

# Tenth survey on correspondent banking in euro

2016



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## **Executive summary**

Correspondent banking relationships have continued to play an important role in the euro payments market following the implementation of the Single Euro Payments Area (SEPA), which has improved the efficiency of cross-border payments in euro and reduced market fragmentation. Correspondent banking arrangements are a well-established channel through which banks can access financial services in different jurisdictions, inside and outside the European Union, and can provide cross-border payment services to their customers. Correspondent banking ensures that payments flow between credit institutions and allows indirect access to payment systems, thereby representing an important link in the payment chain and supporting financial inclusion by providing individuals and small businesses with simple and efficient means of making payments and accessing financial services worldwide.

Given their relevance for the smooth functioning of payment systems, correspondent banking services have been within the scope of the Eurosystem's oversight activity since the European Central Bank (ECB) was established. However, the Eurosystem has not set any specific oversight requirements for correspondent banks. This is in order to avoid any double regulation of these institutions, as correspondent banking is already subject to banking supervision.

The Eurosystem has conducted surveys on correspondent banking business since 1999 in order to monitor its importance, size and development. For this purpose, the National Central Banks (NCBs) select the most active banks in their jurisdictions, in terms of correspondent banking turnover, and invite them to participate in the survey. Participation has always been voluntary and, moreover, if a participating bank so requests, its name is withheld before its data is forwarded by the NCB to the ECB. The tenth and most recent correspondent banking survey was conducted in May 2016 and, like the previous two surveys, covered only those banks with an average daily turnover on loro accounts of at least €1 billion. This threshold was introduced in 2012 in order to increase the overall efficiency of the survey. Sixteen banks located in seven euro area countries (Austria, Belgium, France, Germany, Italy, Luxembourg and Spain) participated in the tenth survey.

Comparing the individual data and names of the credit institutions participating in the most recent surveys, it seems that the top players on the correspondent banking market have remained the same. Additionally, since correspondent banking business in euro continues to be highly concentrated among the largest banks in the euro area market, it is likely that – despite the limited number of participants – the 2016 survey covers a large proportion of all correspondent banking business in euro. However, it is acknowledged that nostro account turnover may be underrepresented, as the largest banks mostly manage loro accounts in bilateral relationships. The banks participating in the survey may therefore not be

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Although there are striking similarities in the numbers provided by banks, due to the fact that some banks chose not to disclose their names, the correlations cannot be confirmed.

representative of the nostro market, which is less concentrated and has a higher number of smaller banks as customers, rather than service-providing banks.

The results of the tenth correspondent banking survey show a decrease of almost 10% in loro account turnover since 2014, as well as a decrease in the number of customers and in the average size of transactions. Although correspondent banking remains an important channel for making payments in euro, the completion of the SEPA migration and the introduction of new regulatory requirements for credit institutions, along with a general shift in business strategy, have significantly contributed to an overall decrease in correspondent banking business in the last few years. One main reason for the decrease in correspondent banking activity is the increased compliance costs associated with regulatory requirements, specifically those related to Know Your Customer (KYC) and Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT) procedures, which have led to changes in the business strategies of the survey participants. The decrease in correspondent banking turnover and activity overall could also be explained to some extent by the completion of the SEPA migration, which has taken place since the publication of the previous correspondent banking report<sup>2</sup>. Most banks are pointing to a growing tendency to assess the profitability and risks of their business lines, customers and even jurisdictions and, based on these assessments, to maintain only those correspondent banking relationships where the business returns justify the cost of investment and where risks can be well-identified and managed.

Comparing the results of the tenth survey with those from previous surveys, there seems to be a tendency for relatively small banks to have decreasing correspondent banking activity, while larger banks, already specialised in providing correspondent banking services, are maintaining or even enlarging their customer base. With regard to transaction values, the time series data also point to a stable or increasing turnover for the largest banks in the surveys (with very few exceptions). In general, the smallest banks in the previous surveys no longer fulfil the €1 billion threshold. This is in line with the constant decrease in the number of banks participating in the ECB's surveys and with the higher concentration ratios in the correspondent banking market.

Looking ahead, some banks expect an increase in activity due to higher customer numbers and sales of services, while others suggest the opposite, due to an environment of high regulatory burden and limited risk appetite. Some of the survey participants also indicated an expected increase in competition from fintech companies offering digital solutions. Moreover, smaller banks might enter correspondent banking arrangements in order to avoid the costs and requirements of direct participation in payment systems.

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The Ninth survey on correspondent banking in euro was conducted in March 2014, but complete migration to SEPA was not due until 1 August 2014, according to Regulation (EU) No 248/2014 of the European Parliament and of the Council of 26 February 2014 amending Regulation (EU) No 260/2012 as regards the migration to Union-wide credit transfers and direct debits (OJ L 84, 20.3.2014, p. 1).

### Introduction

Correspondent banking relationships have continued to play an important role in the euro payments market following the implementation of SEPA as a well-established channel for banks to access financial services in different jurisdictions, inside and outside the European Union, and to provide cross-border payment services to their customers. Correspondent banking ensures that payments flow between credit institutions and allows indirect access to payment systems, thereby representing an important link in the payment chain. By facilitating customer access to national and cross-border payment services, correspondent banking arrangements also support financial inclusion, especially by providing individuals and small businesses (which are more likely than larger businesses to lack some of the basic financial services or to be financially excluded<sup>3</sup>) with simple and efficient means of making payments and accessing financial services worldwide.

This report presents the results of the tenth survey and provides a trend analysis of the size and importance of correspondent banking business by comparing the results of the 2016 survey with data from previous surveys. Furthermore, the report provides reasons for the recent changes in the correspondent banking business, along with forecasts for expected developments.

The tenth survey was conducted in May 2016 and covered all correspondent banking transactions in euro that were booked on participating banks' accounts between 1 and 31 March 2016. For data not related to the daily turnover (e.g. number of customers or number of accounts managed), figures were reported as at 31 March 2016.

The minimum turnover threshold of at least €1 billion average daily turnover on loro accounts was applied in the tenth survey, in accordance with the two previous surveys. As a result, 16 banks located in 7 euro area countries participated in 2016. The survey was conducted on the basis of 2 questionnaires: (i) a general questionnaire for all participating banks, asking for quantitative and qualitative information about their correspondent banking business in euro (e.g. number of account relationships, volume and value of transactions); and (ii) an additional questionnaire for those participating banks that are very active in providing payment services (i.e. with an average daily turnover of more than €10 billion on their loro accounts), including questions on topics such as intraday and overnight overdraft limits and collateralisation of them, as well as volumes and values of the largest customers.

As part of the general questionnaire, a new section of supplementary qualitative questions for all participating banks was introduced for the first time in 2016. The new questions aim to provide an overall picture of the evolution of correspondent

See Committee on Payments and Market Infrastructures (CPMI) and World Bank Group (2016), Payment aspects of financial inclusion, p. 2.

banking activities since the previous survey and, more importantly, to identify the reasons for the evolution. The banks were asked to answer specific questions related to their business strategies for providing correspondent banking services and on aspects that might have influenced changes in their strategic lines. In addition, the survey participants were asked to describe the main correspondent banking services offered and to provide a forecast for their correspondent banking activities over the medium term, as well as the reasons for their expectations. Apart from the new questions added, all of the other questions in the ninth survey were also included in the tenth survey, in order to allow a consistent time series of data to be built up.

Correspondent banking services have been within the scope of the Eurosystem's oversight activity since the ECB was established, given their relevance for the smooth functioning of payment systems. While reports on previous surveys were only distributed to the banks participating, the Eurosystem decided in 2012 to publish the reports in order to increase the transparency of its oversight activities with regard to correspondent banking and to share the results of the survey with other interested market participants, as well as other authorities and the general public. This report does not disclose any individual bank or country-specific data in order to ensure the anonymity of the banks surveyed and protect the confidentiality of the information provided.

This report is structured as follows. Chapter 1 describes the concept of correspondent banking and its main features. Chapter 2 presents the results of the tenth survey by providing a trend analysis of correspondent banking activity. Chapter 3 focuses on the supplementary qualitative questionnaire and its main findings. The final part of this report provides concluding remarks and refers to possible future developments in the correspondent banking business.

## 1 The concept of correspondent banking<sup>4</sup>

In bilateral correspondent banking arrangements, two financial institutions handle the sorting and processing of payments themselves, without involving an intermediary. However, the term "correspondent banking arrangements" typically refers to arrangements in which two financial institutions employ a third party – a separate financial institution known as a "correspondent" or "service-providing" bank. One or both institutions forward payment instructions to the service-providing bank to sort and process. The service-providing bank holds on its books an account for each bank for which it provides correspondent banking services. The service-providing bank regards this as a "loro" (or "vostro") account, while the customer bank considers it a "nostro" account.

Banks generally provide services to a number of financial institutions, and these relationships are governed by contracts negotiated bilaterally. Correspondent banking relationships are also a well-established means of making cross-border payments. The chart below shows the settlement of a payment from Bank A to Bank C via a correspondent bank.

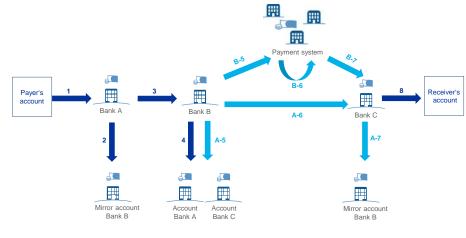
Since Banks A and C do not hold accounts with each other, they use a third party, Bank B (the service-providing bank), which holds accounts for both Bank A and Bank C. In principle, there could be further banks involved on the sending and receiving sides (as intermediaries in a correspondent banking chain). The rules governing Bank A's account with Bank B are based on a bilateral agreement. Normally, Bank A will need to have funds available in its account with Bank B for the latter to execute payments on its behalf. In some cases, the service-providing bank may also extend intraday and/or longer-term credit to its customer bank – again, subject to a bilateral agreement.

As a rule, correspondent payments are handled on a gross basis. Historically, correspondent banking arrangements were the most common form of settlement for non-cash interbank payments, both at the national level and across borders. The importance of correspondent banking has diminished in certain areas following the establishment of payment systems for the settlement of domestic payments, the development of integrated euro payment systems and the setting-up of payment versus payment (PvP) systems for the simultaneous settlement of foreign exchange transactions.

Nevertheless, correspondent banking remains a key way for institutions to access payment systems as indirect participants (i.e. with a direct participant – the service-providing bank – acting on their behalf) or to settle non-standardised transactions related to international trade financing (e.g. letters of credit) which cannot be handled within payment systems.

European Central Bank (2010), "The payment system: payments, securities and derivatives, and the role of the Eurosystem", pp. 38-40

Figure 1 Payments settled via correspondent banking



- Debiting of payer's account with Bank A
   Crediting of Bank B's mirror account with Bank A, which is kept for accounting purposes
   Payment message from Bank A to Bank B via telecommunication network
   Debiting of Bank A's account with Bank B (loro account)

- A Use correspondent banking only
  5 Crediting of Bank C's account with Bank B
  6 Payment message from Bank B to Bank C via telecommunication network
  7 Debiting of Bank B's mirror account with Bank C, which is kept for accounting purposes
  8 Crediting of receiver's account with Bank C
- B Involvement of payment system
  5 Payment message from Bank B to payment system
  6 Settlement via payment system
  7 Payment message from payment system to Bank C
  8 Crediting of receiver's account with Bank C

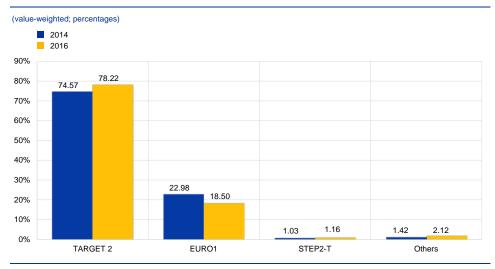
 $Source: ECB \ (adapted \ from \ Danmarks \ National bank \ (2005), \ Payment \ Systems \ in \ Denmark, \ Copenhagen, \ June).$ 

## 2 Results of the tenth correspondent banking survey

The results of the tenth correspondent banking survey show a decrease in loro account turnover in comparison with 2014, as well as a decrease in the number of customers and in the average size of transactions. Moreover, the correspondent banking market continues to be a very concentrated market, with a few key players accounting for the majority of turnover on loro accounts. With regard to the settlement channel, around 46% of the payments that originated through correspondent banking arrangements were settled through payment systems (down from 52% in 2014), while the others were processed solely through correspondent banking arrangements.

The systemically important payment systems in the euro area cover the vast majority of settlements of payments that originated through correspondent banking arrangements. TARGET2 covers more than 78% of the total value of correspondent banking payments settled through payment systems, a figure that has increased from 74.57% in 2014 (see Chart 1). EURO1, the next most important payment system in this respect, saw its share decrease from almost 23% in 2014 to 18.50% in 2016, while STEP2-T accounted for just above 1% of the payments settled through payment systems. All of the other payment systems reported by the participating banks are responsible for around 2% of settlements.

Chart 1
Settlement of correspondent banking payments through payment systems



Source: The banks surveyed

Where relevant, the survey results differentiate between the retail and wholesale markets. Retail correspondent banking is usually carried out domestically by a service-providing bank that processes a large number of small-value payments, notably acting as a gateway to retail payment systems for the settlement of card.

cheque and other low-value transactions. Wholesale correspondent banks deal with large-value transactions, such as those related to the settlement of securities and money market trades, and provide indirect access to large-value payment systems. This report categorises the banks surveyed as "retail" or "wholesale" based on the average size of their transactions. Those banks where the average transaction size on loro accounts (total loro turnover divided by the total number of loro transactions) is less than €10,000 are classified as retail banks, while all of the other banks are classified as wholesale banks.

The main results of the tenth survey are presented in detail in the following sections of this chapter. The first three sections deal with the value, volume and average size of euro transactions channelled via correspondent banking arrangements, including figures for loro and nostro transactions, while the fourth section presents the number of customer and service-providing banks. These sections include a trend analysis based on the data collected in the last seven surveys, i.e. the surveys conducted between 2003 and 2016 (see Table 1). Although the €1 billion threshold was only introduced in 2012, the trend analysis only takes into consideration data reported by those correspondent banks that were above the threshold in the pre-2012 surveys. The final sections are aimed at presenting and analysing the concentration of the correspondent banking business, in terms of the service-providing banks and their customers, along with an analysis of the intraday and overnight credit granted by the participating banks to their customers

 Table 1

 Overview of transactions in correspondent banking arrangements

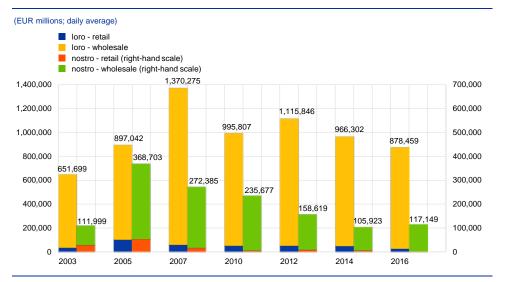
|      |                              |  |         | Total  |        |  |  |        | Average  | oer service | -providing bank  |   |           |
|------|------------------------------|--|---------|--|--------|--|--|--------|--|-------------|--|---|-----------|
|      |                              | Turnover<br>(EUR millions;<br>daily average) |         | Number of<br>transactions<br>(thousands;<br>daily average) |        | Number of<br>customer<br>banks (units;<br>end of period) | Turnover<br>(EUR millions;<br>daily average) |        | Number of<br>transactions<br>(thousands;<br>daily average) |             | Number of<br>customer<br>banks (units;<br>end of period) | Transaction size<br>(EUR;<br>daily average) |           |
| Year | Respondents included (units) | Loro   | Nostro  | Loro   | Nostro | Loro   | Loro   | Nostro | Loro   | Nostro      | Loro   | Loro  | Nostro    |
| 2003 | 34                           | 651,699                                      | 111,999 | 20,556   | 138    | 24,871   | 19,168                                       | 3,733  | 605  | 4           | 732  | 31,704                                      | 836,196   |
| 2005 | 29                           | 897,042                                      | 368,703 | 26,186   | 306    | 21,508   | 30,932                                       | 12,714 | 903  | 11          | 742  | 34,257                                      | 1,205,336 |
| 2007 | 32                           | 1,370,275                                    | 272,385 | 22,592   | 277    | 19,191   | 42,821                                       | 8,512  | 706  | 9           | 600  | 60,652                                      | 983,442   |
| 2010 | 28                           | 995,807                                      | 235,677 | 22,211   | 293    | 18,309   | 35,565                                       | 8,417  | 793  | 10          | 654  | 44,835                                      | 804,763   |
| 2012 | 24                           | 1,115,846                                    | 158,619 | 24,485   | 378    | 14,198   | 46,494                                       | 6,609  | 1,020  | 16          | 592  | 45,573                                      | 419,252   |
| 2014 | 22                           | 966,302                                      | 105,923 | 25,506   | 158    | 12,207   | 43,923                                       | 4,815  | 1,159  | 7           | 555  | 37,886                                      | 671,520   |
| 2016 | 16                           | 878,459                                      | 117,149 | 26,397   | 176    | 9,754  | 54,904                                       | 7,322  | 1,650  | 11          | 610  | 33,279                                      | 666,900   |

#### 2.1 Value of transactions

The results of the tenth survey show a decrease in the value of loro transactions of about 10% from €996 billion in 2014 to about €878 billion in 2016 (see Chart 2). The downward trend since 2012 concerns both wholesale and retail transactions.

With regard to nostro transactions, after a continued decrease in values since 2005, the most recent survey shows an uptick in activity, with the value of nostro transactions increasing from about €106 billion in 2014 to €117 billion in 2016. The wholesale sector contributed almost entirely to this increased turnover.

Chart 2
Turnover of loro and nostro transactions



Source: The banks surveyed.

In comparison with loro transactions, nostro transactions account for a much smaller part of the survey responses, mainly owing to two factors. First, the banks surveyed, being the largest banks in their jurisdictions, tend to be the service provider in a correspondent banking relationship and consequently have limited nostro transactions. Second, many customer banks in correspondent banking relationships in euro do not participate in the surveys either because they are not located in the euro area or simply because they are smaller banks that do not meet the €1 billion threshold. In 2016, for instance, 52.60% of the total value of loro transactions was related to customer banks located outside the euro area. This is a slight increase from the figure of just over 50% in 2014 and about 47% in 2012.

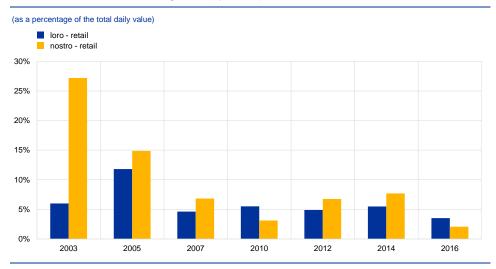
The average daily turnover of loro transactions continues to vary significantly between the banks included in the 2016 survey. Out of the 16 banks participating in the survey, a total of 6 banks reported loro transactions in excess of €20 billion per day (down from 8 in 2014 and 9 in 2012), while another 4 banks reported figures of between €10 billion and €20 billion per day (up from 2 in 2014 and 2012). The 6 remaining banks showed a turnover of between €1 billion and €10 billion (there were 12 banks with this turnover in 2014 and 13 in 2012, which is also in line with the larger number of participants in the previous 2 surveys). In total, 10 banks had a total turnover of more than €10 billion per day, in line with the 2014 survey.

As far as nostro transactions are concerned, 11 banks reported an average daily nostro turnover in excess of €1 billion (down from 12 in 2014 and 14 in 2012), with 2 banks having a turnover in excess of €20 billion (as in the previous 2 surveys). Finally, comparing loro and nostro transactions, only 3 of the 16 participating banks

reported a higher turnover on nostro accounts than on loro accounts (as was also the case in 2014), all of them being among the smallest banks in terms of turnover of loro transactions.

Focusing on the retail segment of correspondent banking business in euro, the results of the tenth survey point to a further reduction in the retail market share (see Chart 3). Following a period of consolidation between 2007 and 2014, the most recent survey shows a decrease in both loro and nostro retail transactions. The loro retail market share reached a low of 3.52%, down from 5.50% in 2014 and 4.89% in 2012, while the nostro retail market share was 2.56%, down from 7.69% and 6.75% in 2014 and 2012 respectively.

Chart 3
Market share of the retail segment (by value)



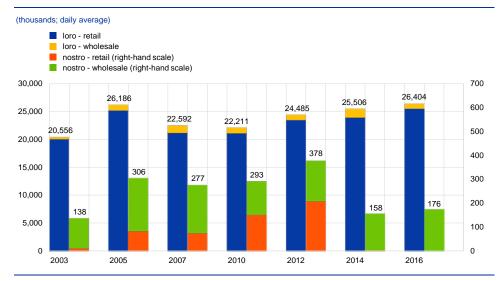
Source: The banks surveyed.

#### 2.2 Volume of transactions

While the average daily value of transactions on loro accounts has constantly decreased in recent years, the volume of these transactions underwent the opposite, with a slight increase since the previous survey (see Chart 4). Indeed, the number of retail transactions tends to remain fairly stable (many retail payments are regular payments such as wages, insurance premiums and utilities) and is not influenced as much by the business strategy or economic situation as the value of transactions is. With regard to nostro accounts, the number of transactions has increased from 158,000 to 176,000 since the previous survey, with almost the entire volume coming from the wholesale sector.

The number of nostro transactions is far smaller than that of loro transactions. This is largely due to the under-representation of retail payments, as smaller customer banks do not participate in the survey. As a result, any significant change reported by the relatively larger customer banks participating in the survey has a significant effect on the nostro transaction figures.

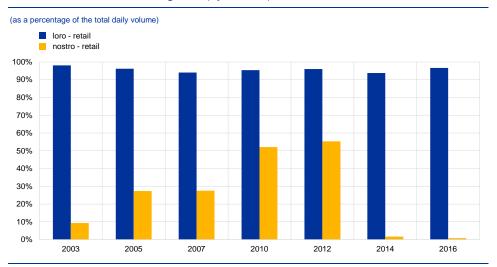
Chart 4
Volume of loro and nostro transactions



The market share of the loro retail segment has remained in line with the results shown in previous years, accounting for more than 95% of the total number of correspondent banking transactions in euro (see Chart 5). The tenth survey pointed to a small increase in this amount, from 93.80% in 2014 to 96.63% in 2016. The nostro retail share has continued to decrease to below its previous lowest figures, after a sharp decrease between 2012 and 2014. This could be explained by the fact that two banks began processing their high-volume domestic nostro retail transactions through a domestic clearing house instead of through correspondent banking.

At the individual bank level, only 2 service-providing banks processed more than one million transactions per day in 2016 (unchanged since 2010), their business being geared towards domestic retail payments. Out of the remaining 14 participating banks, 9 processed more than 10,000 transactions per day, down from 14 in 2014 and 13 in 2016, with the remaining 5 having a low volume of below 10,000 transactions per day. One reason for the decrease in the number of banks processing a relatively large number of payments could be the smaller number of respondents compared with the previous two surveys, as some of the banks that did not meet the threshold in 2016 are those processing a high volume of low-value payments.

Chart 5
Market share of the retail segment (by volume)

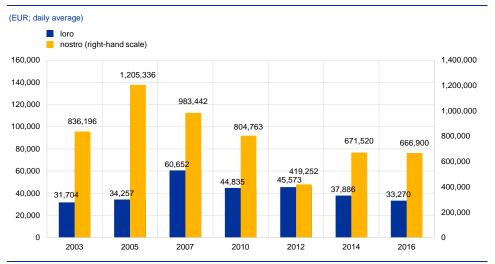


#### 2.3 Average transaction size

With the value of transactions constantly decreasing in recent years and the number of loro transactions slowly increasing over the same period, the average size of loro transactions has declined since 2007, with the exception being a small increase between 2010 and 2012. In 2016, the average size of a loro transaction was just over €33,000, down from about €38,000 in 2014 and €45,500 in 2012 (see Chart 6).

On the nostro transactions side, there was also a decrease in size from 2005, but this was reversed in 2014 as the volume of nostro transactions declined sharply. The tenth survey shows the average size of nostro transactions to be around €667,000, in line with the 2014 figure. The average nostro transaction size is noticeably higher than that of loro transactions because retail nostro transactions are underrepresented in the survey, compared with large-value nostro transactions such as securities and foreign exchange transactions.

**Chart 6**Average size of loro and nostro transactions



At the bank level, the average loro transaction size ranges from €947 to around €7 million. Although this range is extremely wide and in line with the 2014 results, it is still lower than in 2012, when the equivalent figures were €2,021 to almost €18 million. Five of the banks participating in the tenth survey reported an average loro transaction size of over €1 million, indicating their specialisation in large-value payments, e.g. acting as an access point to large-value payment systems in which they are direct participants. Nonetheless, this represents a decrease from 6 banks in 2014 and from 11 banks in 2012. At the other end of the spectrum, 2 banks reported average loro transaction sizes below €10,000, indicating that their focus is mainly on retail payments (this is the same figure as in 2014, and down from 4 in 2012). This confirms previous assumptions that some banks specialise in different kinds of correspondent banking business.<sup>5</sup>

### 2.4 Number of customer/service-providing banks

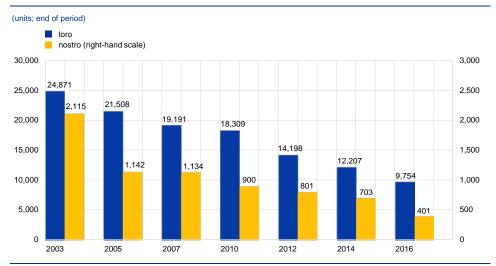
The number of correspondent banking relationships has decreased steadily since 2003 and this trend continued in the 2016 survey (see Chart 7), with the number of customers decreasing to less than 10,000 (loro perspective) and the number of service-providing banks reaching a new low of 401 (nostro perspective).

Several important factors explain this decline. First of all, the costs of maintaining correspondent banking relationships have risen in recent years due to increased compliance requirements. Regulatory requirements related to Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT) and Know Your

For instance, a bank may mainly establish bilateral correspondent banking arrangements in a cross-border and cross-currency context, often linked to its trading activity in capital and financial markets. In other cases, a bank may act as a "clearer" for other banks while offering a full set of cash management services, e.g. as a central payment institution providing services to banks (domestic as well as cross-border) belonging to a particular banking sector, such as cooperative banks or savings banks.

Customer (KYC) procedures are seen by the banks surveyed as the main reason for the decrease in correspondent account relationships, due to their high compliance costs.

Chart 7
Number of customer (loro) and service-providing (nostro) banks



Source: The banks surveyed.

Second, as a result of existing regulatory requirements, participants in the survey point to a growing tendency for banks to assess the profitability and risks of their business lines, customers and even jurisdictions and, based on these assessments, to maintain only those correspondent banking relationships where the business returns justify the cost of investment and where risks can be well-identified and managed.

Third, on the service-providing side, the correspondent banking business has become more competitive in recent years, with additional services being offered and lower transaction fees charged. This may have given customer banks incentives to concentrate their correspondent banking business on one or two service-providing banks offering specific attractive conditions, rather than maintaining multiple arrangements. <sup>6</sup>

Finally, the decrease in correspondent banking turnover and overall activity could also be partly explained by the completion of the SEPA migration.

#### 2.5 Concentration

The correspondent banking market continues to be a very concentrated market, with a few key players accounting for the majority of loro account turnover. The concentration ratio of the biggest four banks by turnover has increased since the last

With respect to the causes for and the implications of the decline in correspondent banking relationships worldwide, see also CPMI (2016), Correspondent banking, July.

survey, reaching almost 85%, while the eight biggest banks by value of transactions make up almost 95% of the market (see Table 2). There is evidence that the introduction of new regulatory requirements and the shifts in banks' strategies have led to an increasingly high concentration in the correspondent banking market, with concentration ratios for both the largest four and largest eight banks following an upward trend since 2010.

The Herfindahl index is in line with the previous figures for turnover on loro accounts, but nonetheless points to a very concentrated market. The Herfindahl index, which can range from 0% to 100%, is constructed as the sum of the squares of the market shares of all firms in an industry. By construction, it gives more weight to the larger firms, thus providing a clearer picture of the competitiveness of the industry. An index value of more than 25% indicates high concentration, i.e. higher values indicate greater concentration.

Table 2
Concentration indicators for value and volume (only for loro transactions)

|                       |        | Value   |        | Volume |        |        |  |
|-----------------------|--------|---------|--------|--------|--------|--------|--|
| Concentration index   | 2016   | 2014    | 2012   | 2016   | 2014   | 2012   |  |
| Concentration ratio 4 | 84.85% | 83.23%* | 80.23% | 2.49%  | 2.45%  | 4.42%  |  |
| Concentration ratio 8 | 94.61% | 94.00%* | 90.75% | 71.20% | 30.46% | 55.25% |  |
| Herfindahl index      | 45.33% | 47.47%  | 44.46% | 54.68% | 51.64% | 46.88% |  |

 $<sup>^{\</sup>star}$  The 2014 figures have been revised upwards since the last report, from 78.28% (ratio 4) and 87.94% (ratio 8).

Analysing the answers received reveals that the number of banks participating in the survey has decreased since the previous survey (and even more since 2012), with some of the previous participating banks no longer reaching the turnover threshold of €1 billion. Moreover, while the number of banks above the threshold decreased, the turnover of the largest players on the correspondent banking market increased or remained stable (with few exceptions). Consequently, there seems to be a tendency for the largest banks to specialise even more in correspondent banking, while the players with a small turnover are seen to reduce their correspondent banking business rather than trying to keep or increase their market share.

The top banks in terms of turnover on loro accounts were analysed to provide a picture of the volume concentration ratio for the big players on the market. This revealed that the largest four banks contribute only 2.5% of the total volume, which is in line with the 2014 figure (they are wholesale banks with a large average transaction size), while the largest eight banks make up more than 70% of the correspondent banking business in terms of volume.

**Chart 8**Turnover of transactions by sample size

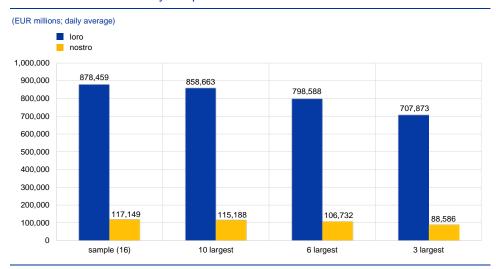


Chart 8 shows concentration on the correspondent banking market by comparing the turnover of loro and nostro accounts for the largest three, six and ten banks, as well as for the entire sample of participants in the survey. The nostro market, although it is under-represented in the survey (only the largest banks in terms of loro turnover participated and they are not necessarily the largest players on the nostro market too), is highly concentrated among the largest customers of correspondent banking services, with the three largest banks accounting for more than 75% (€88 million out of €117 million) of the nostro market.

### 2.6 Intraday and overnight credit

The additional questionnaire was directed at participating banks that are very active in providing payment services (i.e. with an average daily turnover of more than €10 billion on their loro accounts), and it included questions on intraday limits, overnight overdrafts and positive end-of-day balances, as well as values and volumes of the banks' largest customers. Of the ten banks above the €10 billion threshold, eight responded to the additional questionnaire. However, some of the banks did not answer specific questions related to intraday credit and overnight overdrafts, as indicated in Table 3.

Compared with the previous survey, a larger share of correspondent banking customers seems to have access to intraday credit. Moreover, the largest customers of the banks surveyed have a higher intraday credit limit than was the case in the previous two surveys, a figure reaching almost 25% of turnover in the case of the three largest customers in correspondent banking arrangements. As part of the total intraday credit provided by the largest service-providing banks, the intraday credit related to correspondent banking business has also increased considerably since 2014, and is almost in line with the 2012 figure.

**Table 3**Intraday credit limits, overnight overdraft and positive end-of-day balances on loro accounts

|  |                   | 2016    |                   |         | 2012    |
|--|-------------------|---------|-------------------|---------|---------|
|  | No of respondents | Average | Weighted average* | Average | Average |
| Share of customer banks with access to intraday credit                                 | 8                 | 27.48%  | 33.14%            | 19.44%  | 30.98%  |
| Intraday credit limit as a percentage of turnover (20 largest customers)               | 8                 | 16.82%  | 13.70%            | 14.03%  | 7.98%   |
| Intraday credit limit as a percentage of turnover (3 largest customers)                | 7                 | 24.95%  | 14.80%            | 16.40%  | 4.37%   |
| Correspondent banking-related intraday credit as a percentage of total intraday credit | 6                 | 48.53%  | -                 | 16.20%  | 54.00%  |
| Total overnight overdraft as a percentage of total turnover                            | 7                 | 1.65%   | 0.57%             | 1.03%   | 1.76%   |
| Maximum overnight overdraft as a percentage of total turnover                          | 7                 | 4.38%   | 1.33%             | 2.39%   | 3.02%   |
| Overnight overdraft as a percentage of turnover (20 largest customers)                 | 7                 | 1.90%   | 1.09%             | 0.34%   | 0.54%   |
| Overnight overdraft as a percentage of turnover (3 largest customers)                  | 7                 | 2.99%   | 1.55%             | 0.32%   | 0.37%   |
| Total positive end-of-day balances as a percentage of total turnover                   | 8                 | 14.66%  | 6.06%             | 13.18%  | 5.57%   |
| Maximum positive end-of-day balances as a percentage of total turnover                 | 8                 | 16.31%  | 6.72%             | 24.55%  | 16.06%  |
| Positive end-of-day balances as a percentage of turnover (20 largest customers)        | 8                 | 9.08%   | 8.24%             | 3.08%   | 1.70%   |
| Positive end-of-day balances as a percentage of turnover (3 largest customers)         | 8                 | 4.40%   | 2.03%             | 2.64%   | 1.42%   |

<sup>\*</sup> The weighted average measure was introduced in the tenth survey to better reflect the magnitude of the intraday and credit limits. However, the simple average figure was also kept to allow comparison with data from previous surveys.

The overnight overdraft and the intraday credit figures show a similar trend, with both the average and maximum daily overnight overdraft increasing since the previous survey. Furthermore, the customers with the largest turnover are taking advantage of larger overnight credit compared with previous years, but, overall, overnight overdrafts continue to be much smaller than the intraday credit granted. This reflects the fact that overnight credit is rather expensive for customer banks, because the interest rate applied by service-providing banks is higher than that on money borrowed via the money market or from the central bank directly.

Both intraday and overnight credit are generally provided without collateral, with few banks providing figures on the actual level of collateralisation, and those figures being close to zero for both intraday and overnight overdrafts. The main reasons are that service-providing banks do not want to commit themselves to providing intraday credit and, second, that credit limits are only granted to sound counterparties with a very limited risk of immediate, unexpected default. The service-providing banks do not therefore consider collateralisation to be necessary.

Finally, the daily average positive end-of-day balances have also increased, with an average of 14.66% and a weighted average of 6.06%. Both the 20 largest and 3 largest customers are also increasing the percentage of funds that they decide to keep on their loro accounts at the end of the day.

Overall, the increasingly high value of credit granted to big customers, whether intraday or overnight, suggests that service-providing banks have more confidence in customers that have a larger turnover of payments made through correspondent banking arrangements. With the market becoming more and more concentrated, the big service-providing banks are focused on maintaining their most important bilateral correspondent banking arrangements by showing a higher level of confidence and providing their largest customers with easily accessible credit.

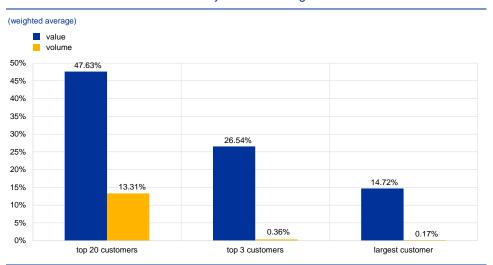
## 2.7 Concentration among customers of service-providing banks

Of the 8 banks that responded to the additional questionnaire, 7 banks provided data for the values and volumes of their largest customers. As these 7 banks account for more than 85% of the total turnover on loro accounts, the aggregated concentration ratios of their customers are representative of correspondent banking business in euro as a whole.

The 20 largest customers of each bank altogether account for more than 47% of the loro turnover in correspondent banking business. Taking into account the total number of customers reported by the 7 banks, the data indicate that just above 2% of customers are responsible for almost half of the transactions made through correspondent banking accounts. The reported data indicate that just 0.3% of all customers, i.e. only the 3 largest customers of each credit institution, make up 26.5% of the correspondent banking market (see Chart 9).

In terms of volume, the 3 largest customers by turnover make only 0.36% of the total number of correspondent banking payments, while the 20 largest customers account for 13.31% of the volume. This indicates again that the biggest players in the correspondent banking market have a low-volume/high-value profile.

Chart 9
Concentration of value and volume by number of largest customers



Source: The banks surveyed.

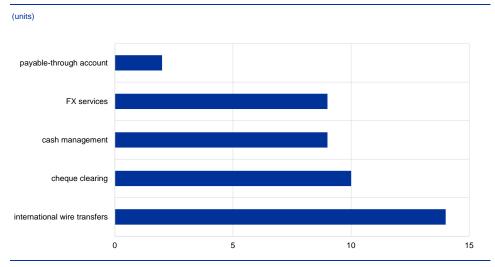
## 3 Supplementary qualitative questionnaire

A new section of supplementary qualitative questions for all participating banks was introduced in the tenth correspondent banking survey. The new questions aim to provide an overall picture of the evolution of correspondent banking activities since the previous survey and, more importantly, to identify the reasons for this evolution. The banks were asked to answer specific questions on their business strategies for providing correspondent banking services and on the aspects that have influenced changes in their strategic lines. In addition, the survey participants were asked to describe the main correspondent banking services offered and to provide a forecast for their correspondent banking activities over the medium term, as well as the reasons for their expectations. The participating banks adopted a selective approach to answering this questionnaire, with some of them responding only to some of the questions, and one bank not responding to any part of the questionnaire. The number of banks who answered each section of the questionnaire will therefore be mentioned.

With regard to the main correspondent banking services offered, 15 banks answered in their role as service-providing banks. International wire transfers are offered by the vast majority of banks surveyed (see Chart 10). This can be explained by the fact that all of the banks participating in the tenth survey act as service-providing banks for customer banks outside their home country and also outside the euro area. Additionally, most of the banks indicated that cheque clearing, cash management and foreign exchange services are important and well-established products that they also offer. Only a very small number of banks said they provided payable-through accounts as part of their correspondent banking agreements, probably due to higher associated risks versus traditional correspondent banking.<sup>7</sup>

With payable-through accounts, the customer bank allows its customers to directly access the correspondent account to conduct business on their own behalf.

**Chart 10**Number of banks surveyed offering correspondent banking services, by type of service



The main results concerning the service-providing banks' strategic line show that, in the last two years, the strategy of providing correspondent banking services has changed due to several factors in particular. It seems that many correspondent service-providing banks participating in the survey are adapting their business model by taking into account increasing costs, regulatory requirements and risk management considerations. Ten of the 15 banks that answered this question pointed to a shift in their strategies as a result of increased regulatory requirements with regard to KYC and AML/CFT. A few of them also mentioned the increased expectation to extend their due diligence to the customers of their customer banks (with the so-called KYCC, know your customer's customer) in order to have a deeper understanding of their correspondent banking transactions.<sup>8</sup> Additionally, almost half of the respondents are now using strategies based more on profitability, which could also be the result of the increased regulatory compliance costs. Finally, banks are focusing more on the risk management side of their correspondent banking arrangements, indicating a limited appetite to offer their services in high-risk countries or to customers that pose relatively high risks.

Correspondent banking activities have decreased for 7 out of 13 banks responding to this question in relation to the rest of their business lines. Three banks said there was no change in their correspondent banking activities, while 3 of them indicated an increase in activity over the last two years.

The CPMI/World Bank Group report, Correspondent banking, of July 2016 included a recommendation inviting the Financial Action Task Force (FATF) and the AML/CFT Expert Group of the Basel Committee on Banking Supervision (BCBS) to provide additional clarity on due diligence recommendations for upstream banks, in particular asking to what extent banks need to know their customers' customers ("KYCC"). Subsequently, the FATF Guidance on correspondent banking services of October 2016 clarified that FATF Recommendations do not require financial institutions to conduct customer due diligence on the customers of their customer. BCBS is working on further clarification of its own existing guidance (see also the Financial Stability Board (FSB) (2016), Progress report to the G20 on the FSB action plan to assess and address the decline in correspondent banking, 25 August).

In line with their strategic planning, most of the banks in the survey said that the main reason for decreased activity in the correspondent banking field since the previous survey was the new regulatory requirements, specifically mentioning KYC and AML/CFT. Another important reason given by almost half of the respondents is the increased focus on business profitability and risk management, which has led to an overall decrease in the number of correspondent banking arrangements and consequently in the number of accounts managed. On the other hand, some banks also mentioned a decrease in activity from the customer side, with a lower number of commercial payments initiated through the correspondent banking channel.

Looking at the geographical extent of correspondent banking business in euro, most of the responding banks are pursuing a global strategy, with only a few of them focusing on their home market, as retail banks do. All 12 banks responding to this section of the questionnaire offer their services in EU countries other than their home country. Moreover, the majority of these banks also provide their correspondent banking services to the North American and Asian markets.

With regard to the distribution between national correspondent banking activity and cross-border activity, most of the participants (7 out of 13 respondents) said there was no significant change, while 4 of them pointed to a decline in this ratio, and only 2 indicated an increase. Furthermore, regarding the distribution between correspondent banking activities in the euro area and those outside the euro area, half of the banks indicated a decrease in this ratio since the previous survey, with 3 credit institutions out of 12 saying that there had been no change and another 3 pointing to an increase in the ratio.

Finally, when asked to predict the evolution of correspondent banking activities over the medium term, the survey participants offered mixed answers. Of the 13 credit institutions that responded to this question, 4 expected an increase in activity due to a higher number of customers or an increase in the sales of services, while another 4 said they expected no changes in the medium term. By contrast, 5 of the banks indicated that they were expecting a decrease in correspondent banking activity, their main reasons being the high regulatory burden, limited risk appetite and increased competition on the market, including from fintech companies offering digital solutions.

## Conclusion

Although the findings of the tenth survey on correspondent banking show a relatively small decrease in total turnover and in the overall number of customers, correspondent banking arrangements continue to play an important role in the payments market, as they are a well-established channel through which banks can access financial services in different jurisdictions, inside and outside the European Union, and can provide cross-border payment services to their customers.

The results of the survey show a decrease in the number of participating banks in recent years: some of the previous participating banks no longer reached the turnover threshold and therefore were not included in the tenth survey, which also resulted in a higher concentration ratio on the correspondent banking market. Still, while the number of banks above the threshold decreased, the majority of the top players in the correspondent banking market saw their turnovers increase. This seems to show a tendency in the largest banks to specialise even more in correspondent banking, while the banks with only small turnovers are reducing their correspondent banking business rather than trying to maintain or increase their market share.

Given this high concentration of correspondent banking activity among the few largest players, a change in the business strategy of only one or two of them could affect the correspondent banking market as a whole. Also, with regard to risks, difficulties that may affect one of the largest banks in the market could spill over to payment systems, therefore warranting the attention of their overseers. Fair and open access to payment systems, based on reasonable risk-related participation requirements, could also give banks less of a need for correspondent banking by widening direct participation in payment systems.

One main reason for the constant decrease in turnover and number of correspondent banking arrangements is the regulatory requirements related to KYC and AML/CFT. Some of the banks surveyed also name KYCC (know your customer's customer) as a future contributor to the increase in the regulatory burden. As a result of the higher compliance costs mentioned, banks are shifting their strategies to a more profitability-based approach, making sure that the correspondent banking arrangements they have in place generate sufficient revenue to cover the increased costs. Also relevant, and strongly related to regulatory requirements, is the increasing focus of banks on the risks that their customers pose through correspondent banking arrangements. This has led to de-risking, i.e. banks being no longer willing to accept risks that might affect their profitability or their reputation. Derisking may occur because banks are implementing AML/CFT requirements and mitigating their exposure to money laundering/financing of terrorism (ML/FT) risks by reducing or eliminating some of their services to high-risk customers. This is in line with the FATF's public statement on de-risking: "When establishing correspondent

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<sup>&</sup>lt;sup>9</sup> See footnote 7 above for more details on the updated FATF Guidance in this respect.

banking relationships, banks are required to perform normal customer due diligence on the respondent bank. Additionally, banks are required to gather sufficient information about the respondent bank to understand the respondent bank's business, reputation and the quality of its supervision, including whether it has been subject to a money laundering or terrorist financing investigation or regulatory action, and to assess the respondent bank's AML/CFT controls."

Looking ahead, the correspondent banking business is expected to continue to play an important role in providing payment services within the euro area and worldwide. There is a degree of uncertainty in the correspondent banking market with regard to future prospects, which depend on the costs and requirements of direct participation in payment systems, the regulatory framework and the implementation of banks' strategies. Competition from fintech new entrants and payment innovators is also an important factor to be considered when forecasting the evolution of correspondent banking.

<sup>10</sup> FATF (2015), "Drivers for 'de-risking' go beyond anti-money laundering/terrorist financing".

## Annex 1: General questionnaire for the 2016 survey

(Please refer to the survey methodology for additional explanations and definitions as to the questions.)

#### Name of reporting bank\*: .....

(\* The name of the reporting bank will be forwarded to the ECB, together with the data (for the purpose of analysing interdependencies in the financial market with a view to promoting financial stability), unless the reporting bank requests the home NCB to make the data anonymous before transmitting it to the ECB.)

#### 1 Loro accounts denominated in euro

#### 1.1 Accounts managed in the survey country, for customer banks from the survey country

[All euro-denominated accounts managed by the reporting bank (as service-providing bank) for customer banks from the survey country. For the parent company of a banking group, transactions on accounts maintained by the parent company and all its branches in the survey country are counted, but not transactions of subsidiaries. For subsidiaries, transactions by the subsidiary and its domestic branches are counted.]

#### 1.1.1 Number of customer banks

[Number of institutions, not the number of accounts provided to each institution.]

#### 1.1.2 Number of transactions (daily average over the reporting period)

[All credit and debit entries registered on all accounts of the customer banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### 1.1.3 Value of transactions (daily average over the reporting period, in EUR)

[All credit and debit entries registered on all accounts of the customer banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### Optional:

#### 1.1.4 Median size of payments over the reporting period (in EUR)

#### 1.2 Accounts managed in the survey country for euro area customer banks outside the survey country

[All euro-denominated accounts managed by the reporting bank for euro area customer banks outside the survey country. For the parent company of a banking group, transactions on accounts maintained by the parent company and all its branches in the survey country are counted, but not transactions of subsidiaries. For subsidiaries, transactions by the subsidiary and its domestic branches are counted.]

#### 1.2.1 Number of customer banks

[Number of institutions, not the number of accounts provided to each institution.]

#### 1.2.2 Number of transactions (daily average over the reporting period)

[All credit and debit entries registered on all accounts of the customer banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### 1.2.3 Value of transactions (daily average over the reporting period, in EUR)

[All credit and debit entries registered on all accounts of the customer banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### Optional:

#### 1.2.4 Median size of payments over the reporting period (in EUR)

#### 1.3 Accounts managed in the survey country for non-euro area customer banks

[All euro-denominated accounts managed by the reporting bank for non-euro area customer. For the parent company of a banking group, transactions on accounts maintained by the parent company and all its branches in the survey country are counted, but not transactions of subsidiaries. For subsidiaries, transactions by the subsidiary and its domestic branches are counted.]

#### 1.3.1 Number of customer banks

[Number of institutions, not the number of accounts provided to each institution.]

#### 1.3.2 Number of transactions (daily average over the reporting period)

[All credit and debit entries registered on all accounts of the customer banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### 1.3.3 Value of transactions (daily average over the reporting period, in EUR)

[All credit and debit entries registered on all accounts of the customer banks, including such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### Optional:

#### 1.3.4 Median size of payments over the reporting period (in EUR)

#### 1.4 Loro accounts managed in branches outside the survey country but within the euro area

[All euro-denominated accounts managed for customer banks in the reporting bank's branches outside the survey country but within the euro area.]

#### 1.4.1 Number of customer banks

[Number of institutions, not the number of accounts provided to each institution.]

#### 1.4.2 Number of transactions (daily average over the reporting period)

[All credit and debit entries registered on all accounts of the customer banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### 1.4.3 Value of transactions (daily average over the reporting period, in EUR)

[All credit and debit entries registered on all accounts of the customer banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### Optional:

#### 1.4.4 Median size of payments over the reporting period (in EUR)

#### 1.5 Total loro accounts (sum of Questions 1.1 to 1.4)

[Calculated sum total of the answers to Questions 1.1 to 1.4 above; all euro-denominated accounts managed for all customer banks in the reporting bank and its branches outside the survey country but within the euro area.]

#### 1.5.1 Number of customer banks

[Number of institutions, not the number of accounts provided to each institution.]

#### 1.5.2 Number of transactions (daily average over the reporting period)

[All credit and debit entries registered on all accounts of the customer banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### 1.5.3 Value of transactions (daily average over the reporting period, in EUR)

[All credit and debit entries registered on all accounts of the customer banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### Optional:

#### 1.5.4 Median size of payments over the reporting period (in EUR)

#### 1.6 Importance ratio for loro accounts

In your total payment flow, what is the percentage of payments accounted for by customer banks?

[Euro-denominated transactions and accounts only. Percentage of transactions counted for answer to Question 1.5 in the total of all transactions on all euro accounts of the reporting bank, i.e. on euro accounts for customer banks, for non-bank customers and for the reporting bank itself. Please refer to the definition in Section 4.1 of the methodology for more details. Estimates of the ratio are acceptable; the method used for the estimation should be explained briefly in the response.]

#### 1.6.1 In terms of volume, expressed as a percentage

#### 1.6.2 In terms of value, expressed as a percentage

## 1.7 Overall ratio of settlement in payment systems for transactions booked on loro accounts and shares of the individual payment systems used for settlement

a) What percentage of customer banks' payments do you forward to, or receive from, payment systems in general (overall ratio)?

[Euro-denominated transactions and accounts only. Percentage of all customer banks' payments received from or forwarded to a payment system in the total of all transactions counted for answer to Question 1.5.]

b) Which payment systems do you use (names) and what is their individual share in settling customer banks' payments forwarded to, or received from, payment systems? [Breakdown of the settlement of customer banks' payments forwarded to, or received from, payment systems counted for Question 1.7 a) per payment system. Shares of the payments systems used should add up to 100%.]

[Please refer to the definition in Section 4.2 of the methodology for more details. Estimates of the ratio are acceptable; the method used for the estimation should be explained briefly in the response.]

#### 1.7.1 a) All payments in terms of volume, expressed as a percentage (overall ratio)

b) Payments in terms of volume, expressed as a percentage per payment system

#### 1.7.2 a) All payments in terms of value, expressed as a percentage (overall ratio)

b) Payments in terms of value, expressed as a percentage per payment system

#### 1.7.3 Transaction types

In your total payment flow, what are the most common transaction types (i.e. settlement of payments, securities, derivatives, other: please name them if other) and what is your estimate of their individual share?

[Options: Payments, securities, derivatives, other (please specify)]

#### 1.8 Intraday overdraft limits

What is the total value (i.e. the sum total of the individual values) of the intraday overdraft limits across all euro-denominated loro accounts on an average day?

#### 1.8.1 In EUR

#### 1.8.2 As a percentage of own funds

#### 1.9 Collateralisation of intraday overdraft limits

What percentage of the loro account intraday overdraft limits is collateralised?

#### 2 Nostro accounts denominated in euro

#### 2.1 Accounts held with service-providing banks from the survey country

[All euro-denominated accounts held by the reporting bank (i.e. as customer bank) with service-providing banks located in the survey country. For parent companies, including transactions of the parent company and its branches in the survey country, but excluding the transactions of subsidiaries. For subsidiaries, including only transactions related to the subsidiary. Accounts maintained by central banks are not included.]

#### 2.1.1 Number of service-providing banks

[Number of institutions, not the number of accounts held at each institution,]

#### 2.1.2 Number of transactions (daily average over the reporting period)

[All credit and debit entries registered on all accounts with the service-providing banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### 2.1.3 Value of transactions (daily average over the reporting period, in EUR)

[All credit and debit entries registered on all accounts with the service-providing banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### Optional:

2.1.4 Median size of payments over the reporting period (in EUR)

#### 2.2 Accounts held with euro area service-providing banks outside the survey country

[All euro-denominated accounts held by the reporting bank with service-providing banks located outside the survey country. For parent companies, including transactions of the parent company and its branches in the survey country, but excluding the transactions of subsidiaries. For subsidiaries, including only transactions related to the subsidiary.]

#### 2.2.1 Number of service-providing banks

[Number of institutions, not the number of accounts held at each institution.]

#### 2.2.2 Number of transactions (daily average over the reporting period)

[All credit and debit entries registered on all accounts with the service-providing banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### 2.2.3 Value of transactions (daily average over the reporting period, in EUR)

[All credit and debit entries registered on all accounts with the service-providing banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### Optional

2.2.4 Median size of payments over the reporting period (in EUR)

#### 2.3 Total nostro accounts denominated in euro (sum of Questions 2.1 and 2.2)

[Calculated sum total of the answers to Questions 2.1 and 2.2 above; all euro-denominated accounts held by the reporting bank with all its service-providing banks. For parent companies, including transactions of the parent company and its branches in the survey country, but excluding the transactions of subsidiaries. For subsidiaries, including only transactions related to the subsidiary. Accounts maintained by central banks are not included.]

#### 2.3.1 Number of service-providing banks

[Number of institutions, not the number of accounts held at each institution.]

#### 2.3.2 Number of transactions (daily average over the reporting period)

[All credit and debit entries registered on all accounts with the service-providing banks, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### 2.3.3 Value of transactions (daily average over the reporting period, in EUR)

[All credit and debit entries registered on all accounts with the correspondents, such as large-value, retail, domestic, cross-border payments, fees, etc.]

#### Optional:

2.3.4 Median size of payments over the reporting period (in EUR)

#### 3 Supplementary qualitative questions

In comparison to the 2014 correspondent banking survey:

## 3.1 Describe the main correspondent banking services offered (cash management, international wire transfers, cheque clearing, payable-through or nested account and FX services).

- 3.2 Describe in general the strategic line of your institution for providing correspondent banking services (criteria for accepting or rejecting correspondent banking services to foreign institutions, e.g. type of institution or business lines in which it engages at home, country of origin).
- 3.3 Has your business strategy to provide correspondent banking services changed over the last two years? If yes, please explain why.
- 3.4 Have your correspondent banking activities, in relation to the rest of your business lines, increased or decreased?
- 3.5 What are the correspondent banking services you provide that have increased/decreased?

#### 3.5.1 What are the main reasons for these increases/ decreases (per service) ordered according to their importance?

[Examples of reasons can be profitability/business considerations, regulatory requirements (anti-money laundering/ combating financing of terrorism so called AML/CFT issues), etc.]

| 3.6   | Have your national correspondent banking activities decreased/ increased in comparison to your cross-border euro area activities?   |
|-------|---|
|       | What are the main reasons for this increase/ decrease ordered according to their importance? Could you please provide the jurisdictions in which these re relevant?  of reasons can be profitability/business considerations, regulatory requirements (anti-money laundering/ combating financing of terrorism so called AML/CFT issues), |
| 3.7   | Have your euro area correspondent banking activities decreased/increased in comparison to your non-euro area activities?  |
|       | What are the main reasons for this increase/decrease ordered according to their importance? Could you please provide the jurisdictions in which these re relevant?  of reasons can be profitability/business considerations, regulatory requirements (anti-money laundering/ combating financing of terrorism so called AML/CFT issues),  |
| 3.8   | As to cross-border activities, what are the geographical areas (countries) of your correspondent banking services?  |
| 3.9   | Would you foresee an increase/decrease in your activities over the medium-term?   |
| 3.9.1 | What are the reasons for this?  |

## Annex 2: Additional questionnaire for the 2016 survey

(Please refer to the survey methodology for additional explanations and definitions as to the questions.)

Name of reporting bank: .....

| 1         | Intraday overdrafts  |
|-----------|--|
| 1.1       | What is the percentage of customer banks that are eligible for intraday overdrafts on their accounts?  |
| 1.2       | What is the total value (i.e. the sum of the individual values) of the intraday overdraft limits for your 20 largest customer banks (on an average day in the reporting period, in EUR)?   |
| 1.3       | What is the total value (i.e. the sum of the individual values) of the intraday overdraft limits for your three largest customer banks (on an average day in the reporting period, in EUR)?  |
| 1.4       | Qualitative information on the management of risks related to intraday overdrafts:  Please describe how usage of intraday overdrafts is monitored during the day and explain the measures applied to minimise potential liquidity risk arising from unexpectedly high usage of the intraday overdrafts, as well as the measures to minimise the credit risks of overdrafts that may change during the day. |
| 1.5       | What percentage of your institution's total intraday overdraft limits is due to correspondent banking?   |
| 2         | Overnight overdrafts (negative end-of-day balances)  |
| 2.1       | What is the total value (i.e. the sum of the individual values) of overnight overdrafts across all euro loro accounts (daily average over the reporting period, in EUR)?   |
| 2.2       | What is the maximum value (i.e. the sum of the individual values) of overnight overdrafts across all euro loro accounts during the reporting period (in EUR)?  |
| 2.3       | What is the daily average share of overnight overdrafts in the total value of intraday overdraft limits on loro accounts (as a percentage)?  |
| 2.4       | What is the total value (i.e. the sum of the individual values) of the overnight overdrafts for your 20 largest customer banks (daily average over the reporting period, in EUR)?  |
| 2.5       | What is the total value (i.e. the sum of the individual values) of the overnight overdrafts for your three largest customer banks (daily average over the reporting period, in EUR)?   |
| 2.6       | What proportion of the value of loro account overnight overdrafts is collateralised (as a percentage)?   |
|           |  |
| 3         | Positive end-of-day balances   |
| 3.1       | What is the total value (i.e. the sum of the individual values) of positive end-of-day balances across all euro loro accounts (daily average over the reporting period, in EUR)?   |
| 3.2       | What is the maximum value of positive end-of-day balances across all euro loro accounts in the survey period (in EUR)?   |
| 3.3       | What is the total value (i.e. the sum of the individual values) of positive end-of-day balances for the 20 largest customer banks (daily average over the reporting period, in EUR)?   |
| 3.4       | What is the total value (i.e. the sum of the individual values) of positive end-of-day balances for the three largest customer banks (daily average over the reporting period, in EUR)?  |
| 4         | Comparative data   |
| 4.1       | Twenty largest customer banks (names of the banks*):   |
| 4.1.1     | Total number of transactions of the 20 largest customer banks (daily average over the reporting period).   |
| 4.1.2     | Total value of transactions of the 20 largest customer banks (daily average over the reporting period, in EUR)   |
| Optional: |  |
| 4.1.3     | Median size of payments (in EUR)   |

| 4.2        | Each of the three largest customer banks:                               |  |  |  |
|------------|---|--|--|--|
| Bank A (na | Bank A (name of the bank*)  |  |  |  |
| 4.2.1A     | Number of transactions (daily average over the reporting period)        |  |  |  |
| 4.2.2A     | Value of transactions (daily average over the reporting period, in EUR) |  |  |  |
| Optional:  |   |  |  |  |
| 4.2.3A     | Median size of payments (in EUR)  |  |  |  |
| Bank B (na | me of the bank*)  |  |  |  |
| 4.2.1B     | Number of transactions (daily average over the reporting period)        |  |  |  |
| 4.2.2B     | Value of transactions (daily average over the reporting period, in EUR) |  |  |  |
| Optional:  |   |  |  |  |
| 4.2.3B     | Median size of payments (in EUR)  |  |  |  |
| Bank C (na | Bank C (name of the bank*)  |  |  |  |
| 4.2.1C     | Number of transactions (daily average over the reporting period)        |  |  |  |
| 4.2.2C     | Value of transactions (daily average over the reporting period, in EUR) |  |  |  |
| Optional:  |   |  |  |  |
| 4.2.3C     | Median size of payments (in EUR)  |  |  |  |
|            |   |  |  |  |

<sup>\*</sup> It would be highly appreciated if the reporting bank could provide the names of its 20 largest and its three largest customer banks respectively in order to enable the ECB to make use of the information for the purpose of analysing interdependencies in the financial market with a view to promoting financial stability.

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ISBN 978-92-899-2915-8 (pdf)
DOI 10.2866/36881 (pdf)
EU catalogue No QB-AT-17-001-EN-N (pdf)