>										
Clearstream Banking Luxembourg	22,100	24,897	24,014	25,805	26,063	2	13	-4	7	1
VP Lux	7	6	6	3	2	-9	-15	-5	-50	-26
LUX CSD	2	24	20	17	18	-	1,100	-17	-15	8
<b>Malta</b>										
MSE	18	31	40	43	37	8	71	29	6	-14
<b>Netherlands</b>										
Euroclear Netherlands	5,348	5,707	6,242	5,894	6,084	7	7	9	-6	3
<b>Austria</b>										
OEKB (WSB SYSTEM)	1,252	1,324	1,185	1,138	1,216	10	6	-10	-4	7
<b>Portugal</b>										
Interbolsa	973	1,240	984	923	933	16	27	-21	-6	1
<b>Slovenia</b>										
KDD	98	154	97	305	132	-18	57	-37	214	-57
<b>Slovakia</b>										
CDCP SR	148	124	57	33	16	-38	-16	-54	-42	-51
<b>Finland</b>										
Euroclear Finland	6,188	6,332	6,817	7,085	7,567	22	2	8	4	7
<b>Non-euro area countries</b>										
<b>Bulgaria</b>										
CDA	503	172	72	58	68	74	-66	-58	-19	17
GSD	10	8	6	4	3	25	-20	-25	-33	-25
<b>Czech Republic</b>										
SKD	10	10	8	10	19	-23	0	-20	25	90
RM-SYSTEM	400	316	255	219	178	-9	-21	-19	-14	-19
CDCP	737	750	908	1,023	1,338	45	2	21	13	31
<b>Denmark</b>										
VP Securities	13,065	15,453	17,037	16,409	17,012	26	18	10	-4	4
<b>Hungary</b>										
KELER	541	690	666	725	695	-39	28	-3	9	-4
<b>Poland</b>										
KDPW S.A.	28,559	28,947	13,325	8,686	9,466	101	1	-54	-35	9
SKARBNET4	3	1	1	0	0	-25	-67	0	-	-
<b>Romania</b>										
SC Depozitarul Central SA	963	1,114	1,148	1,047	1,083	-5	16	3	-9	3
SaFIR	31	25	24	24	28	11	-19	-4	0	17
SC Depozitarul Sibex SA <sup>*)</sup>	0	0	0	1	-	-	-	-	-	-
<b>Sweden</b>										
Euroclear Sweden AB	12,572	14,111	13,282	13,870	15,796	10	12	-6	4	14
<b>United Kingdom</b>										
Euroclear UK and Ireland	56,851	57,669	57,669	60,155	64,251	19	1	0	4	7

1) The system was closed during year 2017.

\*) The system was closed.

## 4a Transactions processed by central securities depositories: Value of transactions

	Value of delivery instructions (EUR billions)					Average value per delivery instruction (EUR thousands)				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
<b>Euro area countries</b>										
<b>Belgium</b>										
NBB SSS	8,263	10,838	8,028	8,714	-	14,996	11,421	16,121	16,856	-
Euroclear Belgium	783	836	934	958	-	411	394	378	403	-
Euroclear Bank	342,232	388,500	439,954	445,981	-	4,882	5,132	5,255	5,275	-
<b>Germany</b>										
Clearstream Banking AG	59,685	79,740	66,725	46,578	45,297	975	1,441	1,091	831	761
<b>Estonia</b>										
ECSD <sup>1)</sup>	3	3	2	3	1	36	34	25	39	20
Nasdaq CSD SE Estonian SSS	-	-	-	-	0	-	-	-	-	13
<b>Greece</b>										
BOGS	1,747	1,589	3,679	3,438	4,026	11,270	8,105	33,145	37,779	30,041
Hellenic Exchanges (HELEX)	50	71	44	33	27	7	9	7	7	6
<b>Spain</b>										
Iberclear	66,580	70,820	63,712	54,467	42,314	2,353	2,130	2,006	3,654	5,144
Regional SSSs <sup>*)</sup>	45	41	24	4	-	733	646	724	862	-
<b>France</b>										
Euroclear France	131,224	109,907	92,118	103,286	79,725	5,382	4,524	3,597	4,041	3,046
<b>Italy</b>										
Monte Titoli	62,349	75,945	66,409	66,682	78,756	2,969	3,079	2,800	2,999	2,784
<b>Cyprus</b>										
CDCR	2	1	2	2	0	51	15	39	65	15
<b>Latvia</b>										
LCD-DENOS <sup>1)</sup>	3	3	6	5	3	67	87	165	155	116
Nasdaq CSD SE Latvian SSS	-	-	-	-	2	-	-	-	-	199
<b>Lithuania</b>										
CSDL <sup>1)</sup>	3	3	7	3	2	32	36	105	36	32
Nasdaq CSD SE Lithuanian SSS	-	-	-	-	4	-	-	-	-	94
<b>Luxembourg</b>										
Clearstream Banking Luxembourg	77,295	86,462	85,384	83,692	86,356	3,498	3,473	3,556	3,243	3,313
VP Lux	224	174	174	42	27	30,321	27,613	28,994	13,983	11,997
LUX CSD	13	7	9	4	21	6,550	281	473	223	1,124
<b>Malta</b>										
MSE	2	2	3	5	3	126	65	63	106	79
<b>Netherlands</b>										
Euroclear Netherlands	4,402	4,366	4,889	4,695	5,101	823	765	783	797	838
<b>Austria</b>										
OEKB (WSB SYSTEM)	219	231	177	199	794	175	175	150	175	653
<b>Portugal</b>										
Interbolsa	170	263	169	172	182	174	212	172	186	195
<b>Slovenia</b>										
KDD	18	28	24	27	25	184	182	247	89	190
<b>Slovakia</b>										
CDCP SR	38	31	34	40	60	255	248	589	1,201	3,775
<b>Finland</b>										
Euroclear Finland	487	599	554	583	633	79	95	81	82	84
<b>Non-euro area countries</b>										
<b>Bulgaria</b>										
CDA	1	1	0	0	0	1	4	1	1	1
GSD	31	33	20	11	11	3,130	4,121	3,391	2,857	3,733
<b>Czech Republic</b>										
SKD	1,239	1,370	1,091	1,426	4,772	123,886	136,977	136,322	142,616	251,138
RM-SYSTEM	0	0	0	0	0	1	1	1	1	1
CDCP	137	84	93	85	211	185	112	102	83	157
<b>Denmark</b>										
VP Securities	6,257	6,503	7,132	6,300	5,581	479	421	419	384	328
<b>Hungary</b>										
KELER	1,689	1,420	702	745	670	3,123	2,058	1,054	1,027	965
<b>Poland</b>										
KDPW S.A.	10,837	10,621	13,171	12,675	13,078	379	367	988	1,459	1,382
SKARBNET4	69	74	83	106	121	23,051	74,109	83,490	-	-
<b>Romania</b>										
SC Depozitarul Central SA	5	6	8	7	9	5	5	7	6	8
SaFIR	175	130	130	88	163	5,652	5,209	5,409	3,673	5,822
SC Depozitarul Sibex SA <sup>*)</sup>	0	0	0	0	-	-	-	-	2	-
<b>Sweden</b>										
Euroclear Sweden AB	10,743	9,376	9,941	10,172	10,858	855	664	748	733	687
<b>United Kingdom</b>										
Euroclear UK and Ireland	324,694	284,643	272,087	277,190	276,800	5,711	4,936	4,718	4,608	4,308

1) The system was closed during year 2017.

\*) The system was closed.

## 4b Transactions processed by central securities depositories: Value of transactions (continued)

	Increase in value of delivery instructions (%; HICP adjusted)					Value of delivery instructions as a ratio to GDP				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
<b>Euro area countries</b>										
<b>Belgium</b>										
NBB SSS	-21	32	-27	6	-	21	27	20	21	-
Euroclear Belgium	40	7	10	0	-	2	2	2	2	-
Euroclear Bank	10	14	12	-1	-	872	971	1,072	1,055	-
<b>Germany</b>										
Clearstream Banking AG	6	34	-17	-32	-4	21	27	22	15	14
<b>Estonia</b>										
ECSD <sup>1)</sup>	42	-18	-22	76	-63	0	0	0	0	0
Nasdaq CSD SE Estonian SSS	-	-	-	-	-	-	-	-	-	-
<b>Greece</b>										
BOGS	9	-7	131	-7	16	10	9	21	20	23
Hellenic Exchanges (HELEX)	141	44	-39	-25	-18	0	0	0	0	0
<b>Spain</b>										
Iberclear	-13	7	-10	-16	-24	65	68	59	49	36
Regional SSSs <sup>*)</sup>	-24	-8	-41	-83	-	0	0	0	0	-
<b>France</b>										
Euroclear France	6	-16	-16	11	-24	62	51	42	46	35
<b>Italy</b>										
Monte Titoli	6	22	-13	0	17	39	47	40	40	46
<b>Cyprus</b>										
CDCR	-49	-66	194	19	-81	0	0	0	0	0
<b>Latvia</b>										
LCD-DENOS <sup>1)</sup>	59	-4	107	-19	-45	0	0	0	0	0
Nasdaq CSD SE Latvian SSS	-	-	-	-	-	-	-	-	-	-
<b>Lithuania</b>										
CSDL <sup>1)</sup>	13	-4	136	-64	-30	0	0	0	0	0
Nasdaq CSD SE Lithuanian SSS	-	-	-	-	-	-	-	-	-	-
<b>Luxembourg</b>										
Clearstream Banking Luxembourg	6	13	-2	-4	2	1,662	1,729	1,639	1,579	1,559
VP Lux	-6	-22	-1	-77	-38	5	3	3	1	0
LUX CSD	-	-48	39	-62	444	0	0	0	0	0
<b>Malta</b>										
MSE	44	-12	25	76	-36	0	0	0	0	0
<b>Netherlands</b>										
Euroclear Netherlands	-3	-1	11	-5	7	7	7	7	7	7
<b>Austria</b>										
OEKB (WSB SYSTEM)	-3	5	-24	10	297	1	1	1	1	2
<b>Portugal</b>										
Interbolsa	47	55	-36	0	5	1	2	1	1	1
<b>Slovenia</b>										
KDD	-21	55	-14	13	-9	0	1	1	1	1
<b>Slovakia</b>										
CDCP SR	-7	-18	10	17	51	1	0	0	0	1
<b>Finland</b>										
Euroclear Finland	10	22	-7	4	8	2	3	3	3	3
<b>Non-euro area countries</b>										
<b>Bulgaria</b>										
CDA	-21	-1	-84	-34	28	0	0	0	0	0
GSD	62	7	-37	-43	-4	1	1	0	0	0
<b>Czech Republic</b>										
SKD	-15	17	-21	27	224	8	9	6	8	25
RM-SYSTEM	-22	-15	0	-17	-11	0	0	0	0	0
CDCP	21	-35	10	-11	139	1	1	1	0	1
<b>Denmark</b>										
VP Securities	-13	4	9	-12	-12	24	24	26	23	19
<b>Hungary</b>										
KELER	27	-12	-51	5	-13	17	13	6	7	5
<b>Poland</b>										
KDPW S.A.	3	-2	24	-1	-1	27	26	31	30	28
SKARBNET4	-23	8	13	31	10	0	0	0	0	0
<b>Romania</b>										
SC Depozitarul Central SA	54	23	52	-18	32	0	0	0	0	0
SaFIR	-62	-26	0	-31	86	1	1	1	1	1
SC Depozitarul Sibex SA <sup>*)</sup>	-46	39	672	-85	-	0	0	0	0	-
<b>Sweden</b>										
Euroclear Sweden AB	-1	-9	8	2	7	25	22	22	22	23
<b>United Kingdom</b>										
Euroclear UK and Ireland	135	-17	-14	13	4	157	124	104	115	119

1) The system was closed during year 2017.

\*) The system was closed.