

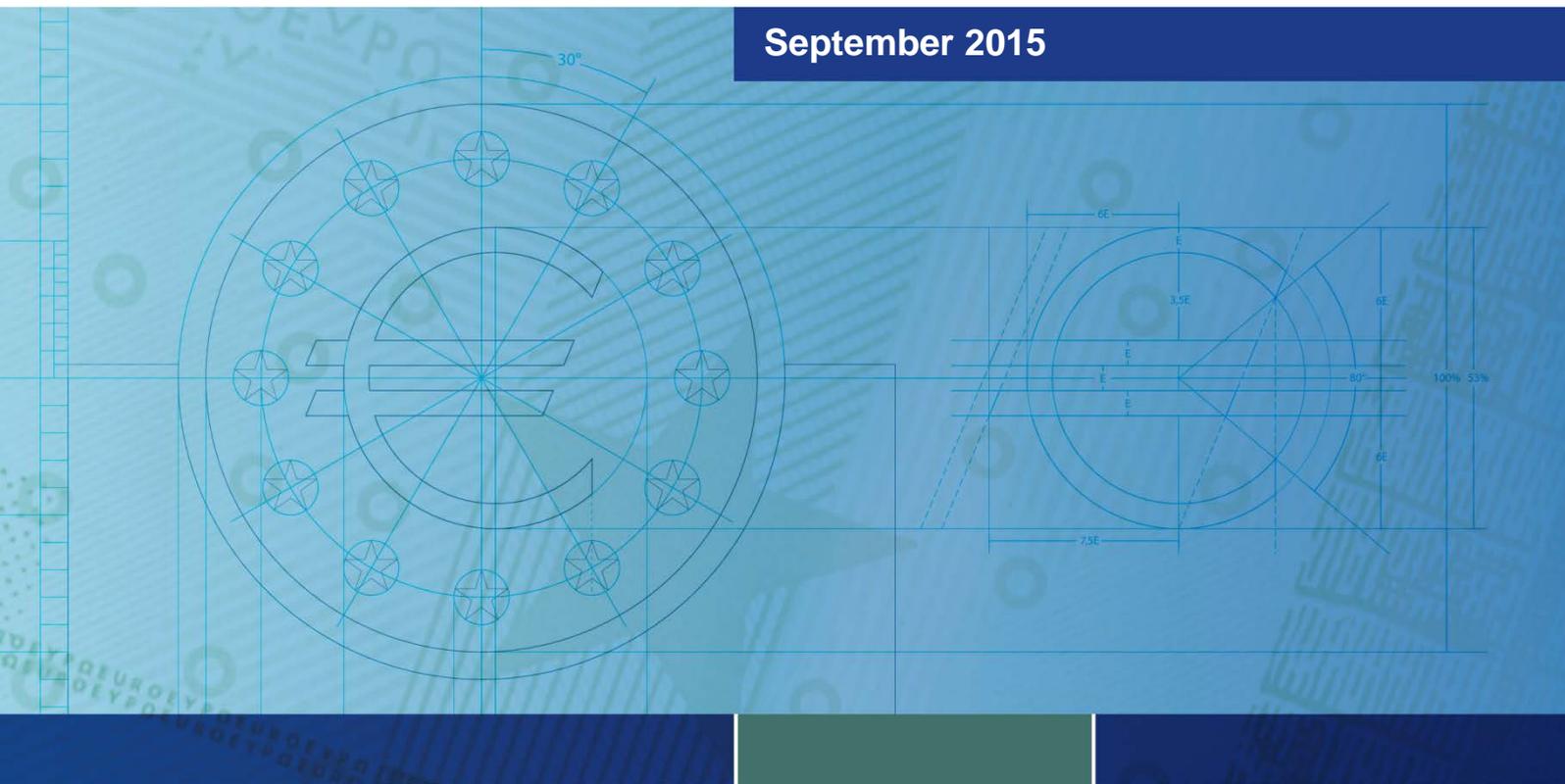


EUROPEAN CENTRAL BANK

EUROSYSTEM

# Euro money market survey

September 2015



# Contents

## **1 Breakdown, by country, of participating banks in 2015**

1.1 Number of participating banks per country

## **2 Summary of cross-market analysis**

2.1 Turnover analysis

2.2 Maturity analysis

2.3 Market structure

2.4 Qualitative assessment and development of the market structure

2.5 Perception of trading changes caused by changes to the risk limits in the reporting period

## **3 The unsecured market**

3.1 Turnover analysis

3.2 Maturity analysis

3.3 Market structure

3.4 Qualitative assessment and development of the market structure

## **4 The secured market**

4.1 Total secured market: turnover analysis

4.2 Total secured market: maturity analysis

4.3 Total secured market: market structure

4.4 Bilateral repos, including central counterparty (CCP) transactions: turnover analysis

4.5 Bilateral repos, including central counterparty (CCP) transactions: maturity analysis

4.6 Bilateral repos, including central counterparty (CCP) transactions: market structure

4.7 Triparty repos: turnover analysis

4.8 Triparty repos: maturity analysis

4.9 Total secured market: qualitative assessment and development of the market structure

## **5 The short-term securities market**

- 5.1 Turnover analysis in the secondary market
- 5.2 Qualitative assessment and development of the market structure

## **6 The over-the-counter derivatives market**

- 6.1 Over-the-counter (OTC) derivatives: turnover analysis
- 6.2 Overnight index swaps (OISs): turnover analysis
- 6.3 Overnight index swaps (OISs): qualitative assessment and development of the market structure
- 6.4 Other interest rate swaps (IRSs): turnover analysis
- 6.5 Other interest rate swaps (IRSs): qualitative assessment and development of the market structure
- 6.6 Forward rate agreements (FRAs): turnover analysis
- 6.7 Forward rate agreements (FRAs): qualitative assessment and development of the market structure
- 6.8 Foreign exchange (FX) swaps and forwards: turnover analysis
- 6.9 Foreign exchange (FX) swaps and forwards: qualitative assessment and development of the market structure
- 6.10 Cross-currency swaps (Xccy swaps): turnover analysis
- 6.11 Cross-currency swaps (Xccy swaps): qualitative assessment and development of the market structure
- 6.12 Options and futures: qualitative assessment and development of the market structure

### **Annexes**

Annex 1 Credit institutions participating in the ECB's 2015 Euro Money Market Survey

Annex 2 Coordination of the ECB's 2015 Euro Money Market Survey

# 1 BREAKDOWN, BY COUNTRY, OF PARTICIPATING BANKS IN 2015

## 1.1 NUMBER OF PARTICIPATING BANKS PER COUNTRY

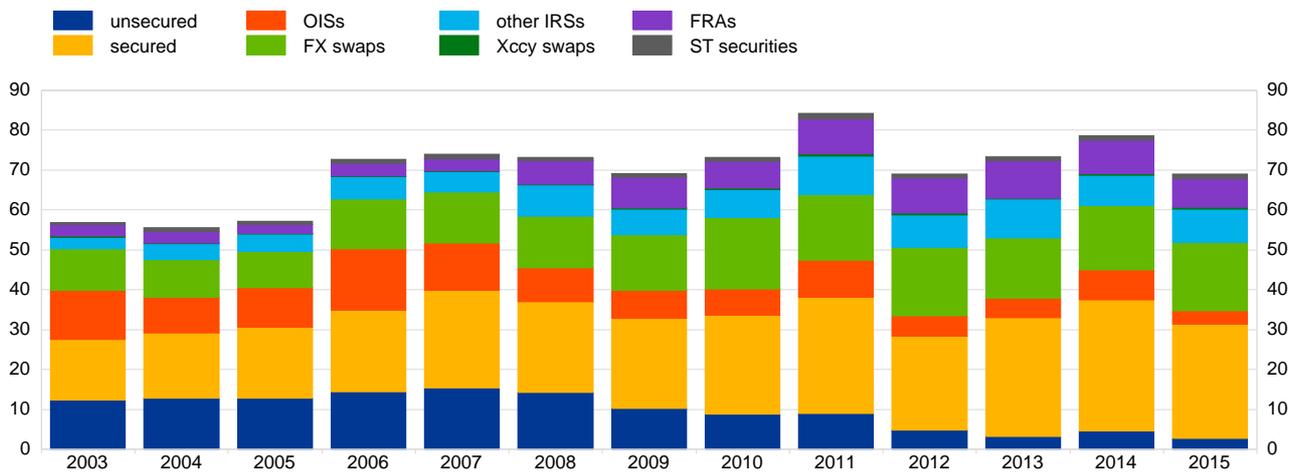
|                | Number of banks |
|----------------|-----------------|
| BELGIUM        | 3               |
| BULGARIA       | 3               |
| CZECH REPUBLIC | 6               |
| DENMARK        | 1               |
| GERMANY        | 16              |
| ESTONIA        | 1               |
| IRELAND        | 6               |
| GREECE         | 5               |
| SPAIN          | 11              |
| FRANCE         | 9               |
| ITALY          | 8               |
| CYPRUS         | 2               |
| LATVIA         | 3               |
| LITHUANIA      | 3               |
| LUXEMBOURG     | 2               |
| HUNGARY        | 3               |
| MALTA          | 5               |
| NETHERLANDS    | 5               |
| AUSTRIA        | 6               |
| POLAND         | 11              |
| PORTUGAL       | 10              |
| ROMANIA        | 3               |
| SLOVENIA       | 3               |
| SLOVAKIA       | 2               |
| FINLAND        | 2               |
| SWEDEN         | 3               |
| UNITED KINGDOM | 15              |
| SWITZERLAND    | 2               |
| <b>TOTAL</b>   | <b>149</b>      |

Note: A detailed list of participating banks can be found in Annex I. Countries are listed in Protocol order, i.e. the alphabetical order of the country names in the respective national language.

## 2 SUMMARY OF CROSS-MARKET ANALYSIS

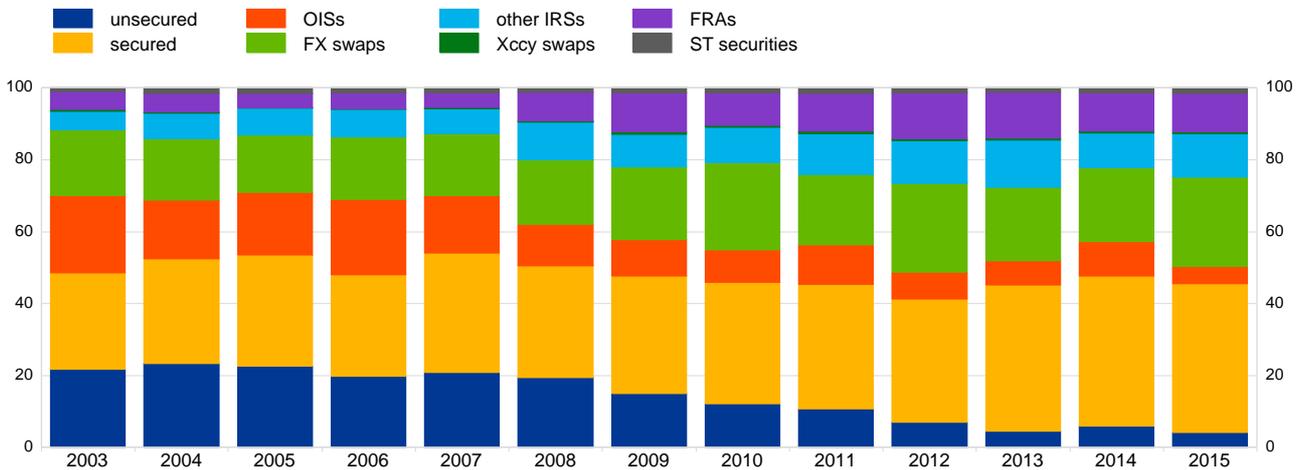
### 2.1 TURNOVER ANALYSIS

Chart 1 Cumulative quarterly turnover in the euro money market (EUR trillion)



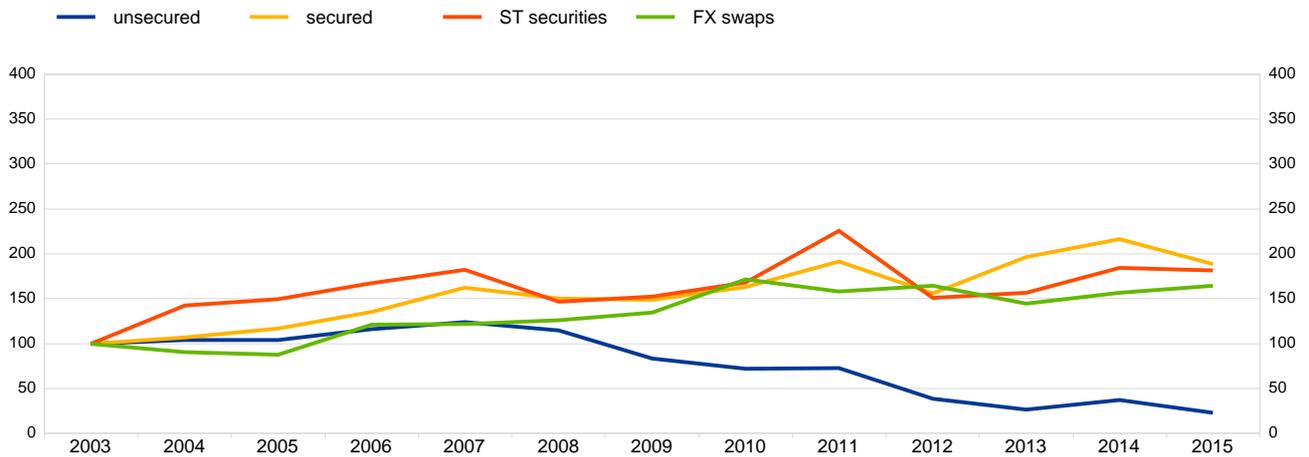
Note: The panel comprised 98 credit institutions.

Chart 2 Breakdown, by segment, of cumulative quarterly turnover in the euro money market (percentages of total)



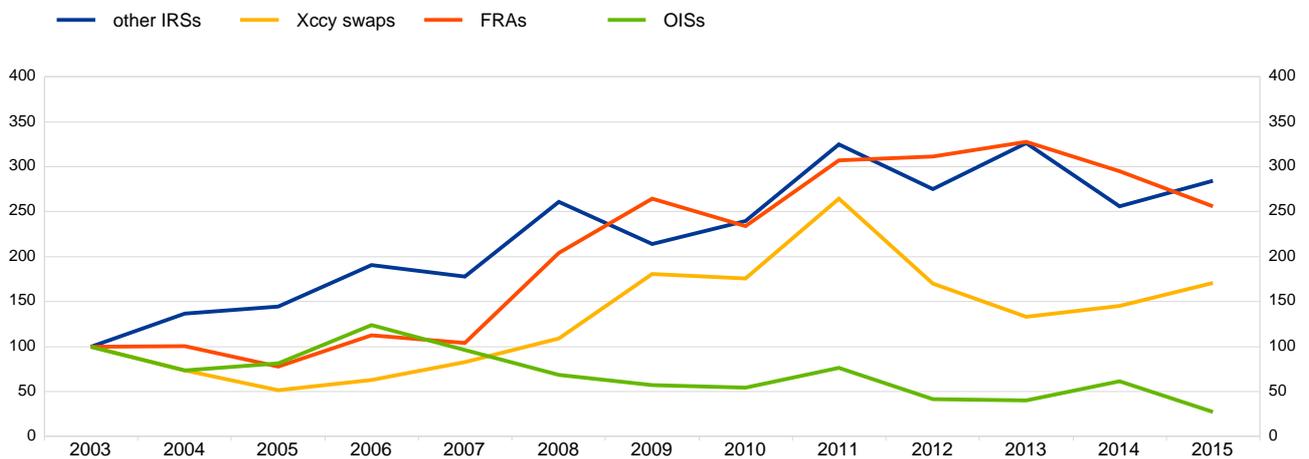
Note: The panel comprised 98 credit institutions.

**Chart 3 Cumulative quarterly turnover in various money market segments**  
(index: total segment volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

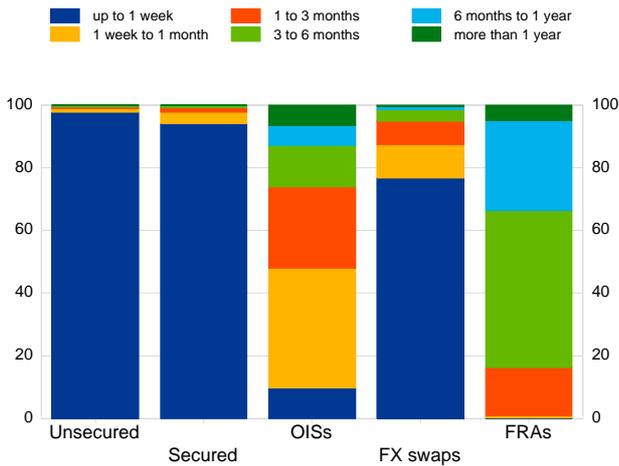
**Chart 4 Cumulative quarterly turnover in various money market segments**  
(index: total segment volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

## 2.2 MATURITY ANALYSIS

Chart 5 Maturity breakdown for various money market segments in 2014 (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 6 Maturity breakdown for various money market segments in 2015 (percentages of total)

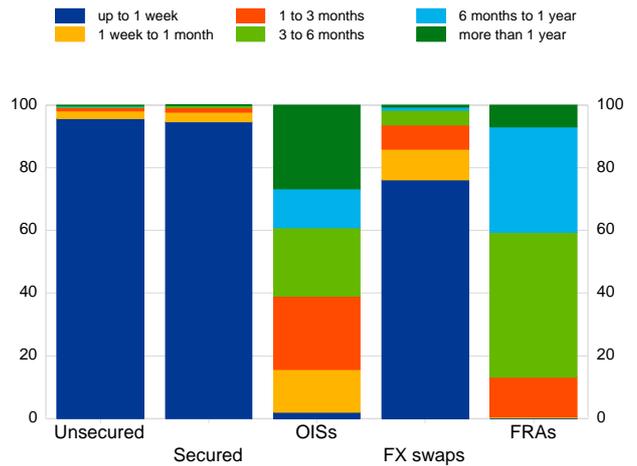
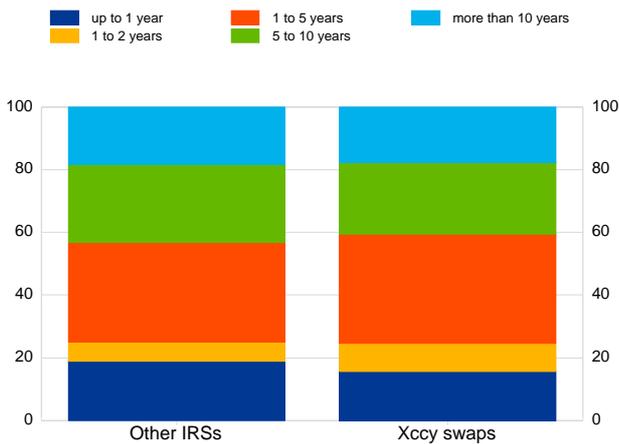
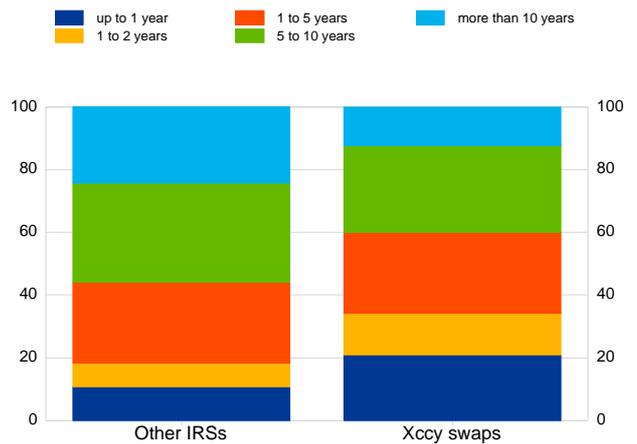


Chart 7 Maturity breakdown for various money market segments in 2014 (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 8 Maturity breakdown for various money market segments in 2015 (percentages of total)



## 2.3 MARKET STRUCTURE

Table 1 Concentration of unsecured market activity in 2015  
(percentages of total)

|                            | Lending | Borrowing |
|----------------------------|---------|-----------|
| Top 5 credit institutions  | 62.1    | 29.8      |
| Top 10 credit institutions | 81.0    | 47.7      |
| Top 20 credit institutions | 91.7    | 71.4      |

Table 2 Concentration of secured market activity in 2015  
(percentages of total)

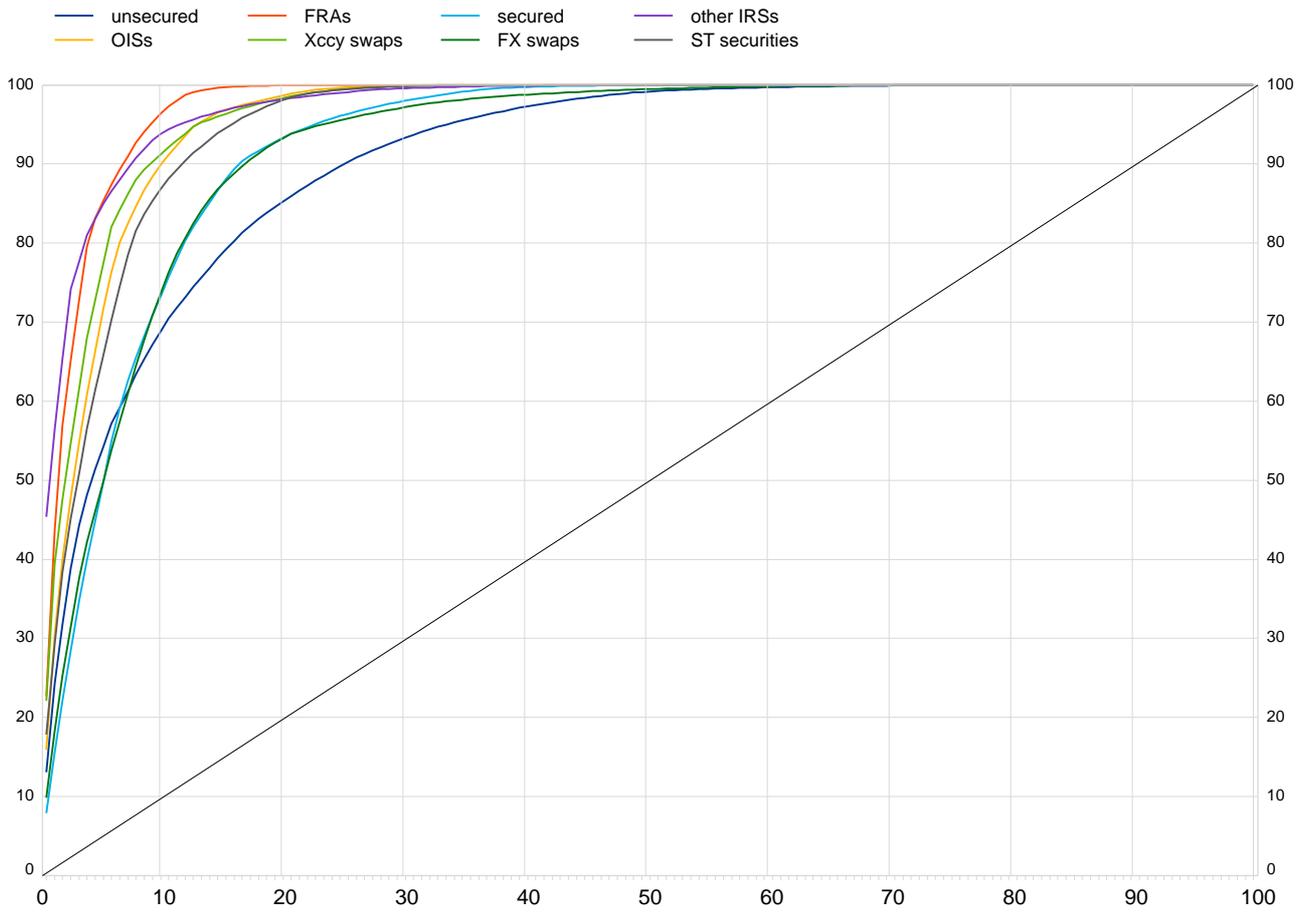
|                            | Bilateral<br>reverse repos | Bilateral<br>repos | Bilateral<br>reverse repos,<br>CCPs only | Bilateral<br>repos,<br>CCPs only | Triparty<br>reverse repos | Triparty<br>repos | Total<br>reverse repos | Total<br>repos |
|----------------------------|----------------------------|--------------------|--|----------------------------------|---------------------------|-------------------|------------------------|----------------|
| Top 5 credit institutions  | 39.0                       | 36.2               | 44.9                                     | 41.8                             | 72.0                      | 54.5              | 38.2                   | 35.9           |
| Top 10 credit institutions | 62.5                       | 60.3               | 70.6                                     | 69.5                             | 90.3                      | 87.9              | 61.2                   | 59.1           |
| Top 20 credit institutions | 87.0                       | 83.4               | 91.9                                     | 88.6                             | 99.7                      | 98.3              | 86.3                   | 83.0           |

Table 3 Concentration of activity in OTC derivatives and short-term securities in 2015  
(percentages of total)

|                            | ST securities | OISs | Other IRSs | FRAs | FX swaps | Xccy swaps |
|----------------------------|---------------|------|------------|------|----------|------------|
| Top 5 credit institutions  | 50.9          | 54.9 | 77.7       | 72.8 | 37.6     | 61.6       |
| Top 10 credit institutions | 74.5          | 80.1 | 88.0       | 89.3 | 57.4     | 84.2       |
| Top 20 credit institutions | 92.3          | 95.4 | 96.0       | 99.3 | 84.1     | 95.3       |

Note: For Tables 1, 2 and 3, the panel comprised 149 credit institutions.

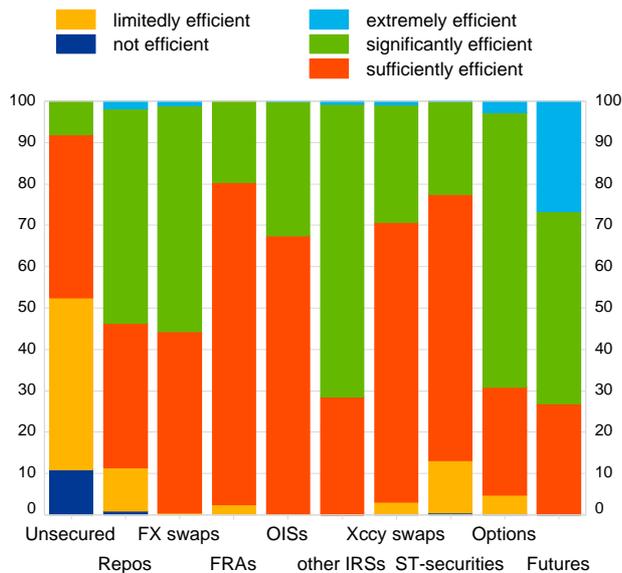
**Chart 9 Lorenz curve: concentration of activity in various market segments in 2015**  
 (x axis: percentage of market participants; y axis: percentage of activity)



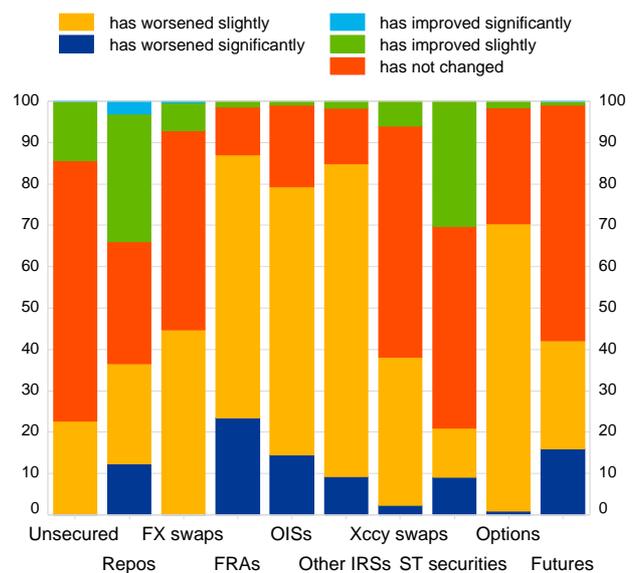
Note: The panel comprised 149 credit institutions.

## 2.4 QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MONEY MARKET STRUCTURE

**Chart 10** Is the euro money market (i.e. the different segments) efficient?  
(percentages of total)

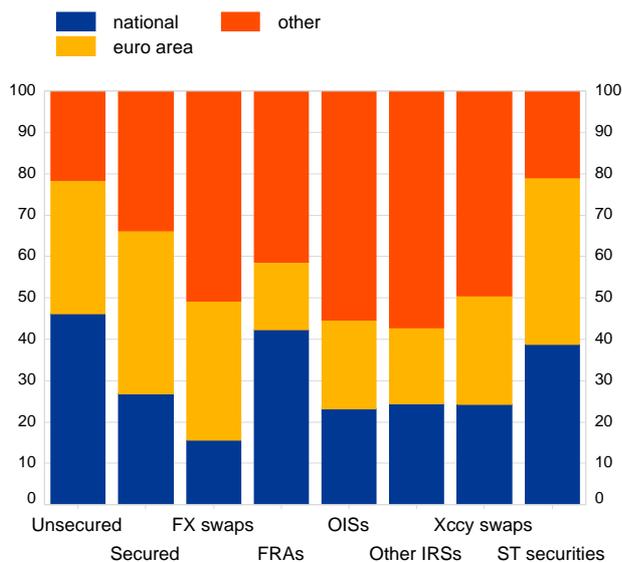


**Chart 11** Has the market liquidity in the euro money market changed with respect to last year?  
(percentages of total)

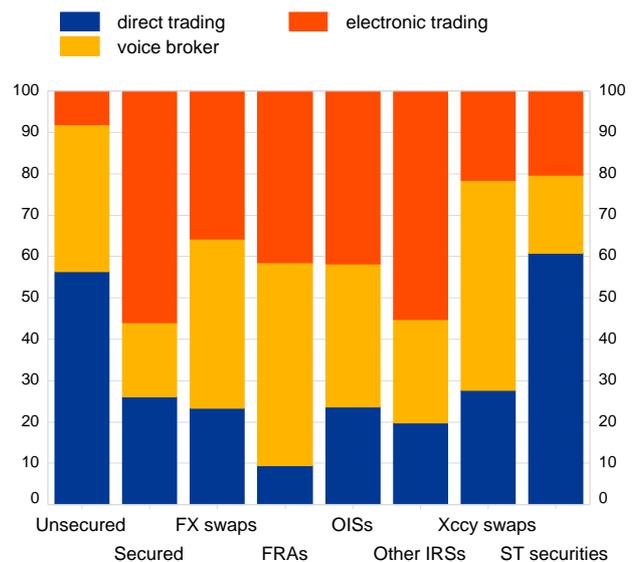


Note: The panel comprised 149 credit institutions.

**Chart 12** Counterparty structure of various money market segments in 2015  
(percentages of total)



**Chart 13** Trading structure of various money market segments in 2015  
(percentages of total)



Note: The panel comprised 149 credit institutions.

## 2.5 PERCEPTION OF TRADING CHANGES CAUSED BY CHANGES TO THE RISK LIMITS IN THE REPORTING PERIOD

Table 4 Perceived impact of limit changes on turnover  
(number of banks)

|                 | 2014          |                 |             |            |       | 2015          |                 |             |            |       |
|-----------------|---------------|-----------------|-------------|------------|-------|---------------|-----------------|-------------|------------|-------|
|                 | Will contract | Will not change | Will expand | No opinion | Total | Will contract | Will not change | Will expand | No opinion | Total |
| Contracted      | 11            | 6               | 0           | 0          | 17    | 13            | 10              | 1           | 0          | 24    |
| Has not changed | 6             | 94              | 12          | 0          | 112   | 8             | 99              | 4           | 0          | 111   |
| Expanded        | 1             | 4               | 12          | 0          | 17    | 1             | 3               | 6           | 0          | 10    |
| No opinion      | 0             | 0               | 0           | 3          | 3     | 0             | 0               | 0           | 4          | 4     |
| Total           | 18            | 104             | 24          | 3          | 149   | 22            | 112             | 11          | 4          | 149   |

Table 5 Perceived impact of limit changes on turnover  
(percentages of turnover reported)

|                 | 2014          |                 |             |            |       | 2015          |                 |             |            |       |
|-----------------|---------------|-----------------|-------------|------------|-------|---------------|-----------------|-------------|------------|-------|
|                 | Will contract | Will not change | Will expand | No opinion | Total | Will contract | Will not change | Will expand | No opinion | Total |
| Contracted      | 3.0           | 0.1             | 0.0         | 0.0        | 3.1   | 3.4           | 2.7             | 0.0         | 0.0        | 6.0   |
| Has not changed | 6.3           | 76.2            | 1.9         | 0.0        | 84.4  | 2.6           | 83.4            | 0.1         | 0.0        | 86.1  |
| Expanded        | 0.3           | 0.1             | 12.2        | 0.0        | 12.6  | 0.0           | 0.0             | 3.3         | 0.0        | 3.3   |
| No opinion      | 0.0           | 0.0             | 0.0         | 0.0        | 0.0   | 0.0           | 0.0             | 0.0         | 4.6        | 4.6   |
| Total           | 9.5           | 76.4            | 14.1        | 0.0        | 100.0 | 5.9           | 86.1            | 3.4         | 4.6        | 100.0 |

Table 6 Perceived impact of limit changes on the number of participants  
(number of banks)

|                 | 2014          |                 |             |            |       | 2015          |                 |             |            |       |
|-----------------|---------------|-----------------|-------------|------------|-------|---------------|-----------------|-------------|------------|-------|
|                 | Will contract | Will not change | Will expand | No opinion | Total | Will contract | Will not change | Will expand | No opinion | Total |
| Contracted      | 11            | 9               | 1           | 0          | 21    | 13            | 13              | 1           | 0          | 27    |
| Has not changed | 6             | 89              | 15          | 0          | 110   | 6             | 97              | 7           | 0          | 110   |
| Expanded        | 0             | 2               | 12          | 0          | 14    | 0             | 1               | 7           | 0          | 8     |
| No opinion      | 0             | 0               | 0           | 4          | 4     | 0             | 0               | 0           | 4          | 4     |
| Total           | 17            | 100             | 28          | 4          | 149   | 19            | 111             | 15          | 4          | 149   |

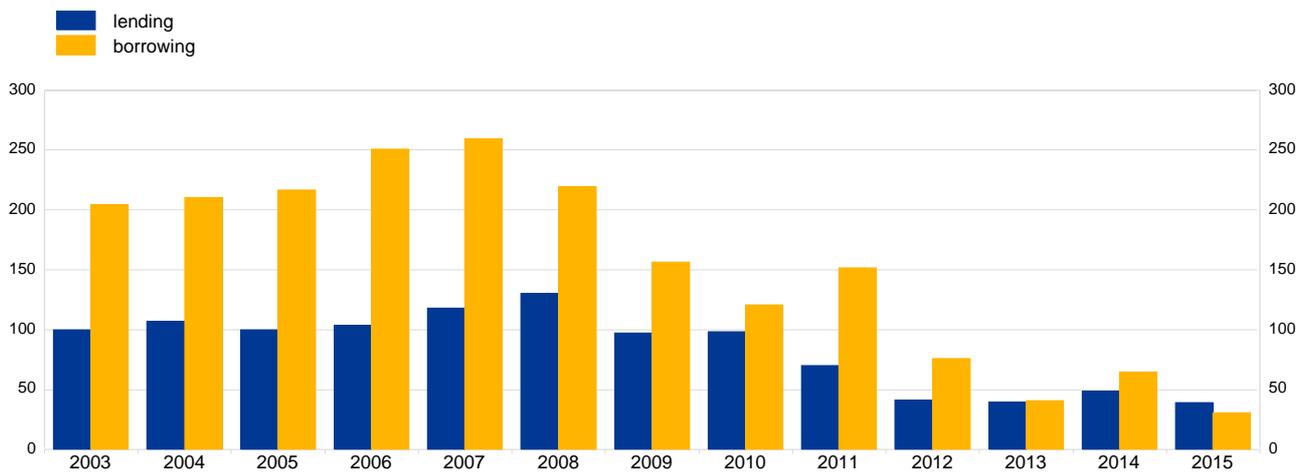
Table 7 Perceived impact of limit changes on the number of participants  
(percentages of turnover reported)

|                 | 2014          |                 |             |            |       | 2015          |                 |             |            |       |
|-----------------|---------------|-----------------|-------------|------------|-------|---------------|-----------------|-------------|------------|-------|
|                 | Will contract | Will not change | Will expand | No opinion | Total | Will contract | Will not change | Will expand | No opinion | Total |
| Contracted      | 2.4           | 0.2             | 0.0         | 0.0        | 2.6   | 3.0           | 2.8             | 0.0         | 0.0        | 5.7   |
| Has not changed | 5.9           | 76.2            | 3.0         | 0.0        | 85.1  | 1.0           | 84.7            | 2.2         | 0.0        | 87.9  |
| Expanded        | 0.0           | 0.0             | 12.2        | 0.0        | 12.3  | 0.0           | 0.0             | 1.8         | 0.0        | 1.8   |
| No opinion      | 0.0           | 0.0             | 0.0         | 0.0        | 0.0   | 0.0           | 0.0             | 0.0         | 4.6        | 4.6   |
| Total           | 8.3           | 76.4            | 15.3        | 0.0        | 100.0 | 4.0           | 87.5            | 4.0         | 4.6        | 100.0 |

## 3 THE UNSECURED MARKET

### 3.1 TURNOVER ANALYSIS

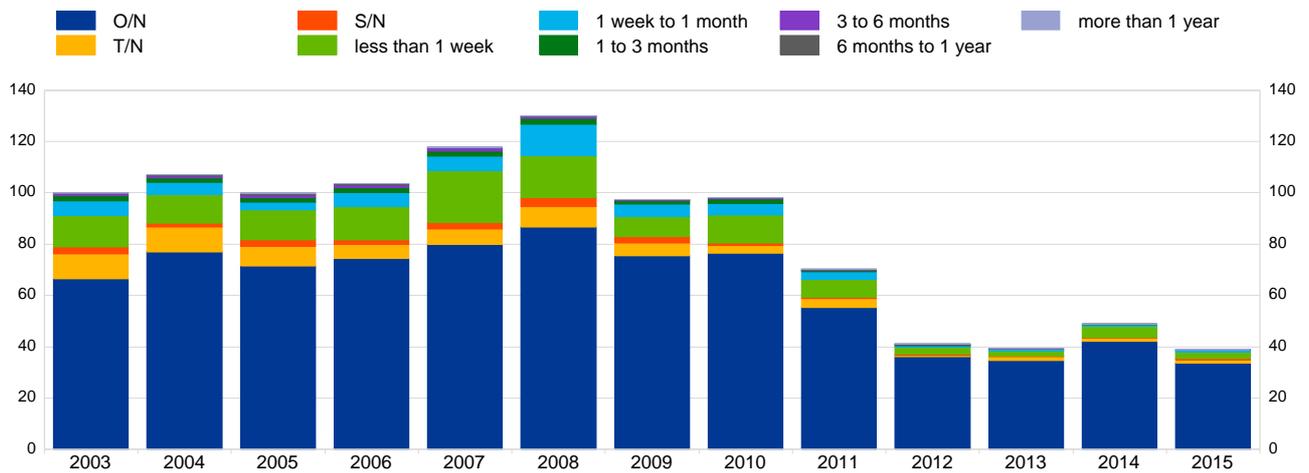
Chart 14 Cumulative quarterly turnover in unsecured cash lending and borrowing  
(index: cash lending volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

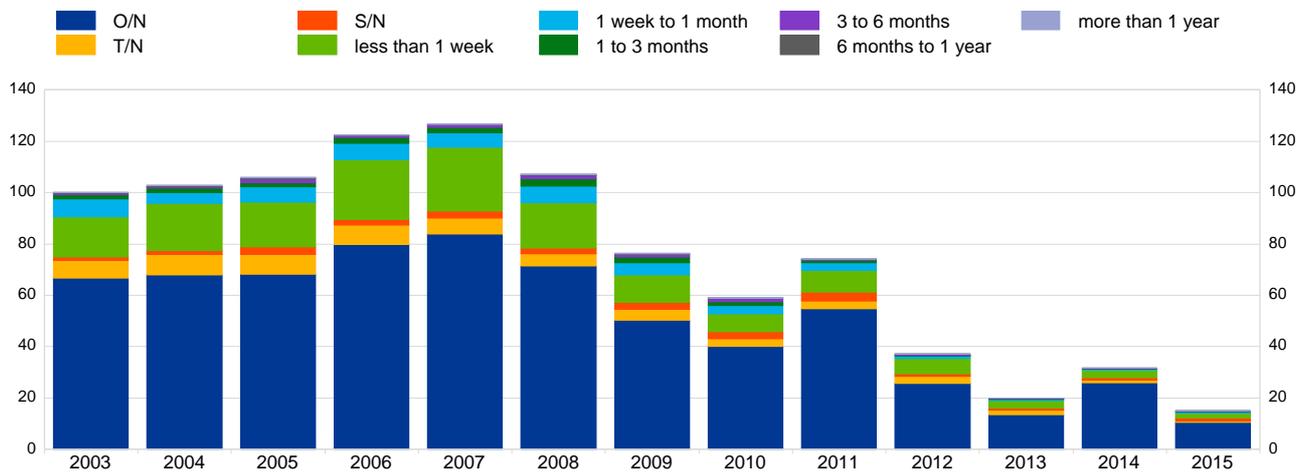
### 3.2 MATURITY ANALYSIS

**Chart 15 Cumulative quarterly turnover in unsecured cash lending**  
(index: cash lending volume in 2003 = 100)



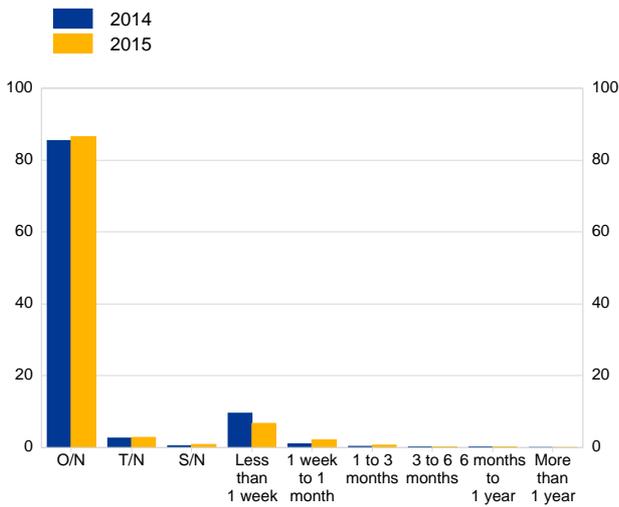
Note: The panel comprised 98 credit institutions.

**Chart 16 Cumulative quarterly turnover in unsecured cash borrowing**  
(index: cash borrowing volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

Chart 17 Breakdown, by maturity, of cumulative quarterly turnover in unsecured lending (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 18 Breakdown, by maturity, of cumulative quarterly turnover in unsecured borrowing (percentages of total)

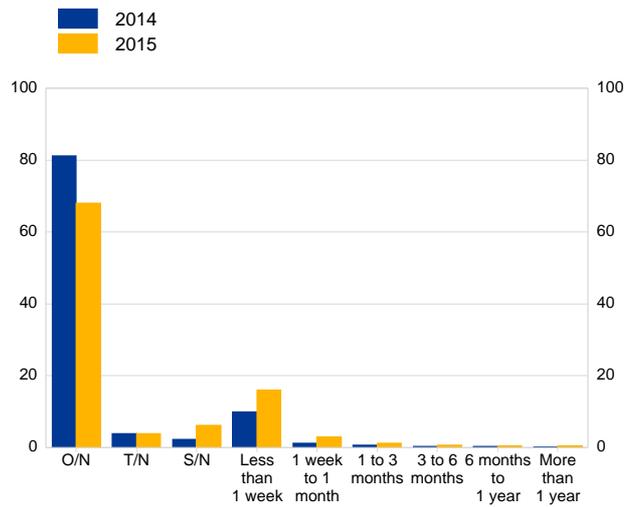
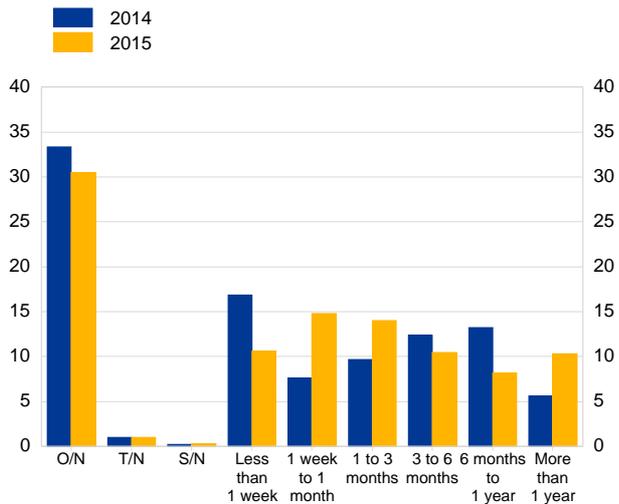
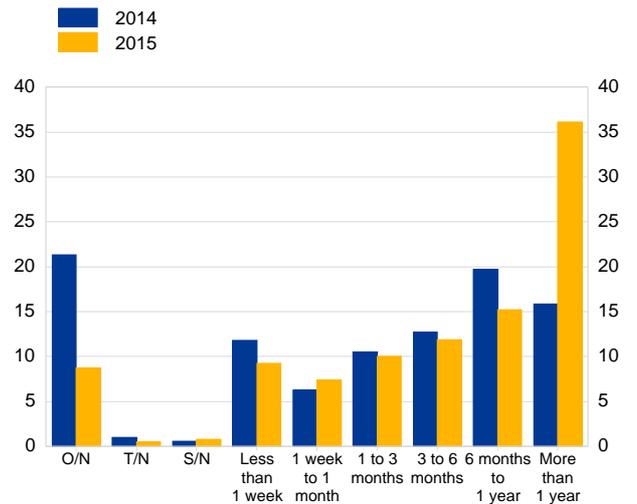


Chart 19 Maturity-weighted breakdown of cumulative quarterly turnover in unsecured lending (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 20 Maturity-weighted breakdown of cumulative quarterly turnover in unsecured borrowing (percentages of total)



### 3.3 MARKET STRUCTURE

Chart 21 Breakdown, by geographical counterparty, of the unsecured market in 2014 (percentages of total)

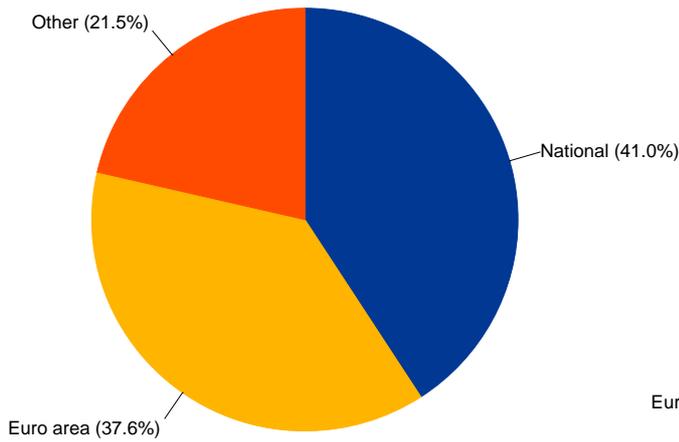
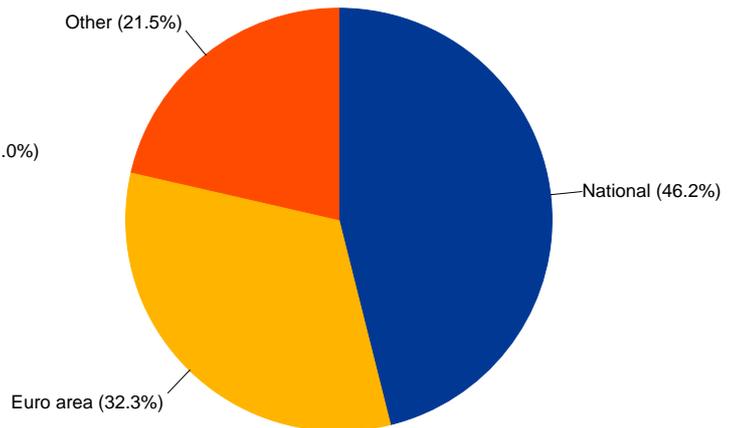


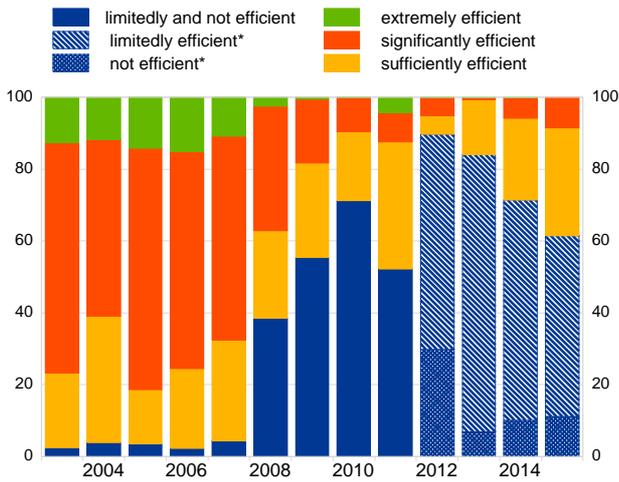
Chart 22 Breakdown, by geographical counterparty, of the unsecured market in 2015 (percentages of total)



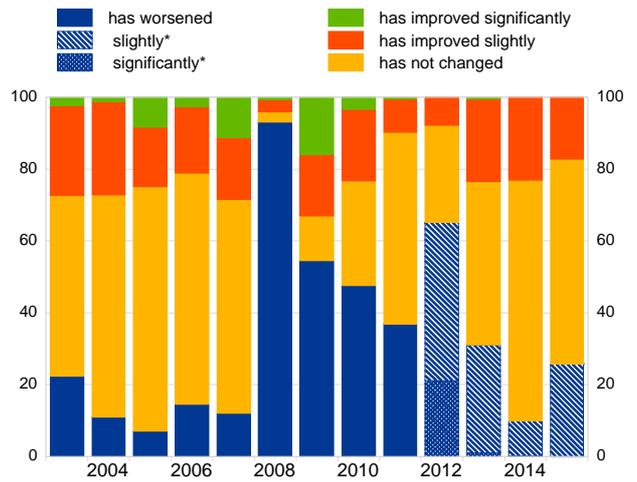
Note: The panel comprised 149 credit institutions.

### 3.4 QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MARKET STRUCTURE

**Chart 23 Is the unsecured market efficient?**  
(percentages of total)

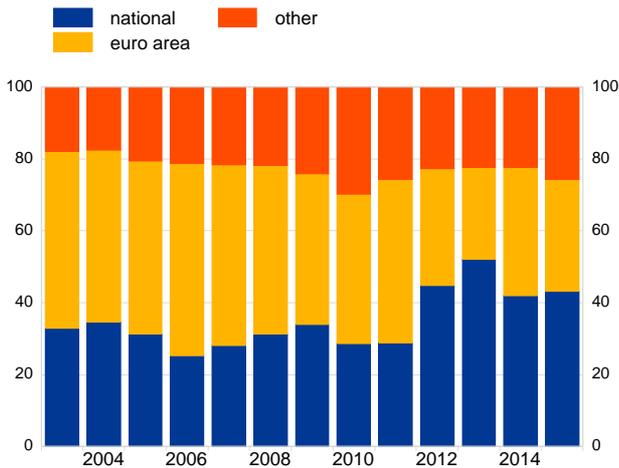


**Chart 24 Has the market liquidity in the unsecured market changed with respect to last year?**  
(percentages of total)

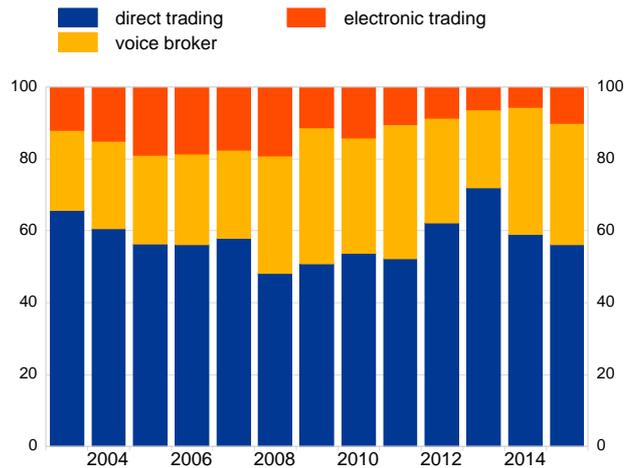


\* Reporting started in 2012.  
Note: The panel comprised 98 credit institutions.

**Chart 25 Counterparty structure of unsecured transactions**  
(percentages of total)



**Chart 26 Trading structure of unsecured transactions**  
(percentages of total)

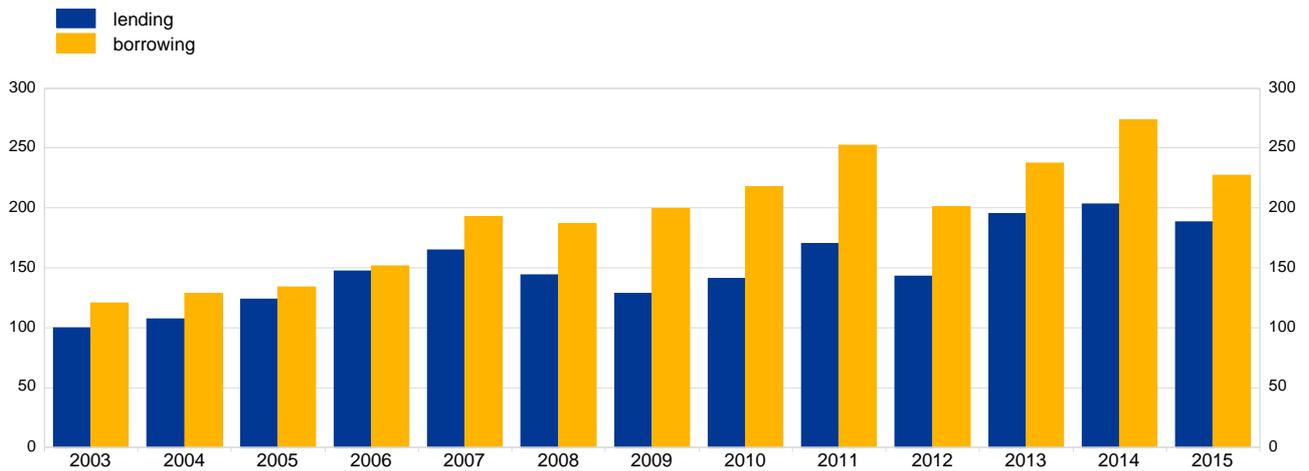


Note: The panel comprised 98 credit institutions.

## 4 THE SECURED MARKET

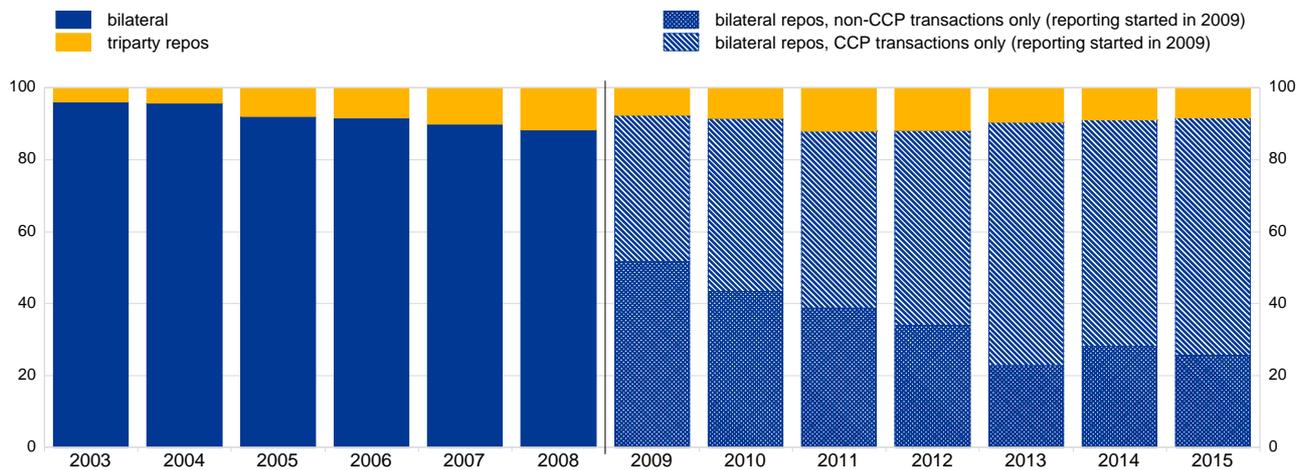
### 4.1 TOTAL SECURED MARKET: TURNOVER ANALYSIS

Chart 27 Cumulative quarterly turnover in secured cash lending and borrowing  
(index: cash lending volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

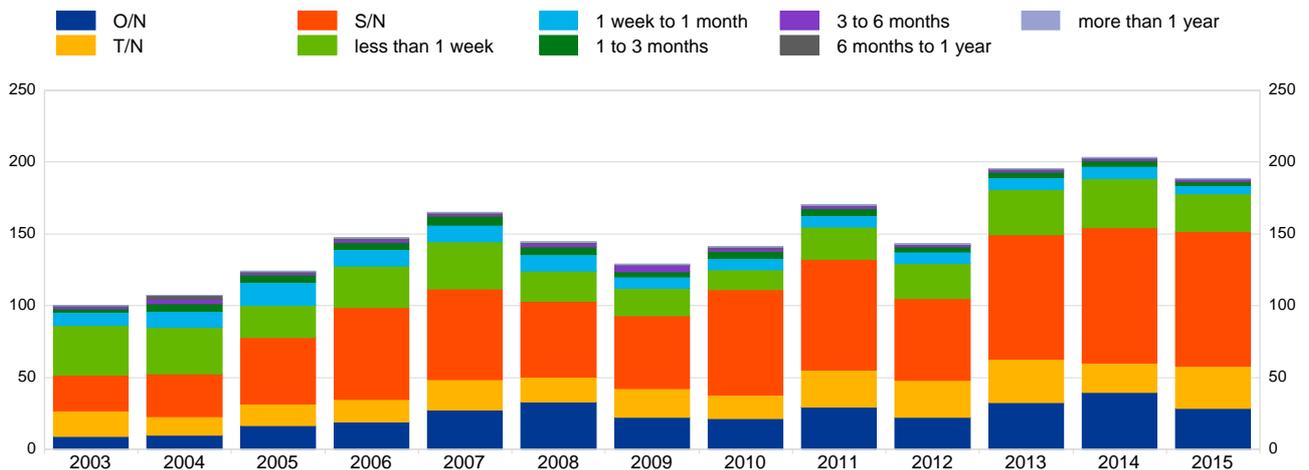
Chart 28 Breakdown of total secured market  
(percentages of total)



Note: The panel comprised 98 credit institutions.

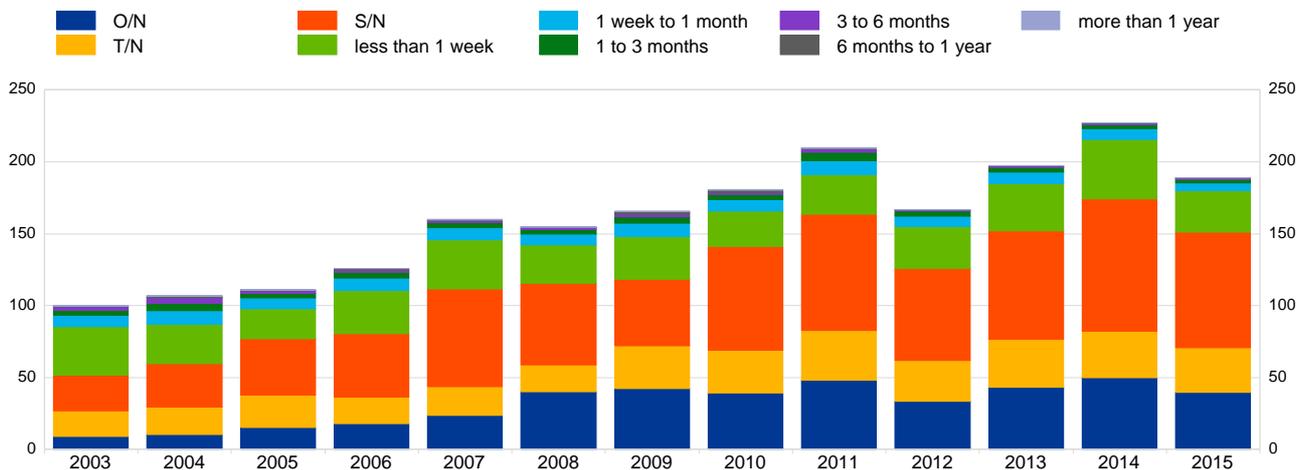
## 4.2 TOTAL SECURED MARKET: MATURITY ANALYSIS

Chart 29 Cumulative quarterly turnover in secured cash lending  
(index: secured cash lending volume in 2003 = 100)



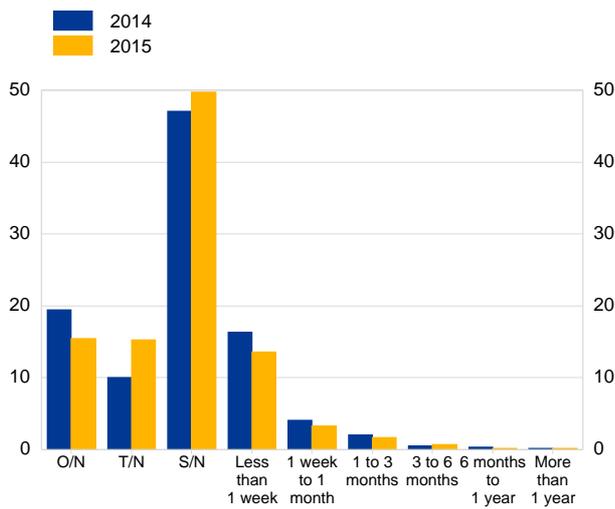
Note: The panel comprised 98 credit institutions.

Chart 30 Cumulative quarterly turnover in secured cash borrowing  
(index: secured cash borrowing volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

Chart 31 Breakdown, by maturity, of cumulative quarterly turnover in secured lending (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 32 Breakdown, by maturity, of cumulative quarterly turnover in secured borrowing (percentages of total)

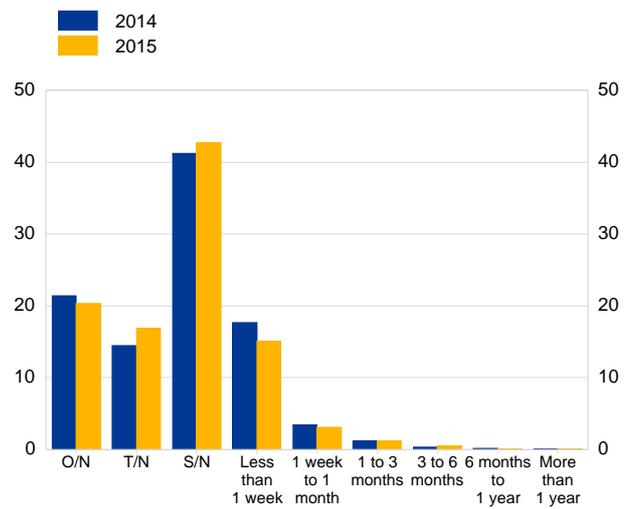
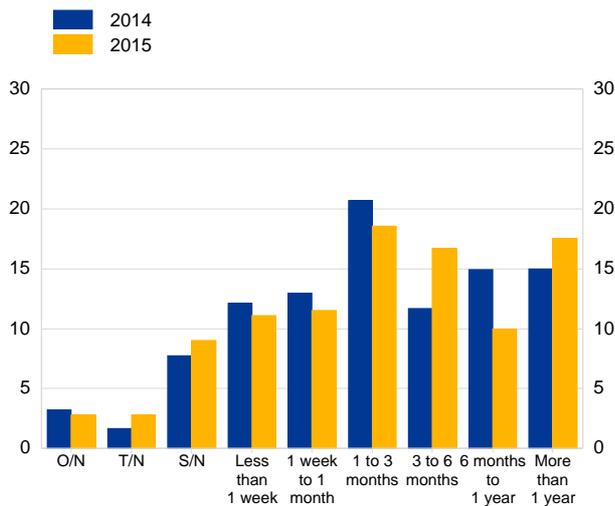
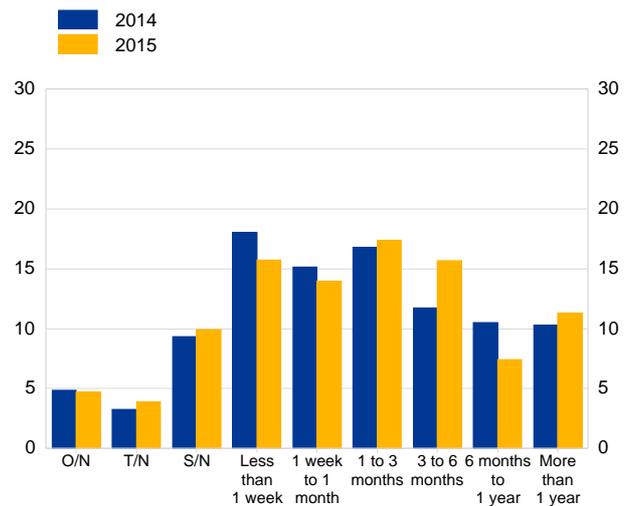


Chart 33 Maturity-weighted breakdown of cumulative quarterly turnover in secured lending (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 34 Maturity-weighted breakdown of cumulative quarterly turnover in secured borrowing (percentages of total)



### 4.3 TOTAL SECURED MARKET: MARKET STRUCTURE

Chart 35 Breakdown, by geographical counterparty, of the secured market in 2014 (percentages of total)

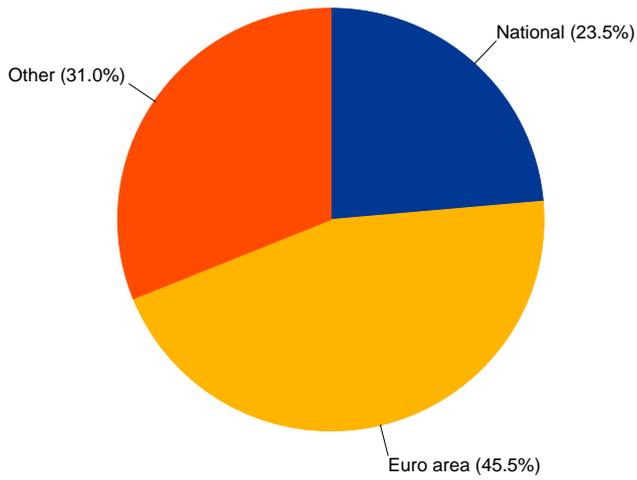
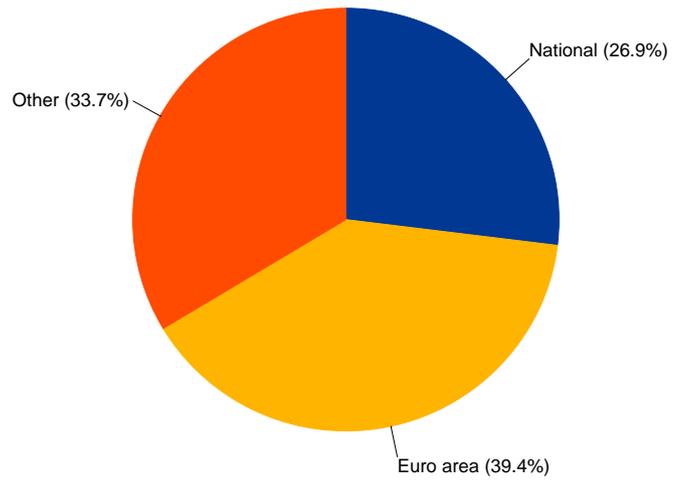


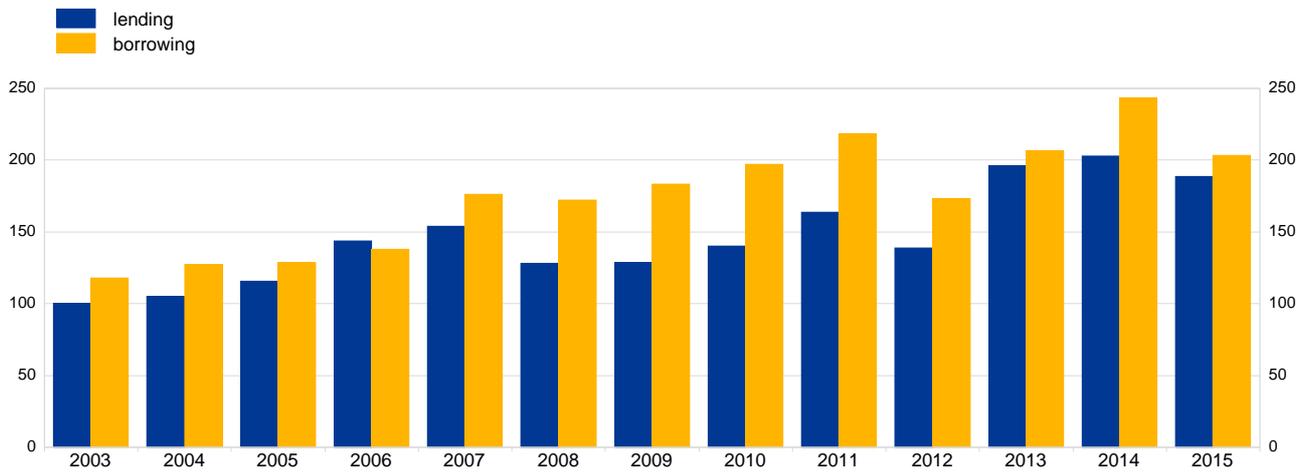
Chart 36 Breakdown, by geographical counterparty, of the secured market in 2015 (percentages of total)



Note: The panel comprised 149 credit institutions.

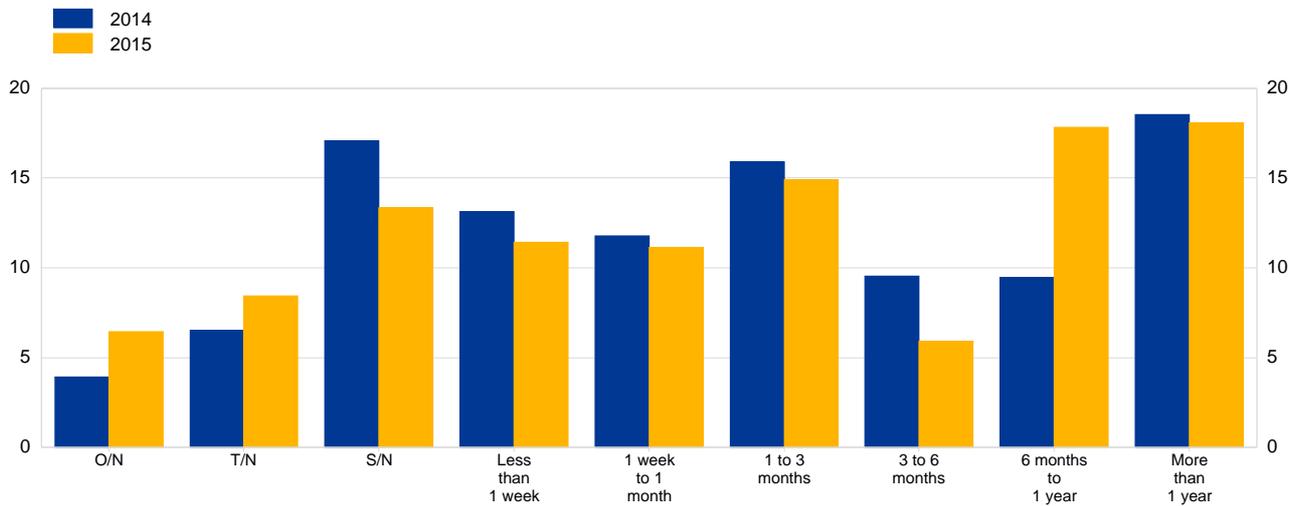
## 4.4 BILATERAL REPOS, INCLUDING CCP TRANSACTIONS: TURNOVER ANALYSIS

Chart 37 Cumulative quarterly turnover in bilateral repo cash lending and borrowing  
(index: cash lending volume in 2003 = 100)



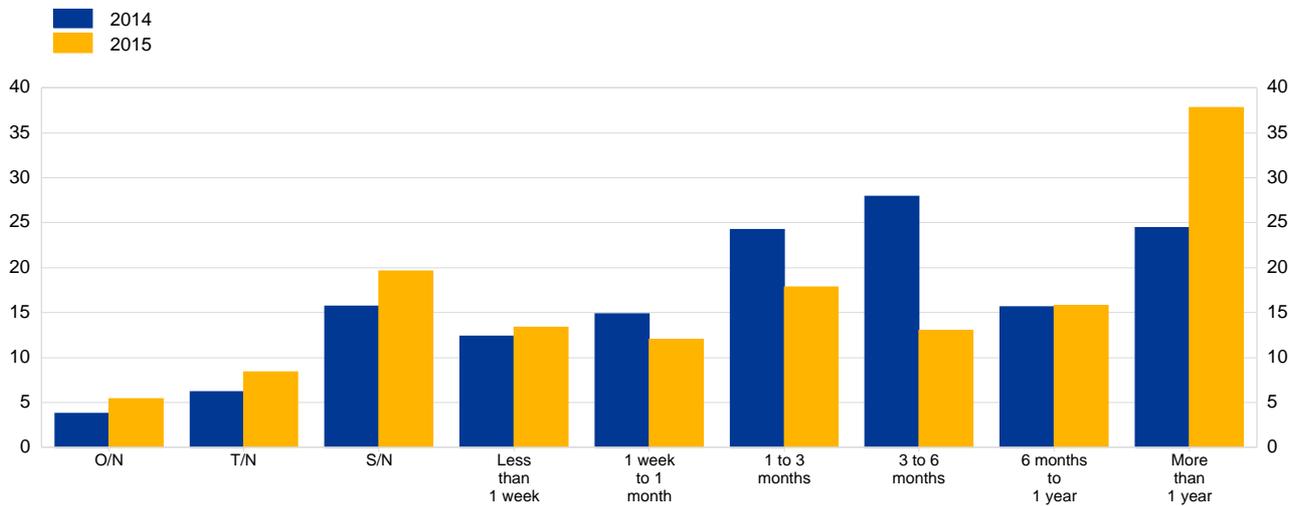
Note: The panel comprised 98 credit institutions.

**Chart 38 Quarterly turnover in bilateral repo lending that is indexed to a floating rate**  
(percentages of total volume in the maturity bucket)



Note: The panel comprised 149 credit institutions.

**Chart 39 Quarterly turnover in bilateral repo borrowing that is indexed to a floating rate**  
(percentages of total volume in the maturity bucket)

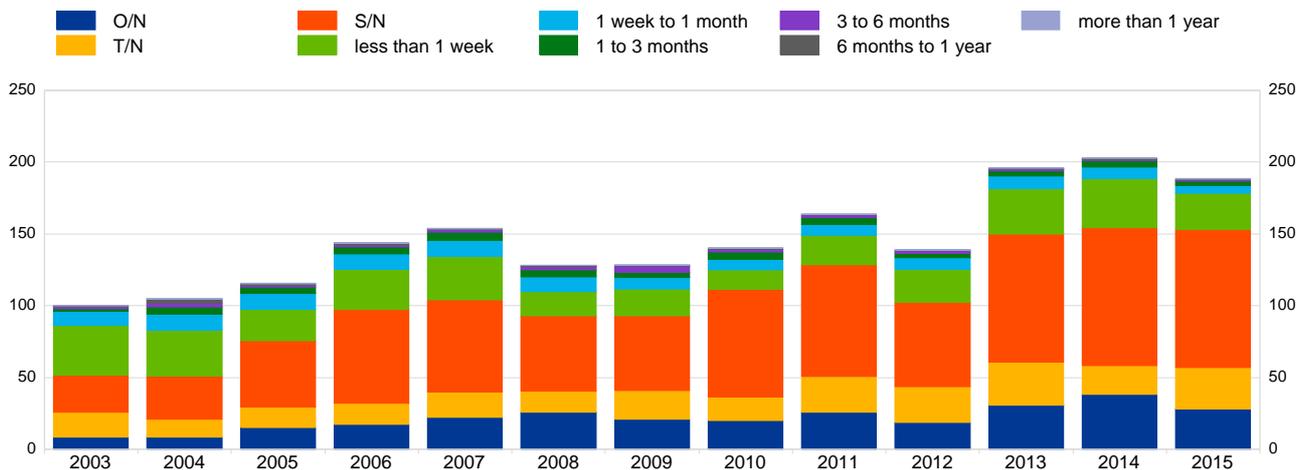


Note: The panel comprised 149 credit institutions.

## 4.5 BILATERAL REPOS, INCLUDING CCP TRANSACTIONS: MATURITY ANALYSIS

Chart 40 Cumulative quarterly turnover in bilateral repo lending

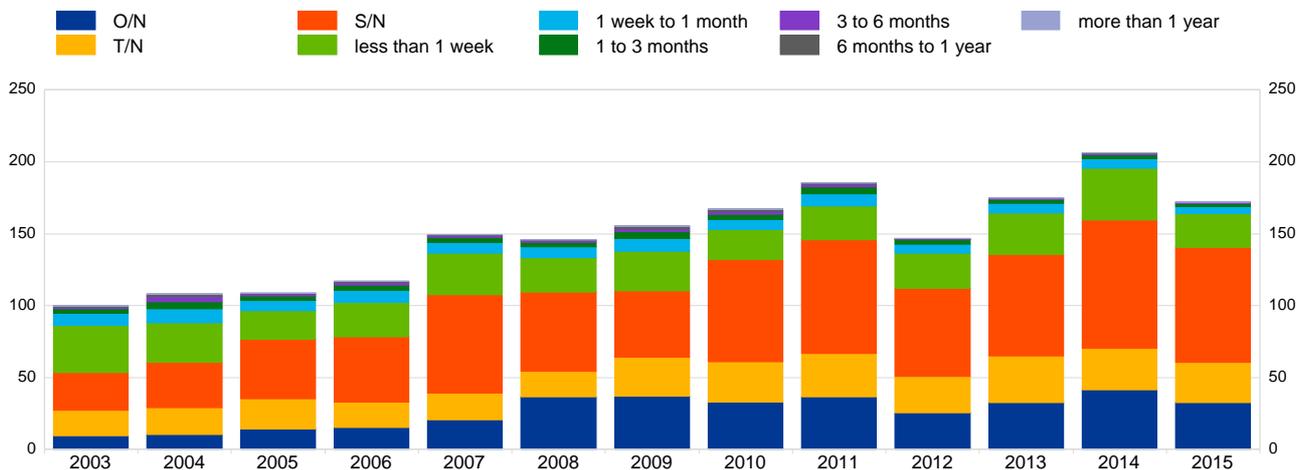
(index: bilateral repo lending volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

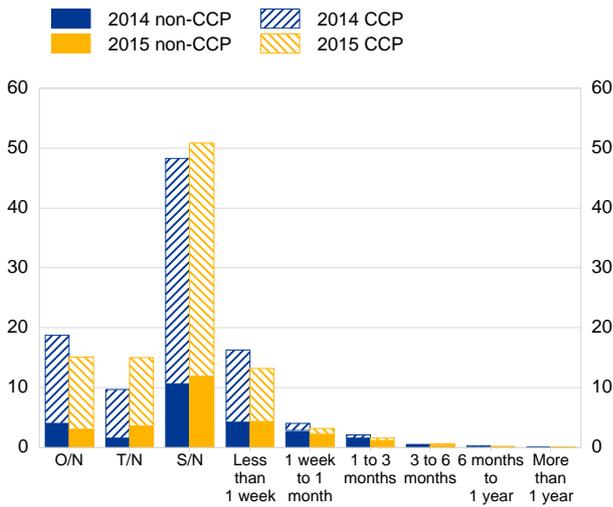
Chart 41 Cumulative quarterly turnover in bilateral repo borrowing

(index: bilateral repo borrowing volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

Chart 42 Breakdown, by maturity, of cumulative quarterly turnover in bilateral repo lending (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 43 Breakdown, by maturity, of cumulative quarterly turnover in bilateral repo borrowing (percentages of total)

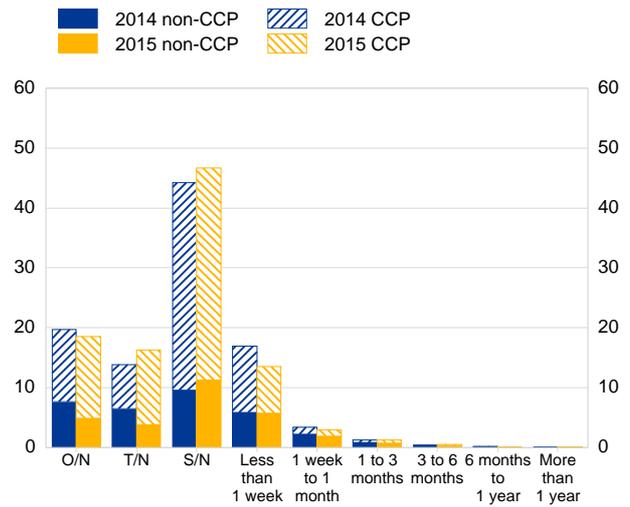
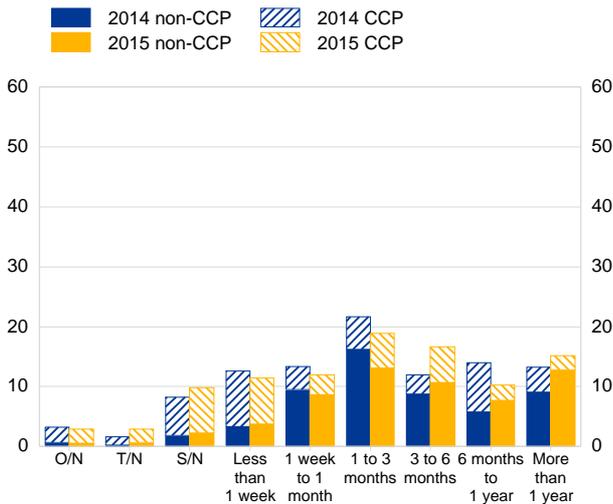
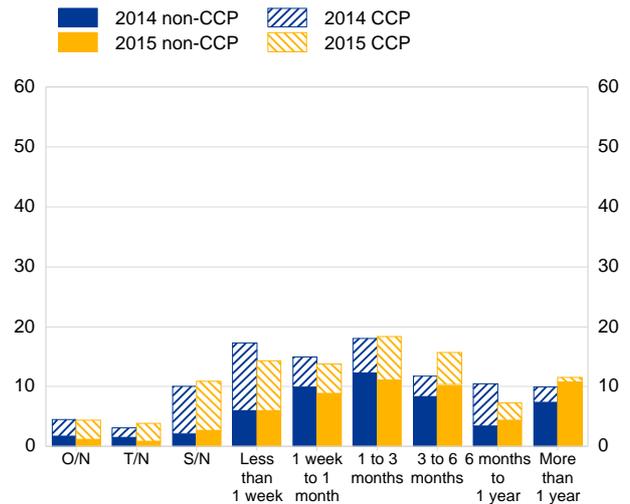


Chart 44 Maturity-weighted breakdown of cumulative quarterly turnover in bilateral repo lending (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 45 Maturity-weighted breakdown of cumulative quarterly turnover in bilateral repo borrowing (percentages of total)



## 4.6 BILATERAL REPOS, INCLUDING CCP TRANSACTIONS: MARKET STRUCTURE

Chart 46 Geographical breakdown of collateral in the bilateral repo market in 2014  
(percentages of total)

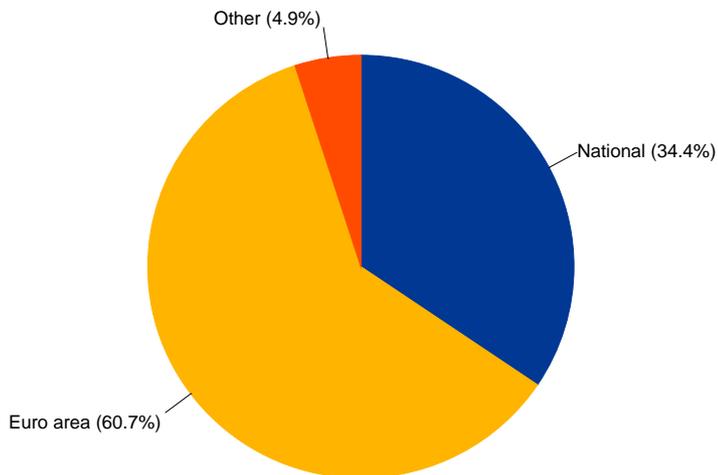
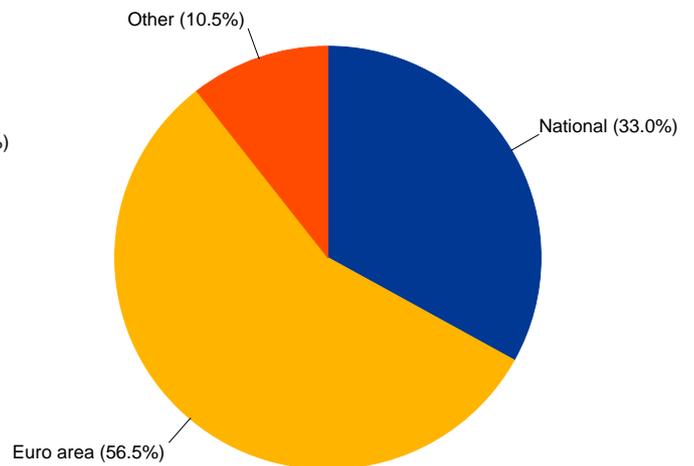


Chart 47 Geographical breakdown of collateral in the bilateral repo market in 2015  
(percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 48 Geographical breakdown of collateral in bilateral secured lending  
(percentages of total)

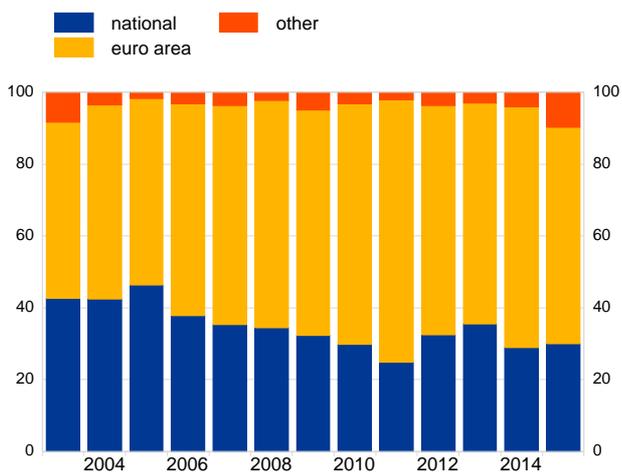
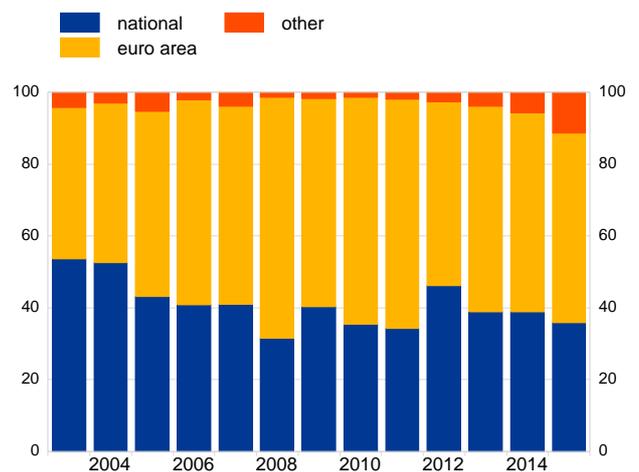


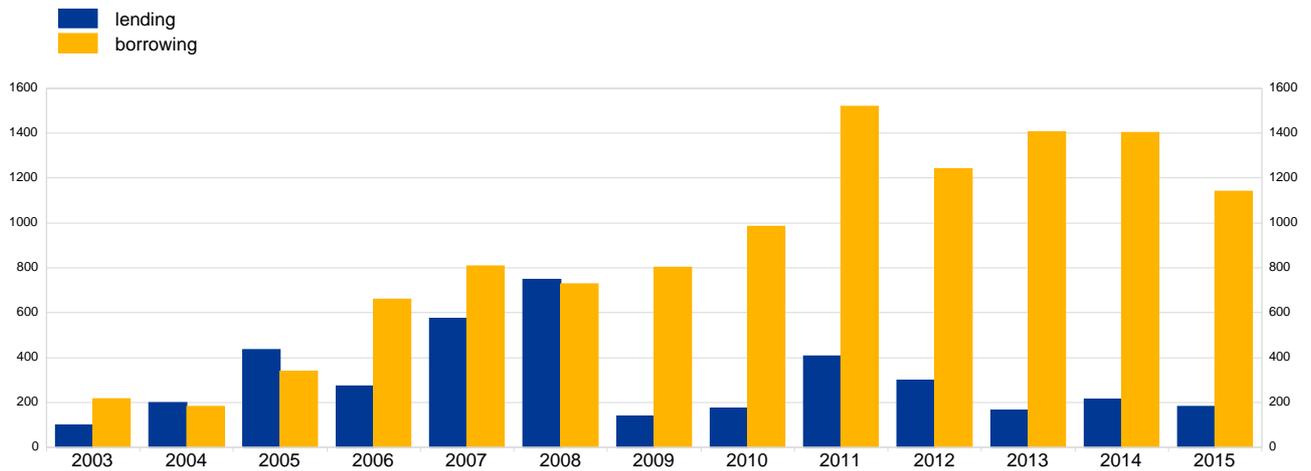
Chart 49 Geographical breakdown of collateral in bilateral secured borrowing  
(percentages of total)



Note: The panel comprised 98 credit institutions.

## 4.7 TRIPARTY REPOS MARKET: TURNOVER ANALYSIS

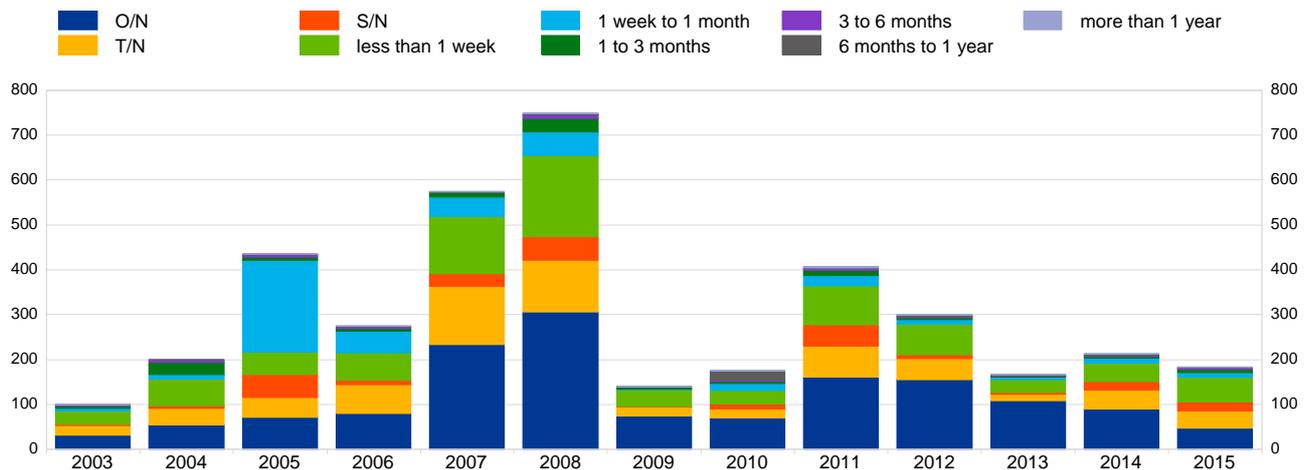
Chart 50 Cumulative quarterly turnover in triparty repo cash lending and borrowing  
(index: cash lending volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

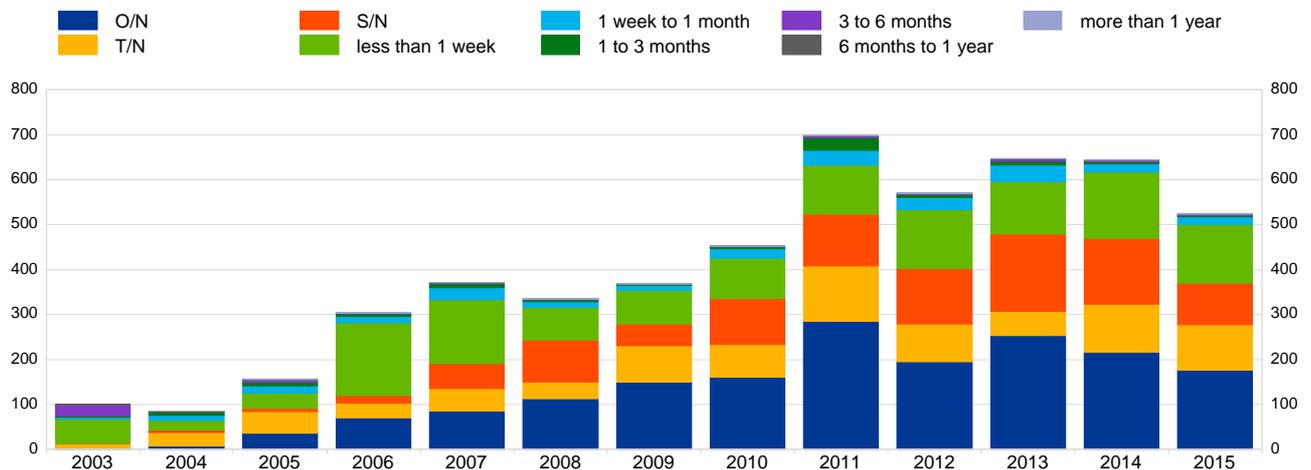
## 4.8 TRIPARTY REPOS: MATURITY ANALYSIS

Chart 51 Cumulative quarterly turnover in triparty repo lending  
(index: triparty repo lending volume in 2003 = 100)



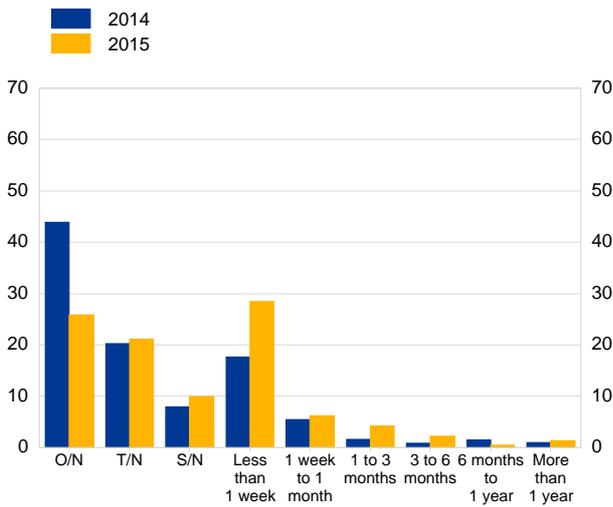
Note: The panel comprised 98 credit institutions.

Chart 52 Cumulative quarterly turnover in triparty repo borrowing  
(index: triparty repo borrowing volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

Chart 53 Breakdown, by maturity, of cumulative quarterly turnover in triparty repo lending (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 54 Breakdown, by maturity, of cumulative quarterly turnover in triparty repo borrowing (percentages of total)

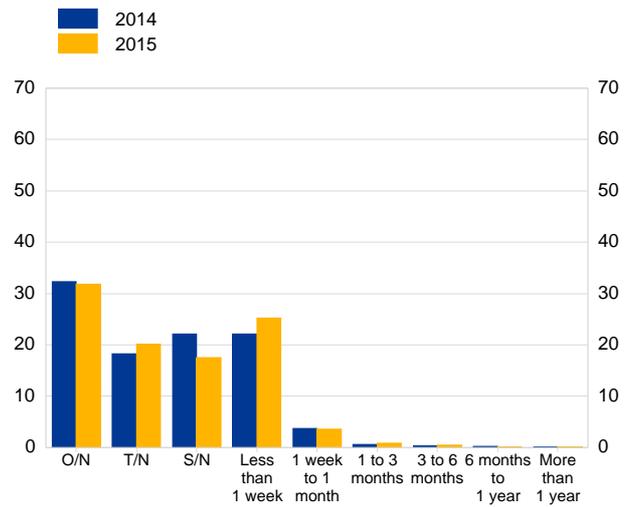
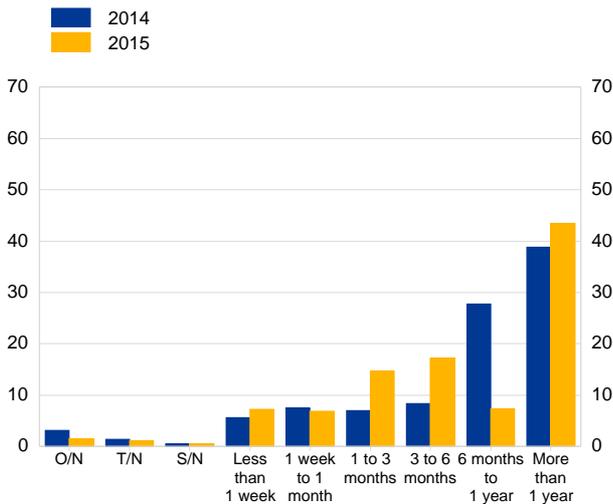
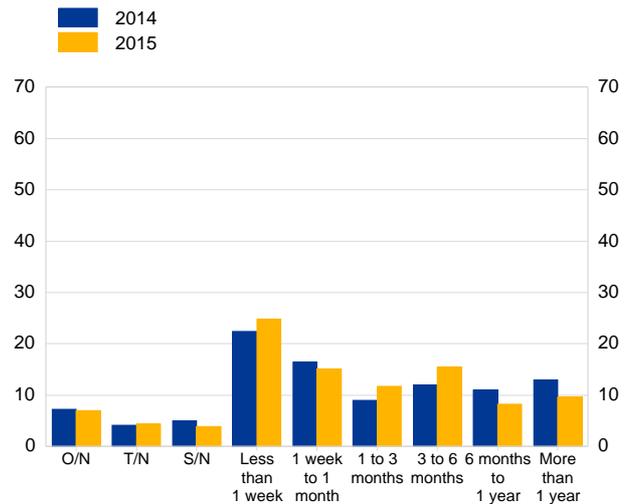


Chart 55 Maturity-weighted breakdown of cumulative quarterly turnover in triparty repo lending (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 56 Maturity-weighted breakdown of cumulative quarterly turnover in triparty repo borrowing (percentages of total)



## 4.9 TOTAL SECURED MARKET: QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MARKET STRUCTURE

Chart 57 Is the secured market efficient?  
(percentages of total)

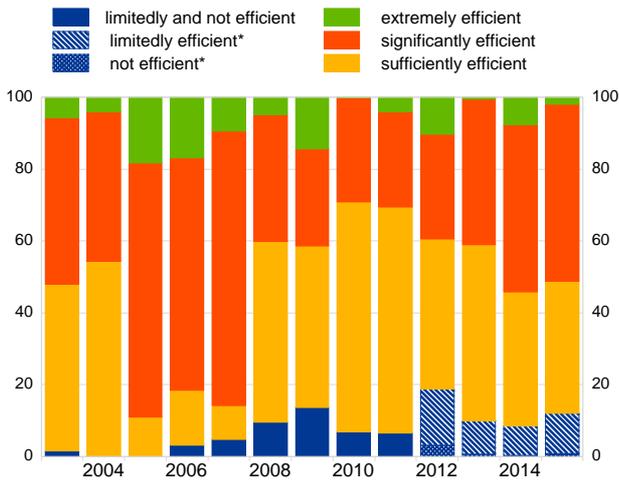
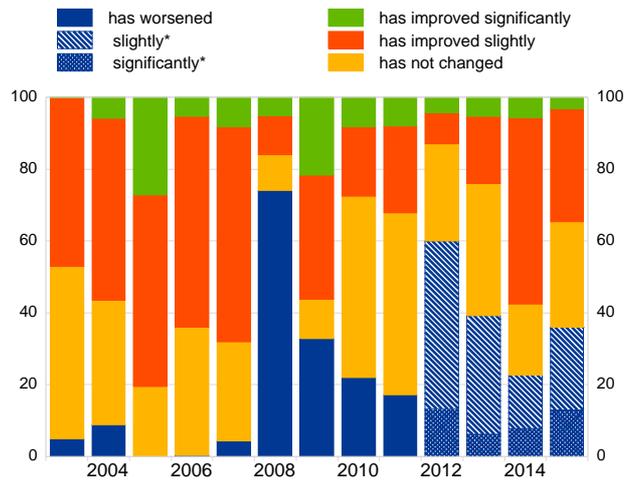


Chart 58 Has the market liquidity in the secured market changed with respect to last year?  
(percentages of total)



\* Reporting started in 2012.  
Note: The panel comprised 98 credit institutions.

Chart 59 Counterparty structure of secured transactions  
(percentages of total)

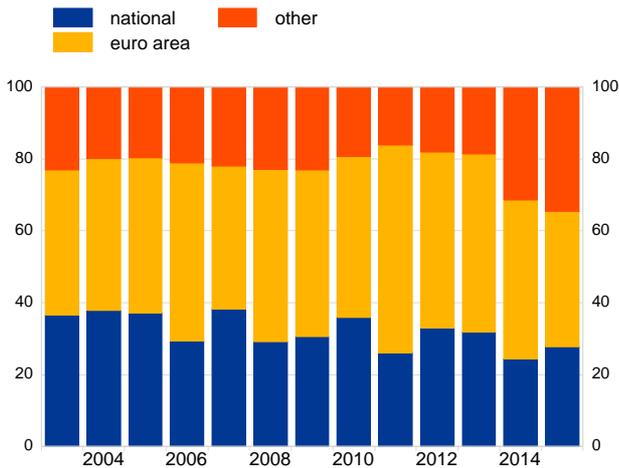
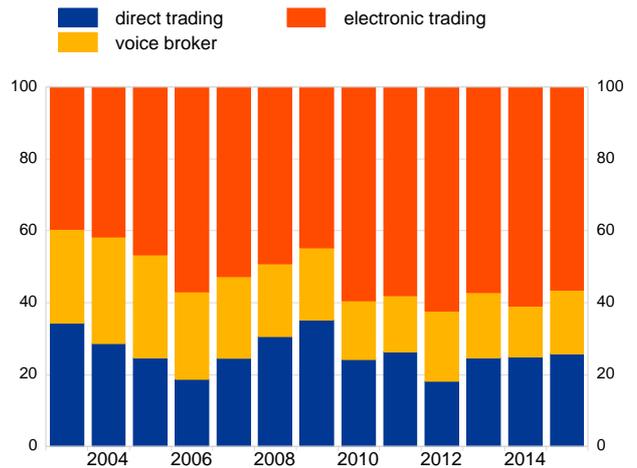


Chart 60 Trading structure of secured transactions  
(percentages of total)

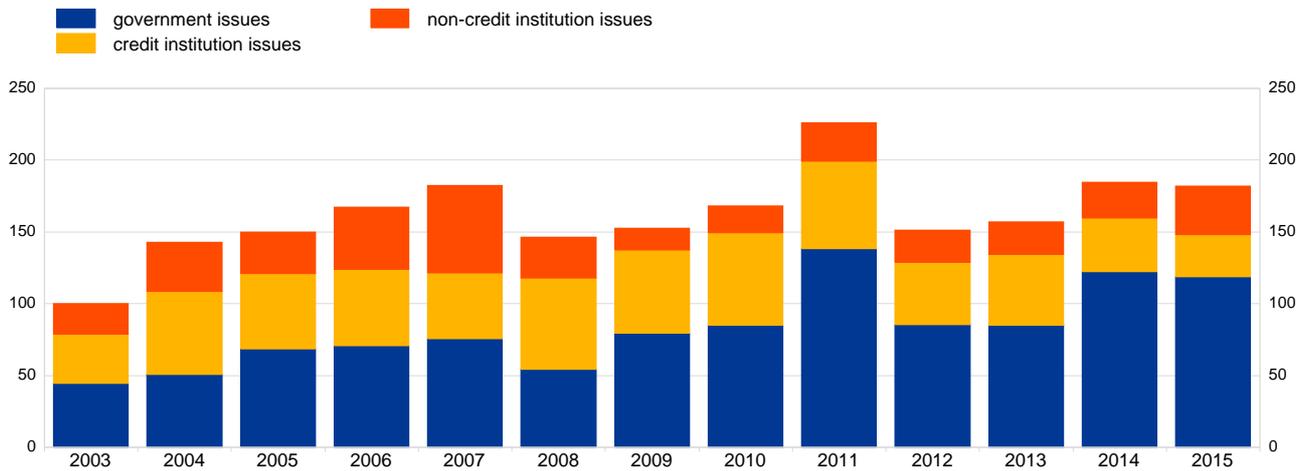


Note: The panel comprised 98 credit institutions.

## 5 THE SHORT-TERM SECURITIES MARKET

### 5.1 THE SECONDARY MARKET FOR SHORT-TERM SECURITIES: TURNOVER ANALYSIS

Chart 61 Cumulative quarterly turnover in outright transactions  
(index: outright transaction volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

## 5.2 QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MARKET STRUCTURE

Chart 62 Is the short-term securities market efficient?  
(percentages of total)

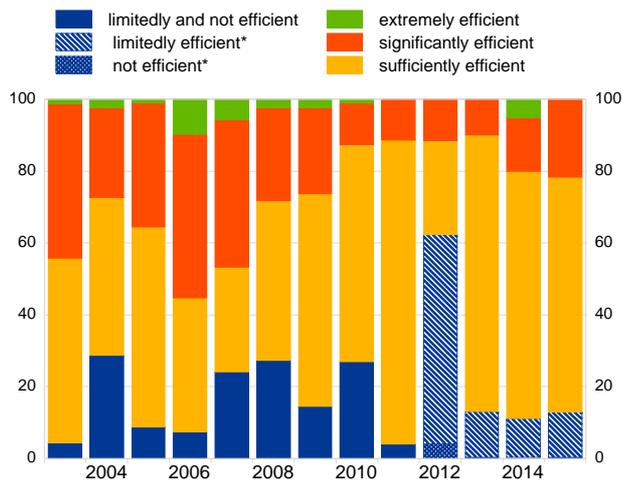
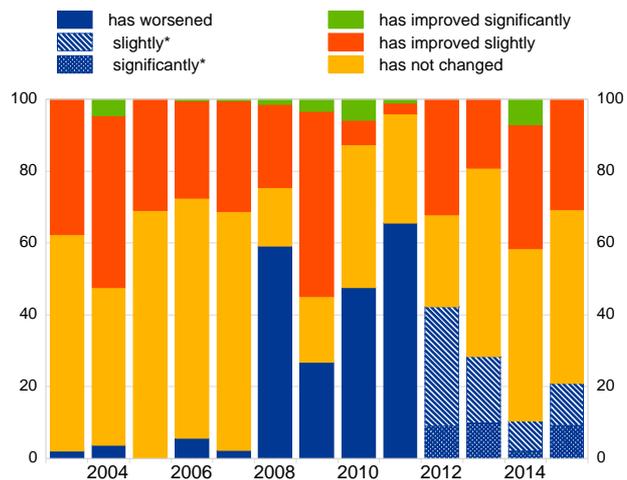


Chart 63 Has the market liquidity for short-term securities changed with respect to last year?  
(percentages of total)



\* Reporting started in 2012.

Note: The panel comprised 98 credit institutions.

Chart 64 Counterparty structure of short-term securities transactions  
(percentages of total)

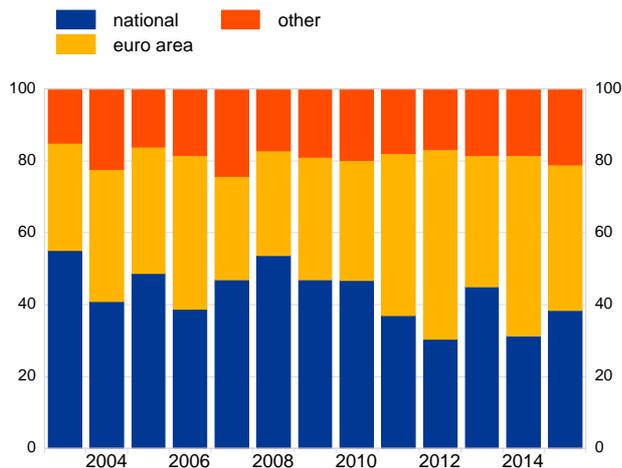
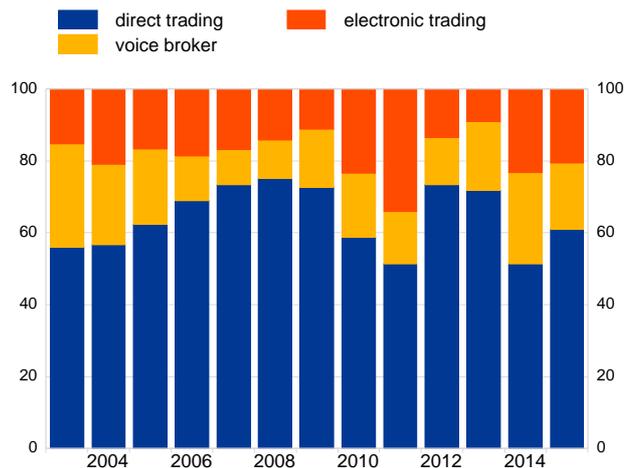


Chart 65 Trading structure of short-term securities transactions  
(percentages of total)

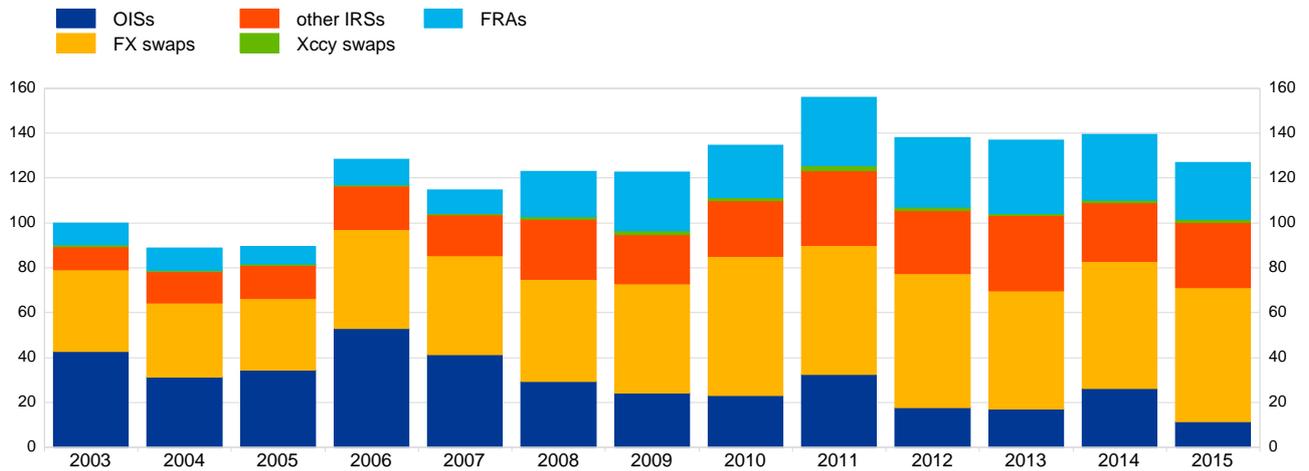


Note: The panel comprised 98 credit institutions.

## 6 THE OVER-THE-COUNTER DERIVATIVES MARKET

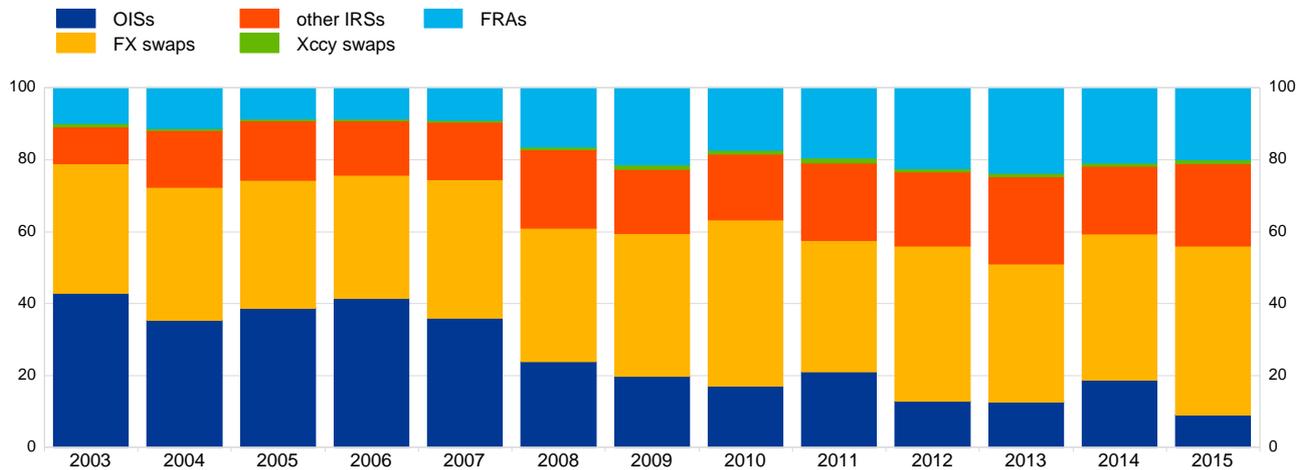
### 6.1 OVER-THE-COUNTER (OTC) DERIVATIVES: TURNOVER ANALYSIS

Chart 66 Cumulative quarterly turnover in the various OTC derivatives market segments  
(index: OTC derivatives volume in 2003 = 100)



Note: The panel comprised 98 credit institutions.

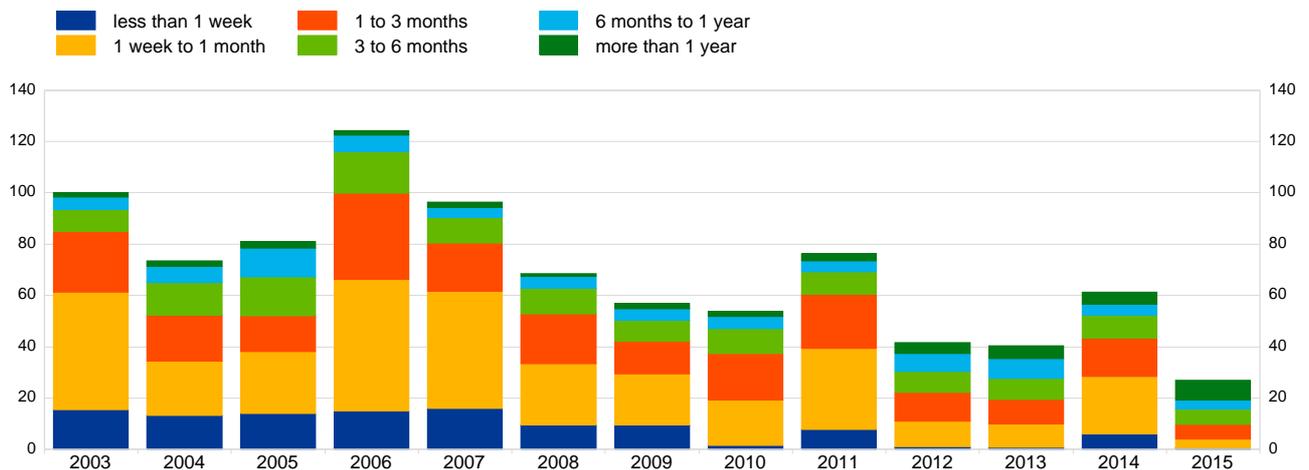
Chart 67 Breakdown, by segment, of total OTC derivatives market  
(percentages of total)



Note: The panel comprised 98 credit institutions.

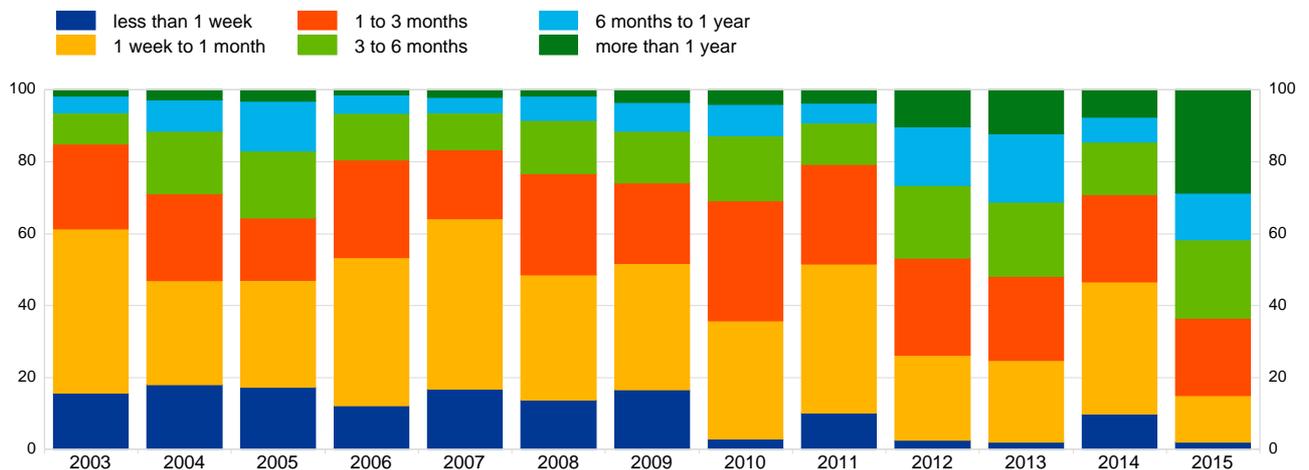
## 6.2 OVERNIGHT INDEX SWAPS (OISs): TURNOVER ANALYSIS

Chart 68 Cumulative quarterly turnover in the OIS segment  
(index: OIS volume in 2003 = 100)



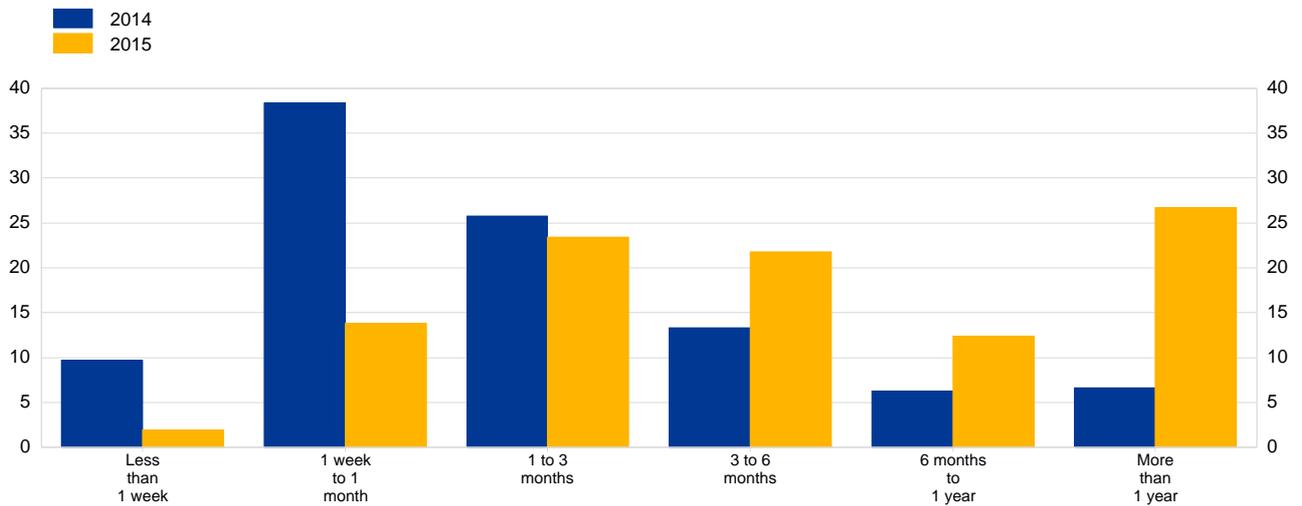
Note: The panel comprised 98 credit institutions.

Chart 69 Maturity breakdown for cumulative quarterly turnover in the OIS segment  
(percentages of total)



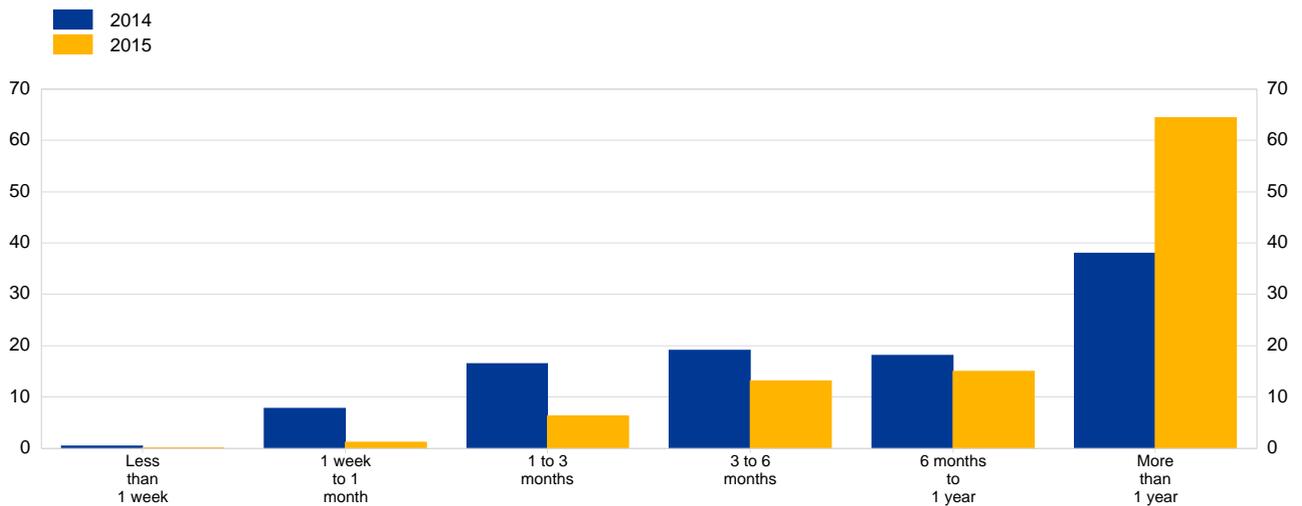
Note: The panel comprised 98 credit institutions.

Chart 70 Breakdown, by maturity, of cumulative quarterly turnover in the OIS segment (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 71 Maturity-weighted breakdown of cumulative quarterly turnover in the OIS segment (percentages of total)



Note: The panel comprised 149 credit institutions.

## 6.3 OVERNIGHT INDEX SWAPS (OISs): QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MARKET STRUCTURE

Chart 72 Is the OIS segment efficient?  
(percentages of total)

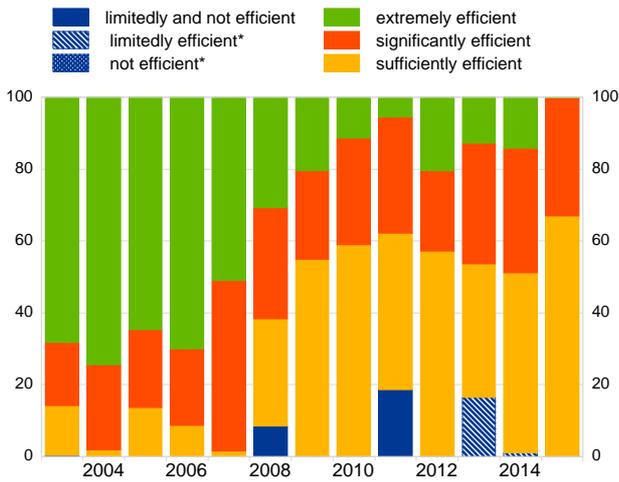
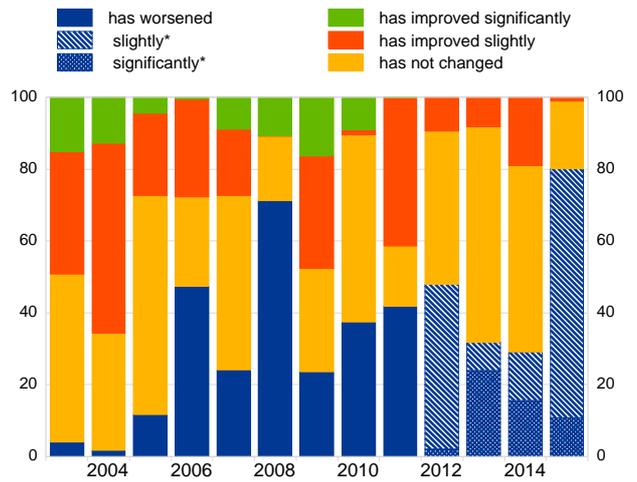


Chart 73 Has the market liquidity in the OIS segment changed with respect to last year?  
(percentages of total)



\* Reporting started in 2012.  
Note: The panel comprised 98 credit institutions.

Chart 74 Counterparty structure of OIS transactions  
(percentages of total)

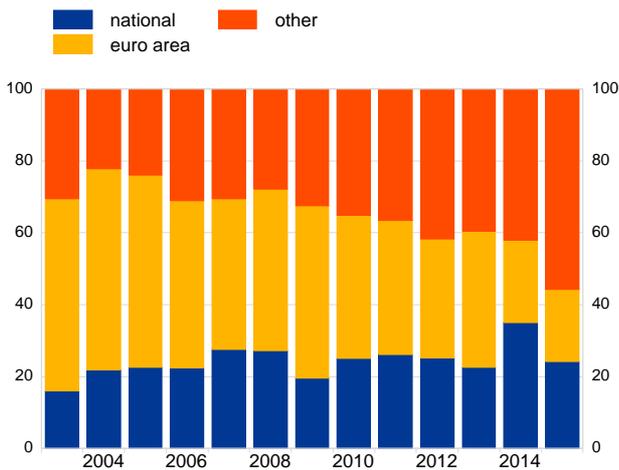
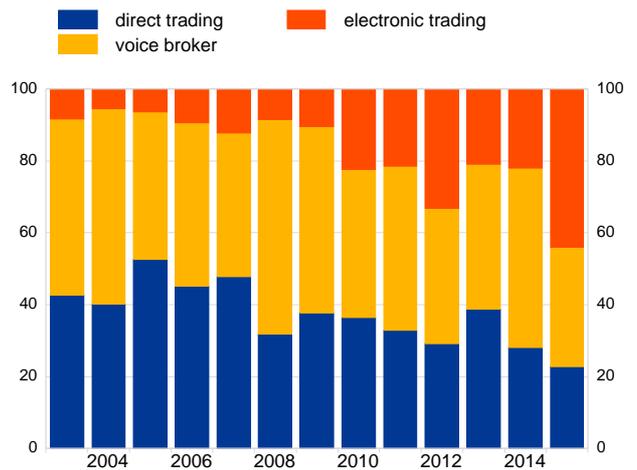


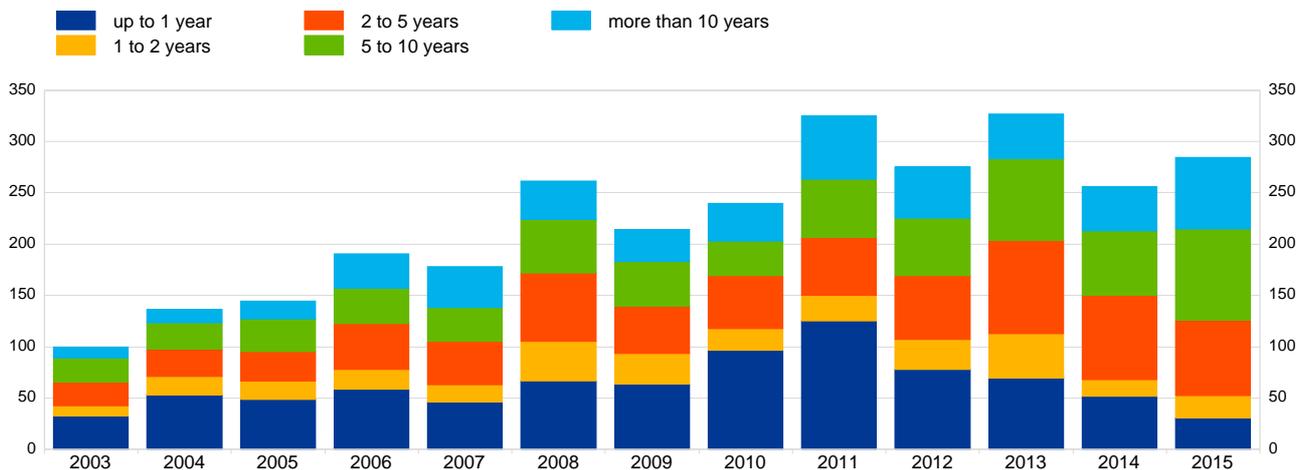
Chart 75 Trading structure of OIS transactions  
(percentages of total)



Note: The panel comprised 98 credit institutions.

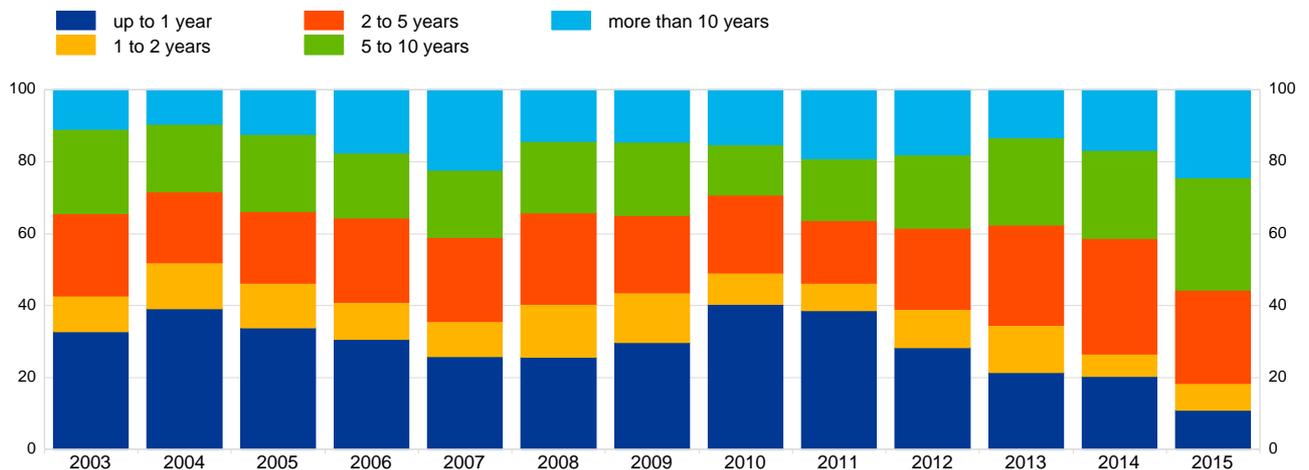
## 6.4 OTHER INTEREST RATE SWAPS (IRSs): TURNOVER ANALYSIS

Chart 76 Cumulative quarterly turnover in the IRS segment  
(index: IRS volume in 2003 = 100)



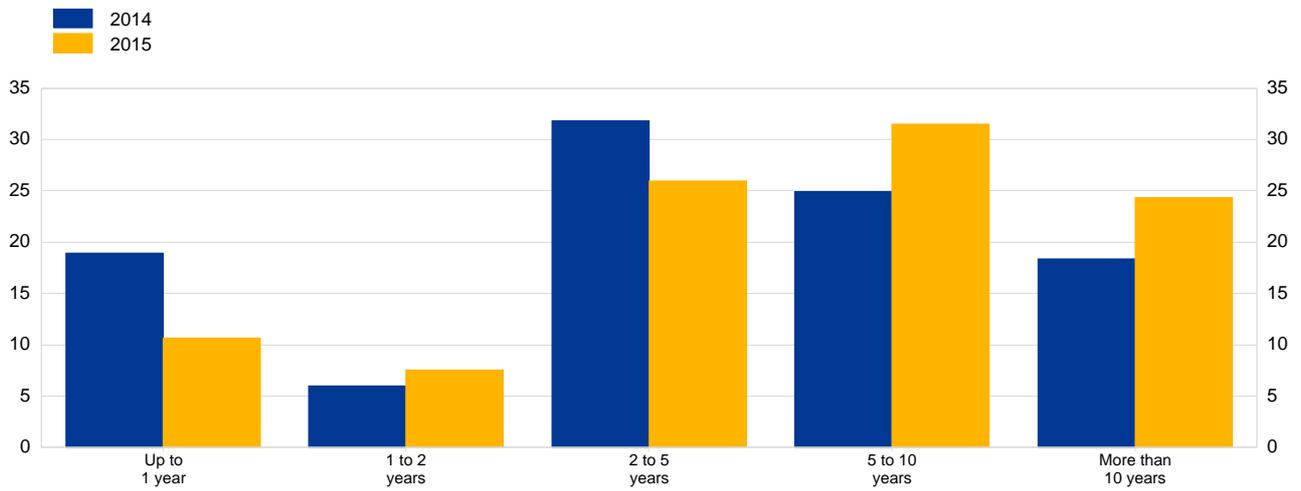
Note: The panel comprised 98 credit institutions.

Chart 77 Development of maturity breakdown of cumulative quarterly turnover in the IRS segment  
(percentages of total)



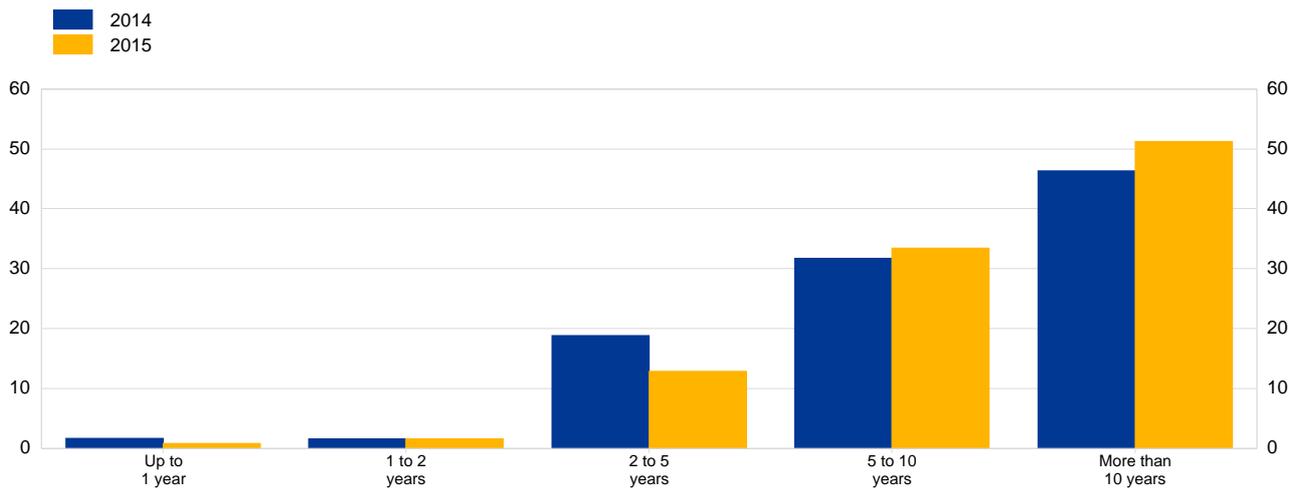
Note: The panel comprised 98 credit institutions.

Chart 78 Breakdown, by maturity, of cumulative quarterly turnover in the IRS segment (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 79 Maturity-weighted breakdown of cumulative quarterly turnover in the IRS segment (percentages of total)



Note: The panel comprised 149 credit institutions.

## 6.5 OTHER INTEREST RATE SWAPS (IRSS): QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MARKET STRUCTURE

Chart 80 Is the other IRS segment efficient?  
(percentages of total)

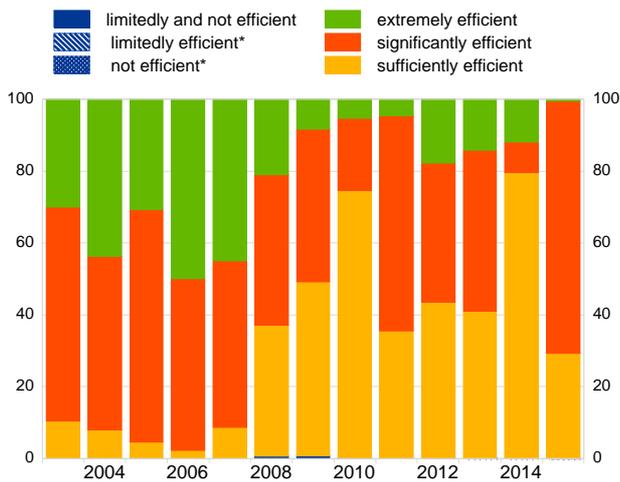
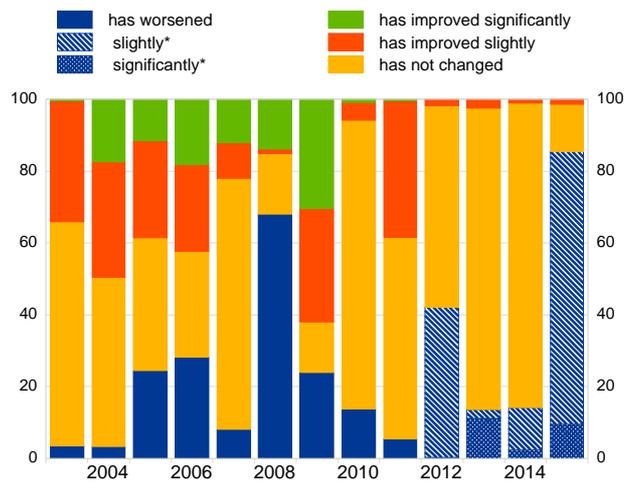


Chart 81 Has the market liquidity in the other IRS segment changed with respect to last year?  
(percentages of total)



\* Reporting started in 2012.  
Note: The panel comprised 98 credit institutions.

Chart 82 Counterparty structure of other IRS transactions  
(percentages of total)

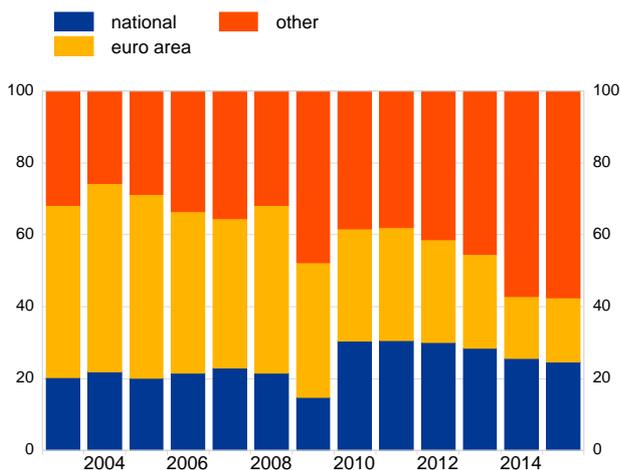
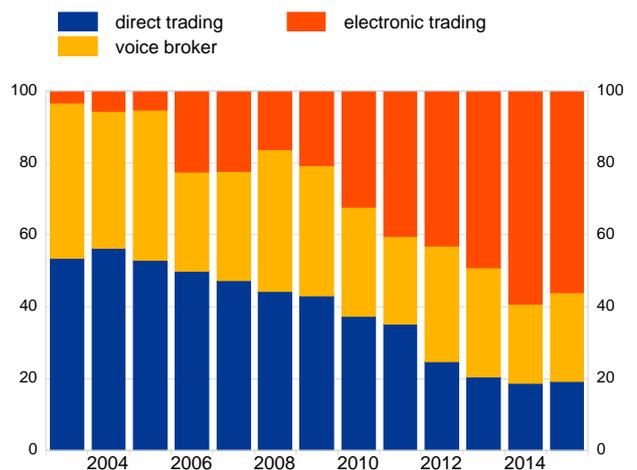


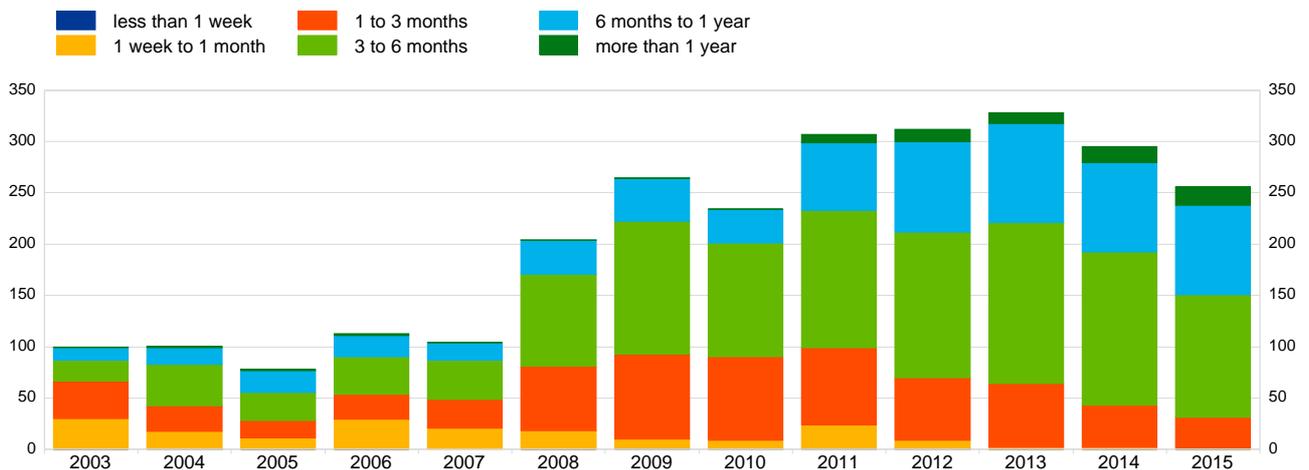
Chart 83 Trading structure of other IRS transactions  
(percentages of total)



Note: The panel comprised 98 credit institutions.

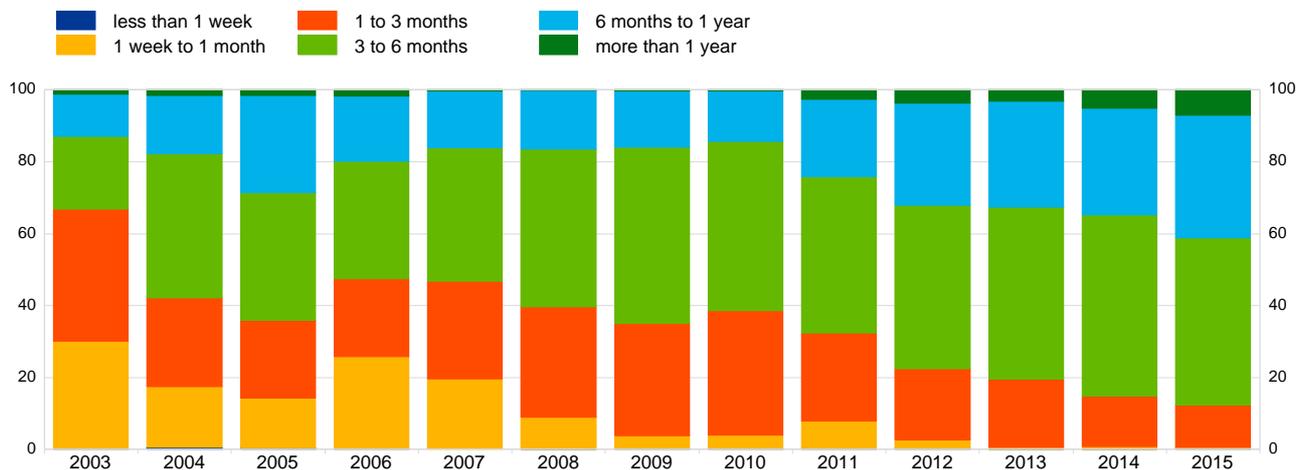
## 6.6 FORWARD RATE AGREEMENTS (FRAs): TURNOVER ANALYSIS

Chart 84 Cumulative quarterly turnover in the FRA segment  
(index: FRA volume in 2003 = 100)



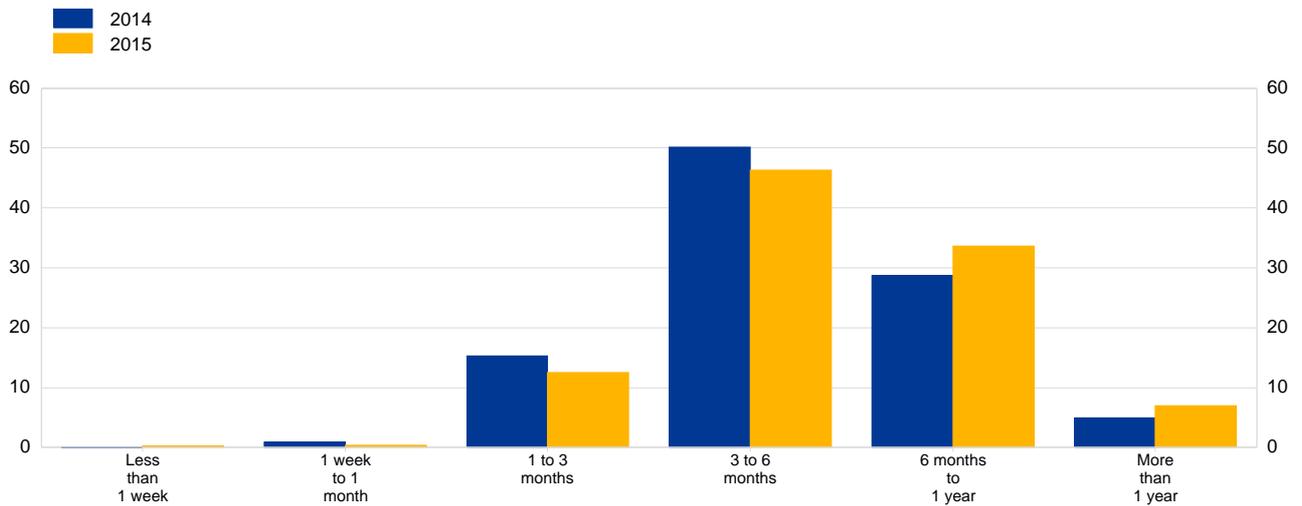
Note: The panel comprised 98 credit institutions.

Chart 85 Development of the maturity breakdown of the cumulative quarterly turnover in the FRA segment  
(percentages of total)



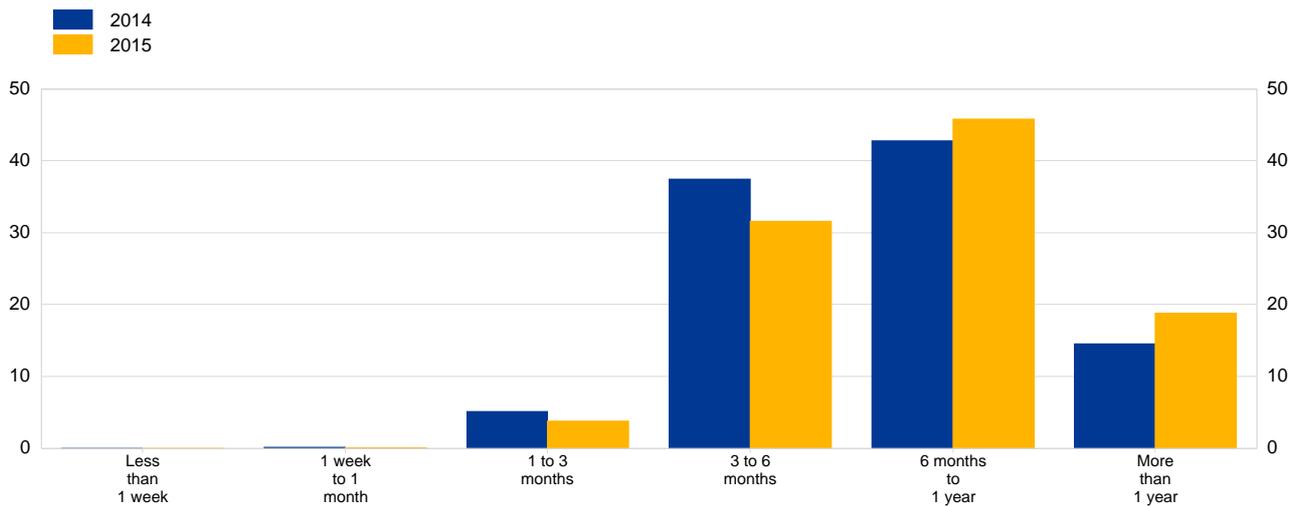
Note: The panel comprised 98 credit institutions.

Chart 86 Breakdown, by maturity, of cumulative quarterly turnover in the FRA segment (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 87 Maturity-weighted breakdown of cumulative quarterly turnover in the FRA segment (percentages of total)



Note: The panel comprised 149 credit institutions.

## 6.7 FORWARD RATE AGREEMENTS (FRAs): QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MARKET STRUCTURE

Chart 88 Is the FRA segment efficient?  
(percentages of total)

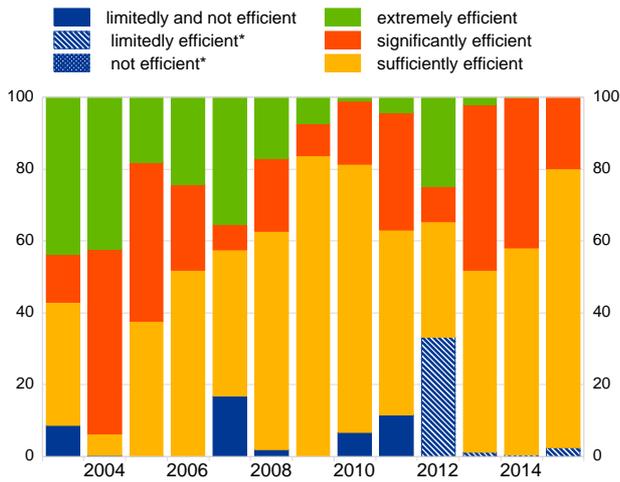
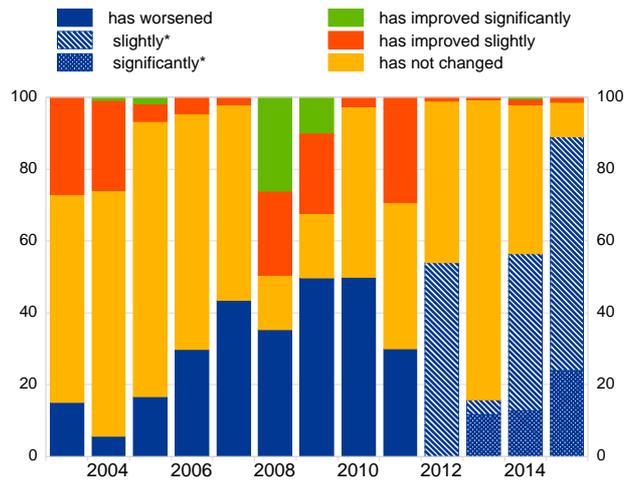


Chart 89 Has the market liquidity in the FRA segment changed with respect to last year?  
(percentages of total)



\* Reporting started in 2012.  
Note: The panel comprised 98 credit institutions.

Chart 90 Counterparty structure of FRA transactions  
(percentages of total)

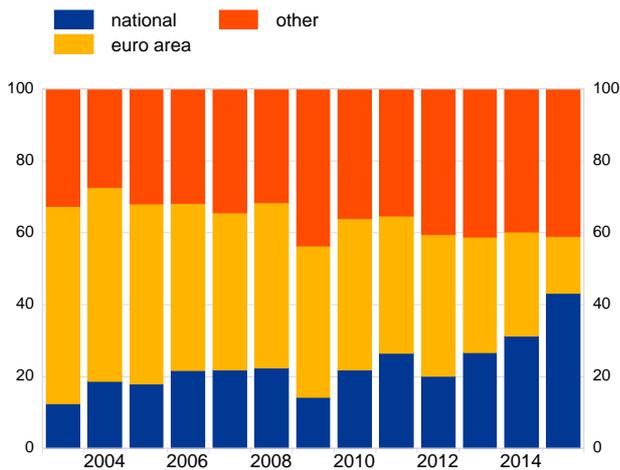
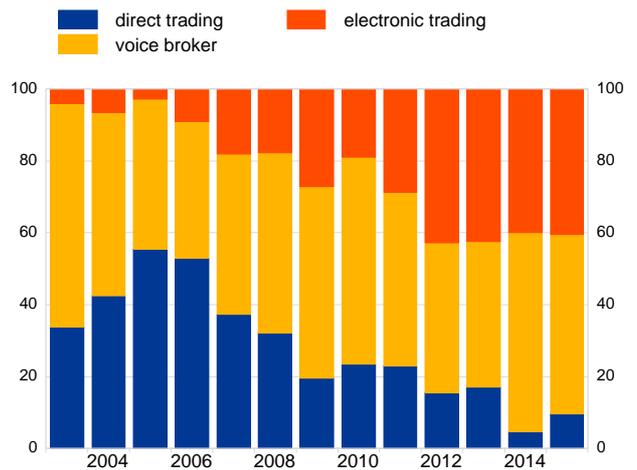


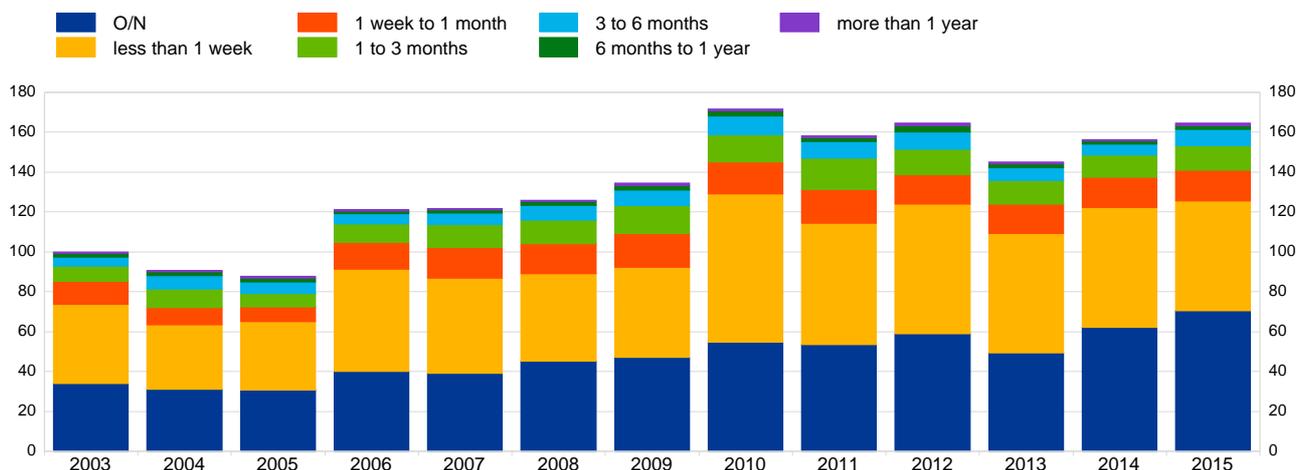
Chart 91 Trading structure of FRA transactions  
(percentages of total)



Note: The panel comprised 98 credit institutions.

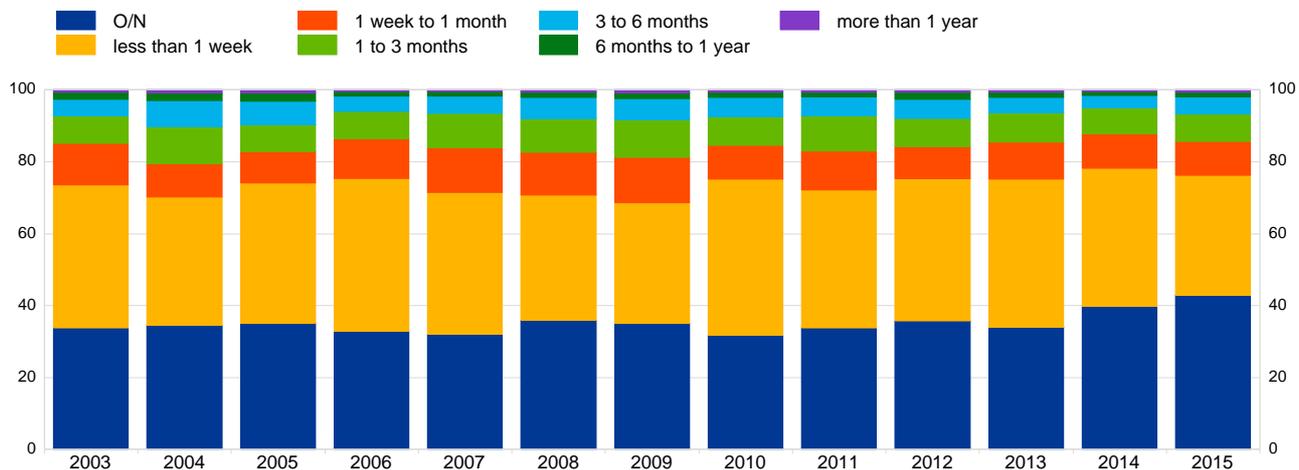
## 6.8 FOREIGN EXCHANGE (FX) SWAPS AND FOREIGN EXCHANGE (FX) FORWARDS: TURNOVER ANALYSIS

Chart 92 Cumulative quarterly turnover in the FX swaps and forwards segment  
(index: FX swaps volume in 2003 = 100)



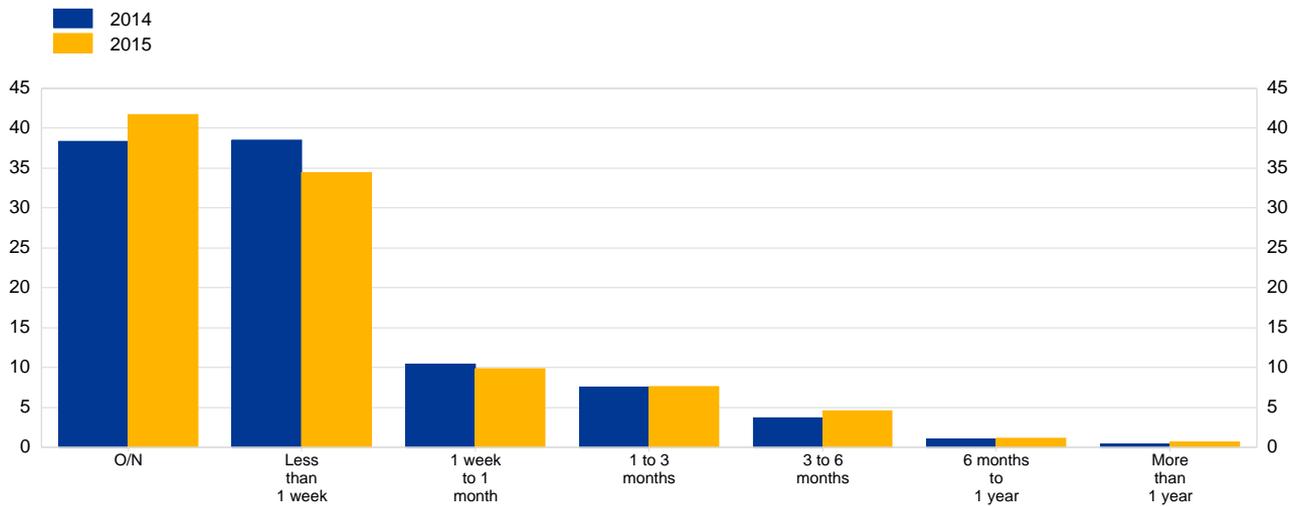
Note: The panel comprised 98 credit institutions.

Chart 93 Development of maturity breakdown for cumulative quarterly turnover in the FX swaps and forwards segment  
(percentages of total)



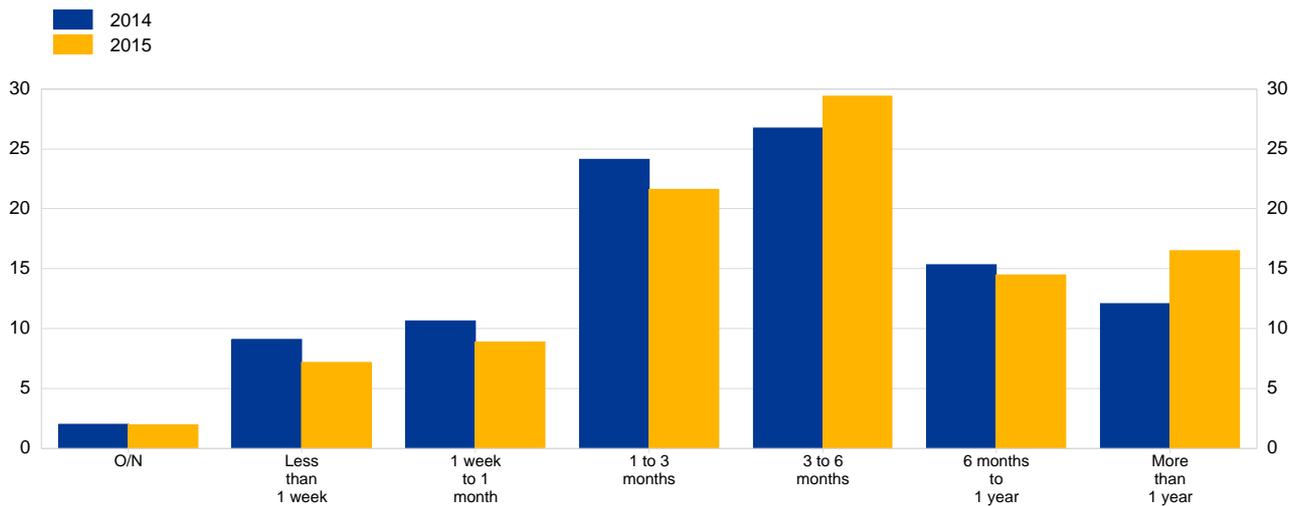
Note: The panel comprised 98 credit institutions.

Chart 94 Breakdown, by maturity, of cumulative quarterly turnover in the FX swaps and forwards segment (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 95 Maturity-weighted breakdown of cumulative quarterly turnover in the FX swaps and forwards segment (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 96 Breakdown, by currency, of transactions in the FX swaps and forwards segment in 2014 (percentages of total)

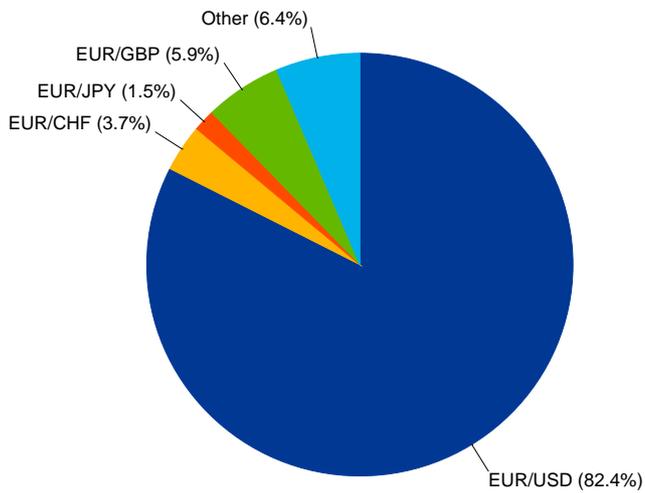
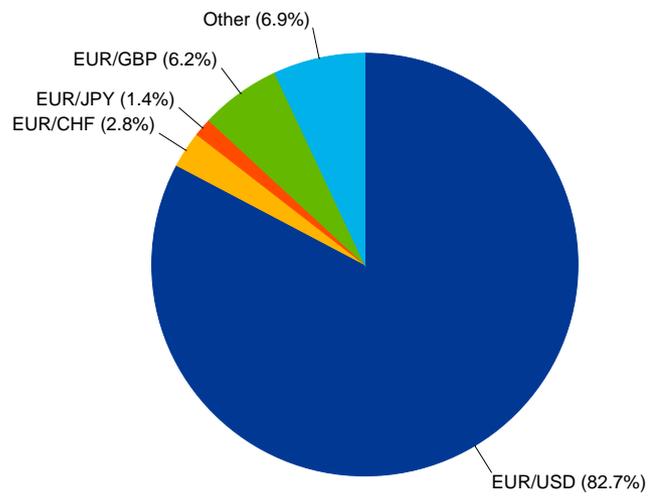


Chart 97 Breakdown, by currency, of transactions in the FX swaps and forwards segment in 2015 (percentages of total)



Note: The panel comprised 149 credit institutions.

## 6.9 FOREIGN EXCHANGE (FX) SWAPS AND FOREIGN EXCHANGE (FX) FORWARDS: QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MARKET STRUCTURE

Chart 98 Is the FX swaps segment efficient?  
(percentages of total)

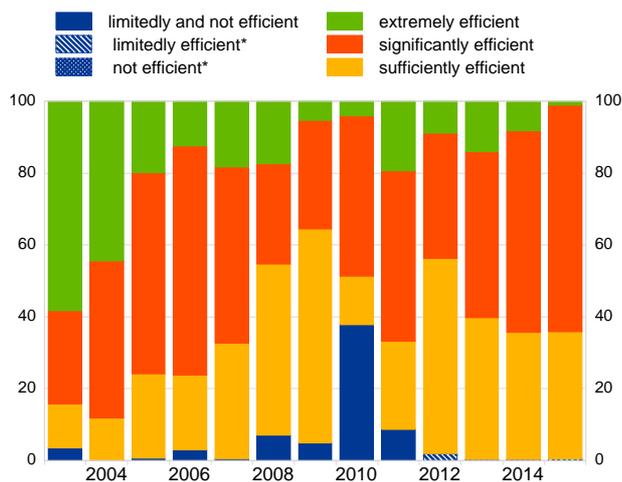
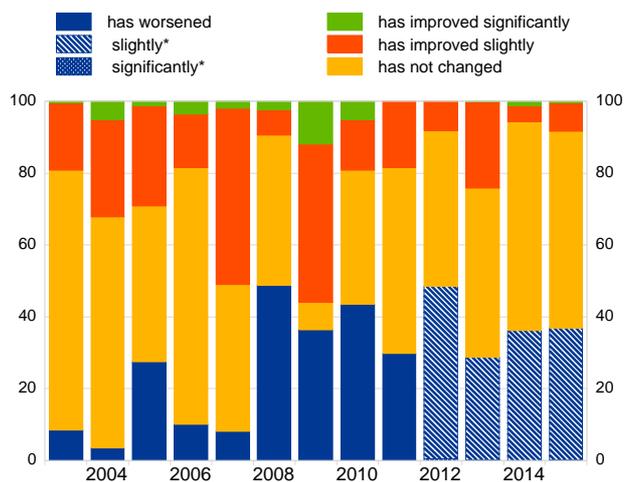


Chart 99 Has the market liquidity in the FX swaps segment changed with respect to last year?  
(percentages of total)



\* Reporting started in 2012.  
Note: The panel comprised 98 credit institutions.

Chart 100 Counterparty structure of FX swap transactions  
(percentages of total)

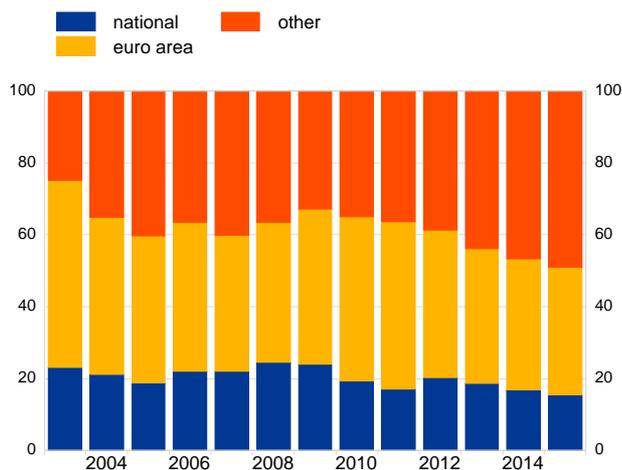
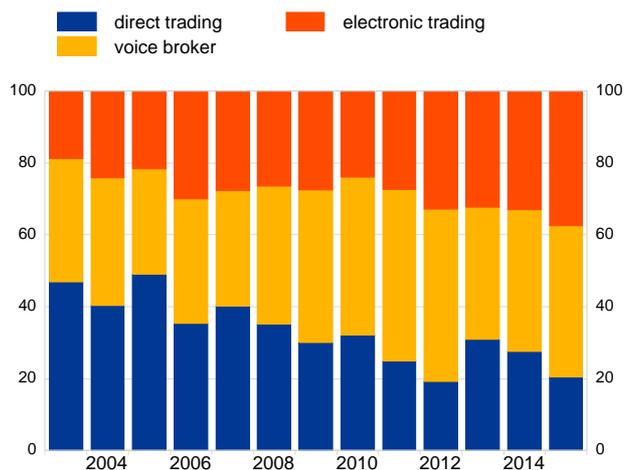


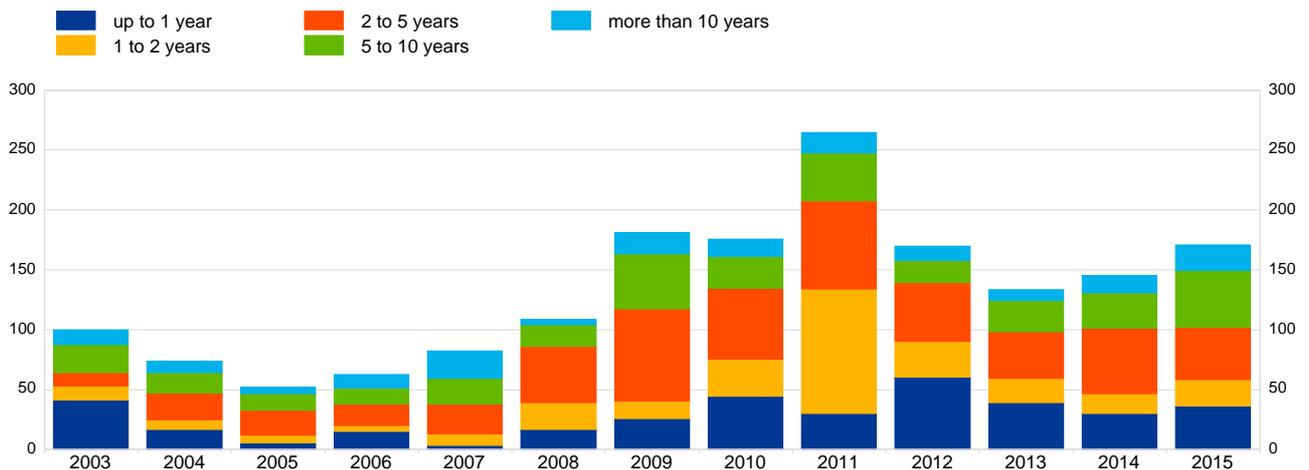
Chart 101 Trading structure of FX swap transactions  
(percentages of total)



Note: The panel comprised 98 credit institutions.

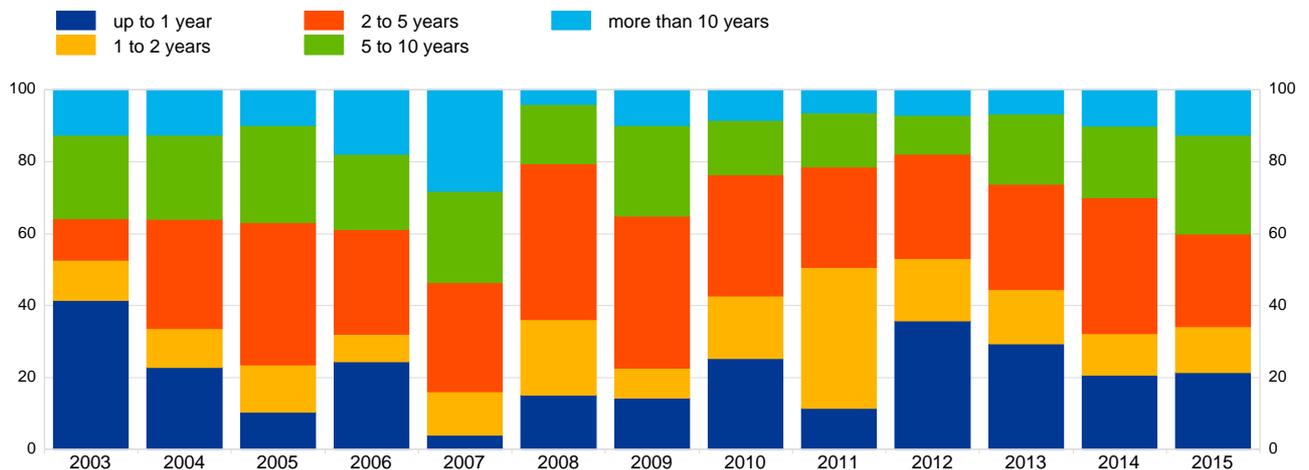
## 6.10 CROSS-CURRENCY SWAPS (Xccy swaps): TURNOVER ANALYSIS

Chart 102 Cumulative quarterly turnover in the Xccy swaps segment  
(index: Xccy swaps volume in 2003 = 100)



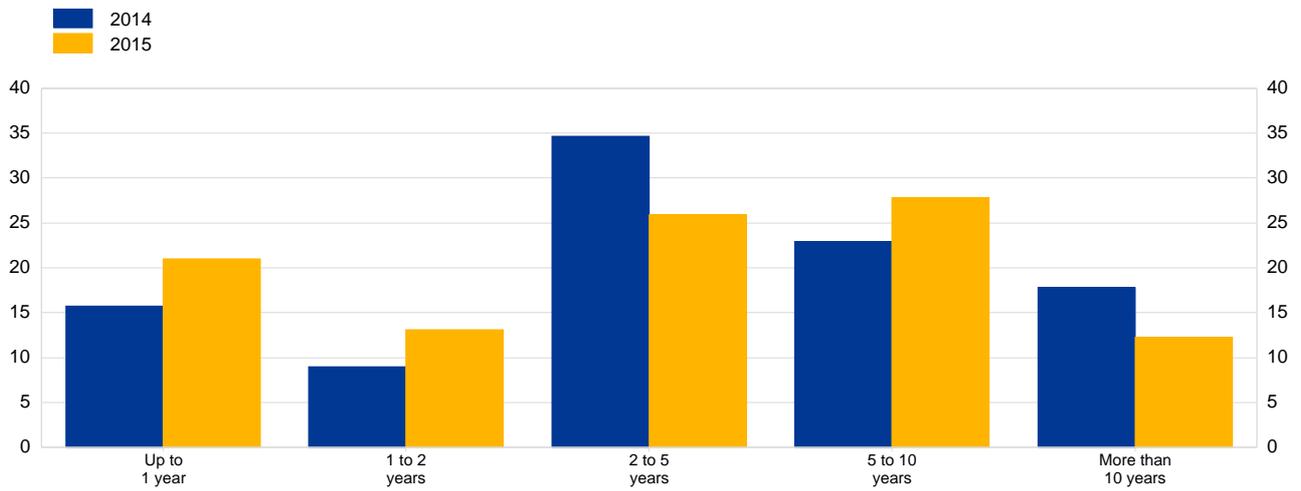
Note: The panel comprised 98 credit institutions.

Chart 103 Development of maturity breakdown for cumulative quarterly turnover in the Xccy swaps segment  
(percentages of total)



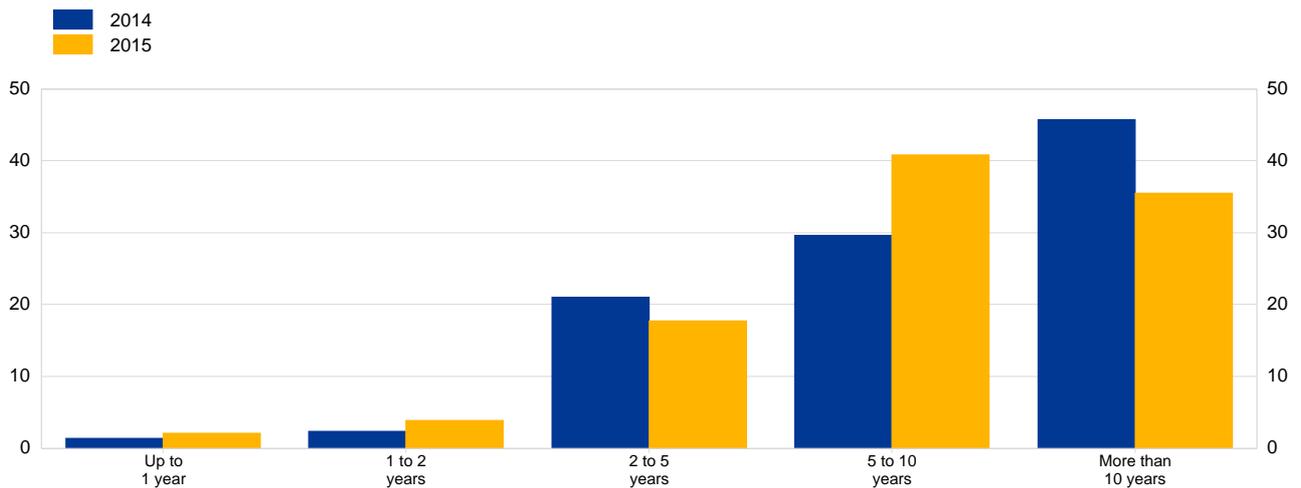
Note: The panel comprised 98 credit institutions.

Chart 104 Breakdown, by maturity, of cumulative quarterly turnover in the Xccy swaps segment (percentages of total)



Note: The panel comprised 149 credit institutions.

Chart 105 Maturity-weighted breakdown of cumulative quarterly turnover in the Xccy swaps segment (percentages of total)



Note: The panel comprised 149 credit institutions.

## 6.11 CROSS-CURRENCY SWAPS (Xccy swaps): QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MARKET STRUCTURE

Chart 106 Is the Xccy swaps segment efficient?  
(percentages of total)

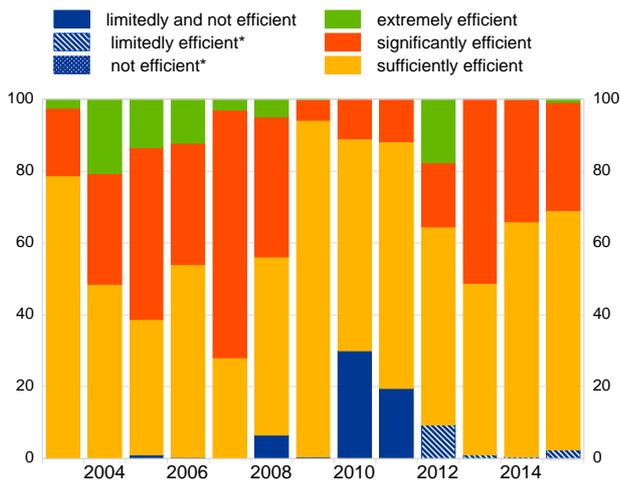
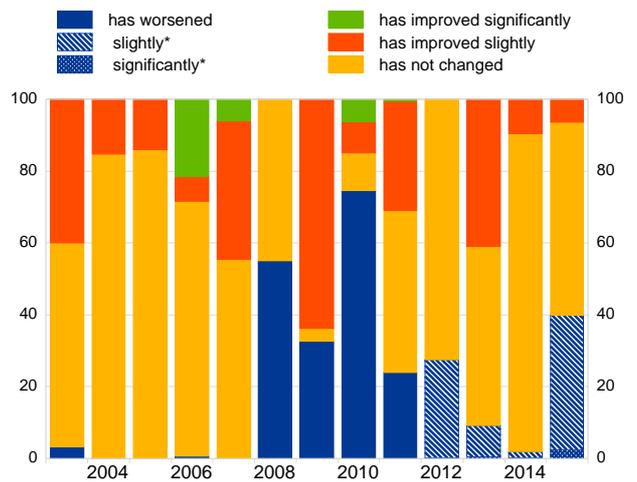


Chart 107 Has the market liquidity in the Xccy swaps segment changed with respect to last year?  
(percentages of total)



\* Reporting started in 2012.  
Note: The panel comprised 98 credit institutions.

Chart 108 Counterparty structure of Xccy swap transactions  
(percentages of total)

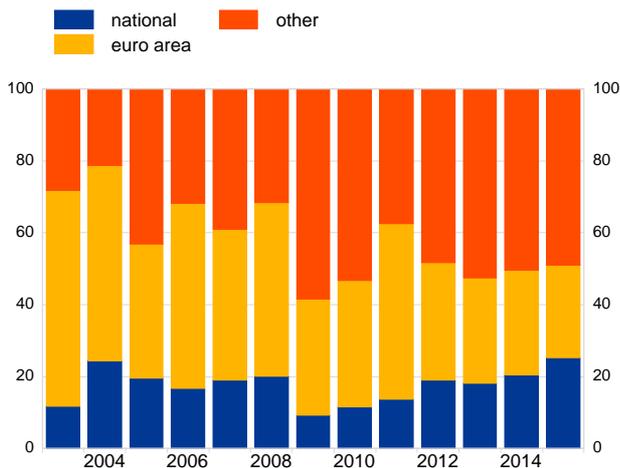
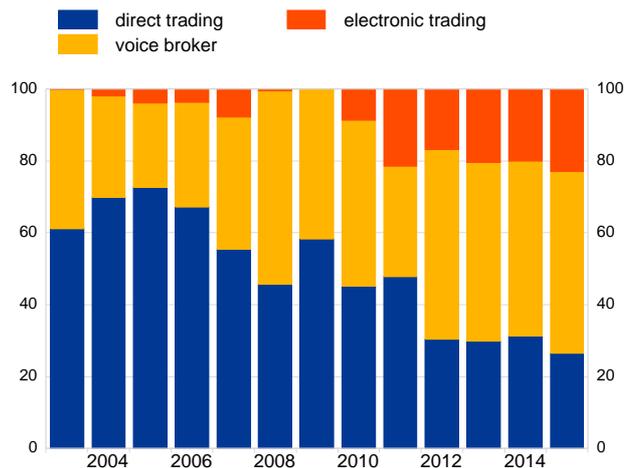


Chart 109 Trading structure of Xccy swap transactions  
(percentages of total)



Note: The panel comprised 98 credit institutions.

## 6.12 OPTIONS AND FUTURES: QUALITATIVE ASSESSMENT AND DEVELOPMENT OF THE MARKET STRUCTURE

Chart 110 Is the options segment efficient?  
(percentages of total)

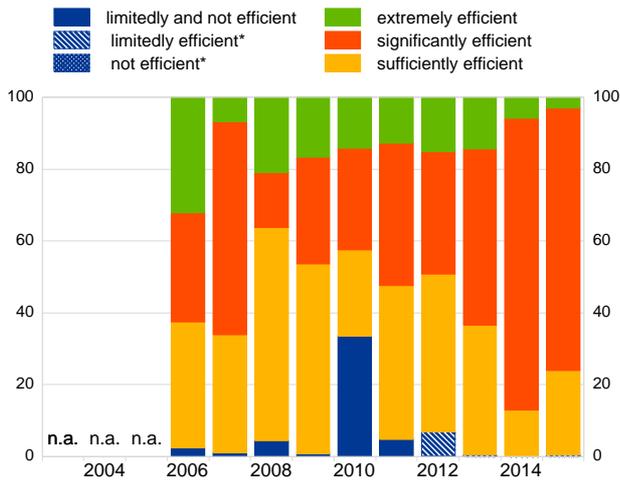
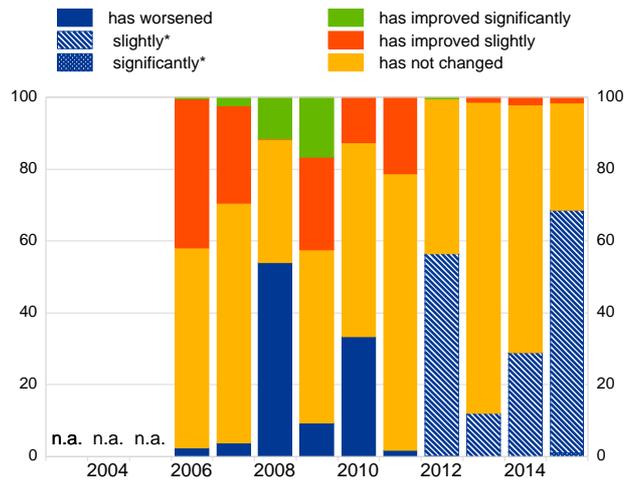


Chart 111 Has the market liquidity in the options segment changed with respect to last year?  
(percentages of total)



\* Reporting started in 2012.  
Note: The panel comprised 98 credit institutions.

Chart 112 Is the futures segment efficient?  
(percentages of total)

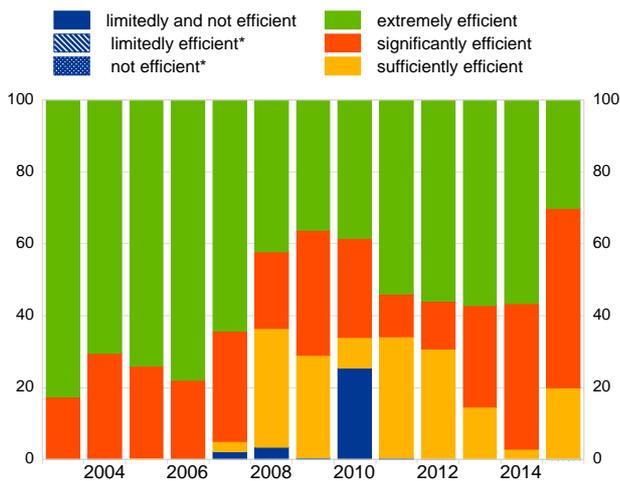
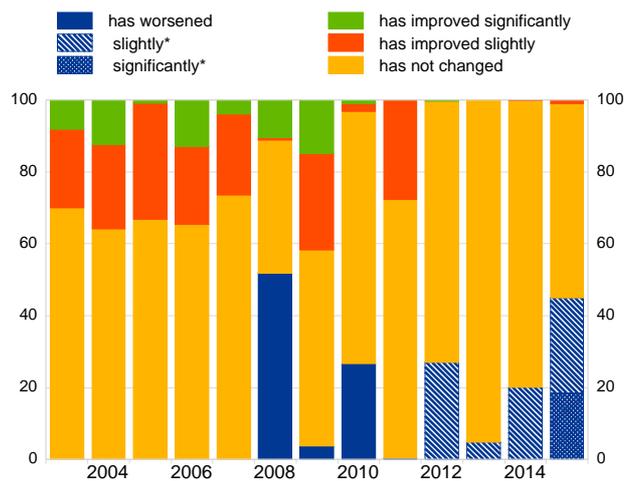


Chart 113 Has the market liquidity in the futures segment changed with respect to last year?  
(percentages of total)



\* Reporting started in 2012.  
Note: The panel comprised 98 credit institutions.

# Annex 1

## Credit institutions participating in the ECB's 2015 euro money market survey

|    |  |    |   |
|----|--|----|---|
| BE | Belfius Banque S.A.                      | DE | UniCredit Bank AG                               |
| BE | BNP Paribas Fortis S.A.                  | DE | WGZ BANK AG                                     |
| BE | KBC Bank N.V.                            | EE | AS LHV Pank                                     |
| BG | DSK Bank                                 | IE | Allied Irish Banks plc                          |
| BG | Eurobank Bulgaria                        | IE | Permanent TSB plc                               |
| BG | United Bulgarian Bank                    | IE | Rabobank Ireland plc                            |
| CZ | Česká spořitelna, a. s.                  | IE | The Governor and Company of the Bank of Ireland |
| CZ | Československá obchodní banka, a.s.      | IE | Ulster Bank Ireland Limited                     |
| CZ | Citibank Europe plc                      | IE | UniCredit Bank Ireland plc                      |
| CZ | HSBC Bank plc                            | GR | Alpha Bank S.A.                                 |
| CZ | ING Bank N.V.                            | GR | Eurobank Ergasias S.A.                          |
| CZ | Komerční banka, a. s.                    | GR | HSBC Bank plc                                   |
| DK | Danske Bank A/S                          | GR | National Bank of Greece S.A.                    |
| DE | Bayern LB                                | GR | Piraeus Bank S.A.                               |
| DE | BHF-BANK AG                              | ES | Banco Bilbao Vizcaya Argentaria S.A. (BBVA)     |
| DE | Commerzbank AG                           | ES | Banco Cooperativo Español S.A.                  |
| DE | DekaBank Deutsche Girozentrale           | ES | Banco de Sabadell S.A.                          |
| DE | Deutsche Bank AG                         | ES | Banco Popular Español S.A.                      |
| DE | Deutsche Postbank AG                     | ES | Banco Santander S.A.                            |
| DE | DZ BANK AG                               | ES | Bankia S.A.                                     |
| DE | Hamburger Sparkasse AG                   | ES | Bankinter S.A.                                  |
| DE | HSH Nordbank AG                          | ES | CaixaBank S.A.                                  |
| DE | Landesbank Baden-Württemberg             | ES | Catalunya Banc S.A.                             |
| DE | Landesbank Berlin AG                     | ES | Cecabank S.A.                                   |
| DE | Landesbank Hessen-Thüringen Girozentrale | ES | ING Bank, N.V. S.E                              |
| DE | Landwirtschaftliche Rentenbank           | FR | BNP Paribas                                     |
| DE | SEB AG                                   |    |   |

|    |   |    |   |
|----|---|----|---|
| FR | BPCE  | MT | FIMBANK plc   |
| FR | Bred - Banque Populaire                             | MT | HSBC Bank Malta plc   |
| FR | Crédit Agricole CIB                                 | MT | Mediterranean Bank plc  |
| FR | Crédit Agricole S.A.                                | NL | ABN AMRO Bank N.V.  |
| FR | Crédit Industriel et Commercial - CIC               | NL | Bank Nederlandse Gemeenten N.V.                                 |
| FR | HSBC France   | NL | Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A. (Rabobank) |
| FR | Natixis   | NL | F. van Lanschot Bankiers N.V.                                   |
| FR | Société Générale                                    | NL | ING Bank N.V.   |
| IT | Banca IMI Spa                                       | AT | Allgemeine Sparkasse Oberösterreich Bank AG                     |
| IT | Banca Monte dei Paschi di Siena Spa                 | AT | Erste Group Bank AG   |
| IT | Banca Nazionale del Lavoro Spa (BNL)                | AT | Oberbank AG   |
| IT | BNP Paribas S.A.                                    | AT | Raiffeisen Bank International AG                                |
| IT | Dexia Crediop Spa                                   | AT | Raiffeisenlandesbank Niederösterreich-Wien AG                   |
| IT | Intesa Sanpaolo Spa                                 | AT | Raiffeisen-Landesbank Steiermark AG                             |
| IT | UBI Banca<br>(Unione di Banche Italiane Scpa)       | PL | Bank BPH S.A.   |
| IT | UniCredit Spa                                       | PL | Bank Handlowy w Warszawie S.A.                                  |
| CY | Bank of Cyprus Public Company Ltd                   | PL | Bank Polska Kasa Opieki S.A.<br>(Bank Pekao S.A.)               |
| CY | Hellenic Bank Public Company Ltd                    | PL | Bank Zachodni WBK S.A.  |
| LV | AS Rietumu Banka                                    | PL | Deutsche Bank Polska S.A.                                       |
| LV | AS SEB banka  | PL | Getin Noble Bank S.A.   |
| LV | AS Swedbank   | PL | ING Bank Śląski S.A.  |
| LT | AB Citadele bankas                                  | PL | Plus Bank S.A.  |
| LT | AB DNB bankas                                       | PL | Powszechna Kasa Oszczędności Bank Polski S.A. (PKO BP)          |
| LT | AB SEB bankas                                       | PL | Raiffeisen Bank Polska S.A.                                     |
| LU | Banque et Caisse d'Epargne de l'Etat,<br>Luxembourg | PL | Societe Generale S.A. Oddział w Polsce                          |
| LU | KBL European Private Bankers S.A.                   | PT | Banco BIC Português SA  |
| HU | ING Bank N.V. Magyarországi Fióktelepe              | PT | Banco BPI SA  |
| HU | K and H Bank Zrt.                                   | PT | Banco Comercial Português SA                                    |
| HU | UniCredit Bank Hungary Zrt.                         | PT | Banco Finantia SA   |
| MT | Akbank TAS  |    |   |
| MT | Bank of Valletta plc                                |    |   |

|    |   |    |   |
|----|---|----|---|
| PT | Banco Santander Totta SA                                      | SE | Swedbank AB (publ)                            |
| PT | BANIF-Banco Internacional do Funchal SA                       | UK | Abbey National Treasury Services plc          |
| PT | Caixa Central - Caixa Central de Crédito Agrícola Mútuo, CRL  | UK | Banco do Brasil SA                            |
| PT | Caixa Económica Montepio Geral                                | UK | Barclays Bank plc                             |
| PT | Caixa Geral de Depósitos SA                                   | UK | BNP Paribas                                   |
| PT | Novo Banco, SA  | UK | Citibank NA                                   |
| RO | Banca Comerciala Romana S.A.                                  | UK | Credit Agricole Corporate and Investment Bank |
| RO | BRD - Groupe Societe Generale S.A.                            | UK | Credit Suisse                                 |
| RO | The Royal Bank of Scotland pls Edinburgh, - Sucursala Romania | UK | Deutsche Bank AG                              |
| SI | Abanka Vipra d.d.   | UK | HSBC Bank plc                                 |
| SI | Nova Ljubljanska Banka d.d., Ljubljana                        | UK | JP Morgan Chase Bank                          |
| SI | SID - Slovenska izvozna in razvojna banka, d.d., Ljubljana    | UK | Lloyds TSB Bank plc                           |
| SK | Československá obchodná banka, a.s.                           | UK | Merrill Lynch International Bank Limited      |
| SK | Slovenská sporiteľňa, a.s.                                    | UK | Novo Banco S.A. - London Branch               |
| FI | Nordea Bank Finland Abp                                       | UK | Standard Bank plc                             |
| FI | Pohjola Pankki Oyj  | UK | The Royal Bank of Scotland plc                |
| SE | Skandinaviska Enskilda Banken AB (publ) (SEB)                 | CH | UBS AG  |
| SE | Svenska Handelsbanken AB (publ)                               | CH | Zürcher Kantonalbank AG (ZKB)                 |

## Annex 2

# Coordination of the ECB's 2015 euro money market survey

The ECB's 2015 Euro Money Market Survey was conducted by a working group, comprising staff members from the ECB and the national central banks, which reported to the Market Operations Committee of the European System of Central Banks.

## Abbreviations

### Countries

|    |                |    |             |    |                |
|----|----------------|----|-------------|----|----------------|
| BE | Belgium        | IT | Italy       | PT | Portugal       |
| BG | Bulgaria       | CY | Cyprus      | RO | Romania        |
| CZ | Czech Republic | LV | Latvia      | SI | Slovenia       |
| DK | Denmark        | LT | Lithuania   | SK | Slovakia       |
| DE | Germany        | LU | Luxembourg  | FI | Finland        |
| EE | Estonia        | HU | Hungary     | SE | Sweden         |
| IE | Ireland        | MT | Malta       | UK | United Kingdom |
| GR | Greece         | NL | Netherlands | CH | Switzerland    |
| ES | Spain          | AT | Austria     |    |                |
| FR | France         | PL | Poland      |    |                |

### In Charts

|               |                           |
|---------------|---------------------------|
| CCP           | central counterparty      |
| FRAs          | forward rate agreements   |
| FX swaps      | foreign exchange swaps    |
| Other IRSs    | other interest rate swaps |
| OISs          | overnight index swaps     |
| O/N           | overnight                 |
| OTC           | over the counter          |
| T/N           | tomorrow/next (day)       |
| S/N           | spot/next (day)           |
| ST securities | short-term securities     |
| Xccy swaps    | cross-currency swaps      |

Note: The data represented herein refer to the second quarter of the respective year.

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