

Eleventh survey on correspondent banking in euro

2019



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Executive summary

The handling of payments between financial institutions may take place through correspondent banking or multilateral arrangements (i.e. payment systems). Correspondent banking arrangements, similar to payment systems, are a well-established channel through which banks can access financial services in different jurisdictions, inside and outside the European Union, and provide cross-border payment services to their customers. For this reason, these arrangements are of high relevance for the financial market and have been within the scope of the Eurosystem's oversight activity since the European Central Bank (ECB) was established. Risks and efficiencies in the correspondent banking market are relevant for both the supervision of banks and the oversight of payment systems. To avoid double regulation of banks, the Eurosystem has not set any specific regulation requirements for correspondent banking arrangements; instead it relies on the interplay between payments oversight and banking supervision to monitor the sector.

Since 1999, the Eurosystem has conducted surveys to monitor the evolution of the correspondent banking business. Participation in the survey is voluntary and the number of respondents reaching the €1 billion threshold in the daily turnover of their *loro* accounts has decreased over the years. Fifteen banks located in six euro area countries (Austria, France, Germany, Italy, Luxembourg and Spain) participated in this eleventh survey. Despite the limited number of participants, the survey captures the largest correspondent banks and covers a large proportion of the entire business in euro.

The findings of the 2019 survey show a 22% decrease in the total turnover compared to 2016 data, as well as a 21% reduction in the number of customer banks and 43% decline in the average transaction size. Nevertheless, correspondent banking relationships continue to represent an important link in the payment chain with a total daily turnover of €86 billion. According to the reported figures, one-third (36%) of transactions in value are euro-domestic transactions, i.e. payments where the originator and beneficiary are both located in the euro area. This activity is primarily related to providing the originator's bank with indirect access to payment systems (mainly TARGET2 and EURO1) without additional costs or requirements.

Increasing regulatory requirements related to Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) procedures as well as "Know Your Customer" (KYC) procedures partially explain the decreasing turnover and declining number of correspondent banking arrangements. As a result of the higher compliance costs, banks are reducing their exposure to activities that might affect their profitability or their reputation, and are shifting their strategies to more profitable businesses. To reverse this negative trend, the Financial Stability Board (FSB) launched a four point action plan and worked with relevant international organisations and standard setting bodies to develop a roadmap to enhance cross-border payments. Compared to previous surveys it seems that the top players in the market remained the same and there is a tendency in the largest banks to specialise in cross-border activity, while

smaller banks are reducing their business. As a result, the correspondent banking market remains highly concentrated. A closer look at the length of the correspondent banking chain provides further evidence of the specialisation pattern. 25% of payments are processed with no intermediary and 39% are processed via three correspondent banks, suggesting that banks try to minimise the length of chains and that large service-providing banks greatly benefit from the establishment of direct relationships.

Looking ahead, irrespective of the decline in activity, the correspondent banking business is expected to continue to play a crucial function in the payments ecosystem. Many of the banks surveyed (60%) expect an increase in correspondent banking activities over the medium-term due to an increase in efficiency and the introduction of the new services in the cross-border environment. However, they also mention a number of factors, which increase uncertainty about the future of the business including: competition from fintech, potential market entrants, new payment methods, mergers in the banking sector and higher compliance costs.

Introduction

Correspondent banking refers to bilateral relationships between banks that allow for the transfer of funds via a book-to-book transfer. The correspondent banking network plays an important role in the global payment system as a well-established channel for banks to access financial services in different jurisdictions, inside and outside the European Union.

Correspondent banking relationships are not subject to the direct oversight of the Eurosystem. However, given their relevance for the smooth functioning of the payment systems, the Eurosystem has been monitoring correspondent banking activities.

This report presents the results of the eleventh survey on correspondent banking and provides a trend analysis of the correspondent banking business in the euro area. The findings were complemented by a series of interviews conducted with stakeholders.

The report is structured as follows:

- Chapter 1 describes the principle of functioning of correspondent banking;
- Chapter 2 analyses the trends and challenges affecting correspondent banking;
- Chapter 3 identifies current and future developments and the use of innovation in the correspondent banking industry;
- Chapter 4 presents the quantitative and qualitative results of the survey.

1 The concept of correspondent banking

Correspondent banking has been widely used since its invention. The principles on which it functions remain largely unchanged, aside from technical and legal adaptations, and they are still largely used today especially for settling cross-border payments.

1.1 Principles of correspondent banking

A bilateral correspondent banking arrangement is a contractual relationship between two banks for the provision of payment services and other payment obligations arising in the interbank space. These two institutions handle the sorting and processing of payments without involving an intermediary.

However, most correspondent banking arrangements involve at least one additional party known as the 'correspondent' or 'service-providing' bank. The correspondent bank receives payment instructions from one or both institutions and processes them via book-to-book transfers across banks. This involves the use of *nostro*, *vostro* and *loro* accounts.

Figure 1
Types of accounts

Nostro account Vostro account Loro account Our money with you Your money with us • Their money with them Foreign currency account Domestic currency account · An account used by a third held by a domestic bank in a held by foreign banks in a party bank to settle foreign exchange transactions via a domestic bank which holds a foreign bank domestic bank nostro account

Source: ECB

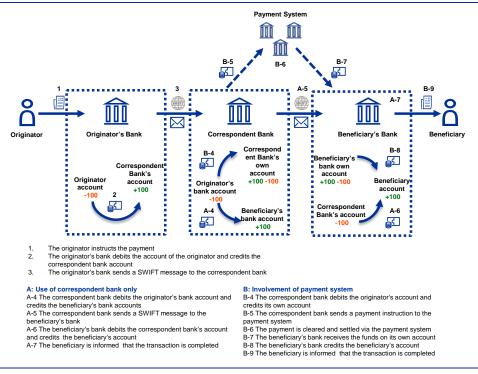
The service-providing bank opens an account for the respondent bank which is, from the perspective of the respondent bank, a nostro account and, from the perspective of the service providing bank, a vostro account. If the domestic bank does not hold a nostro account in the foreign bank it can use the account of a third-party bank, which will be referred to as a loro account. Settlement is made by crediting and debiting the respective accounts. Since the entries made in one account are reflected in the other account, those accounts are sometimes referred to as 'mirror accounts'. Payments are instructed via standardised messages, predominantly using the Society for Worldwide Interbank Financial Telecommunications (SWIFT) messaging network.

Before the establishment of a new correspondent banking arrangement, the service-providing bank conducts a due diligence check to understand the business and assess financial and AML/CFT¹ risks of the customer bank (i.e. KYC processes).

Correspondent banking relationships are typically asymmetric meaning that these services are not necessarily offered on a reciprocity basis, but by a small number of global banks providing services to a number of respondent banks.

Figure 2 shows a simplified payment flow from the originator's bank to the beneficiary's bank via a correspondent. Two options are depicted: (A) the payment is processed exclusively via book-to-book transfer, and (B) the correspondent uses a payment system to reach the beneficiary's bank.

Figure 2
Payment flow in correspondent banking



Source: ECB

Note: Graphic adapted from "Payment Systems in Denmark", Danmarks Nationalbank Copenhagen, 2005.

1.2 Role and relevance of correspondent banking

Correspondent banking has lost its relevance for domestic payments within a single jurisdiction.² However, it still plays a crucial role in cross-border payments.

¹ See "Anti-money laundering and counter terrorist financing", European Commission.

See "CPMI publishes new data on correspondent banking networks showing 20% reduction in relationships over seven years", Press release, Bank for International Settlements, May 2019.

1.2.1 A worldwide network

Before the development of multilateral payment systems, 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 over time in certain areas as a result of de-risking, as well as financial market integration and consolidation, e.g. the establishment of payment systems for the settlement of domestic payments; the development of widely accessible euro payment systems; the formation of Payment Versus Payment (PvP) systems for the simultaneous settlement of foreign exchange transactions with the elimination of the settlement risk; the integration of securities settlement (i.e. TARGET2-Securities); and the introduction of the central clearing obligation (i.e. European Market Infrastructure Regulation requirements).

Nevertheless, correspondent banking remains a valid alternative from an efficiency and cost perspective to be used in case payments cannot be processed directly by the payment system, or to make payments across systems. Today, this is still typically the case for cross-border payments. In fact, most of the payment systems cover the domestic market (i.e. national and euro area market) and some integrated payment markets, such as the Single Euro Payments Area. Furthermore, multi-national banks with direct access to payment systems of different currency areas are rare due to restrictive payment system access policies and cost for establishing branches and subsidiaries in foreign countries that can access a payment system.³ The correspondent banking network can be seen as a worldwide network of bilateral relations that allows a bank's customer to make and receive payments in any currency from/to virtually any counterparty that has a bank account. To cater for this, sometimes several correspondents may be involved in a single payment.

In addition to processing cross-border payments, correspondent banking provides banks with indirect access to payment systems (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 without resulting in truncation of information. In 2019, of every euro sent by direct participants in TARGET2, 6.13 cents were settled on behalf of indirectly connected parties and 75% of these tiering arrangements came from outside the European Economic Area (EEA). This means that TARGET2 and other payment systems make it possible for foreign banks to access the euro market via a direct participant in TARGET2 (i.e. correspondent banks).⁴

For example, Guideline (EU) 2019/1849 of the European Central Bank of 4 October 2019 amending Guideline ECB/2012/27 on a Trans-European Automated Real-time Gross Settlement Express Transfer system (TARGET2) (OJ L 283, 5.11.2019, p. 64) allows for the participation of credit institutions established within and outside of the EEA. Credit institutions established outside the EEA, however, need to act through a branch established in the EEA.

See "TARGET Annual Report 2019", ECB, Frankfurt am Main, May 2020.

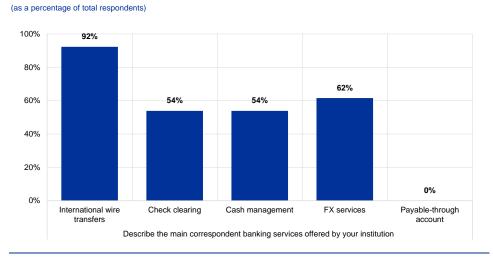
1.2.2 Services and products

Correspondent banking includes various services, such as international wire transfers, but also possibly cheque clearing, cash management services, foreign exchange services and payable-through account services.

Aside from the direct provision of payment services to respondent banks, correspondent banks may also process transactions for a number of banks that are not their direct customers. The practice of using a bank's correspondent relationship is referred to as downstream (or nested) correspondent banking. More specifically 'downstream correspondent banking' is defined as "the use of a bank's correspondent relationship by a number of underlying banks or financial institutions through their relationships with the correspondent bank's direct customer". When the account of the respondent bank can be used directly by its customers, the service is referred to as payable-through account.

For payable-through accounts services it is difficult to implement the same due diligence requirements as for other accounts. Hence, they are more risky to operate from an anti-money laundering perspective and tend to be rarer in the euro area. This is confirmed by the 2019 survey, in which none of the surveyed banks were proposing this service for euro-denominated payments.

Chart 2Share of banks offering correspondent banking services



Source: The banks surveyed.

See "Correspondent Banking Due Diligence Questionnaire (CBDDQ)", The Wolfsberg Group, February 2018.

2 Trends and challenges affecting correspondent banking

In 2019 the Committee on Payments and Market Infrastructures (CPMI) noted that the number of correspondent banking relationships had shrunk by 20% between 2011 and 2018. Increased costs of due diligence, risk of reputational damages and concerns around profitability have accelerated changes in the correspondent banking landscape.

2.1 De-risking in correspondent banking

In line with regulatory expectations (i.e. AML/CFT and Financial Action Task Force (FATF) Recommendations⁷), correspondent banks have taken actions to mitigate their exposure to the risk of money laundering and terrorism financing. Banks have done so by investing in more sophisticated tools to screen and monitor payments and customers, by adapting the products offered, and by withdrawing from some correspondent banking relationships.

As risks associated with correspondent banking have been rising, banks reviewed their Risk Appetite Statements (RAS) which document the level of exposure they are willing to take. Based on their RAS, correspondent banks review their customer portfolios on an ongoing basis: if the customer portfolio review shows that activity is outside the banks' RAS or it is not possible to process customer flows safely, banks restrict this activity or end the relationship with the customer.

Interviewed banks reported that in the last years they have effectively reduced their portfolio of high-risk customer banks when it was not possible to reduce risks otherwise. The overall reduction in the number of correspondent banking relationships is also due to high costs and rationalisation of country pairs (corridors) by customer banks, meaning fewer direct connections between countries. Although Europe followed the global declining trend, there are still several hundred active correspondent banks in Europe⁹, which is due both to the fact that the European banking sector is not very consolidated, and that Europe is not considered a high-risk region. In contrast, in jurisdictions that are perceived as risky (based on the status of countries in the FATF global network¹⁰ or other similar indicators), banks face difficulties in maintaining existing correspondent banking relationships or in forming new ones. This results in strong geographical imbalances.

⁶ See footnote 2 in this document.

⁷ See "The FATF Recommendations", FATF, June 2019.

See "FSB Action Plan to Assess and Address the Decline in Correspondent Banking – Progress Report", FSB, May 2019.

See "Correspondent Banking", CPMI, Bank for International Settlements, July 2016.

¹⁰ See "FATF country map", FATF.

Box 1

The Financial Stability Board's action plan to assess and address the decline in correspondent banking relationships

Based on data provided by SWIFT, the FSB and the CPMI have observed¹¹ a continued decline in the number of correspondent banking relationships. The decline is widespread among currencies and countries but latest available figures show that the trend slowed down in 2018. Over 2011-2018, the most affected regions are Melanesia and Polynesia (-42.9% and -36.5%, respectively) as well as South America, the Caribbean and Northern Africa (between -32% and -34%).

As certain regions of the world were at risk of being cut out of the correspondent banking network, the FSB launched, in November 2015, a four point action plan to assess and address the decline in correspondent banking relationships, coordinated by the Correspondent Banking Coordination Group (CBCG). These four areas of action include: (i) a closer examination of the dimension and implications of the issue, (ii) clarification of regulatory expectations, (iii) domestic capacity building for jurisdictions that are mostly affected, and (iv) stronger tools for due diligence for correspondent banks.

In the 2019 progress report¹²,the FSB indicated that the components of the action plan are largely in place and that attention has turned to monitoring of implementation. Most important measures include the publication of further guidance by the FATF and the Basel Committee on Banking Supervision (BCBS)¹³, which clarified regulatory expectations for correspondent banking activities. The guidance is currently being implemented by domestic regulators.

Another key achievement has been the development and implementation of the Correspondent Banking Due Diligence Questionnaire (CBDDQ) by the Wolfsberg Group ¹⁴. The CBDDQ allows banks to provide consistent information about their activity and financial crime compliance programmes, which minimises the need for additional requirements. As a global standardised tool for the conduct of due diligence, the CBDDQ makes for more efficient and less costly procedures for giving access to a correspondent banking account.

The third element in the FSB action plan supports coordination of domestic capacity building to improve and increase trust in the supervisory and compliance frameworks of affected jurisdictions. Capacity building in this context extends not only to public sector initiatives, but also to the private sector.

Under the fourth action area, the FSB CBCG Workstream 4 supported the implementation of the recommendations included in the CPMI's correspondent banking report of July 2016.¹⁵ Inter alia, one recommendation was the use of KYC utilities to store due diligence information and help correspondent banks to assess and manage risks related to respondent banks and to provide

¹¹ See footnote 2 in this document.

¹² See footnote 8 in this document.

The FATF issued further guidance in the area of correspondent banking, in cooperation with the BCBS AML/CFT Expert Group (AMLEG), including: "FATF Guidance: Correspondent Banking Services", FATF, October 2016; Guidance for a Risk-Based Approach: Money or Value Transfer Services, FATF, November 2016; and "Annex 2" to "Guidelines: Sound management of risks relating to money laundering and financing of terrorism", BCBS, Bank for International Settlements, February 2016.

The Wolfsberg Group is an association of thirteen global banks created in 2000 with the objective of developing frameworks and guidance for the management of financial crime risks, in particular in the correspondent banking domain.

¹⁵ See footnote 9 in this document.

information efficiently. Other recommendations include using the Legal Entity Identifier (LEI) and to add the resulting information as an addition to payments messages. The FSB reported progress in the development of tools at the international level but also indicated the need for further cooperation and monitoring of implementations.

The FSB, together with relevant international organisations and standard setting bodies, has also conducted an assessment of existing cross-border payment arrangements and challenges, and published a roadmap for enhancing cross-border payments¹⁶ (See Box 3 for more details).

2.2 Concentration and specialisation

The reduction in the number of active correspondent relationships can also be attributed to the ongoing reorganisation of correspondent banking activities. While correspondent banking services used to be provided on a reciprocity basis, correspondent banking is now largely a specialised activity dominated by a smaller number of global banks. Interviews with European stakeholders confirm that there are fewer service-providing banks both globally and at the European level. Banks tend to be more specialised or more selective when it comes to offered currencies, products and/or serviced geographies.

Since the 2007-08 financial crisis, banks responding to the survey have assessed their existing correspondent banking activities and reportedly reduced the number of relationships they maintain. Interviews indicate that banks tend to rely on fewer service-providing banks with whom they seek to establish a reliable relationship. Nevertheless, having multiple providers for each destination currency is seen as standard market practice, at least for key global currencies.

Since 2010, the Eurosystem surveys have confirmed this tendency. There is an observable reduction, from survey to survey, in the number of banks reaching the €1 billion threshold that was introduced in 2012. At the same time, the large players in the correspondent banking market tend to increase their turnovers. The strong increase in market concentration observed in the previous surveys has now stabilised. High concentration of the correspondent banking market could, in principle, reduce competition among the remaining participants and lead to rising prices. However, according to respondents to the current survey, this is not the case and the threat of new entrants, the implementation of automated processes, increased transparency of fees, and innovation in the payments market are expected to keep fees down.

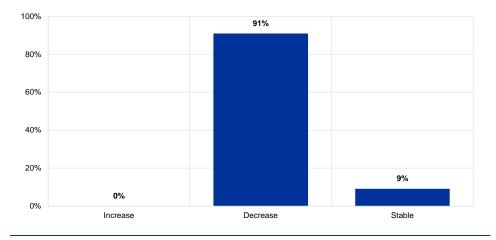
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¹⁶ See "Enhancing Cross-border Payments – Stage 1 report to the G20", FSB, April 2020.

Chart 2Expectations about the trend in correspondent banking fees

Would you expect fees to increase, decrease or remain stable?

(percentage of total respondents)



Source: The banks surveyed.

Box 2Non-banks and the provision of cross-border payments: old and new competitors

The correspondent banking network still forms the backbone of the international payment system, but not all cross-border transactions are directly handled by correspondent banks. Looking at the different types of cross-border payments, correspondent banking is first and foremost used to process interbank transactions. Also, most corporate payments are processed by banks using correspondent banking channels.

The picture is different in the retail payments market, where money transfer operators (MTOs) have been competing with banks in remittance payments. MTOs are based on a network of physical agencies that handle cash payments at both ends (cash to cash payments). MTOs vary in size from regional operators that focus on a limited number of countries, to international operators that offer a nearly worldwide coverage. This closed loop functioning allows MTOs to process fund transfers end to end in a short period of time.

A new generation of providers, namely fintechs, has started to target account-to-account cross-border payments. These are often e-money institutions that facilitate cross-border payments through wallets and networks of accounts across jurisdictions. For a transfer some offers may leverage on domestic payment instruments and domestic payment systems in order to speed up cross-border payments and drive down costs. Following this model, a cross-border payment is split into two domestic payments: the institution acts as the receiving counterparty to the originator and as the emitting counterparty to the receiver. This may lead to new areas of concern, like whether the split of the end-to-end transaction into two payments may result in the loss of certain information, e.g. the bank of the payer may not know who the payee is, and the bank of the payee may not know about the payer. This may raise questions about how transactions are adequately screened for AML/CFT compliance. Going forward, the Eurosystem plans to further assess challenges linked to the use of domestic systems for cross-border payments.

Another emerging alternative is global stablecoins¹⁷ that claim to address frictions in cross-border payments and provide payments within their respective networks on an almost instant basis. The Eurosystem is closely monitoring market developments in the area of stablecoins, as well as engaging in the respective discussions at the level of the global standard setting bodies. Additionally, overseers periodically review the adequacy of the oversight framework in view of stablecoins and other innovative payment mechanisms.

Stablecoins can be defined as "digital units of value that are not a form of any specific currency (or basket thereof) but rather, by relying on a set of stabilisation tools, try to minimise fluctuations in their price in such currencies" – see Bullmann, D., Klemm, J. and Pinna, A., "In search for stability in crypto-assets: are stablecoins the solution?", Occasional Paper Series, No 230, ECB, Frankfurt am Main, August 2019.

3 Modernisation of correspondent banking

Retail and corporate customers have come to expect better prices and higher levels of transparency, convenience and speed from banks. This chapter presents innovations in the correspondent banking sector and explores the measures implemented by the banking industry to address challenges in the provision of cross-border payments.

3.1 Improvements in the processing of payments

The efficiency of correspondent banking depends on the underlying messaging technology, back office processing (improvement in compliance and due diligence processes) and the level of standardisation. In this regard, major advancements are underway.

3.1.1 ISO20022

Currently, correspondent banks use the SWIFT MT format for the transmission of cross-border payments. In order to be processed, and for back-offices to run appropriate checks, the information of MT messages often needs to first be converted, as standardised information is limited and includes free format text. After the transaction has been checked, it can be continue to be processed. Of course this process risks errors and takes time.

Cross-border payments are set to migrate from the MT message to ISO20022 message. The new message format allows for the inclusion of richer data and is better suited for automated processing. In this regard the replacement of MT message by the ISO20022 format will enable faster processing and improved reconciliation. SWIFT will start to roll out the new format in cross-border payments starting end 2022. ¹⁸

3.1.2 Unique End-to-end Transaction Reference/SWIFT GPI

Another important change is the introduction of the Unique End-to-end Transaction Reference (UETR) in the payment message. The UETR is a transaction identifier that allows correspondent banks to track a transaction along the payment chain in real time. This makes it possible for banks to offer to their customers the possibility of tracking the status of a payment. The introduction of the UETR is part of a broader initiative launched by SWIFT to modernise cross-border payments. The initiative labelled GPI (Global Payment Innovation) was launched in February 2017. It combines standardised business rules and new technical functions such as the UETR. The aim of this initiative is to improve correspondent banking services and provide fast, transparent and cheap payments that are fully trackable from end to end.

⁸ See ISO 20022 Programme, SWIFT.

According to SWIFT, a large proportion of correspondent banking transactions are already processed in compliance with the GPI rulebook, as a growing number of banks join the initiative. Service-providing banks note straight-through-processing rates have improved and helped to provide transparency on fees.

As correspondent banks migrate to the new standards and upgrade their internal systems, the time to complete a cross-border transaction could be dramatically reduced. A recent trial conducted by the ECB demonstrated, using TIPS (the Eurosystem's instant payments settlement platform in central bank money), SWIFT and banks themselves, that it is possible to complete a cross-border payment from Asia to Europe within minutes. Despite the involvement of three intermediary banks, the fastest payment was able to reach its beneficiary in only 41 seconds. ¹⁹

Box 3International work on enhancing cross-border payments

At the end of 2019 the G20 decided to make enhancing cross-border payments a priority during the 2020 Saudi Arabian Presidency. The FSB and the CPMI have been given key roles in the policy work and have developed a roadmap to enhance cross-border payments. The aim is to address problems of high costs, low speed, limited transparency and limited access to cross-border payments. As a part of the three-stage process, the Stage 1 report²⁰, prepared by the FSB and published in April 2020, provides an assessment of existing cross-border arrangements and identifies underlying frictions associated with cross-border payments such as: high costs; slow payment processing; limited access for users of services, payment service providers and payment systems; and limited transparency regarding costs, speed, processing chain, and payment statuses.

The Stage 2 report²¹, prepared by the CPMI, identifies 19 building blocks where further joint public and private sector work could mitigate one or more of the cross-border payment frictions identified in the Stage 1 report. The overview of the focus areas and linked building blocks is shown in Figure A.

The first 16 building blocks are organised in four focus areas which seek to enhance the existing payment ecosystem, namely: (A) Public and private sector commitment; (B) Regulatory, supervisory and oversight frameworks; (C) Existing payment infrastructures and arrangements and (D) Data and market practices. A further three building blocks under focus area (E) aim to explore the potential that new payment infrastructures and arrangements, e.g. what stablecoins and central bank digital currencies, could offer in terms of enhancing cross-border payments. Some aspects of the last three building blocks require further analysis before their potential implementation as they could pose significant risks to the transmission of monetary policy, financial stability, and the safety and efficiency of payment systems, among other things. Therefore, their potential for cross-border payments is yet to be fully assessed.

Building on the efforts of the stage 1 and 2 work, the Stage 3²² roadmap to enhance cross-border payments, outlining practical steps setting firm timeframes for the first two years and more indicative

See Terol, Ignacio, "SWIFT gpi instant: making instant cross-border payments a reality", ECB, September 2019.

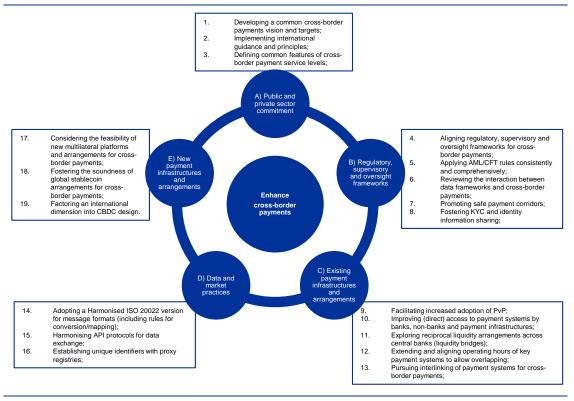
See "Enhancing Cross-border Payments – Stage 1 report to the G20: Technical background report", FSB, April 2020.

See "Enhancing cross-border payments: building blocks of a global roadmap – Technical background report", CPMI July 2020.

timeframes thereafter, and providing clarity on who does what, has been published by the FSB, which was endorsed by the G20 Finance Ministers and Central Bank Governors meeting on 14 October 2020. The roadmap emphasises that a cooperative approach between the public and private sector is needed to solve the problems.

Figure 3

Overview of focus area and building blocks



Source: CPMI report - see footnote 22 in this report.

3.2 Improvements in compliance and due diligence process

Improving the efficiency of due diligence procedures is crucial to reducing overall costs and increasing the speed of cross-border payments. With this in mind, several measures are being put in place: first, better screening of transactions, using novel technologies, and second, the creation of KYC utilities.²³

New technologies have the potential to drive down costs of compliance by facilitating the screening of transactions. Interviewed banks report that they seek to use big data analytics, artificial intelligence and machine learning to improve the screening of transactions against fraud, money laundering, sanctions and other compliance checks.

²² See "Enhancing Cross-border Payments: Stage 3 roadmap", FSB, October 2020

²³ See footnote 8 in this document.

Compliance checks are already highly automated but lead to a high number of false positives, while suspicious activities such as money muling²⁴ remain hard to detect. More advanced screening could enable banks to identify more complex fraud and compliance breaches and facilitate the work of compliance teams in their investigations. The migration to the ISO20022 standard, which enables payment messages to carry richer structured information and the work of the SWIFT Payments Market Practice Group (PMPG) could also contribute to better and more efficient compliance screening. More specifically, the PMPG task force aims to propose best practices for an efficient implementation of ISO messaging standards. Another key enabler for more efficient compliance processes specifically concerns the due diligence process in which a correspondent bank verifies that customer banks have adequate compliance measures in place. Customer due diligence is associated with documentation and, consequently, due diligence problems are complex, costly, time-consuming and labour-intensive. Furthermore, sensitive information is shared across borders and stored with numerous counterparties, leading to concerns about privacy. An important achievement has already been accomplished with the creation of the aforementioned CBDDQ that standardises collected information and minimises the need for additional information requests.²⁵

A further improvement is the creation of shared databases which gather KYC information and make it universally accessible. Such infrastructures are called KYC utilities and ensure that once a bank has filled information regarding one of its customer institutions, the information can be accessed by the utility's members (after having received permission from the customer), which saves time and costs. The effectiveness of KYC utilities is subject to the industry agreed definition of a standardised data set that all utilities should collect as a minimum. The increased use of the LEI would lead in the same direction. The CPMI is working to mitigate the challenges arising from the multijurisdictional nature of cross-border activity. It has developed building blocks for a global roadmap (i.e. building blocks 5, 6 and 8) with the aim of developing advanced, consistent international rules and standards.²⁶

Money muling involves laundering money using people recruited to withdraw or wire stolen funds to accounts located overseas.

²⁵ See footnote 14 in this document.

See footnote 21 and 22 in this document.

4 Results of the eleventh correspondent banking survey

4.1 Main takeaways

Despite the wide variation in the type of correspondent banks responding to the survey, the results are broadly in line with the trends identified in the previous editions. In particular, we observe a decrease in the total turnover as well as in the number of customer banks. At the same time we see an increase in the number of transactions – both in absolute terms and as an average per service-providing bank – which results in a drop in the average size of transactions.

The revised 2019 survey also provides a breakdown of values and volumes by location. Transactions, where both the originator and the beneficiary are located in the euro area, account for over a third of the total value of transactions and mainly consist of providing the originator's bank with indirect access to retail payments systems. Furthermore, the share of transactions originating in the euro area to the rest of the world is remarkably similar to the share of transactions going in the opposite direction.

Correspondent banking remains an important channel for institutions to access payments systems as indirect participants or to settle non-standardised transactions which cannot be handled within payment systems. A large share (69% in value and 84% in volume) of payments originated through correspondent banking arrangements are channelled through payment systems, while the others are processed solely through correspondent banking arrangements. The systemically important payment systems (especially TARGET2 and EURO1) in the euro area account for the vast majority of settlements (approximately 98% of total value) of payments that originated through correspondent banking arrangements.

The correspondent banking industry remains very concentrated with a few players accounting for the majority of turnover. Although the market concentration measures seem to have stabilised, there is a tendency towards a decreasing role of smaller banks in the correspondent banking business, whereas larger banks maintain or even enlarge their activities in the sector. We observe a decline in the number of relationships, likely as a result of the reasons outlined above, namely a growing tendency to assess the profitability and risks of the business lines, customers and jurisdictions and to avoid relationships where the business returns do not justify the cost of investment or where there are risks that banks are not willing to take.

Finally, the observed decrease in the length of correspondent banking chains appears to be consistent with the trend towards increased specialisation in the industry. One possible explanation is that banks try to minimise the length of correspondent banking chains, so as to limit the costs associated with a large number of parties involved. Therefore, larger, more specialised banks with more direct relationships are more profitable and competitive in the correspondent banking business.

4.2 Methodology

Since 1999, the Eurosystem has conducted regular surveys on correspondent banking activities in euro to monitor their importance and development over time. Since the eighth survey in 2012, the Eurosystem has published reports presenting the key results for each survey.

In line with previous surveys, the eleventh survey covers correspondent banking transactions denominated in euro. For data not related to the daily turnover, such as the number of customer banks or total overdraft limits, figures were reported as of the last business day of the month.

Respondents to the survey are banks in the euro area that have an average daily turnover which exceeds the €1 billion threshold on their *loro* accounts. Participation in the survey is voluntary. Overall 15 banks located in 6 euro area countries participated in this edition of the survey. The number of participants has significantly decreased over time from over 30 participants in 2003 to less than 20 in 2016 and 2019 (see Table 1). Based on this development, the Eurosystem is reviewing its future approach to this survey to ensure that collected information remains representative. To this extent the outcome of the recent survey needs to be read with awareness of the limited number of participants. It should also be noted that the largest players participated in this survey and in past surveys, which allows for some cross-survey comparison and trend analysis.

The eleventh survey was conducted based on a revised questionnaire that is reproduced in Annex 1 of this report. Since 2016 a new set of supplementary qualitative questions has been introduced with the aim of identifying the reasons behind the business evolution observed in the quantitative questionnaires (see Annex 2).

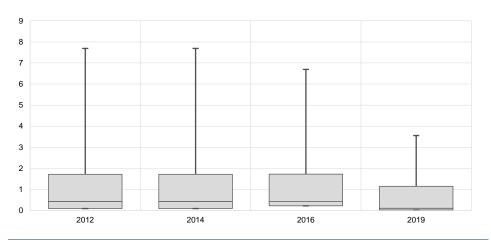
The report does not disclose any individual bank or country-specific data in order to ensure the anonymity of the banks surveyed and to protect the confidentiality of the information provided.

4.3 Characteristics of the correspondent banks participating in the survey

As in previous surveys, the sample shows a significant variation in the payment profile of individual respondents. The average transaction value at the level of banks ranges from around €1,000 to over €3.5 million. This extremely wide range is in line with previous surveys, however the value at the upper end of the spectrum more than halved compared to previous surveys.

Chart 3
Sample overview

(y-axis: average size of transactions (EUR millions); daily average)



Source: The banks surveyed.

Note: The ends of the box are the upper and lower quartiles, the median is marked by the horizontal line inside the box and the whiskers extend to the highest and lowest observations.

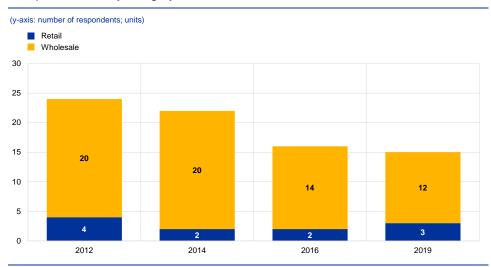
As shown in Chart 3, the sample of respondent banks is characterised by different business models. Banks with a low average value per payment mainly provide indirect access to retail payment systems for the clearing and settlement of retail payment instruments (i.e. settlement of card, cheque and other low-value transactions). Banks with a high average value per payment are predominantly active in securities settlement, money market trades, and in the provision of indirect access to large-value payment systems.

To account for the different business models, when relevant and possible, the survey results differentiate between retail and wholesale banks, based on the average size of their transactions. ²⁷ In 2019 twelve wholesale banks responded to the survey, with four of them reporting an average value of transactions over €1 million indicating a clear specialisation in wholesale payments. The number of wholesale banks has decreased from previous years. On the other side of the spectrum, three banks have a clear specialisation in retail payments, compared to two in the previous surveys.

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Banks with an average transaction size (total turnover divided by the total number of transactions) of less than €10,000 are classified as retail banks, while all others are classified as wholesale banks

Chart 4
Sample overview by category



Source: The banks surveyed.

It is important to note that the interpretation of the evolution of Chart 4 needs to be read with care as it does not necessarily reflect changes in the overall correspondent banking market. Certain changes are simply the consequence of threshold effects and volatility in the set of participating banks (participation is voluntary).

4.4 Correspondent banking activity in value and volume

This section includes a trend analysis based on the findings of the last eight surveys, i.e. the surveys conducted between 2003 and 2019. To account for the introduction of the threshold in the average daily turnover, the trend analysis only considers data reported by banks that were above the threshold.

Table 1Overview of correspondent banking activity over time across surveyed banks

		Total			Average per service providing bank				
	Respondents included (unit)	Total turnover (EUR million; daily average)	No of transactions (thousands; daily average)	No of customer banks (unit; end of period)	Turnover (EUR million; daily average)	No of transactions (thousands; daily average)	No of customer banks (unit; end of period)	Transaction size (EUR; daily average)	
2003	34	651,699	20,556	24,871	19,168	605	732	31,704	
2005	29	897,042	26,186	21,508	30,932	903	742	34,257	
2007	32	1,370,275	22,592	19,191	42,821	706	600	60,652	
2010	28	995,807	22,211	18,309	35,565	793	654	44,835	
2012	24	1,115,846	24,485	14,198	46,494	1,020	592	45,573	
2014	22	966,302	25,506	12,207	43,923	1,159	555	37,886	
2016	16	878,459	26,397	9,754	54,904	1,650	610	33,279	
2019	15	685,978	36,293	7,695	45,732	2,420	513	18,901	

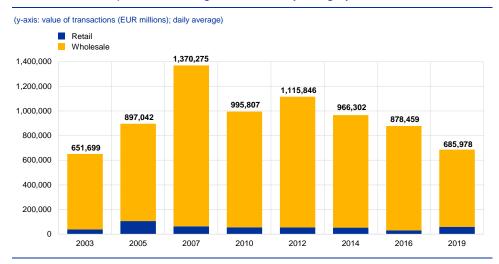
Source: The banks surveyed.

Note: The historical comparisons cannot account for the substantial variations in the sample of respondent banks.

4.4.1 Evolution of value

The value of correspondent banking transactions processed by the surveyed banks decreased by 22% from €878 billion in 2016 to €686 billion in 2019. The wholesale sector contributed to this downward trend with a 26% decrease in value of wholesale transactions which counteracted the 92% increase recorded by retail transactions. The changes in the composition of the sample of respondents may have contributed to this decrease but the reported figures certainly hint at a decrease in correspondent banking activity.

Chart 5
Turnover of correspondent banking transactions by category



Source: The banks surveyed.

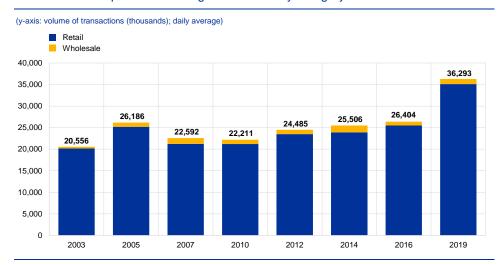
At the individual bank level, seven banks reported a transaction value above €20 billion per day (compared to six in 2016, eight in 2014 and nine in 2012), while another two banks reported figures of between €10 billion and €20 billion per day (compared to four in 2016 and two in 2014 and 2012). The six remaining banks showed a turnover of between €1 billion and €10 billion (compared with six in 2016 and compared to twelve in 2014 and thirteen in 2012).

In terms of share, following a period of consolidation between 2007 and 2016, the 2019 data shows an increase in the importance of the retail segment, as its share increased from 4% in 2016 to 9% in 2019.

4.4.2 Evolution of volume

The volume (or number) of correspondent banking transactions remained fairly stable until 2019, when it increased by 37% from €26 million in 2016 to €36 million in 2019. In general the number of retail transactions remains constant as it mostly consists of regular payments such as remittances, wages, insurance premiums and utilities. In 2019, both the retail and the wholesale sector contributed to the increase with respective growth rates of 38% and 34% compared to 2016.

Chart 6Volume of correspondent banking transactions by category



Source: The banks surveyed

Of the fifteen banks participating in the 2019 survey, three service-providing banks processed more than one million transactions per day (up from two in previous years); these banks mostly focus on domestic retail transactions. Eleven banks processed more than 10,000 transactions per day, up from nine in 2016 although down from fourteen and thirteen in 2014 and 2012. The remaining bank processed less than 10,000 transactions per day (down from five in 2016, six in 2014 and nine in 2012). The share of retail (97%) and wholesale (3%) transactions remains constant when compared with 2016.

4.4.3 Evolution of average size

While the average daily value of transactions has constantly decreased in recent years, the volume of these transactions moved in the opposite direction. This resulted in a decrease in the average size of transactions which has declined since 2007, with the exception of 2012. In 2019 the average size of transactions was just below €19,000, down from over €33,000 in 2016, €38,000 in 2014 and €46,000 in 2012. It is likely that this relates to changes in the composition of the sample and to more retail banks participating.

4.4.4 Analysis by location of the originator and beneficiary

In the 2019 survey, for the first time, volumes and values of transactions are divided based on the location of the originators and beneficiaries. According to the reported figures, one-third (36.4%) of transaction in value correspond to euro-domestic transactions, i.e. payments where the originator and beneficiary are both located in the euro area. This activity corresponds primarily to the provision of indirect access to payment system to the originator's bank and concerns in majority retail transactions with an average value of €7,234.

Two-thirds (64.6%) of the total value of transactions are international payments, i.e. where the originator and/or the beneficiary are located outside the euro area. International payments are primarily wholesale payments with an average value of €179,486. In international payments, transactions that are originated and received outside the euro area represent the smallest share in volume (0.3% compared to around 3.0% for the other types of cross-border payments) but the largest share in value (27.7%) and the largest average size (€1.9 million in comparison to around €100,000 for the other types of cross-border payments).

The share of transactions that originated in the euro area and were received in the rest of the world is remarkably similar to the share of transactions that originated from the rest of the world and were received in the euro area, i.e. the share of transactions that originated in the euro area amounts to 54.4%, and the remaining 45.6% of transactions originated outside the euro area).

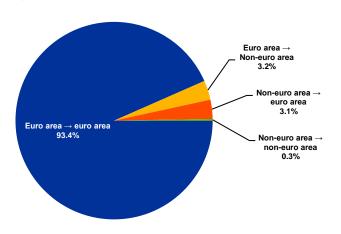
Chart 7Share of value of transaction by location



Source: The banks surveyed.

Chart 8Share of volume of transactions by location

(as a percentage of the total daily volume)



Source: The banks surveyed.

4.4.5 Use of payment systems

A large share of payments that originate through correspondent banking arrangements are channelled through payment systems. The remainder is settled bilaterally between banks. In the 2019 survey, 69% of the total transaction values, and 84% of the total transaction volumes, are reported to have been settled via payment systems. In the previous survey, 40% of the total values and 93% of the total volumes were settled via payment systems.

Furthermore, in most of the cases, the use of a payment system results from an indirect participation arrangement, i.e. the indirect participant uses a direct participant as an intermediary to perform some of the activities allowed in the system. This practice has traditionally been used by smaller domestic banks, as well as financial institutions, to access payment systems located outside their country. In the 2019 survey, 80% of the transactions settled via payment systems involve indirect participants. This confirms that a large part of the correspondent banking activity for euro payments by euro area banks consists of offering indirect access to payment systems.

 Table 2

 Share of transaction settled via payment systems

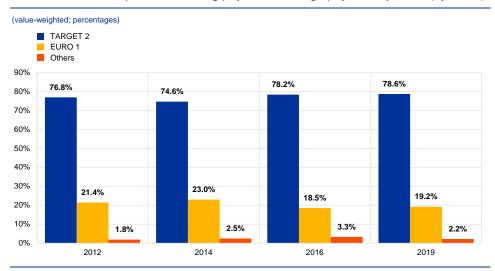
	20	16	2019		
	Actual figure	As a share of all transactions	Actual figure	As a share of all transactions	
Volume of c.b. payments settled in Payment Systems	24,512,786	93%	6,640,872	84%	
Where the customer bank is an indirect participant in the payment system	-	-	6,391,307	80%	
Value of c.b. payments settled in Payment Systems	341,708,684,567	40%	339,598,297,144	69%	
Where the customer bank is an indirect participant in the payment system	-	-	222,659,261,096	45%	

Source: The banks surveyed.

Notes: Not all banks responded to the question. In this instance "c.b." refers to correspondent banking.

Regarding distribution of transactions among payment systems, TARGET2 remains the most important system in terms of value. Its share of transactions continues to increase from 75% in 2014 to 78% in 2016 and 79% in 2019. The share of EURO1 has remained constant from 2016 (19%), whereas a small minority of transactions (2%) are settled via other payment systems such as STEP2-T or other retail payment systems. Regarding volumes, nearly all payments are processed via retail payment systems, e.g. STEP2-T.

Chart 9Settlement of correspondent banking payments through payment systems (by value)



Source: The banks surveyed.

4.4.6 Intraday and overnight overdrafts

Compared to the previous surveys, in the 2019 there seems to be an increasing share of customer banks that are granted access to intraday credit. However, as only a few respondents answered this section of the questionnaire, the figures might not be fully representative.

Intraday credit offers flexibility to banks using correspondent services, as it allows customer banks to have a debit position on their *nostro* accounts with the correspondent bank during the business day. After having reached its lowest level in 2014, with only 19% of customers having access to intraday credit, more than 40% of customer had such access in 2019. In parallel, the total intraday limit, i.e. the aggregation of the limits for all customers, went from 8% in 2012 to 47% in 2019 of the total average daily turnover. Yet, the maximum total value of intraday credit actually used by customer banks across all *loro* accounts in the reporting period is only 8%.

Overnight overdrafts are available to 23% of customer banks. Compared to previous years, the 2019 survey shows an increase in the overnight overdraft limits from 2% of total turnover to 23%. Despite the increase of the authorised limits, actual usage of overnight overdrafts remains at a low level. As before, the limited response rate might explain this significant variation over time.

Overall, the increasing limits granted to customers, whether intraday or overnight, suggest that service-providing banks have more confidence in customers.

4.5 Evolution of the correspondent banking market

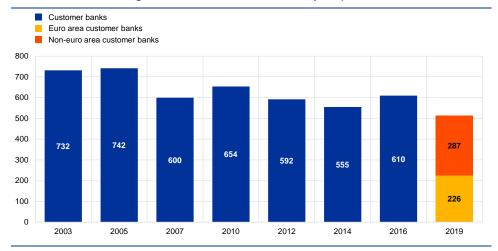
The Eurosystem survey indicates that correspondent banking has become a more specialised industry. The survey shows that, in a global context where the overall number of correspondent banking relationships is declining, large service-providing banks have consolidated their markets in terms of volumes, values and number of customer banks. The results of the 2019 survey also provide some support to the hypothesis that the specialisation of the correspondent banking business is the primary driving force behind the reduction in correspondent banking relationships.

The survey confirms the steady decrease in the number of customer banks with a decline from 9,754 in 2016 to 7,695 in 2019. The number of customer banks by correspondent banks also shows a slight decrease over the period 2012 to 2019. Compared to the 2016 survey, the average number of customer banks per surveyed bank declined on average by 16%.

At first glance, the relative stability observed since 2003 stands in contrast with the global decline of the number of correspondent banking relationships measured by the CPMI since 2011. ²⁸ However, an overall reduction in the number of active correspondents ²⁹ is compatible with a stable number of customer banks of large service-providing banks.

The declining number of relationships and the stable number of customers of large correspondent banks implies that correspondent banking services are not necessarily offered on a reciprocity basis, but have become an asymmetric business.

Chart 10
Evolution of the average number of customer banks by respondent



Source: The banks surveyed

Between 2011 and 2018 the number of active correspondent banking relationships declined by 20% at the global level. See "New correspondent banking data – the decline continues", CPMI, Bank for International Settlements, May 2019.

In the CPMI report, an active respondent is a bank that has sent or received SWIFT messages corridor by corridor. An active corridor is defined as a country pair that processed at least one transaction. As a result, correspondents present in more than one corridor are counted several times. See "New correspondent banking data – the decline continues", CPMI, Bank for International Settlements, May 2019.

The survey indicates that out of the 513 customer banks, 56% are reported to be located outside the euro area. However, the share of euro area and non-euro area customers varies a lot from one respondent to the other.

Banks that serve predominantly non-euro area banks tend to have lower volumes and higher values, which is coherent with the wholesale nature of cross-border payment activity. However, banks that serve predominantly euro area banks tend to have higher volumes and lower values. This reflects their role as a provider of indirect access to euro retail payment systems.

4.5.1 Concentration among surveyed banks

The correspondent banking market remains a very concentrated market, with a few key players accounting for the majority of the turnover. The concentration ratio of the biggest four banks by turnover has fallen to 82% after having reached a peak at 85% in 2016.

Table 3
Concentration among service-providing banks

	Turnover				Volume			
	2019	2016	2014	2012	2019	2016	2014	2012
Concentration ratio 4	82%	85%	83%	80%	70%	2%	2%	4%
Concentration ratio 8	95%	95%	94%	91%	71%	71%	30%	55%

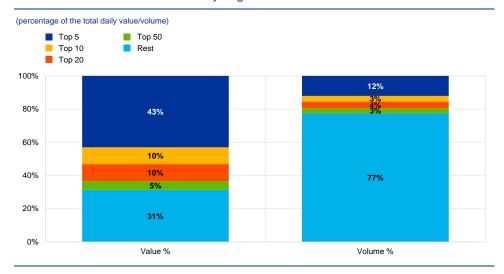
Source: The banks surveyed.

After increasing for several years, the concentration ratios have plateaued. This is also reflected by the fact that the number of banks that reach the threshold has stabilised compared to the previous edition of the survey.

On the side of customer banks, the market is also fairly concentrated for wholesale payments. The largest customers make for a high share of the total value processed. On average, the five largest customer banks account for 43% of the total value of correspondent banking transactions that the bank processes.

The result for wholesale payments stands in contrast with that of retail payments, which are very evenly distributed among customer banks. Looking at the concentration of payment volumes, the five largest customer banks only make for 12% of the total volume of transactions. The fact that 77% of the volumes are attributed to institutions that are ranked 50+ shows that volumes are evenly distributed among customer banks.

Chart 11Value and volume of transactions by largest customer banks



Source: The banks surveyed

4.5.2 Length of correspondent banking chains

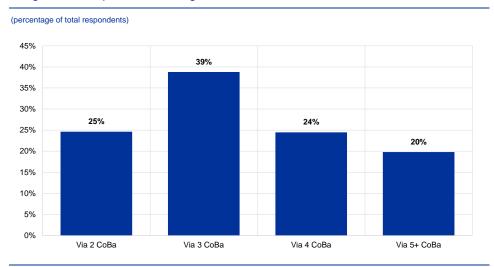
In its 2018 data report, the FSB noted that the increase in the volume of transactions combined with a reduction in the number of correspondent banking relationships might be linked to longer correspondent banking chains. Indeed, if a correspondent bank terminates a relationship, the customer bank might have to channel its payments via a different route involving more intermediary banks. As a consequence of the correspondent banking chain becoming longer, the volume of transaction could artificially increase. This means the length of the correspondent banking chain gives an important indication of the market structure. The more intermediaries involved between the sending bank and the receiving bank, the higher the cumulated fees.

The 2019 edition of the survey included, for the first time, a question on the number of banks involved in a correspondent banking chain. The results show that the majority of payments (39%) are processed via three correspondent banks, i.e. with one intermediary bank between the sending and the receiving bank. 20% of payments are processed via five or more correspondent banks and 25% of payments are processed directly from the sending to the receiving bank, i.e. with no intermediary, meaning that the service-providing banks are themselves important senders and receivers of payments.

Overall, it seems that banks choose to maintain a number of correspondent banking relationships, which minimises the length of chains. This is consistent with the specialisation pattern observed in the correspondent banking industry. Large service-providing banks concentrate large volumes, which justify the establishment of more direct correspondent relationships compared to smaller institutions.

³⁰ See "FSB Correspondent Banking Data Report – Update", Financial Stability Board, November 2018.

Chart 12
Length of correspondent banking chain



Source: The banks surveyed.

4.5.3 A look into the future

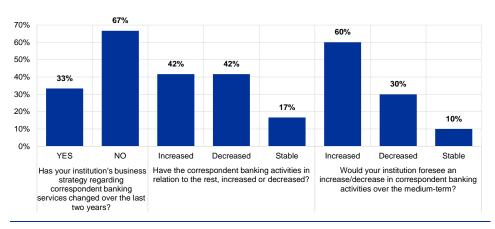
The strategic line of service-providing banks has not changed in the last two years for most of the service-providing banks (67%). For the remaining 33% changes were mainly due to regulatory requirements, appearance of new products (e.g. instant payments), and risk management considerations (e.g. limited risk appetite in offering their services in high-risk countries or to high-risk customers).

Respondents had no strong view on the distribution between national correspondent banking activity and cross-border activity. 17% of respondents reported no significant change, 42% saw an increase and the remaining 42% witnessed a decrease.

The correspondent banking business is expected to continue to play an important role in providing payment services. 60% of participants in the 2019 survey declared that they expect an increase in correspondent banking activities over the medium-term. However, they also mention a number of factors which increase uncertainty about the future of correspondent banking – these factors include competition from fintech, potential new entrants and changes to the regulatory framework.

Chart 13Future trends in correspondent banking

(percentage of total respondents)



Source: The banks surveyed.

5 Conclusion

The findings of the eleventh correspondent banking survey confirm the declining trend in total turnover and in the number of customer banks. The establishment of PvP systems for the simultaneous settlement of foreign exchange transactions, and the integration of securities settlement and central clearing obligation, further contributed to the declining trend. The constant decrease in turnover and number of correspondent banking arrangements was also fuelled by changes to regulatory requirements (for example in relation to KYC, AML/CFT), increasing compliance costs, and growing AML/FT risks that result in substantial reputational and profitability risks for banks. As a result, banks that are no longer willing to accept risks that might affect their profitability or their reputation 'de-risk' by shifting their strategies to safer businesses.

Despite the implementation of the FSB-coordinated action plan, the negative trend has not reversed yet. Given the consistent limitations of cross-border payments, the G20 has also engaged and made enhancing cross-border payments a priority.

The results of the survey also provide evidence of a highly concentrated market in which the largest banks are specialised in correspondent banking services, while the smaller ones are reducing their market share. The market is particularly concentrated for wholesale payments where the largest customers account for a disproportionately high share of the total value processed. Despite the high concentration, market participants expect fees to decrease as the key players can benefit from the implementation of automated processes, an increase in transparency, and innovation in the payments market. The risks associated with such a high market concentration and the potential spill over of correspondent banking business in the payment system explain the continuous interest of overseers in monitoring the developments in such a field.

To gain a better understanding of the type of services offered, the 2019 survey provides a breakdown of volumes and values by location of the originator and beneficiary. The share of transactions that originated in the euro area and were received in the rest of the world is remarkably similar to the share of transactions that originated in the rest of the world and were received in the euro area. However, euro-domestic transactions correspond primarily to the provision of indirect access to payment systems, whereas international payments are primarily wholesale. Overall, correspondent banking remains an important channel for institutions to access payment systems as indirect participants. The majority (69%) of the total euro value of payments that originate via correspondent banking arrangements are channelled through payment systems, mainly TARGET2 and EURO1.

A second innovative feature of the survey was the introduction of a question on the number of banks involved in a correspondent banking chain. The results show that the chains can be fairly short with 25% of payments processed with no intermediary and 39% processed via three correspondent banks. In line with the specialisation pattern observed, this suggests that banks aim at minimising the length of chains.

Finally, despite numerous challenges faced, correspondent banking still plays, and will continue to play, a key role in the payments markets by allowing bank customers to make and receive payments in any currency from virtually any counterparty. Irrespective of the increasing competition from fintech, potential new entrants and expected changes in the regulatory framework, a slight majority of survey respondents expect an increase in correspondent banking activities over the medium-term. The main factors mentioned as drivers of this trend reversal are increase in demand for cross-border payments, more efficient services, lower fees and the introduction of new services. Going forward it will be important to monitor further implications of innovation and the impact of international work on enhancing cross-border payments.

Annex 1: General questionnaire for the 2019 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)

General questionnaire

- Please describe any difficulties encountered when reporting information for a specific question in the quantitative survey. If appropriate, please indicate if and why the situation might change in future.
- Number of customer banks
 (Number of institutions, not the number of accounts provided to each institution.)
- 1.1. Number of euro area customer banks
- 1.2. Number of non-euro-area customer banks
- 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)
- 2.1. Where the originator and beneficiary are both located in the euro area
- 2.2. Where the originator is located in the euro area and the beneficiary is located outside the euro area
- 2.3. Where the originator is located outside the euro area and the beneficiary is located in the euro area
- 2.4. Where the originator and beneficiary are both located outside the euro area
- Value 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)
- 3.1. Where the originator and beneficiary are both located in the euro area
- 3.2. Where the originator is located in the euro area and the beneficiary is located outside the euro area
- 3.3. Where the originator is located outside the euro area and the beneficiary is located in the euro area
- 3.4. Where the originator and beneficiary are both located outside the euro area
- 4. Transactions of the largest customer banks
- 4.1. Number of transactions (daily average over the reporting period) by the top 5/top 10/top 20/top 50 customer banks
- 4.2. Value of transactions (daily average over the reporting period) by the top 5/top 10/top 20/top 50 customer banks
- 5. Importance ratio for loro accounts Share of payments accounted for by transactions booked on loro accounts of customer banks as a percentage of the total of transactions on all euro accounts of your institution
- 5.1. In terms of volume, expressed as a percentage
- 5.2. In terms of value, expressed as a percentage

6. Number of transactions settled in payment systems

(Share of payments received or forwarded to a payment system as a percentage of the total number of transactions booked on *loro* accounts)

- 6.1. All payments in terms of volume received from, or forwarded to, payment systems
- 6.2. Percentage share of 6.1 where the customer bank is an indirect participant in the payment system
- 6.3. Share of individual payments systems in settling customer banks' payments forwarded to, or received from, payment systems

(Three options: TARGET2, EURO1, other payment system. Breakdown by payment system of the settlement of customer banks' payments forwarded to, or received from, payment systems counted in Question 2. The shares of the payments systems used should add up to 100%.)

7. Value of transactions settled in payment systems

(Share of payments received or forwarded to a payment system as a percentage of the total value of transactions booked on *loro* accounts)

- 7.1. All payments in terms of values, received from, or forwarded to, payment systems
- 7.2. Percentage share of 7.1 where the customer bank is an indirect participant in the payment system
- 7.3. Share of individual payment systems in settling customer banks' payments forwarded to, or received from, payment systems

(Three options: TARGET2, EURO1, other payment system. Breakdown by payment system of the settlement of customer banks' payments forwarded to, or received from, payment systems counted in Question 3. The shares of the payments systems used should add up to 100%.)

8. Intraday overdrafts

(Negative balance on the account of a customer bank during the day)

- 8.1. Number of customers eligible for intraday overdrafts on their accounts
- 8.2. Total value of intraday overdraft limits across all euro-denominated loro accounts on the last day in the reporting
- 8.3. Maximum total value of intraday overdrafts actually used by customer banks across all loro accounts in the reporting period
- 9. Overnight overdrafts

(Negative balance on the account of a customer bank overnight)

- 9.1. Number of customers eligible for overnight overdrafts on their accounts
- 9.2. Total value of overnight overdraft limits across all euro-denominated loro accounts on the last day in the reporting
- 9.3. Maximum total value of overnight overdrafts actually used by customer banks across all loro accounts in the reporting period
- 10. Efficiency

(All values reported are based on a single business day that can be considered representative of a normal day)

- 10.1. Average time to completion of a transaction (in minutes)
- 10.2. Percentage share of transactions that are processed straight through
- 10.3. Percentage share of transactions that are processed via 2/3/4/5+ correspondent banks, including the bank of the payer and the bank of the payee
- 10.4. Average fee collected per transaction processed

7 Annex 2: Additional questionnaire for the 2019 survey

Qualitative questionnaire

- Describe the main correspondent banking services offered by your institution
 (cash management, international wire transfers, cheque clearing, payable-through or nested account and FX services).
- 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).
- Has your institution's business strategy regarding the provision of correspondent banking services changed over the last two years?
 If yes, please explain why.
- 4. Have the correspondent banking activities in relation to the rest of your institution's business lines, increased or decreased?
- What are the correspondent banking services provided by your institution that have increased/decreased? Please
 explain the main reasons ordered according to their importance.
- Would your institution foresee an increase/decrease in correspondent banking activities over the medium-term?
 Please name reasons for this.
- 7. If certain of your institution's customer banks are eligible to 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 and overnight overdrafts, as well as the measures to minimise the credit risks of overdrafts that may change during the day.
 Explain in particular eventual use of collateralisation.
- 8. Would your institution foresee that correspondent banking becomes more efficient in future in terms of processing speed, automation and length of the correspondent banking chain? Would you expect fees to increase, decrease or remain stable? Please explain.
- 9. Are there any other developments which your institution wishes to draw attention?

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For specific terminology please refer to the ECB glossary (available in English only).

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