

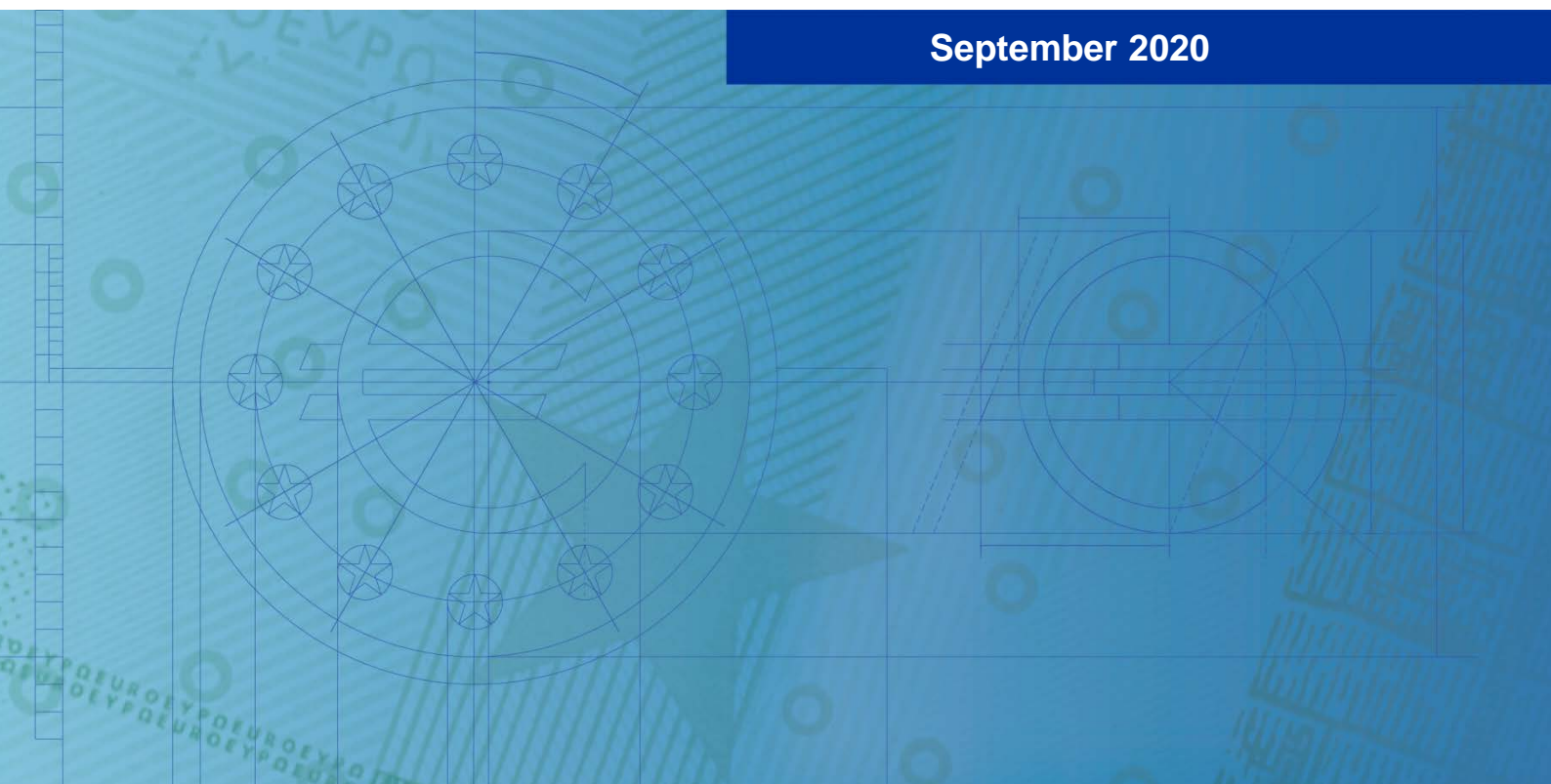


EUROPEAN CENTRAL BANK

EUROSYSTEM

# Securities trading, clearing and settlement statistics

September 2020



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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).

<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)

Note that from 2020 onwards the production of Securities Exchanges data has been discontinued.

## 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)** : KDPW\_CCP started clearing of EUR OTC trade as of 3 April 2018. Consequently, the amendments of the Detailed Rules of the OTC Clearing System applicable to EUR OTC trade entered into force, including provisions governing trades denominated and cleared in EUR concerning the application of the EURIBOR and EONIA rates, as well as provisions governing the calculation of margins and valuation of such trades. KDPW\_CCP's new service offers the clearing of EUR OTC trade in interest rate derivatives whose underlying is EURIBOR or EONIA. KDPW\_CCP S.A. has launched the service of clearing WIBOR 1M IRS with tenors extended up to 20 years. The clearing service previously covered tenors up to 3 years. As a result, the tenors of transactions accepted for clearing are the same for all IRS (WIBOR 1M, 3M, 6M): up to 20 years.
- **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 counterpart as well as administering risks to which is exposed by means of using specific mechanisms, techniques and instruments. Casa 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, CDCP, RM-SYSTEM and SCP (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.
- **SITEME (Banco de Portugal):** Since 30 November 2012, SITEME (Banco de Portugal) 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.

- **The National Central Securities Depository (NCDCP):** In the Slovak Republic the new CSD was established in 2014, namely The National Central Securities Depository, joint-stock company (NCDCP).
- **VP LUX (Luxembourg):** Since 2019, the VP LUX is no longer providing services.

## Securities Exchange Statistics

	Number of participants		Number of executed trades (in thousands of transactions)		Value of executed trades (in millions of euro)	
	2017	2018	2017	2018	2017	2018
<b>Euro area countries</b>						
<b>Belgium</b>						
Euronext Brussels SA	147	133	19,691	19,692	108,353	125,188
<b>Germany</b>						
Deutsche Börse AG <sup>3)</sup>	170	169	150,140	144,677	1,565,919	1,779,402
<b>Ireland</b>						
Irish Stock Exchange Ltd	21	22	3,326	3,802	135,059	101,495
<b>Greece</b>						
Athens Stock Exchange	52	48	4,389	5,073	14,820	13,696
Bank of Greece	23	23	0	5	555	5,002
<b>Spain</b>						
BME (Spanish Exchanges)	57	56	51,393	44,507	6,685,717	1,105,463
<b>France</b>						
NYSE Euronext Paris	147	148	145,383	137,708	1,187,723	1,250,368
<b>Italy</b>						
Borsa Italiana SpA	104	98	80,273	81,992	953,148	923,370
MTI Wholesale Market (government securities)	55	51	213	212	1,215,566	1,161,554
MTI BONDVISION	189	175	156	144	979,151	889,123
MTI Wholesale Market (corporate and intl organisations' bonds) <sup>*)</sup>	-	-	-	-	-	-
<b>Cyprus</b>						
Cyprus Stock Exchange	15	13	29	27	170	113
<b>Luxembourg</b>						
Société de la Bourse de Luxembourg SA	26	26	16	12	198	177
<b>Malta</b>						
Malta Stock Exchange	17	18	31	26	572	394
<b>The Netherlands</b>						
Euronext Amsterdam Cash Market	-	-	69,387	68,837	586,606	596,439
<b>Austria</b>						
CEESEG - Vienna	79	80	6,793	5,609	33,768	35,910
<b>Portugal</b>						
Euronext Lisbon SA	94	99	5,446	4,483	25,874	25,168
<b>Slovenia</b>						
CEESEG - Ljubljana	14	12	50	38	347	337
<b>Slovakia</b>						
Bratislava Stock Exchange	14	13	7	10	7,240	480
<b>Non-euro area countries</b>						
<b>Bulgaria</b>						
Bulgarian Stock Exchange	51	49	78	51	963	239
<b>Czech Republic</b>						
Prague Stock Exchange	19	18	782	712	5,519	5,927
RM-SYSTEM Czech Stock Exchange	15	15	178	169	241	219
<b>Hungary</b>						
Budapest Stock Exchange	19	19	1,941	1,890	9,790	11,213
<b>Poland</b>						
Gielda Papierow Wartosciowych w Warszawie	53	50	21,095	19,026	64,023	51,864
BondSpot S.A.	14	13	0	0	56	46
<b>Romania</b>						
Bursa de Valori Bucuresti	37	29	947	617	2,459	3,393
<b>United Kingdom</b>						
London Stock Exchange Ltd	338	336	288,909	258,009	12,133,633	3,105,140
<i>NYSE Euronext<sup>1)</sup></i>	-	-	240,481	230,469	2,621,303	2,001,670
<i>NASDAQ OMX Nordic &amp; Baltics<sup>2)</sup></i>	116	120	140,751	156,827	2,346,368	912,031

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

	2015	2016	2017	2018	2019
<b>Euro area countries</b>					
EUREX Clearing AG ( <i>Germany</i> )	186	195	190	209	218
Hellenic Exchanges Holdings SA ( <i>Greece</i> )	25	24	19	19	19
BME Clearing ( <i>Spain</i> )	60	65	65	64	68
LCH.Clearnet SA ( <i>France</i> )	110	100	99	125	119
CC&G ( <i>Italy</i> )	82	87	86	84	91
European Central Counterparty N.V. ( <i>The Netherlands</i> )	45	43	44	42	44
ICE Clear Netherlands ( <i>The Netherlands</i> ) *)	3	4	-	-	-
CCP ( <i>Austria</i> )	53	50	49	51	51
OMIClear - C.C., S.A ( <i>Portugal</i> )	-	14	14	13	11
<b>Non-euro area countries</b>					
KELER CCP Zrt. ( <i>Hungary</i> )	25	21	21	21	18
KDPW_CCP S.A. ( <i>Poland</i> )	39	38	37	35	33
Nasdaq OMX DM ( <i>Sweden</i> )	92	92	88	88	97
LCH.Clearnet Ltd ( <i>United Kingdom</i> )	154	158	157	161	162
ICE Clear Europe ( <i>United Kingdom</i> )	73	78	80	81	88
CME CE ( <i>United Kingdom</i> ) *)	19	17	-	-	-
LME Clear Limited( <i>United Kingdom</i> )	42	44	46	46	45

\*) The system was closed.

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

	2015	2016	2017	2018	2019
<b>Euro area countries</b>					
EUREX Clearing AG ( <i>Germany</i> )	236,147	233,987	246,942	243,566	216,573
Hellenic Exchanges Holdings SA ( <i>Greece</i> )	1	1	1	1	1
BME Clearing ( <i>Spain</i> )	-	69,734	101,961	88,737	74,627
LCH.Clearnet SA ( <i>France</i> )	482,870	467,723	488,400	484,008	424,512
transactions cleared in France	302,759	291,495	296,929	296,186	254,182
transactions cleared in Belgium	39,415	38,766	39,581	39,564	34,032
transactions cleared in Germany	-	-	-	-	-
transactions cleared in Spain	-	-	5	0	0
transactions cleared in Italy	384	388	368	398	336
transactions cleared in Luxembourg	34	29	31	23	18
transactions cleared in the Netherlands	126,905	126,240	140,337	138,928	127,908
transactions cleared in Portugal	13,207	10,693	11,068	8,819	8,035
transactions cleared in the United Kingdom	156	106	82	91	0
CC&G ( <i>Italy</i> )	163,053	170,417	156,344	159,359	146,291
European Central Counterparty N.V. ( <i>The Netherlands</i> )	1,738,966	1,960,011	1,633,387	1,642,262	1,305,013
transactions cleared in The Netherlands	41	-	-	-	12
transactions cleared in Germany	1,198	3,504	1,683	779	1,060
transactions cleared in Sweden	199,765	214,529	233,086	36,802	135,896
transactions cleared in the United Kingdom	1,537,594	1,723,652	1,377,817	1,556,087	1,049,945
transactions cleared in Norway	369	1,749	327	179	5,686
transactions cleared in Hungary	-	-	-	-	-
ICE Clear Netherlands( <i>The Netherlands</i> ) *)	5	4	-	-	-
CCP ( <i>Austria</i> )	12,296	13,307	13,589	11,225	9,527
OMIClear - C.C., S.A ( <i>Portugal</i> )	-	-	-	-	-
<b>Non-euro area countries</b>					
KELER CCP Zrt. ( <i>Hungary</i> )	1,552	1,640	1,957	1,902	1,815
KDPW_CCP S.A. ( <i>Poland</i> )	17,808	18,657	21,095	19,025	18,982
Nasdaq OMX DM ( <i>Sweden</i> )	-	-	-	-	-
LCH.Clearnet Ltd ( <i>United Kingdom</i> )	717,566	925,578	1,122,757	1,671,409	1,407,909
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)

	2015	2016	2017	2018	2019
<b>Euro area countries</b>					
EUREX Clearing AG ( <i>Germany</i> )	3,757	3,097	3,088	3,270	2,729
Hellenic Exchanges Holdings SA ( <i>Greece</i> )	0	0	0	0	0
BME Clearing ( <i>Spain</i> )	-	762	1,295	1,137	931
LCH.Clearnet SA ( <i>France</i> )	7,385	6,894	6,608	7,198	6,811
transactions cleared in France	2,974	2,465	2,653	2,981	2,620
transactions cleared in Belgium	260	238	213	263	667
transactions cleared in Germany	-	-	-	-	-
transactions cleared in Spain	-	-	18	0	0
transactions cleared in Italy	2,380	2,648	2,200	2,255	1,799
transactions cleared in Luxembourg	0	0	0	0	0
transactions cleared in the Netherlands	1,159	1,020	1,155	1,225	1,676
transactions cleared in Portugal	56	44	47	49	48
transactions cleared in the United Kingdom	526	453	321	425	0
CC&G ( <i>Italy</i> )	3,764	3,422	3,173	2,981	2,666
European Central Counterparty N.V. ( <i>The Netherlands</i> )	10,877	10,684	9,969	10,134	9,046
transactions cleared in The Netherlands	0	-	-	-	0
transactions cleared in Germany	9	17	9	6	10
transactions cleared in Sweden	1,433	1,323	1,340	163	587
transactions cleared in the United Kingdom	9,433	9,127	8,164	9,415	7,533
transactions cleared in Norway	1	4	1	1	21
transactions cleared in Hungary	-	-	-	-	-
ICE Clear Netherlands ( <i>The Netherlands</i> ) *)	2	1	-	-	-
CCP ( <i>Austria</i> )	59	57	68	72	63
OMIClear - C.C., S.A ( <i>Portugal</i> )	-	-	-	-	-
<b>Non-euro area countries</b>					
KELER CCP Zrt. ( <i>Hungary</i> )	8	8	10	11	10
KDPW_CCP S.A. ( <i>Poland</i> )	55	45	58	52	46
Nasdaq OMX DM ( <i>Sweden</i> )	-	-	-	-	-
LCH.Clearnet Ltd ( <i>United Kingdom</i> )	2,623	3,368	13,376	10,152	11,495
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)

	2015	2016	2017	2018	2019
<b>Euro area countries</b>					
<b>Belgium</b>					
NBB SSS	69	66	65	67	69
Euroclear Belgium	77	74	74	75	75
Euroclear Bank	1,602	1,617	1,639	1,650	1,657
<b>Germany</b>					
Clearstream Banking AG	288	270	302	330	261
<b>Estonia</b>					
ECSD *)	16	16	16	-	-
Nasdaq CSD SE Estonian Securities Settlement System	-	-	19	18	20
<b>Greece</b>					
BOGS	40	39	38	37	37
Hellenic Exchanges (HELEX)	62	61	43	51	49
<b>Spain</b>					
Iberclear	127	115	89	70	71
Regional SSSs *)	44	34	-	-	-
<b>France</b>					
Euroclear France	147	137	139	141	146
<b>Italy</b>					
Monte Titoli	183	184	184	175	177
<b>Cyprus</b>					
CDCR	33	35	36	33	32
<b>Latvia</b>					
LCD-DENOS *)	21	21	21	-	-
Nasdaq CSD SE Latvian Securities Settlement System	-	-	26	24	24
<b>Lithuania</b>					
CSDL *)	22	21	19	-	-
Nasdaq CSD SE Lithuanian Securities Settlement System	-	-	22	29	27
<b>Luxembourg</b>					
Clearstream Banking Luxembourg	1,421	1,334	1,043	1,438	1,339
VP Lux *)	16	16	14	14	-
LUX CSD	15	14	15	15	15
<b>Malta</b>					
MSE	14	17	17	18	19
<b>Netherlands</b>					
Euroclear Netherlands	69	69	69	75	77
<b>Austria</b>					
OEKB (WSB SYSTEM)	94	84	79	77	74
<b>Portugal</b>					
Interbolsa	36	40	40	46	49
<b>Slovenia</b>					
KDD	25	25	22	21	21
<b>Slovakia</b>					
CDCP SR	20	23	22	25	26
NCDCP	-	-	-	7	7
<b>Finland</b>					
Euroclear Finland	25	24	23	23	23
<b>Non-euro area countries</b>					
<b>Bulgaria</b>					
CDA	95	93	88	88	84
GSD	29	27	27	26	25
<b>Czech Republic</b>					
SKD	20	20	23	28	28
RM-SYSTEM	24	18	15	15	16
CDCP	28	28	25	24	27
<b>Denmark</b>					
VP Securities	161	157	156	152	138
<b>Hungary</b>					
KELER	149	145	137	98	251
<b>Poland</b>					
KDPW S.A.	61	60	64	63	61
SKARBNET4	42	43	44	41	41
<b>Romania</b>					
SC Depozitarul Central SA	51	51	47	39	38
SaFIR	35	36	35	33	33
SC Depozitarul Sibex SA *)	12	10	-	-	-
<b>Sweden</b>					
Euroclear Sweden AB	49	46	45	44	44
<b>United Kingdom</b>					
Euroclear UK and Ireland	23,648	17,050	15,351	14,660	8,397

\*) 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)				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
<b>Euro area countries</b>										
<b>Belgium</b>										
NBB SSS	575,431	612,534	614,188	621,035	642,525	3	6	0	1	3
Euroclear Belgium	271,106	237,006	239,833	179,893	222,177	21	-13	1	-25	24
Euroclear Bank	2,273,202	2,641,026	3,019,828	3,604,921	5,025,454	4	3	3	4	10
<b>Germany</b>										
Clearstream Banking AG	7,806,765	7,719,215	8,275,940	8,777,554	9,595,761	3	-1	7	6	9
<b>Estonia</b>										
ECSD *)	8,139	8,238	9,012	-	-	-37	1	9	-	-
Nasdaq CSD SE Estonian SSS	-	-	8,547	9,316	9,172	-	-	-	9	-2
<b>Greece</b>										
BOGS	125,779	115,753	109,596	110,695	115,423	0	-8	-5	1	4
Hellenic Exchanges (HELEX)	47,310	45,866	55,680	46,918	52,307	-12	-3	21	-16	11
<b>Spain</b>										
Iberclear	2,228,493	2,259,848	2,369,801	2,285,614	2,367,049	2	1	5	-4	4
Regional SSSs *)	12,470	2,806	-	-	-	-74	-77	-	-	-
<b>France</b>										
Euroclear France	6,073,838	6,278,449	6,693,923	6,558,767	7,322,430	6	3	7	-2	12
<b>Italy</b>										
Monte Titoli	3,305,694	3,175,087	3,296,671	3,304,941	3,363,527	-1	-4	4	0	2
<b>Cyprus</b>										
CDCR	6,896	8,303	5,853	6,669	3,438	-25	20	-30	14	-48
<b>Latvia</b>										
LCD-DENOS *)	4,427	4,070	3,967	-	-	36	-8	-3	-	-
Nasdaq CSD SE Latvian SSS	-	-	4,341	3,714	3,807	-	-	-	-14	3
<b>Lithuania</b>										
CSDL *)	10,314	11,036	11,559	-	-	-10	7	5	-	-
Nasdaq CSD SE Lithuanian SSS	-	-	12,087	11,976	12,680	-	-	-	-1	6
<b>Luxembourg</b>										
Clearstream Banking Luxembourg	5,979,505	6,220,119	7,328,126	7,472,514	8,011,668	7	4	18	2	7
VP Lux *)	16,579	12,697	8,150	3,460	-	-50	-23	-36	-58	-
LUX CSD	14,404	14,975	21,512	24,244	26,144	47	4	44	13	8
<b>Malta</b>										
MSE	12,959	14,732	14,984	14,489	15,538	29	14	2	-3	7
<b>Netherlands</b>										
Euroclear Netherlands	993,406	1,006,512	1,067,927	964,007	1,101,287	-3	1	6	-10	14
<b>Austria</b>										
OEKB (WSB SYSTEM)	523,169	559,256	610,116	588,997	586,891	4	7	9	-3	0
<b>Portugal</b>										
Interbolsa	566,443	618,089	644,991	2,222,419	350,960	2	9	4	245	-84
<b>Slovenia</b>										
KDD	26,100	28,217	30,885	34,705	35,744	-5	8	9	12	3
<b>Slovakia</b>										
CDCP SR	39,976	46,813	49,493	51,566	53,822	-2	17	6	4	4
NCDCP	-	-	-	565	686	-	-	-	-	21
<b>Finland</b>										
Euroclear Finland	309,298	340,431	366,092	358,671	389,959	7	10	8	-2	9
<b>Non-euro area countries</b>										
<b>Bulgaria</b>										
CDA	33,213	33,638	34,962	36,210	11,597	-3	1	4	4	-68
GSD	3,724	3,438	3,432	2,789	2,801	-12	-8	0	-19	0
<b>Czech Republic</b>										
SKD	41,240	37,164	158,371	155,658	157,609	39	-10	326	-2	1
RM-SYSTEM	0	0	0	0	0	-	-	-	-	-
CDCP	76,146	81,505	114,737	115,620	117,164	-32	7	41	1	1
<b>Denmark</b>										
VP Securities	1,036,381	1,070,682	1,154,465	1,094,975	1,246,284	6	3	8	-5	14
<b>Hungary</b>										
KELER	118,483	120,789	138,788	144,658	123,021	7	2	15	4	-15
<b>Poland</b>										
KDPW S.A.	271,686	287,096	341,211	315,011	322,213	-2	6	19	-8	2
SKARBNET4	17,383	18,436	22,605	12,386	15,266	-12	6	23	-45	23
<b>Romania</b>										
SC Depozitarul Central SA	20,901	21,040	23,937	21,452	26,859	-6	1	14	-10	25
SaFIR	26,338	28,451	30,238	35,060	39,227	3	8	6	16	12
SC Depozitarul Sibex SA *)	99	122	-	-	-	111	23	-	-	-
<b>Sweden</b>										
Euroclear Sweden AB	1,293,144	1,391,842	1,392,426	1,053,841	1,641,980	10	8	0	-24	56
<b>United Kingdom</b>										
Euroclear UK and Ireland	6,215,293	6,787,311	6,072,333	5,265,064	6,406,141	9	9	-11	-13	22

\*) 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)				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
<b>Euro area countries</b>										
<b>Belgium</b>										
NBB SSS	663	685	697	789	952	23	3	2	13	21
Euroclear Belgium	2,467	2,377	2,488	2,651	2,582	16	-4	5	7	-3
Euroclear Bank	83,725	84,550	95,188	106,599	116,050	11	1	13	12	9
<b>Germany</b>										
Clearstream Banking AG	61,175	56,048	59,525	63,261	65,218	11	-8	6	6	3
<b>Estonia</b>										
ECSD *)	78	89	72	-	-	5	14	-19	-	-
Nasdaq CSD SE Estonian SSS	-	-	20	109	174	-	-	-	445	60
<b>Greece</b>										
BOGS	111	91	134	94	112	-43	-18	47	-30	19
Hellenic Exchanges (HELEX)	6,242	4,859	4,547	5,281	7,007	-18	-22	-6	16	33
<b>Spain</b>										
Iberclear	31,761	14,905	8,226	9,208	9,394	-4	-53	-45	12	2
Regional SSSs *)	33	5	-	-	-	-48	-85	-	-	-
<b>France</b>										
Euroclear France	25,612	25,562	26,174	27,952	29,214	5	0	2	7	5
<b>Italy</b>										
Monte Titoli	23,718	22,234	28,291	27,858	25,662	-4	-6	27	-2	-8
<b>Cyprus</b>										
CDCR	52	37	30	28	36	16	-29	-19	-7	29
<b>Latvia</b>										
LCD-DENOS *)	34	30	23	-	-	10	-12	-23	-	-
Nasdaq CSD SE Latvian SSS	-	-	8	20	19	-	-	-	150	-5
<b>Lithuania</b>										
CSDL *)	69	77	64	-	-	-20	12	-17	-	-
Nasdaq CSD SE Lithuanian SSS	-	-	45	62	54	-	-	-	38	-13
<b>Luxembourg</b>										
Clearstream Banking Luxembourg	24,014	25,805	26,063	22,344	66,521	-4	7	1	-14	198
VP Lux *)	6	3	2	1	-	-5	-50	-26	-55	-
LUX CSD	20	17	18	17	19	-17	-15	8	-6	9
<b>Malta</b>										
MSE	40	43	37	37	35	29	6	-14	-1	-5
<b>Netherlands</b>										
Euroclear Netherlands	6,242	5,894	6,084	6,288	6,588	9	-6	3	3	5
<b>Austria</b>										
OEKB (WSB SYSTEM)	1,185	1,138	1,216	1,311	1,321	-10	-4	7	8	1
<b>Portugal</b>										
Interbolsa	984	923	933	896	930	-21	-6	1	-4	4
<b>Slovenia</b>										
KDD	97	305	132	69	52	-37	214	-57	-48	-25
<b>Slovakia</b>										
CDCP SR	57	33	16	22	32	-54	-42	-51	38	46
NCDCP	-	-	-	0	0	-	-	-	-	33
<b>Finland</b>										
Euroclear Finland	6,817	7,085	7,567	9,263	9,576	8	4	7	22	3
<b>Non-euro area countries</b>										
<b>Bulgaria</b>										
CDA	72	58	68	50	42	-58	-19	17	-26	-16
GSD	6	4	3	4	4	-25	-33	-25	33	0
<b>Czech Republic</b>										
SKD	8	10	19	29	28	-20	25	90	53	-3
RM-SYSTEM	255	219	178	169	139	-19	-14	-19	-5	-18
CDCP	908	1,023	1,338	1,250	1,300	21	13	31	-7	4
<b>Denmark</b>										
VP Securities	17,037	16,409	17,012	16,332	59,144	10	-4	4	-4	262
<b>Hungary</b>										
KELER	666	725	695	526	556	-3	9	-4	-24	6
<b>Poland</b>										
KDPW S.A.	13,325	8,686	9,466	7,792	6,707	-54	-35	9	-18	-14
SKARBNET4	1	0	0	0	0	0	-	-	-	-
<b>Romania</b>										
SC Depozitarul Central SA	1,148	1,047	1,083	752	636	3	-9	3	-31	-15
SaFIR	24	24	28	40	28	-4	0	17	43	-30
SC Depozitarul Sibex SA *)	0	1	-	-	-	-	-	-	-	-
<b>Sweden</b>										
Euroclear Sweden AB	13,282	13,870	15,796	14,992	13,768	-6	4	14	-5	-8
<b>United Kingdom</b>										
Euroclear UK and Ireland	57,669	60,155	64,251	64,884	63,019	0	4	7	1	-3

\*) 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)				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
<b>Euro area countries</b>										
<b>Belgium</b>										
NBB SSS	9,384	9,816	10,475	13,994	12,077	14,155	14,330	15,028	17,737	12,686
Euroclear Belgium	934	958	946	964	784	378	403	380	364	304
Euroclear Bank	439,954	445,981	495,689	527,775	543,828	5,255	5,275	5,207	4,951	4,686
<b>Germany</b>										
Clearstream Banking AG	66,725	46,578	45,297	50,250	68,366	1,091	831	761	794	1,048
<b>Estonia</b>										
ECSD *)	2	3	1	-	-	25	39	20	-	-
Nasdaq CSD SE Estonian SSS	-	-	0	8	8	-	-	13	77	47
<b>Greece</b>										
BOGS	3,679	3,438	4,026	4,005	5,282	33,145	37,779	30,041	42,602	47,162
Hellenic Exchanges (HELEX)	44	33	27	31	39	7	7	6	6	6
<b>Spain</b>										
Iberclear	63,712	54,467	42,314	29,229	32,235	2,006	3,654	5,144	3,174	3,431
Regional SSSs *)	24	4	-	-	-	724	862	-	-	-
<b>France</b>										
Euroclear France	92,118	103,286	79,725	92,370	112,464	3,597	4,041	3,046	3,305	3,850
<b>Italy</b>										
Monte Titoli	66,409	66,682	78,756	86,534	97,731	2,800	2,999	2,784	3,106	3,808
<b>Cyprus</b>										
CDCR	2	2	0	6	0	39	65	15	231	10
<b>Latvia</b>										
LCD-DENOS *)	6	5	3	-	-	165	155	116	-	-
Nasdaq CSD SE Latvian SSS	-	-	2	4	5	-	-	199	215	255
<b>Lithuania</b>										
CSDL *)	7	3	2	-	-	105	36	32	-	-
Nasdaq CSD SE Lithuanian SSS	-	-	4	8	5	-	-	94	136	100
<b>Luxembourg</b>										
Clearstream Banking Luxembourg	85,384	83,692	86,356	134,032	220,233	3,556	3,243	3,313	5,999	3,311
VP Lux *)	174	42	27	2	-	28,994	13,983	11,997	2,185	-
LUX CSD	9	4	21	16	17	473	223	1,124	930	880
<b>Malta</b>										
MSE	3	5	3	3	2	63	106	79	78	50
<b>Netherlands</b>										
Euroclear Netherlands	4,889	4,695	5,101	5,313	5,619	783	797	838	845	853
<b>Austria</b>										
OEKB (WSB SYSTEM)	177	199	794	870	640	150	175	653	664	485
<b>Portugal</b>										
Interbolsa	169	172	182	164	172	172	186	195	183	185
<b>Slovenia</b>										
KDD	24	27	25	17	18	247	89	190	249	346
<b>Slovakia</b>										
CDCP SR	34	40	60	40	34	589	1,201	3,775	1,809	1,056
NCDCP	-	-	-	0	0	-	-	-	819	434
<b>Finland</b>										
Euroclear Finland	554	583	633	1,463	1,557	81	82	84	158	163
<b>Non-euro area countries</b>										
<b>Bulgaria</b>										
CDA	0	0	0	1	0	1	1	1	14	11
GSD	20	11	11	16	14	3,391	2,857	3,733	4,014	3,569
<b>Czech Republic</b>										
SKD	1,091	1,426	4,772	6,919	7,167	136,322	142,616	251,138	238,573	255,952
RM-SYSTEM	0	0	0	0	0	1	1	1	1	1
CDCP	93	85	211	142	186	102	83	157	114	143
<b>Denmark</b>										
VP Securities	7,132	6,300	5,581	5,123	40,128	419	384	328	314	678
<b>Hungary</b>										
KELER	702	745	670	698	856	1,054	1,027	965	1,326	1,540
<b>Poland</b>										
KDPW S.A.	13,171	12,675	13,078	13,171	13,662	988	1,459	1,382	1,690	2,037
SKARBNET4	83	106	121	147	154	83,490	-	-	-	-
<b>Romania</b>										
SC Depozitarul Central SA	8	7	9	9	8	7	6	8	12	12
SaFIR	130	88	163	201	114	5,409	3,673	5,822	5,025	4,060
SC Depozitarul Sibex SA *)	0	0	-	-	-	-	2	-	-	-
<b>Sweden</b>										
Euroclear Sweden AB	9,941	10,172	10,858	10,568	13,311	748	733	687	705	967
<b>United Kingdom</b>										
Euroclear UK and Ireland	272,087	277,190	276,800	309,898	357,184	4,718	4,608	4,308	4,776	5,668

\*) 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				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
<b>Euro area countries</b>										
<b>Belgium</b>										
NBB SSS	14	2	5	31	-15	23	23	24	30	25
Euroclear Belgium	10	0	-3	0	-20	2	2	2	2	2
Euroclear Bank	12	-1	9	4	2	1,056	1,037	1,114	1,146	1,142
<b>Germany</b>										
Clearstream Banking AG	-17	-32	-4	9	35	22	15	14	15	20
<b>Estonia</b>										
ECSD *)	-22	76	-63	-	-	0	0	0	-	-
Nasdaq CSD SE Estonian SSS	-	-	-	-	-	-	-	-	-	-
<b>Greece</b>										
BOGS	131	-7	16	-1	31	21	20	23	22	29
Hellenic Exchanges (HELEX)	-39	-25	-18	12	27	0	0	0	0	0
<b>Spain</b>										
Iberclear	-10	-16	-24	-32	9	59	49	36	24	26
Regional SSSs *)	-41	-83	-	-	-	0	0	-	-	-
<b>France</b>										
Euroclear France	-16	11	-24	14	20	42	46	35	39	46
<b>Italy</b>										
Monte Titoli	-13	0	17	9	12	40	39	45	49	55
<b>Cyprus</b>										
CDCR	194	19	-81	1,339	-95	0	0	0	0	0
<b>Latvia</b>										
LCD-DENOS *)	107	-19	-45	-	-	0	0	0	-	-
Nasdaq CSD SE Latvian SSS	-	-	-	-	-	-	-	-	-	-
<b>Lithuania</b>										
CSDL *)	136	-64	-30	-	-	0	0	0	-	-
Nasdaq CSD SE Lithuanian SSS	-	-	-	-	-	-	-	-	-	-
<b>Luxembourg</b>										
Clearstream Banking Luxembourg	-2	-4	2	53	63	1,640	1,525	1,520	2,232	3,467
VP Lux *)	-1	-77	-38	-94	-	3	1	0	0	-
LUX CSD	39	-62	444	-24	1	0	0	0	0	0
<b>Malta</b>										
MSE	25	76	-36	-3	-40	0	0	0	0	0
<b>Netherlands</b>										
Euroclear Netherlands	11	-5	7	2	3	7	7	7	7	7
<b>Austria</b>										
OEKB (WSB SYSTEM)	-24	10	297	8	-28	1	1	2	2	2
<b>Portugal</b>										
Interbolsa	-36	0	5	-11	5	1	1	1	1	1
<b>Slovenia</b>										
KDD	-14	13	-9	-33	3	1	1	1	0	0
<b>Slovakia</b>										
CDCP SR	10	17	51	-36	-18	0	0	1	0	0
NCDCP	-	-	-	-	-	-	-	-	-	-
<b>Finland</b>										
Euroclear Finland	-7	4	8	130	5	3	3	3	6	6
<b>Non-euro area countries</b>										
<b>Bulgaria</b>										
CDA	-84	-34	28	814	-37	0	0	0	0	0
GSD	-37	-43	-4	41	-14	0	0	0	0	0
<b>Czech Republic</b>										
SKD	-21	27	224	40	0	6	8	25	33	32
RM-SYSTEM	0	-17	-11	-13	-25	0	0	0	0	0
CDCP	10	-11	139	-36	28	1	0	1	1	1
<b>Denmark</b>										
VP Securities	9	-12	-12	-9	684	26	22	19	17	128
<b>Hungary</b>										
KELER	-51	5	-13	5	21	6	6	5	5	6
<b>Poland</b>										
KDPW S.A.	24	-1	-1	0	2	31	30	28	26	26
SKARBNET4	13	31	10	21	2	0	0	0	0	0
<b>Romania</b>										
SC Depozitarul Central SA	52	-18	32	2	-18	0	0	0	0	0
SaFIR	0	-31	86	23	-46	1	1	1	1	1
SC Depozitarul Sibex SA *)	672	-85	-	-	-	0	0	-	-	-
<b>Sweden</b>										
Euroclear Sweden AB	8	2	7	1	28	22	22	23	22	28
<b>United Kingdom</b>										
Euroclear UK and Ireland	-14	13	4	11	13	103	114	117	128	141

\*) The system was closed.