



Report

Fintechs in the payment system

The risk of foreclosure

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Foreword - ACM's role in relation to the financial sector

The Netherlands Authority for Consumers and Markets (ACM) promotes opportunities and options for businesses and consumers. We create opportunities by combating unfair competition, and by facilitating the entry of new providers. More providers mean increased competition, which is the force that drives innovation and economic growth. Innovation generates new products, services, and businesses. Businesses compete for the favor of consumers by supplying cheaper, better or more innovative products and services than their competitors. In this way, the market does its work, and consumers have a wider choice. But markets do not automatically function properly.

ACM ensures that markets can function well by intervening if competition is distorted. In some sectors, there are more anticompetitive risks than in other sectors. The financial sector is one of the former, because it is a tightly regulated sector in which businesses collaborate closely, and are often required to. Furthermore, a large part of the market is controlled by a small number of providers, and it is difficult for new providers to enter the market. We therefore provide guidance and advice to the financial sector and policymakers with a view to promoting the operation of market forces in the financial sector. ACM also enforces compliance with competition rules by businesses in the financial sector, and is responsible for enforcing a number of specific rules that apply to financial institutions. One of its tasks is to regulate access to some payment systems.

Background to this study

The variety of methods by which consumers can make electronic payments is steadily expanding, and now include contactless payment and payment by PIN, PayPal, credit card or iDeal, a widely-used online payment method in the Netherlands. A growing number of businesses see opportunities to enter the payment market with new and innovative services provided with innovative technologies. However, these enterprises frequently need access to their customers' payment accounts. At present, that information and access to it are reserved to the bank with which the customer holds their payment account. Under the European Union's revised Directive on Payment Services (PSD2), with effect from 13 January 2018, providers other than a customer's own bank will also have access to that information. This change will facilitate greater competition in the payment market, which is currently the preserve of just a few providers. To gain access to the information, payment service providers will have to meet certain conditions. Those conditions will be determined by the suppliers of the payment systems. ACM must ensure that those conditions do not restrict competition unnecessarily. In that context, ACM has studied whether banks will endeavor to block access to the payment accounts of business customers and consumers.

ACM's objective with this study of the Monitor Financial Sector (MFS) was to identify the risks of such conduct and ascertain how they could be avoided by means of rules and the interpretation of conditions by policymakers and other regulatory bodies. ACM will also use the findings from its study to guide the exercise of its own oversight in 2018. Where the greatest risks of barriers to entry exist, ACM will actively investigate possible violations of the Dutch Competition Act (*Mededingingswet*) and the Dutch Act on Financial Oversight (*Wet financieel toezicht*).

Executive summary

New providers are the driving force of innovation in the payment market

Will new providers in the financial sector be able to gain a foothold in the payment market with innovative technologies? Or will they be excluded by established parties? These new providers (known as 'fintech companies' or 'fintechs') could reshape the competitive landscape in the financial sector. Fintechs represent a driving force for innovation in the financial sector. ACM's recommendations are intended to prevent the established order from making it impossible for fintechs to enter the payment market.

In this study, ACM focuses on the market for payments. One reason for this is that many new providers have entered this market, and have made substantial investments in the last few years. Furthermore, a new legislative framework is imminent: in January 2018, the new payment services directive will enter into force, the revised Directive on Payment Services (the PSD2 Directive). The directive provides that parties other than banks will also have access to payment accounts if the customer consents. The market for payment products was previously reserved to just a few providers. The directive will create numerous opportunities for fintechs to supply new payment products. ACM takes the view that it is important that this competition actually materializes.

Innovations in the payment market occur mainly at the front end

Innovations are occurring at the front end and at the back end of the payment market. Innovations at the front end are concentrated on the communication between the bank and the payer or payee. Innovations at the back end relate to activities within the bank or in relation to clearing and settlement (see figure A).

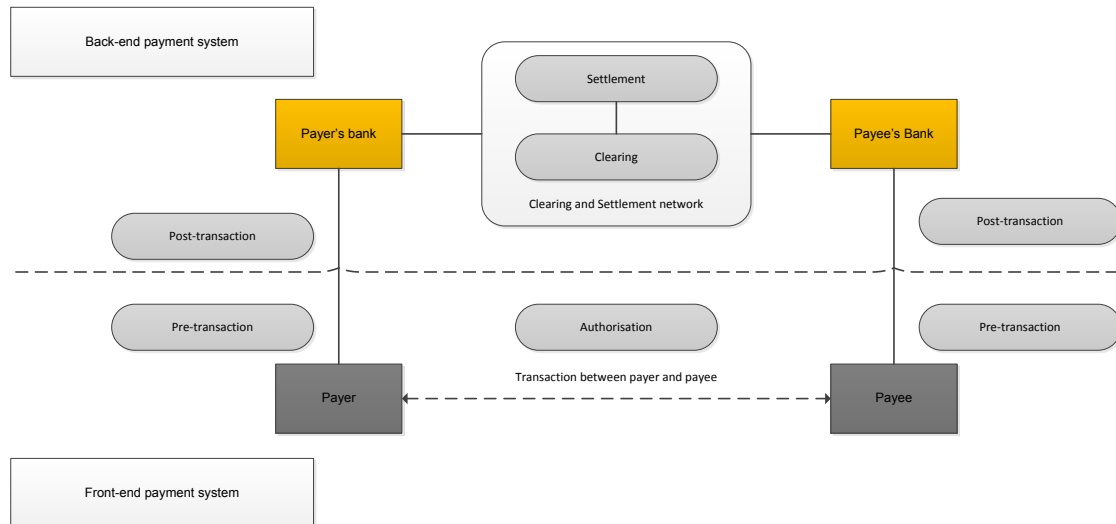
Fintechs play a particularly important role in innovations in the payment market at the front end of the payment system, where there are front-end providers and end-to-end providers.

- The front-end providers are fintechs that offer new payment initiation services, such as apps with which consumers can pay for goods online in a brick-and-mortar shop, or new services such as electronic financial management programs that enable businesses or consumers to keep track of their financial situation.
- End-to-end providers are fintechs that arrange the entire payment process. Examples of this type of provider are PayPal and AfterPay.

The front-end providers and end-to-end providers offer a new and improved range of services for customers. The established parties are responding to fintechs by cutting costs and introducing their own innovations. Some have even acquired stakes in fintechs.

Fintechs at the back end of the payment system focus mainly on increasing the speed of the banks' systems, for example to enable the banks to compete with the user-friendly and high-speed systems of end-to-end providers.

Figure A: Front end and back end of the payment system



Genuine risk of foreclosure of front-end providers

Banks possess information that fintechs need in order to provide their services. There is a genuine risk that banks will endeavor to exclude front-end providers.

For example, front-end providers depend on banks for information about the payment account of a specific customer. Banks have market power because they have exclusive access to the payment information of individual customers. Furthermore, front-end providers can be or could become competitors of banks. It is plausible that banks will attempt to prevent this competition by excluding front-end providers.

Measures against foreclosure

ACM identifies four parties that are able to take measures to reduce the risk of foreclosure.

ACM can take action against anti-competitive behavior on the basis of the Dutch Competition Act. For example, market participants with dominant positions may not refuse to provide essential information to fintechs on improper grounds. Established parties are also prohibited from making agreements to deny access to the market for new participants. If it later determines that market participants have been guilty of anti-competitive behavior, ACM can enforce the Dutch Competition Act. ACM considers it important that there is more competition in the payment market, and will therefore actively monitor how banks handle requests for access. The PSD2 Directive does not provide ACM with any additional instruments to address this specific risk.

The Directive requires banks to provide access to payment information, provided the consumer or company concerned has given their consent. The PSD2 Directive lays down rules governing that access. Those rules are fleshed out in the European Commission's Regulatory Technical Standards (RTS). Where the PSD2 Directive and the RTS leave scope for differences in the implementation and interpretation of the conditions under which access must be provided, and could therefore lead to uncertainty for market participants, it is for the regulatory bodies to define those conditions more precisely. That scope, where it exists, should logically be exercised by the Dutch central bank (DNB). ACM has considerable experience with regulating access to markets, for example in the

telecom sector, and would be happy to share its expertise.

The European Commission allows banks to receive compensation amounting to a maximum of the efficient costs they have to incur to arrange access for other market participants. Requiring banks to grant access free of charge could give banks an incentive to exclude fintechs.

Finally, in line with the government's wishes expressed in the coalition agreement, a banking license 'light' should be introduced for fintechs. With such a license, fintechs would, subject to certain conditions, be able to offer their own payment accounts. Allowing entities without a banking license to offer payment accounts could reduce the market power of banks. ACM believes that this is a very important option for fintechs if they are to be genuinely capable of providing a competitive product.

Summary

Measures against foreclosure of front-end providers

ACM feels it is important to create more competition and innovation in the payment market. We believe there is a genuine risk of foreclosure of front-end providers. ACM will therefore keep a close eye on developments in the market and the conduct of market participants in the coming period. ACM can take action pursuant to its powers under the Dutch Competition Act. The PSD2 Directive does not provide ACM with any additional instruments with which to reduce the risk of foreclosure. Other market participants that could adopt measures to reduce that risk are the Dutch central bank (DNB), the European Commission and the Dutch government. ACM makes the following recommendations:

- Where the PSD2 Directive and the RTS leave scope for differences in the implementation and interpretation of the conditions under which access must be provided, and could therefore lead to uncertainty for market participants, it is for the regulatory bodies to define those conditions more precisely. That scope, where it exists, should logically be exercised by DNB. ACM has considerable experience with regulating access to markets, for example in the telecom sector, and would be more than willing to share its expertise.
- The European Commission allows banks to receive compensation amounting to a maximum of the efficient costs they have to incur to arrange access for other market participants. Requiring banks to grant access free of charge could give banks an incentive to exclude fintechs.
- The government should introduce a banking license 'light' for fintechs, which would give fintechs the possibility of offering their own payment accounts.

Little risk of foreclosure of end-to-end providers

For end-to-end providers, it is crucial to have access to the functions of interbank systems, particularly systems for clearing and settlement. After all, customers must be able to transfer money to and from the end-to-end provider's closed system. End-to-end providers can arrange this in two ways: via a bank and via direct access.

ACM establishes that it is unlikely that banks have market power in relation to the issuing of payment accounts to businesses and consumers, because there are too many providers of payment accounts. There are also major differences between those providers. These two factors make it difficult for providers to collude, which makes it unlikely that banks can exclude parties from access to clearing and settlement.

Measures against foreclosure

ACM therefore sees no serious risk of foreclosure in relation to end-to-end providers. Nevertheless, we will enforce compliance with the provisions of the PSD2 Directive that guarantee access to business payment accounts for end-to-end providers.

ACM believes that the rules governing access to clearing and settlement systems should be relaxed: payment service providers with a license should be able to gain direct access. Direct access to the clearing and settlement systems reduces the risk of foreclosure of end-to-end providers by banks. However, the payment service providers must then be subject to oversight and meet certain conditions. At present, a banking license is still required for direct access to clearing and settlement. ACM recommends, in line with the Dutch government's wishes expressed in the coalition agreement, the introduction of a banking license 'light' for fintechs. That license would enable fintechs to gain direct access, subject to certain conditions. ACM believes that this is a very important option for fintechs if they are to be genuinely capable of providing a competitive product.

ACM would like all licensed payment service providers to be able to participate directly in the new instant payments system and the settlement arrangement. This can be accomplished by formulating objective requirements for access that match the risks of the activities carried out by these payment service providers. This is a way of avoiding new risks of foreclosure.

Summary

Measures against foreclosure of end-to-end providers

ACM currently sees no major risks of foreclosure in relation to end-to-end providers. We can take measures to enforce the provisions of the PSD2 Directive on access to business payment accounts in specific cases. ACM further concludes that direct access to interbank systems for fintechs will reduce the risk of foreclosure. Measures that could be taken to achieve this are:

- The Dutch government should introduce a banking license 'light' for fintechs, which will give fintechs the possibility of gaining direct access to clearing and settlement systems.
- The definition of objectified criteria for access that match the risks arising from the activities performed by these institutions.
- A safeguard that, in the development of instant payments infrastructures in Europe, fintechs will be able to participate directly in the systems and agreements for clearing and settlement on equal and objective conditions.

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1. Introduction

Fintech is an umbrella term for new technologies in the financial sector. Technological developments are occurring in a variety of segments of that sector, from the payment system to insurance. The technology varies greatly from one segment to another. In the case of asset management, for example, it involves the replacement of manual activities by machines through the process of automation and robotization. The major changes in relation to payments and lending involve the development of new platforms and networks. The fact that fintech has the potential to alter the competitive landscape in the financial sector prompted the Monitor Financial Sector (MFS) team of the Netherlands Authority for Consumers and Markets (ACM) to carry out this study.

The aim of the study is to determine whether foreclosure of fintechs¹ by established market participants represents a significant risk to entry to the payment market and to make recommendations for reducing that risk. As competition authority in the Netherlands, ACM seeks to preclude barriers to entry to markets. Such barriers can arise in various ways. For example, existing regulation can form a barrier. However, new policies are already being formulated with a view to removing those barriers, such as the introduction of sub-licenses and the establishment of the InnovationHub by the Dutch central bank (DNB) and the Netherlands Authority for the Financial Markets (AFM).² In this study, we therefore focus on the barriers that could be erected by incumbents in the market, thus undercutting innovation by fintechs.

The focus of this study is on the payment system. Many new providers have entered this market, and have made substantial investments in the last few years. Furthermore, the legislative framework for payment systems will change fundamentally with the implementation of the revised EU Directive on Payment Services (PSD2). Under the new directive, existing payment service providers in the market - particularly banks - will be required, on request by their customers, to provide third parties with access to their payment accounts. Numerous fintechs are therefore endeavoring to gain a foothold in this evolving market.³

Research method

For the purposes of this study, ACM conducted desk research into the structure of the payment system, and conducted interviews with a number of fintechs and other players in the payment system. The Ministry of Finance, the Ministry of Economic Affairs and Climate Policy, the Netherlands Bureau for Economic Policy Analysis and the Dutch central bank all participated in the sounding board and provided useful input for this study.

Structure of the report

Chapter 2 presents a very simplified description of the payment system, the separate markets within the system and the participants in those markets. Chapter 3 then presents a classification of fintechs according to the different levels at which they operate within the payment system. Chapter 4 analyzes the degree of risk of foreclosure by established market participants for two types of fintech. Chapter 5 discusses the instruments that already exist for preventing foreclosure. Chapter 6, finally, contains the main recommendations and conclusions of this report.

¹ Although established market participants in the financial sector are also employing new technologies, in this study we use the term fintechs to refer to innovative newcomers in the market.

² <https://www.rijksoverheid.nl/documenten/kamerstukken/2016/12/21/kamerbrief-follow-up-toetredingsbrief>, p. 2.

³ CB Insights, 2016. The Pulse of FinTech.

2. Outline of the payment system

2.1 Introduction

Before we can discuss what barriers fintechs could face from established market participants, we need to know how the payment system works. We can then determine where fintechs might be dependent on existing undertakings and thus susceptible to the risk of foreclosure.

The following aspects of the system are described: payment instruments and the payment process, the front end and back end of the payment system, the different payment schemes, and the competitive environment in this market. This description is not intended to be an exhaustive description. Its main purpose is to provide an aid to understanding the analysis in the later chapters and the terms and concepts used in that analysis.

2.2 Payment instruments and the payment process

The retail payment system involves transactions between economic agents (consumers, businesses, and public authorities) in which money is paid for goods or services. Every year, there are around ten billion transactions, roughly three billion of which were made in cash (notes and coins) and 6.8 billion via a bank account (non-cash payments) in 2016. The 6.8 billion-plus non-cash payments can be roughly broken down into 3.6 billion payments with a bank card and PIN in shops and 3.2 billion payments via transfer and direct debit.⁴

Over the years, the balance has shifted heavily away from cash payments and towards non-cash-based and electronic payment instruments. Reasons for this include the introduction of (contactless) payment with a bank card and PIN and the wider possibilities for making payments via internet.⁵ Since that trend is likely to continue, this study concentrates on non-cash payment instruments. Fintech developments are certainly occurring in relation to cash transactions, but they are not discussed further in this report.⁶

Non-cash payment instruments

Non-cash payments can be made with a variety of instruments. The vast majority of non-cash payments in the Netherlands consist of 1) credit transfers, 2) direct debits, and 3) card payments. There are also niche instruments such as the giro transfer form (*acceptgiro*), checks for payments to other countries, pre-paid credit or debit cards (for business customers), and electronic money. The latter instrument is a pre-paid credit that can be used with various retailers (a book token, for example).

Retail payment process

In its simplest form, the retail payment process can be described as a payment between a payer with an account at bank A and a payee with an account at bank B. The banks are interconnected via a system of clearing and settlement. Clearing is the process of establishing a bank's net position on payments made during a particular period. Settlement is the actual finalization of the crediting or debiting to or from a payment account and in the accounts of banks. This type of payment system is often referred to as a four-party scheme. A scheme where the payer and payee are linked to one

⁴ Based on DNB's Statistics on Retail Payments.

⁵ ECB (2010) The payment system, p.33. <https://www.ecb.europa.eu/pub/pdf/other/paymentsystem201009en.pdf>

⁶ One of these developments is same-day crediting to the retailer's account when a cash sum is deposited in a 'smart' safe.

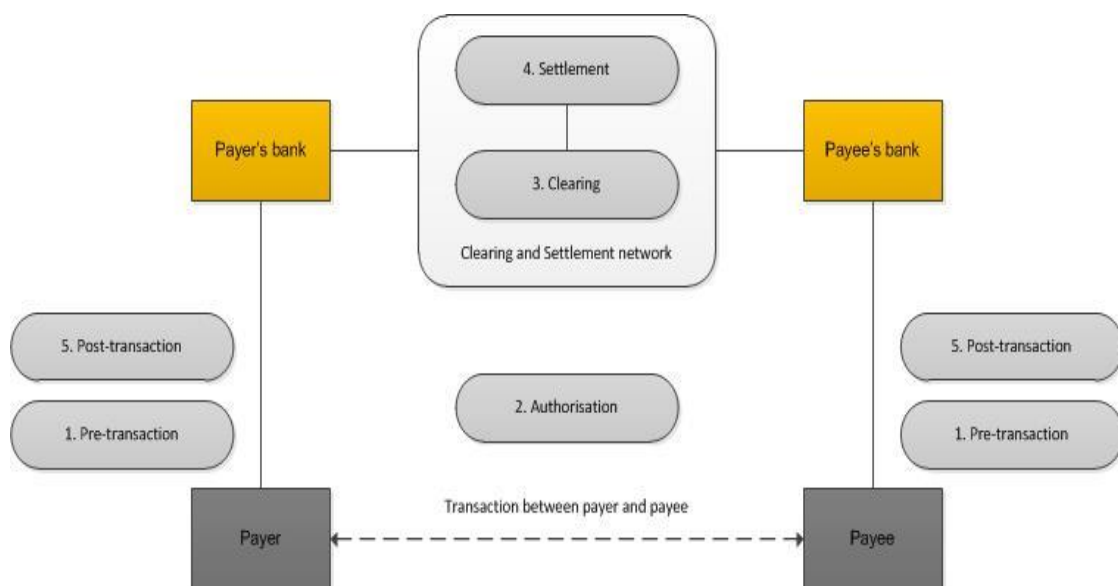
and the same payment service provider is referred to as a three-party scheme. In practice, some three-party schemes work with licensees, co-branding, or agents.

It is crucial for businesses wishing to operate as a provider in the retail payment system to create cooperation agreements so that customers of different providers can conclude transactions with one another (see Figure 1). These agreements are made between the following parties:

- the payer's payment service provider, such as a bank;
- the intermediate operators in the payment processing, which dispatch, process and/or net transactions between participants;
- where applicable, the payment schemes that manage the agreements and standards relating to the payment instrument;
- the settlement institutions, such as central banks, which resolve the obligations between payment service providers;
- the payee's payment service provider.

In effect, this complex of agreements creates a platform on which consumers, businesses, and banks can communicate with one another as payers and payees.

Figure 1: Overview of parties involved in the cooperation agreements that together form the platform by which payers and payees can settle transactions



At the national level, the cooperation agreements between providers in the payment system have grown historically, without specific regulation. In practice, there were interbank payment systems, with a limited number of operators at the back end. Today, European rules impose specific requirements. For example, a European regulation⁷ from 2012 obliges payment service providers to comply with the SEPA standards⁸ for credit transfers and direct debits, so that they can process each other's transactions. They are also not permitted to charge each other fees for processing

⁷Regulation (EU) No. 260/2012 establishing technical and business requirements for credit transfers and direct debits in euros and amending Regulation (EC) No. 924/2009.

⁸Single Euro Payments Area.

transactions, with the exception of costs incurred for direct debits that are refused. This regulation laid the legal and infrastructural basis for a Europe-wide platform connecting the users of payment services in Europe.

The result is a so-called two-sided market, as defined by Rochet and Tirole (2004).⁹ In such markets, banks and other payment service providers operate two-sided platforms, on which two different groups of customers, for example consumers and retailers, are brought together. A characteristic of two-sided markets is that they produce network effects, which means that the value a customer derives from a payment service depends in part on the number of retailers that accept that service. For example, the convenience, and hence the value, of making a PIN payment increases commensurate with the number of retailers that offer that option.

2.3 The front end and back end of the payment system

2.3.1 Front end: Options for consumers and businesses in the payment system

The payer and the payee agree what payment instrument they will use for a specific transaction. A transaction can only take place if there is a corresponding payment instrument with which the payer can pay and that the payee can accept. If there are multiple corresponding payment instruments, the payer and/or the payee choose a payment instrument, taking into account the differences between them. There are differences, for example, in access device (bank card with PIN code, mobile phone, computer), the method by which the party making the payment is asked to identify himself and approve the transaction (PIN code, token-based or biometric authentication) and the costs of using the payment instrument. For example, the use of debit cards is often free for consumers, while retailers pay a fee for each transaction.

A payment account is an essential requirement for holding non-cash funds and for paying and receiving money. Banks in the Netherlands do not sell payment accounts separately, but as part of a package in which the payment account is combined with various instruments for moving money into and out of the account. For example, every Dutch consumer who purchases a payment package is automatically able to transfer money and to make payments with a bank card and PIN. Banks often also offer products and services related to the payment system, such as electronic financial management programs, overdraft facilities and savings accounts. Customers who have a payment account with a bank might also be more inclined to buy other products that are unrelated to the payment account from that bank (cross-selling). The bank also has insight into details of transactions, which can provide valuable input for estimating the customer's creditworthiness and the potential for the cross-selling of other bank products.

2.3.2 Back end: Systems and agreements for settling obligations

A specific aspect of the agreements made between payment service providers concerns the ultimate settlement of obligations between banks themselves. After all, if a customer of bank A transfers money to bank B, there ultimately has to be a payment from bank A to bank B.

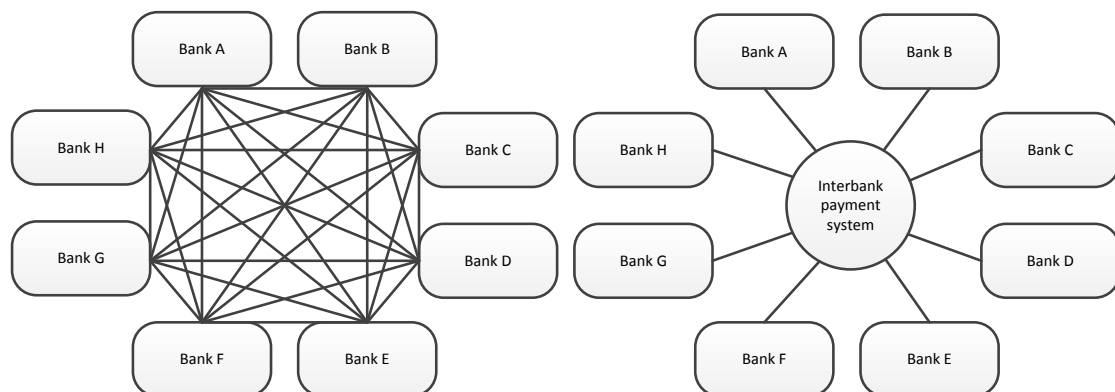
Payments for retail transactions between consumers, businesses, and public authorities are not all

⁹ Rochet and Tirole, Two-Sided Markets: An Overview, 2004, *Two-sided (or more generally multi-sided¹) markets are roughly defined as markets in which one or several platforms enable interactions between end-users, and try to get the two (or multiple) sides "on board" by appropriately charging each side. That is, platforms court each side while attempting to make, or at least not lose, money overall.*

immediately sent by the relevant banks to other banks. Banks that do a lot of business with each other within a particular country have often built their own, more efficient systems in which large volumes of transactions can be processed. These are often what are known as Deferred Net Settlement (DNS) systems. With this type of system, the payment orders between the customers of banks are collected for a certain period and the net amount owed by the banks to one another is then determined at the end of the cycle.

A DNS system consists of multilateral agreements based on a common set of rules and procedures governing how money will be transferred from bank A to bank B.¹⁰ The benefit of such a system is that it is no longer necessary for a bank to conclude agreements with each bank individually (see also Figure 2).¹¹ Each bank has only to be connected to the interbank payment system to be in contact with every other bank connected to the system. If there are a large number of banks that wish to be interconnected, a multilateral agreement is more efficient, since each bank has to conclude fewer agreements and, by extension, has to hold fewer accounts (and less money) with other participants for the payment system to function.

Figure 2: Difference between bilateral agreements and an interbank payment system. With bilateral agreements, the number of agreements needed to connect everyone increases exponentially as the number of participants increases. With interbank systems, the increase is linear.



¹⁰ ECB, 2010 The payment system, p.37.

¹¹ In February 2016, there were 6,208 monetary financial institutions (MFIs) in the eurozone (see https://www.ecb.europa.eu/stats/money/mfi/general/html/mfis_list_2016-02.en.html). Approximately 18 million agreements would be required to connect all of these financial institutions on the basis of bilateral agreements.

Interbank systems have detailed rules and procedures that banks have to follow when making payments to one another. For example, if bank A makes a payment to bank B, bank B has to know for which customer or customers the payment is intended. Banks send each other messages with information about the transaction, such as the identity of the customer for whom the payment is intended, the amount to be transferred, and the identity of the payer. By making detailed agreements on this procedure, banks are able to process transactions automatically, and therefore efficiently.

Operators at the level of clearing and settlement play an important role in these systems. In the context of SEPA payments¹², these operators are often referred to as *Clearing and Settlement Mechanisms* (CSMs), and in the context of payment cards as *switch* or *processor*. *Clearing* is the process of transmitting, reconciling, and, in some cases, confirming transfer orders prior to settlement.¹³ The clearing process can also include the netting of orders, the aforementioned process by which payment orders are collected for a predetermined period and (bilateral or multilateral) net positions are determined at the end of the cycle. Once it has been established what participants owe one another, the obligations are settled. This is referred to as *settlement*. Settlement takes place on the books of a central bank, or sometimes on the books of a commercial bank.¹⁴

Central banks use systems in which these payments between banks are executed, the so-called Real Time Gross Settlement Systems (RTGSs), for this purpose. Every bank has an account with its central bank and can transfer money to the other bank via that account. The European system is called Target2. It is used for payments of very large amounts between banks, so-called large-value payments. Access to this system is reserved to banks.

An important operator at the clearing and settlement level is SWIFT, which was established by banks in the 1970s to handle the transmission of messages for large-value payments via new networks (rather than by telex, as was customary up to then). Practically every bank is connected to SWIFT, because it is the messaging system used to send instructions to and from central banks. SWIFT also manages the bank addresses to be used for interbank transactions, the so-called Business Identifier Codes (BIC codes). Both direct and indirect participants in the SWIFT network can be contacted via these addresses.

In addition to the operators that play a role in the actual clearing and settlement processes, there are numerous IT companies that execute the business processes of payment service providers, for example creating a SWIFT connection or handling part of the payment process or the clearing and settlement. The payment service providers then outsource their back-office processes, such as administrative tasks, to these IT service providers.

The players that manage (interbank) agreements on the clearing and settlement for the payment schemes are separate from the users of those payment schemes. The idea was that, with the

¹² SEPA payments are primarily the online payments made via the SEPA payment schemes, such as the SEPA Credit Transfer (SCT) and the SEPA Direct Debit (SDD). For across-the-counter PIN payments, Mastercard or VISA payment schemes, such as Maestro, are used.

¹³ ECB glossary of terms related to payment, clearing and settlement systems.

¹⁴ ECB (2010) The payment system, p.47.

introduction of SEPA, the national operators might become too dominant if the two levels remained vertically integrated. Considerations of competition and efficiency therefore led to the decision to separate the two levels.

2.3.3 A new development: Instant payments

Everyone is familiar with the weekend effect: the fact that interbank payments that are made via internet during the weekend are only actually processed on Monday morning, because the Target2 settlement system, in which the settlement between banks takes place, only opens then. In an increasingly digital society, there is growing resistance to a system with closing hours. Customers want assurances about incoming and outgoing payments, and insist that the financial sector should provide a solution that allows payments between users to be finalized at any time of the day or night. That is the envisaged goal of 'instant payments'. With instant payments, the aim is to enable - prefunded - payments to be made 24 hours a day rather than during the opening hours of the relevant settlement system. It will then no longer be relevant for the customer what bank the payee uses; a payment made to that payee will then be finally settled between banks and credited to the payee's account within seconds, even during the weekend.¹⁵

2.4 Competition at various levels

Because of the two-sided and multi-level nature of the payment system, there is competition between players in the payment system at various levels. That could create a situation where participants in the payment system simultaneously have an incentive to compete and to collaborate. The various levels at which competition occurs are explained below.

Platforms – four-party payment schemes versus three-party payment systems

The highest level at which competition occurs is the platform level. These are both the four-party payment schemes and the three-party platforms. The four-party payment schemes are the SEPA Credit Transfer, the SEPA Direct Debit and the two payment card schemes, VISA and MasterCard. In the Netherlands, there are also the payment methods of iDeal and the pre-printed giro transfer form (*acceptgiro*). Examples of three-party platforms are American Express, Afterpay, and PayPal. These platforms compete for consumer and business customers in order to generate or process the greatest possible number of transactions. This competition ultimately leads to the decision by businesses and consumers to use a particular payment instrument or a service or app that incorporates that product.

Payment schemes manage the set of agreements without which a transaction cannot take place, for example agreements concerning the sequence of information in a transmitted message. A payment scheme also prescribes conditions that the infrastructure has to meet in order to make the connection. For example, Mastercard's Maestro payment scheme prescribes the specifications of the device for initiation and authentication of online payments in a store. In this way, it also ensures interoperability in the infrastructure. A payment scheme can influence the success of the underlying payment instruments in various ways. First, it can collaborate with affiliated payment service providers to increase the acceptance or use of the payment instruments, for example by offering

¹⁵ A complicating factor in this debate is that there are currently various competing instant payments initiatives at the national and European levels. Whereas the system at the European level will become available this fall (payment in ten seconds with a maximum of €15,000), the intention in the Netherlands is to have a system in place in 2019 with which users can pay any amount within five seconds. The European Central Bank has, however, demanded that the different systems be compatible.

these suppliers a financial reward or by launching a joint advertising campaign.

The payment scheme can also take account of the two-sided nature of the market in its *scheme fees* (the fixed or transaction-based fees that are paid by banks), and by setting an *interchange fee*. An interchange fee is a fee that banks pay one another per transaction, and could be an instrument the scheme can use to increase the value of the platform (and hence the payment instruments that use it).¹⁶ In some cases, the interchange fee is needed to get both sides of the market to join. In a number of competition cases brought by the European Commission (MasterCard I and II, and Visa I and II) it was found that, without ex ante oversight, the interchange fees had been set far too high.¹⁷ The EU therefore ultimately established a form of regulation¹⁸ that limits the fees.

Payment service providers of the payer and payee

Participants in a four-party payment scheme have an incentive to collaborate in order to make the payment instruments within the scheme as attractive as possible in relation to (potential) three-party systems.¹⁹ However, the participants within the scheme also have conflicting interests. Banks, for example, will want to set themselves apart from each other in order to persuade customers to join a particular payment scheme through them. After all, the payment system has an important portal function. It provides the initial contact with customers to whom banks might then also be able to sell other products (cross-selling). Without this, banks earn nothing from the customers of other banks. Competition between banks can lead to innovation in the development of payment instruments. Rabobank's online banking environment has a different look and feel than ING's, for example. The method of authentication of credit transfers is generally also different. One bank uses a TAN code sent to the customer's mobile phone, another uses a token that generates a code.

On the other hand, the necessary interconnection between banks also requires collaboration. This occurs at the level of the platform, where interoperability of the technology is a fundamental requirement. A retailer with a payment terminal from ABN AMRO must be able to accept a debit card issued by SNS Bank, for example. The agreements made at the platform level prevent a bank from unilaterally deciding to make the debit card it issues a centimeter wider, or to use a different technology in the card, because that card would then no longer be able to communicate with payment terminals issued by other participants in the payment scheme.

Operators

The operators are businesses that execute and process the actual transactions in a payment

¹⁶ In the context of the Interchange Fee Regulation (IFR), three-party systems that work with licensees, agents or co-branding are also subject to oversight regarding the size of the interbank fees.

¹⁷ http://ec.europa.eu/competition/sectors/financial_services/enforcement_en.html. A cartel was also found to exist in the debit card market in the Netherlands,

see http://ec.europa.eu/competition/sectors/financial_services/enforcement_en.html. In addition, there are the informal commitments MasterCard has made to ACM to reduce interchange fees for credit cards from 0.9% to 0.3% in anticipation of the IFR (see <https://www.acm.nl/nl/publicaties/publicatie/16274/MasterCard-voldoet-aan-toegezegde-tariefdeling-voor-creditcardbetalingen/>).

¹⁸ Regulation (EU) 2015/751 of the European Parliament and of the Council of April 29, 2015 on interchange fees for card-based payment transactions. <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32015R0751&from=NL>. ACM enforces compliance with this regulation.

¹⁹ This incentive is probably less strong for the competition between four-party schemes, because most banks are participants in them.

scheme. Software is required to process the messages for these transactions. The software is different for each payment scheme, and the competition is for the market in processing transactions, not in the market. This competition for the market can be ineffective if essential platform-specific investments lead to very high switching costs. Competition for the market could be facilitated by standardizing payment schemes.²⁰ There have been initiatives in this direction, such as the drafting of international standards for software.

2.5 Conclusion

Banks play a key role in the retail payment system. For a payment to be made, both the payer and the payee must have a payment account with a bank. Payments can be made because the banks are interconnected via the 'clearing and settlement' network. Customers and businesses have access to this clearing and settlement level, the back end of the payment system, via the bank. The key role played by banks means that they control a number of crucial inputs for fintech businesses. This aspect is discussed in more detail in the following chapters.

²⁰ London Economics (2014). Competition and collaboration in UK payment systems, pp. ix.

3. Fintechs in the payment system

Fintechs often only operate in particular segments of the payment system (and the related service provision). They do not entirely replace a specific traditional player with all its functions, but often specialize in just one or more activities. The market environment and potential barriers to entry and growth for fintechs can differ greatly depending on the type of product or service the fintech provides and the part of the payment chain in which the business operates.

Fintechs bring new or more efficient products onto the market. Consequently, they can not only have an impact on the degree of competition in a market, but possibly also have a positive effect on welfare.²¹ Every fintech makes a different contribution to these effects. Some mainly improve efficiency and so enhance welfare, while others primarily create competitive pressure in the market. An increase in the intensity of competition creates greater incentives for efficiency and innovation. For fintechs to have a welfare-enhancing impact, other public interests such as privacy, payment security, and financial stability must naturally be properly safeguarded. Because this study focuses on potential risks of foreclosure, the most interesting fintechs are those that not only enhance welfare, but also intensify competition (with banks).²²

In this chapter, the crucial inputs for the various types of fintechs are identified. Because fintechs operate in different markets and also require different inputs to operate in those markets, we have divided the fintechs in the payment system into four categories on the basis of the classification used by the Bank for International Settlements (BIS) (2014)²³:

1. *Front-end providers*
2. *End-to-end providers*
3. *Back-end providers*
4. *Operators of retail payment infrastructure*

In this chapter, each category of fintech will be discussed in terms of the products they supply and their position in the payment chain.

3.1 Front-end providers

Front-end providers are fintechs that supply a new interface for communication between consumers and sellers on the one hand, and the traditional bank payment processing system (processing, clearing, and settlement) on the other, or that provide new account information services. These providers are involved in the pre-transaction, initiation, and post-transaction phases of a payment, but usually not in the clearing or settlement phase. Examples of front-end providers include mobile wallets, internet payment gateway providers, credit card acquirers, payment institutions²⁴, and electronic money institutions. A payment (a transfer) generally proceeds as follows:²⁵

²¹ Welfare is the sum of consumer surplus and producer surplus.

²² Fintechs that are solely welfare-enhancing will not be foreclosed, because they also increase the value of the bank itself.

²³ Bank for International Settlements, Committee on Payments and Market Infrastructures, 2014, Non-banks in retail payments.

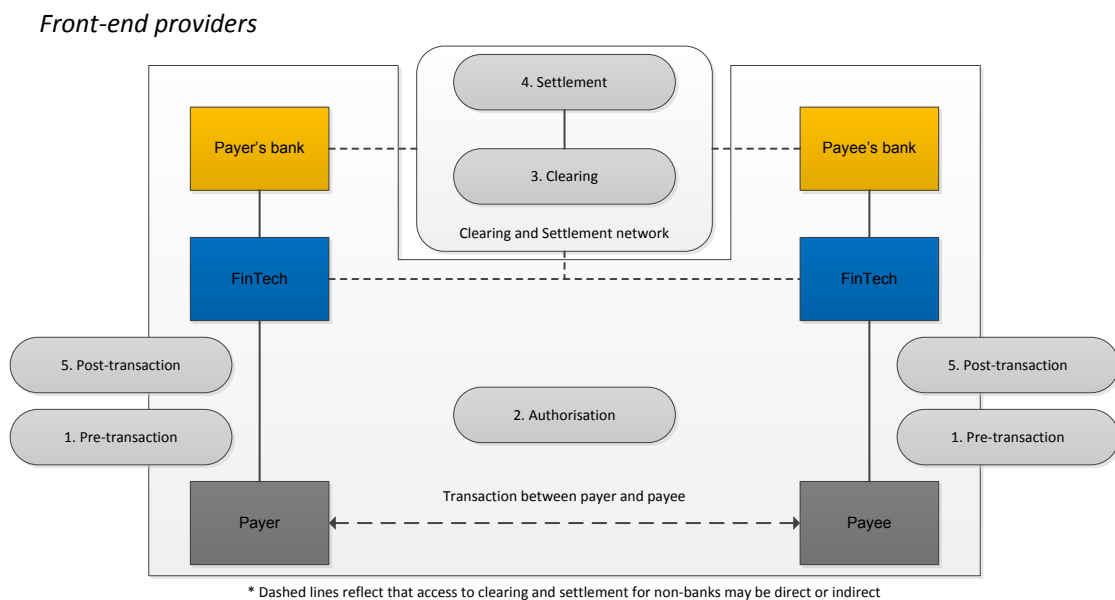
²⁴ Payment service providers (PSPs).

²⁵ Bank for International Settlements, Committee on Payments and Market Infrastructures, 2014, Non-banks in retail payments, p. 10.

- The payer initiates the transaction via his/her bank;
- The payer's bank uses the clearing and settlement network (interbank payment system) to arrange the transfer;
- The payee's bank credits the amount received to the payee's account.

The payment system, including the front-end provider, is depicted in simplified form in Figure 3 below. The front-end provider is located between the bank and the payer or the payee.

Figure 3: Front-end providers



Source: (Bank for International Settlements, Committee on Payments and Market Infrastructures, 2014, p. 11)

Many of the services provided by front-end providers remove obstacles in the payment market. For example, the possibility of scanning a QR code on a receipt in order to pay with iDeal increases the level of competition between face-to-face and online payment instruments. The services of front-end providers that are covered in more depth in this study are 1) payment initiation services, where transactions are initiated on behalf of the customer, and 2) account information services.

The crucial input for front-end providers that offer payment initiation services is information about the customer's payment account, because they need that information to execute those transactions. The information includes the actual balance in the payment account, for example.

Providers of account information services concentrate on products and services relating to the information in the payment system. These businesses do not play any role in the initiation or processing of transactions, but use the data from the payment instruments as input for their products. An example of this type of provider is a supplier of financial management programs for consumers, with which households can keep track of their transactions. With a link to the bank

account, the transaction data can be automatically updated, and users can also automatically update multiple accounts and so create an overview of all their transactions.²⁶ Another possibility is producing creditworthiness assessments on the basis of transaction data, which can then be used to fix the interest on a loan.

Information about the payment account is also crucial input for providers of account information services. It can be both transaction data and information about account balances. These providers need direct and continuous access to this information to be able to offer an up-to-date product. Like providers of payment transactions, they depend on the bank that manages the customer's payment account for this information.

3.2 End-to-end providers

End-to-end providers have a direct relationship with both the payer and the payee (see Figure 4). The relationship usually exists because both have an account with the fintech. Payments are also arranged in the end-to-end provider's systems. This is therefore a closed platform, where the platform and payment instrument are owned by the same party. No relationship with a bank is needed to carry out a transaction. However, such a relationship is required to make deposits or to transfer money to and from payment accounts without the involvement of the end-to-end provider.

Examples of end-to-end providers are three-party payment card schemes, electronic money providers, virtual currencies, and telecom providers with a payment service. PayPal is one of the best-known three-party e-money products in the world. It is an online payment system and handles payments between consumers and between businesses and consumers. All a consumer needs is an e-mail address. In addition, the first time using the system he or she has to transfer a small amount to the PayPal account for the purposes of authentication. Other examples of three-party systems are Paysafecard, Klarna and Afterpay, and for businesses, Adyen. A final, exceptional example of an end-to-end service is Bitcoin. Bitcoin is a virtual currency that uses peer-to-peer technology.²⁷ Bitcoin has no intermediary for payments and two parties can make payments to each other without the mediation of banks. Both payer and payee can only cash in the bitcoins at a bitcoin exchange office.

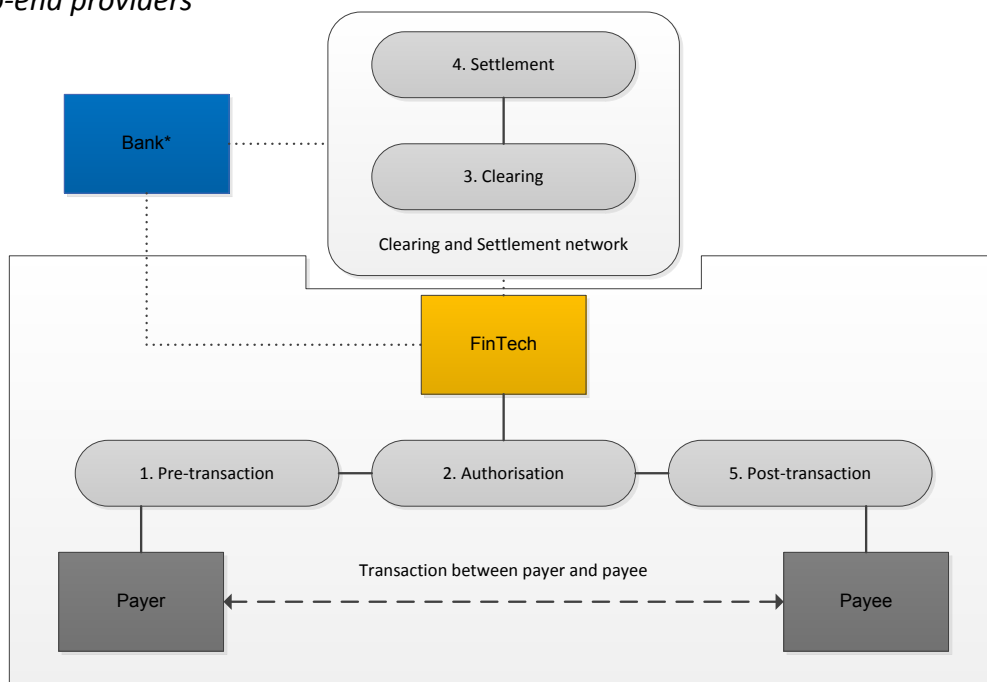
End-to-end providers have the potential to increase welfare and the level of competition throughout the payment market. In the first place, their new payment applications are often more user-friendly, faster and cheaper. Businesses and consumers derive value from that. Secondly, end-to-end providers increase the level of competition. First and foremost, they create extra static competition by competing with other payment instruments. They also generate dynamic competition for four-party payment schemes, because four-party schemes that face more competition at the front end will also have an extra incentive to innovate at the back end of a payment scheme. In other words, the back end of banks and the providers of clearing and settlement services will also have an incentive to innovate and reduce costs.

²⁶ It is also possible that specific products could be offered to customers on the basis of their purchasing behavior, although it is questionable whether these can be described as welfare-enhancing fintechs.

²⁷ See: <https://bitcoin.org/>.

Figure 4: End-to-end providers

End-to-end providers



* Depending on arrangements for access to clearing and settlement, end-to-end providers may have direct access to a clearing and settlement network, or use a bank for parts of these processes.

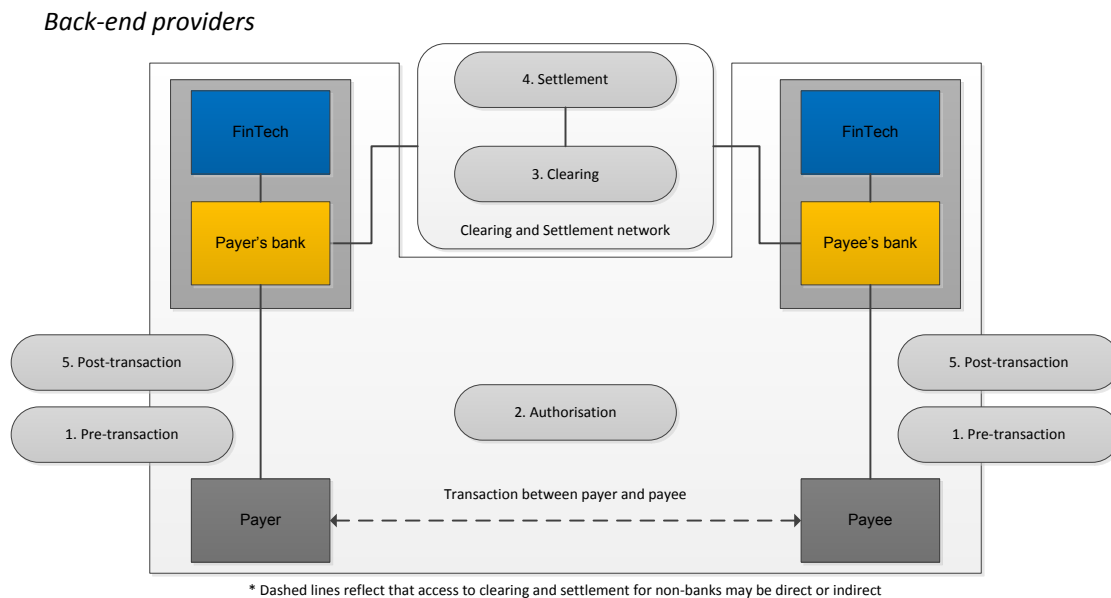
Source: (Bank for International Settlements, Committee on Payments and Market Infrastructures, 2014, p. 11)

End-to-end providers do not depend on third parties, and therefore also not on a particular input, for transactions via its own scheme. However, customers must be able to make deposits into their account with the relevant end-to-end provider and conduct transactions with non-customers of the end-to-end provider. Accordingly, the crucial input for an end-to-end provider is access to the functions of interbank systems, particularly the clearing and settlement systems. The provider can have direct access to those systems, but can also gain access by holding a business payment account with a bank. End-to-end providers that really want to stand out will increasingly prefer direct access, for example in order to reduce their dependence on a bank or to increase the speed of transactions.

3.3 Back-end providers

Back-end providers usually specialize in specific tasks of banks. Banks can perform these tasks themselves or outsource them to specialists. In the latter case, a fintech assumes a particular task from a bank under a cooperation agreement. Fintechs provide services in domains such as IT services, data center services, security, anti-money laundering, audit, and compliance. These fintechs are depicted in diagrammatic form in Figure 5. Clearing and settlement are still arranged by the bank, and the fintech in question only has contact with the bank.

Figure 5: Back-end providers



Source: (Bank for International Settlements, Committee on Payments and Market Infrastructures, 2014, p. 11)

Two examples of this type of fintech in the Netherlands are Five Degrees and Backbase. Five Degrees is an enterprise that upgrades old systems to meet the needs for the future, for example by making the systems accessible for application programming interfaces (APIs)²⁸. This enables a bank to cooperate more easily and flexibly with fintechs, and comply more quickly with new rules from the EU or regulatory bodies.²⁹ Backbase supplies software that a bank can superimpose on its existing systems. It supplies a platform with numerous applications.³⁰ Another type of back-end providers comprises IT providers that support banks in activities relating to issuing cards and authorization or with the acceptance of card payments. This is a large and deep market, in which all the participants are required to follow the rules of the payment card schemes.

There is no risk that incumbents (banks) will deny back-end providers access to crucial inputs, since banks hire back-end providers and will provide them with the input because this type of fintech improves their efficiency.

3.4 Operators

This category consists of various types of service providers. Operators can include specialists that process transactions for banks and other payment services providers, often for a range of payment instruments.³¹ Another group of operators are the providers of infrastructure for the initiation, authentication and verification of transactions at payment terminals, such as the traditional players

²⁸ An API is a set of definitions that enables software programs to communicate with each other.

²⁹ Het Financieele Dagblad, 2017, 'Fintech-start ups zijn de grondstof voor het nieuwe bankieren'.

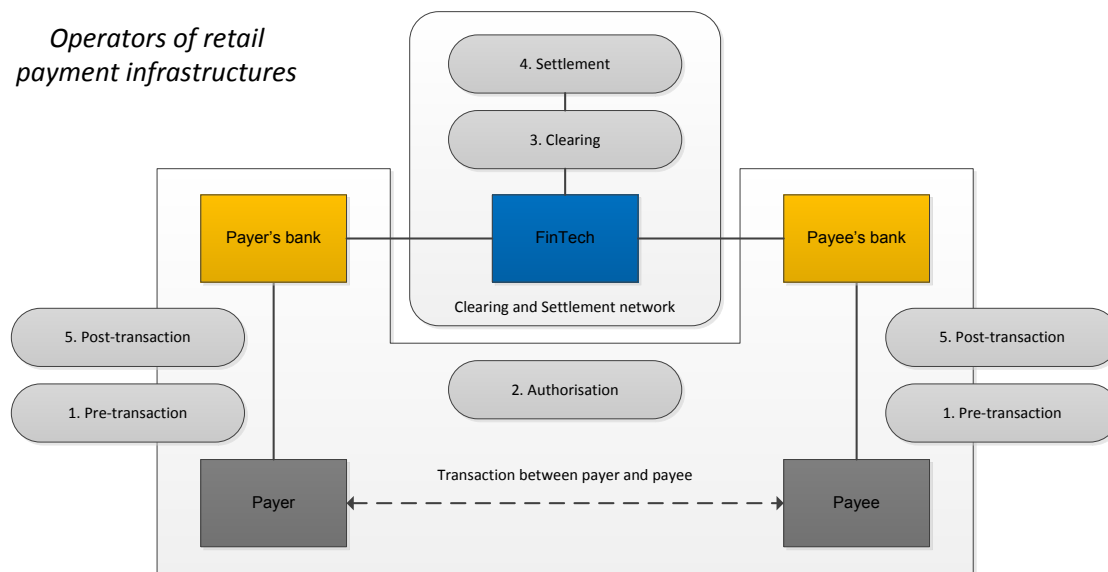
³⁰ See: <https://www.backbase.com/about>.

³¹ Bank for International Settlements, Committee on Payments and Market Infrastructures, 2014, Non-banks in retail payments, p. 9.

CCV and Equens/Worldline.

Yet another example of a fintech operator is Ripple, the inventor of the Ripple payment protocol. Users of this protocol do not have permanent banking counterparties, but instead place the future transaction on the market and allow interested banks to subscribe to validate the transaction. The transmitting bank can then select the cheapest route. The protocol uses the distributed ledger technology.

Figure 6: Operators



Source: (Bank for International Settlements, Committee on Payments and Market Infrastructures, 2014, p. 11)

This type of fintech is depicted in Figure 6. The operator is positioned in the box for the clearing and settlement network. The receiving and paying banks do not necessarily have to use the same network, but they must be accessible in accordance with the payment scheme's common rules and have a connection.

Operators generate cost savings that make a bank or platform more competitive than other banks and platforms. This can be an entirely new platform that did not even exist before the establishment of the operator. Operators can also provide clearing and settlement services for multiple payment schemes. The homogeneity of payment instruments means that there is intense competition between operators. A high level of competition at the front end of a payment platform, in other words among the front-end and end-to-end providers, also increases the pressure to operate more efficiently and to be more innovative.

An operator does not depend on crucial inputs. But once it has established itself, an operator can acquire a certain market power by becoming a crucial input for other market participants.

3.5 Conclusion

The front-end and end-to-end providers provide a new and better range of products for end users. These new services create value for the payment service's platform and, in the process, generate welfare (assuming that public interests such as financial stability, privacy and payment security are

properly safeguarded). Accordingly, they promote competition between different payment platforms and market contestability, which gives platforms an incentive to reduce their prices, to improve their quality, and to innovate.

Existing market participants and clearing and settlement services have an extra incentive to reduce costs and to innovate if there is intensive competition among front-end and end-to-end providers at the front end of the market. The back-end providers and the operators generate cost savings that make a bank or platform more competitive than other banks and platforms. After all, the greater intensity of competition between end products forces the existing players to make the underlying systems more efficient. One of the factors determining the extent of innovation by back-end providers and operators, therefore, is the level of competition among the front-end and end-to-end providers.

The fintechs that predominantly increase competition, the front-end and end-to-end providers, depend on existing market participants for certain crucial inputs. This creates possibilities for existing players to foreclose potential competitors. However, their incentive to do so differs according to the type of fintech. The incentive for foreclosure in relation to both types of fintech is explored further in Chapter 4.

4. Risk of foreclosure of fintechs

In this chapter, we discuss the potential problem of foreclosure of fintechs by established market participants. In many cases, fintechs depend on banks for their success. Moreover, fintechs often compete with some of the products that the banks sell themselves. There is therefore a risk that banks will prevent fintechs from supplying their product. A possible consequence of this is that fintechs will not enter the market or will be unable to grow as rapidly as they would like. In the rest of this chapter, we refer in these cases to ‘foreclosure’ by banks. Foreclosure of fintechs implies less competition and innovation, leading to higher prices and lower quality for the consumer.

In Section 4.1, we discuss the theory of harm and the essential requirements for a finding of a risk of foreclosure in more detail. We also briefly discuss possible efficiencies of and justifications for conduct that gives rise to a risk of foreclosure of fintechs. In Section 4.2, we estimate the risk of foreclosure for the two separate groups of fintechs identified in Chapter 3. In the final section, we summarize the findings in this chapter by sketching situations where there is the greatest risk of foreclosure. The succeeding chapter will then examine, on the basis of those situations, how existing instruments can limit the risk of foreclosure.

4.1 The theory of harm

4.1.1 Definitions: vertical relationships, upstream and downstream level, and complementarity

Before formulating the theoretical insights, two concepts need to be defined. The first is the ‘vertical relationship’ that exists between banks and the fintechs that are central to the discussion in this chapter. By vertical relationship is meant that fintechs supply products that only function if banks provide certain inputs or guarantee their cooperation in relation to those products. A new payment app, for example, can only function if the bank provides the fintech with access to information from the user’s payment account. Accordingly, this fintech is, in a general sense, dependent on banks. The product can only function if it is accommodated by existing banks. Depending on the circumstances, a bank may refuse to accommodate it, in other words foreclose competition, in various ways. For example, it could deny access to payment account information, refuse to provide the fintech with a payment account, or make interaction and communication between technical systems difficult or impossible.

Within a vertical relationship, a distinction is made between the ‘upstream level’ and the ‘downstream level’. The upstream level is the level where only the bank operates, not the fintech. The downstream level is the level where the fintech and, in many cases, the bank both operate. At the same time, what the fintech needs from the bank in order to supply its product is found at the upstream level. In the example of the payment app, the information from the payment account is found at the upstream level, and the payment app itself is at the downstream level.

Another important concept is ‘complementarity’. This means that the products supplied by fintechs are more valuable to consumers if they are consumed in combination with products of existing banks, and vice versa. For example, a payment app on a smartphone is more valuable to consumers if it can be used in combination with the consumer’s payment account, and the payment account is more valuable if it can be used in combination with the payment app. Complementarity is a characteristic of fintechs: they develop products that are not a substitute for an entire payment system, but provide a substitute for part of the system or add something entirely new to the system (‘edge innovation’).

4.1.2 Essential condition A: a dominant position at upstream level

The first essential condition for the existence of a risk of foreclosure is that the bank has a dominant position at upstream level. There are various reasons why there has to be a dominant position at upstream level. The first is that the fintech then has few, if any, alternatives to the bank's upstream product. Secondly, there is little or no competitive pressure on the bank to accommodate products that enhance the value of its own products. As mentioned previously, fintechs are often complementary to some of a bank's products. When banks face competition in relation to those products, they have an incentive to maximize the value of the products for consumers. They therefore have an incentive to accommodate fintechs that offer complementary products, because those products increase the value of their own products for consumers. The bank can only afford not to accommodate complementary fintechs if it possesses market power.

To determine whether the bank has a dominant position at upstream level, the relevant market has to be defined. The starting point for defining the market is what the fintech needs from the bank to make its product functional. This may be the information from the consumer's payment account, for example. The market is then deemed to consist of every product that could be a substitute from the user's perspective, and that could be supplied in the short term by market participants that do not already do so. In addition to the product dimension, the relevant market also has a geographic dimension: some providers operate at such a distance that they exert no competitive pressure on the upstream product of the bank in question.

The next question is whether the bank has a dominant position in the relevant market. The basic question is whether the bank is capable of acting independently of competitors and consumers, for example in setting prices. Factors that typically have to be taken into account in the assessment are the bank's market share, the number of competitors, the size of the bank, the homogeneity of products, and the switching costs for consumers.³²

4.1.3 Essential condition B: the fintech competes with the bank

If the fintech is not a competitor or potential future competitor of the bank, foreclosure is unlikely. It is difficult to see why the bank would exclude the fintech if it indeed develops a valuable product. If the product complements one of the bank's products, accommodating it will enhance the value of the bank's product for consumers. If the product does not complement any of the bank's products, the bank could negotiate a fee with the fintech for accommodating its product. In both cases, accommodation is a profitable strategy. In short, the theory of harm requires that the fintech must be an actual or potential competitor of the bank.

There are three distinct markets in which fintechs could compete with banks: in the downstream market, potentially in the upstream market, and potentially in other banking markets. The two latter categories need to be explained.

First, potential competition at upstream level. It is possible that fintechs that currently offer a product that does not complement or add to (or only partially complements or adds to) part of the payment system might, in future, supply products that could replace all or a larger part of a payment system. In that case, fintechs threaten the bank's existing dominant position at upstream level. As suppliers

³² See, for example: <https://www.acm.nl/nl/onderwerpen/concurrentie-en-marktwerking/concurrentie-en-afspraken-tussen-bedrijven/bedrijven-met-een-machtspositie/misbruik-van-een-machtspositie-herkennen>.

of products that are usually complementary, fintechs have a good knowledge of the market and might therefore be in a position to enter the upstream market sooner. As suppliers of complementary products, they also have a greater interest in more competition at upstream level, because that will increase demand for their product.

There is also the possibility of potential competition for banks from fintechs in markets other than the upstream and downstream markets. Experts regard fintechs as important challengers for banks because of their potential to become consumers' primary point of contact for 'banking'.³³ That relationship (and the information derived from it) is seen as an important driver of the profitability of banks, because it creates various possibilities to sell other banking products, such as mortgages, mortgage advice, investment accounts, etcetera. In particular fintechs that take over a lot of the contact with customers from the bank, such as payment apps, are potential competitors in other banking markets.

4.1.4 Essential condition C: the bank has an incentive to foreclose competition

Even if the bank has a dominant position at upstream level and the fintech is a potential competitor, it is still not certain that the bank actually has an incentive to foreclose competition.³⁴ If the fintech's product is not complementary to a product of the bank, avoiding competition, at downstream level or potentially at upstream level or in another banking market, is a sufficient incentive to foreclose competition by the fintech.

However, fintechs frequently supply products that are complementary to the bank's upstream product.³⁵ In those cases, there is no obvious incentive for foreclosure, even for a monopolist at upstream level. The first reason for this is what is known as the 'one-monopoly-profit argument': a bank with a monopoly at upstream level cannot make a higher profit by foreclosing competition from the fintech in the complementary downstream market. This is due to the fact that consumers only derive value from complementary products if they are consumed together. The products can therefore be regarded as a single product, on which the monopoly profit can only be realized once. The upstream monopolist can already earn this monopoly profit without foreclosing competition in the downstream market, for example by selling the downstream product at marginal cost and pricing the upstream product at marginal cost plus the monopoly mark-up. The second reason why there need not be an incentive for foreclosure is that the fintech's products might set itself apart from the bank's downstream product, for example because it is a better product or possesses features that appeal to particular users. In that case, the monopoly profit on the bundle of complementary products increases. Foreclosure of the fintech then involves costs, so that foreclosure is only worthwhile if there are compensating benefits.

³³ Accenture, 2017, *The Future of Fintech and Banking: Digitally disrupted or reimaged?*, AT Kearney, 2016, *The 2016 retail banking radar: The retail banking champions step up their game*.

³⁴ This section is based largely on Joseph Farrell and Philip Weiser, 2003, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*. *Harvard Journal of Law & Technology*, 17(1): 85-134.

³⁵ It should be noted here that the downstream product might also be complementary to a product of the bank other than the upstream product. If the bank has market power with respect to that product, the analysis presented below applies. If the bank does not have market power in the other market, foreclosure is unlikely, because the bank will then be forced by competition in that market to make the product as appealing as possible, and that implies accommodating complementary products.

When the product at upstream level is a multi-sided platform, such as a bank that saves substantial time for business banking because customers and payees are connected to the same banking platform (that is interconnected with other banking platforms), the existence of competitors at downstream level yields two different, but related, benefits for the bank.³⁶ The presence of competitors functions as a commitment to low prices for the downstream product, which could increase demand for the upstream platform product. It is also possible that anticipation of a wider variety of downstream products will increase demand for the platform, which will, in turn, have a positive effect on demand for the bank's own downstream product which could compensate for the loss of income caused by the new fintech.

Despite the points made above, there could, on balance, still be an incentive for foreclosure. Removing potential competition at upstream level or in other banking markets could provide sufficient motivation not to accommodate fintechs. A number of additional motives are identified in the literature.

The first is *incomplete complementarity*. The discussion above assumes, up to now implicitly, that products of fintechs are only valuable for consumers in combination with a product from the bank. That is not necessarily the case, however. Products of fintechs can have some value for consumers even without a product from the bank. In such cases, the one-monopoly-profit argument does not apply, because part of the profit lost in the downstream market cannot be recouped via the upstream market.

The second possible motive is *price discrimination*. If the bank forecloses competition by fintechs, it has greater freedom to set the price for the downstream product. The bank could, for example, engage in price discrimination by offering the downstream product in various combinations with other products, for which it adopts different mark-ups. The presence of fintechs could complicate this approach because competition at downstream level depresses the price (implicit or otherwise) of the downstream product to the level of the costs. Although the effects of price discrimination are themselves ambiguous, it is a possible motive to foreclose fintechs.

The third possible motive, lastly, lies in *price regulation at upstream level*. In this case, the bank cannot realize the monopoly profit on the combination of upstream and downstream products by charging a high price for the upstream product. Consequently, it might be appealing to foreclose downstream fintechs and then extract the monopoly profit on the bundle with a higher price for the downstream product. Regulation pursuant to the PSD2 Directive could in fact lead to price regulation at upstream level, which could also create a motive for the foreclosure of fintechs. After all, a cap on the price of access could prevent the bank from realizing the monopoly profit on the bundle of upstream and downstream products (see also Chapter 5).

4.1.5 Other factors

In addition to the above conditions, the existence of barriers to entry to the downstream market is a factor that helps illuminate the likelihood of foreclosure of fintechs by banks. The existence of these barriers to entry make a foreclosure strategy more likely, the reason being that impairment of access by the bank will be more successful, because it will then take longer for fintechs to earn back the costs of entry. An example of a barrier to entry is the existence of economies of scale and/or network effects in the downstream market. Network effects also increase the chance of an

³⁶ See Andras Niedermayer, 2015, Does a Platform Monopolist Want Competition?, GESY Working Paper, No. 523.

active fintech having to exit the market. After all, with the loss of even a small proportion of its customers, the fintech might not be profitable.

4.2 Practice: risk of foreclosure of fintechs

The incentives for a bank to foreclose a fintech are determined in part by the type of fintech concerned. As explained in the previous chapter, front-end providers and end-to-end providers are important drivers of competition and innovation. On the basis of the theory of harm outlined above, in this section, we explore whether there is a risk of foreclosure of these two types of fintechs.³⁷

4.2.1 Front-end providers

Condition A: Dominant position in the upstream market

For establishing a risk of foreclosure, a bank must have a dominant position in the upstream market. The starting point for defining the market is what the fintech needs from the bank to make its product functional. As described in Section 3.1, the crucial input for front-end providers is information about the payment account. In that context, it is relevant that only the bank where the customer has a payment account has access to the details of that customer's payments and transactions. For example, an ING customer's details are not available to ABN AMRO or Rabobank, and vice versa. This unique bank-customer relationship and the confidentiality of the information arising from it mean that, in the case of front-end providers, there is no generic market for payment accounts. The relevant upstream market can be defined as the market for information about the payment accounts of a specific customer. It follows from this definition of the market that banks have a dominant position, since, for every payment account, there is only one bank that possesses the information about that account.

Condition B: Could fintechs compete with banks now or in the future?

To assess condition B, we consider three different markets in which a front-end provider could compete with a bank: i) competition in the downstream market, ii) potential competition in the upstream market, and iii) potential competition in other banking markets.

i) Competition in the downstream market

With the upstream input, front-end providers could provide various downstream payment products, including products that banks themselves also provide. The degree of competition will differ from one product to another. Chapter 3 describes the types of service offered by front-end providers: payment initiation services and account information services.

There is direct competition with banks for services relating to payment initiation and processing, since the front-end providers take over part of the payment chain from the banks. Account information service providers collect and consolidate information about the various bank accounts of customers. Examples are providers of financial management programs for consumers, such as AFAS Personal. These providers supply software that households can use to gain a clearer picture of their financial situation. The individual major banks have also developed their own initiatives, such as ABN AMRO's app "Grip". Competition between banks and front-end providers is therefore certainly also possible in this downstream market.

³⁷ For the reader's convenience, the essential inputs described are linked to the type of fintech they are most closely associated with, although it is certainly possible that other types of fintechs also use those inputs. For example, in this section, access to interbank systems is linked to end-to-end providers, but it can also be an essential input for some front-end providers.

ii) Potential competition in the upstream market

This concerns fintechs that start as front-end providers but evolve into competitors for the banks in the upstream market, the market for information about the payment account of a specific customer. Given the unique bank-customer relationship as described above, it is impossible to enter this market. After all, a front-end provider cannot gain access to information about the payment account of a customer of another bank.

One way in which the front-end provider could, in fact, access that information is by 1) providing bank accounts itself, and 2) persuading the customer to switch to it. As far as providing bank accounts is concerned, the possibilities depend on the ease with which a provider can secure a banking license. At present, entities without a banking license are not permitted to offer payment accounts. It is difficult to predict how many front-end providers would start providing bank accounts, and on what scale. However, recent examples show that it is certainly not an inconceivable development. Parties like bunq, Adyen and Klarna have requested and been granted banking licenses. Bunq offers payment accounts to consumers and business customers. The general conclusion is that the dominant position of banks in the upstream market will diminish if the conditions for providing payment accounts are relaxed.

The question then is whether the front-end provider, if it is permitted to provide its own bank accounts, will be able to persuade customers to switch. Recent studies by ACM³⁸, among others, have shown that consumers feel there are obstacles to switching their payment account to a different bank. Those obstacles include the absence of the possibility to carry their bank account number over to the new bank (number portability), the 'red tape' they expect to face in making the switch, and the limited benefits they expect from switching. It is difficult to predict in advance and in general whether a front-end provider should be deemed sufficiently capable of removing these obstacles.

iii) Potential competition in other banking markets

Finally, a front-end provider could possibly start competing in other banking markets, related to the market for information about the payment account or otherwise. Front-end providers could use the payment information they acquire to compete on other financial products, such as asset planning, savings products, and loans. For example, credit ratings could be produced on the basis of transaction details. The interest rate on a loan could then be determined on the basis of those ratings. Front-end providers could also advise customers about the possibilities for buying banking services that match the financial profile that has emerged from the payment information from other providers. These are ways in which competition could also emerge in other banking markets.

There are examples, particularly in other countries, that demonstrate that competition is possible in other banking markets. In the United Kingdom, for example, the mortgage broker Habito compares mortgages for customers. The American companies Wealthsimple, Motif and Moneyfarm offer investment portfolios based on a person's risk profile. Another American company, LendUp, provides loans and credit cards together with educational materials about how to deal with credit. Smartypig, also an American company, offers savings accounts that consumers can use to save for a variety of purposes. This competition in other banking markets curtails the possibilities for the

³⁸ ACM (2014), 'Barrières voor toetreding tot de Nederlandse bancaire retailsector' and ACM (2016), 'Portabiliteit van betaalrekeningnummers'.

banks to engage in cross-selling, which also increases the competitive pressure on banks in the market for payment transactions.

Condition C: Is there a genuine incentive?

The services of front-end providers can generally only be provided in combination with the upstream input from the bank. There is therefore complementarity. As explained in Section 4.1.4, in that case, there is no obvious incentive for foreclosure in view of the one-monopoly-profit argument. Another reason might be that the product of the front-end provider differentiates itself from the bank's downstream product, thus increasing the monopoly profit on the bundle of downstream and upstream products.

On balance, however, even where there is complementarity, there can still be an incentive for foreclosure if avoiding potential competition at upstream level or in other banking markets is sufficiently important to the bank. As already explained, it is entirely conceivable that front-end providers will grow into challengers in other banking markets. There are already examples of front-end providers that have moved into the markets for other products, such as loans, asset management, and savings.

For banks, the apps for mobile banking and payment are often the most direct method of access to their customers. This direct contact creates advantages for offering other banking services. The bank's direct access provides it with a lot of information about customers, and makes them easy to reach. Banks therefore often regard the loss of this direct contact due to customers switching to the apps of other providers as one of the biggest threats they face. This is an important indication that banks expect more competition in other banking markets. It is plausible that banks attach great importance to avoiding this competition and therefore have an incentive to foreclose front-end providers.

4.2.2 End-to-end providers

End-to-end providers are businesses that have a direct relationship with both the payer and the payee. The fintech itself is a closed platform, where the platform and the payment product are owned by the same party. A detailed description of end-to-end providers can be found in Chapter 3. The crucial input for end-to-end providers is access to the functions of interbank systems, particularly clearing and settlement systems. After all, the customer must be able to transfer money to and from the end-to-end provider's closed system.

The end-to-end provider can facilitate that in two ways. First, an end-to-end provider can be given direct access to the clearing and settlement system. On the grounds of the Settlement Finality Directive, this access is exclusively reserved to businesses that are designated by the member states. In practice, in the Netherlands these are businesses that have been granted a banking license by the Dutch central bank (DNB).³⁹ Second, an end-to-end provider can gain indirect access by holding a business payment account with a bank. This requires the end-to-end provider to be a

³⁹ Directive 2009/44/EC of the European Parliament and of the Council of 6 May 2009 amending Directive 98/26/EC on settlement finality in payment and securities settlement systems and Directive 2002/47/EC on financial collateral arrangements as regards linked systems and credit claims. Article 10(1) reads: Member States shall specify the systems, and the respective system operators, which are to be included in the scope of this Directive and shall notify them to the Commission and inform the Commission of the authorities they have chosen in accordance with Article 6(2).

customer of a bank. In this case, an end-to-end provider does not have a banking license and is not itself a bank, but it is a licensed payment institution, for example.

The conditions under which end-to-end providers can be granted direct access are laid down in European legislation. In other words, in this case, there is no risk of foreclosure by banks. But there could be in the case of indirect access via banks. Here, we review the conditions for a risk of foreclosure with respect to that form of access.

Condition A: Dominant position in the upstream market

End-to-end providers can gain access to the functions of interbank systems by holding one or more payment accounts of their own as a corporate account holder with a bank. This is the only way for fintechs that do not have a banking license to gain that access. The relevant upstream market can be provisionally defined as the market for payment accounts.

No individual bank evidently possesses market power in the market for payment accounts, since there are multiple providers and it is unlikely that an individual bank could act independently of competitors and consumers. Together, however, the banks could do so. If the banks were all to decide to stop providing payment accounts to end-to-end providers, those providers would no longer have access to interbank systems. Accordingly, banks could effectively block access for end-to-end providers. The banks could also restrict access by curtailing the quality of service, for example by restricting availability or adopting longer lead times for processing payment transactions.

A formal assessment of the existence of joint market power takes a great many factors into account. However, further consideration of just two of those factors already shows that joint market power is unlikely. First, there are a great many suppliers of payment accounts. As a rule, the larger the number of providers, the more difficult collusion becomes. Specifically, it seems quite unlikely that all those providers will be able to reach agreement that a particular end-to-end provider will not receive a (decent) offer. Second, there are major differences between the suppliers. For some suppliers, an end-to-end provider will represent a threat, but, for others, it will represent an opportunity to secure more customers and turnover. In view of these varying positions, collusion is unlikely.

Although the existence of upstream market power is therefore unlikely, an end-to-end provider could still face the problem of not being offered the service it requires. For example, there is evidence that banks determine their offer partly on the basis of the size of the provider. A large end-to-end provider that generates a great many transactions could be an interesting partner for a bank, in which case the bank will be inclined to make a good offer. Larger end-to-end providers are often able to make customized agreements with banks on terms such as rates and delivery of batches of transactions in the most efficient manner. Smaller providers are less interesting to banks and can generally expect to receive a less good offer, simply because the costs (fixed or otherwise) have to be recouped over a smaller volume. What smaller end-to-end providers perceive as a poorer offer is therefore not necessarily the consequence of market power (or the abuse thereof), but can be the result of commercial logic.

In the context of condition A, it can therefore be posited that the existence of upstream market power is unlikely. Accordingly, condition A is not met and no further analysis is required.

4.3 Conclusion

The theory defines three essential conditions that have to be met for establishing a risk of foreclosure. First, there must be market power in the market that provides the input. Second, the fintech must be a competitor or potential competitor of the player that provides the input. Finally, the market participant providing the input must have an incentive to exclude the fintech.

Front-end providers appear to be confronted with market power in their input market. This type of fintech competes with services provided by the banks or could potentially compete with banks in other banking markets. Finally, banks could have an incentive to foreclose because of the anticipated competition in other banking markets. Access to the functions of interbank systems is a crucial input for end-to-end providers. They can arrange this access in two ways. Direct access can be gained by acquiring a banking license. The other option is for end-to-end providers to hold a payment account with a bank. With this form of access, there could be a risk of foreclosure. However, there is unlikely to be upstream market power.

This chapter has explained the economic framework used to analyze the risk of foreclosure. It follows from this discussion that this is a genuine risk for front-end providers. The risk is far less evident for end-to-end providers. It has also become clear that it is always necessary to study the facts and circumstances of specific cases, and that no general conclusions can be drawn. The analysis did not extend to the possible effects of the instruments designed to limit foreclosure. The next chapter answers the question of whether the revised Payment Services Directive (PSD2 Directive) and the current Dutch Competition Act together provide sufficient instruments to prevent foreclosure.

5. Instruments to prevent foreclosure

5.1 Introduction

In the previous chapter, we studied the risks of foreclosure faced by different types of fintechs. In this chapter, we investigate whether the imminent legislation governing payment systems and the Dutch Competition Act together provide sufficient instruments to prevent foreclosure. The discussion only extends to the rules that could have an impact on the foreclosure of fintechs in the payment system.

5.2 Policy for front-end providers

5.2.1 Sector-specific rules on the basis of PSD2 Directive

The revised Directive on Payment Services (PSD2 Directive)⁴⁰ was adopted on November 25, 2015. This Directive amends a number of earlier directives and a regulation, and replaces the earlier PSD1 Directive.⁴¹ The PSD2 Directive must be implemented in national legislation no later than January 13, 2018. To that end, a number of pieces of Dutch legislation have been amended, including the Dutch Act on Financial Oversight (*Wet op het Financieel Toezicht*) and the Dutch Civil Code (*Burgerlijk Wetboek*). In fact, the Ministry of Finance recently stated that the prescribed implementation date is no longer realistic.

From a competition perspective, an important element of PSD2 Directive is that providers of 'account information services' and providers of 'payment initiation services' (hereinafter: front-end providers) are subject to oversight. These providers are non-banking parties that provide payment services, but that are not the payer or the payee in the transaction and do not manage the customer's bank account. These providers of payment services require access to the customer's payment account. The account-holding payment service provider (hereinafter: bank) is obliged to facilitate these services, provided it has the consent of the consumer or business. This is referred to as *Access-to-the-Account* (XS2A).

The PSD2 Directive and its implementation in national law and subordinate legislation could therefore prevent the form of foreclosure described in Section 4.2.1 by means of enforcement by the competent regulatory bodies. In this way, banks can be prevented from denying access to a front-end provider that otherwise complies with all the rules. It is, however, also essential to address more 'subtle' forms of foreclosure, such as prescribing unreasonable conditions, charging an unreasonable price, or providing a low quality of service. Where the PSD2 Directive and the European Commission's Regulatory Technical Standards (RTS)⁴² leave room for further interpretation, the implementation of the directive in national law and subordinate legislation and the structure and implementation of the oversight must create certainty on these and other conditions for access.

⁴⁰ Directive (EU) 2015/2366 on payment services in the internal market (*revised Payment Services Directive – PSD2 Directive*)

⁴¹ The objective of the PSD1 Directive in 2009 was to harmonize the internal market for payment services in order to facilitate the provision of cross-border payment services.

⁴² http://europa.eu/rapid/press-release_MEMO-17-4961_en.htm.

5.2.2 Further implementation of obligations to grant access

The interpretation and further implementation of the conditions for access are very important for the effectiveness of the access regime, as the following examples illustrate.

Non-discriminatory access

Under the PSD2 Directive, banks are required to grant access on a non-discriminatory basis. Article 66(4)(c) provides that a bank must treat payment orders transmitted through the services of a payment initiation service provider in the same way as they treat payment orders transmitted directly by the user of the payment service (the customer). According to Article 67(3)(b), a bank must *'treat data requests transmitted through the services of an account information service provider without any discrimination for other than objective reasons'*.⁴³

The non-discrimination requirement means that front-end providers can replicate the services that banks provide for their customers under the same conditions, both technical and economic. The consequence of this is that front-end providers cannot earn a margin on the information service or payment initiation service itself. They will have to earn their margin by providing a better or more extensive service in other respects, for example by offering more extensive technical options or greater convenience, or by lowering their costs on other aspects of their service. Pure price competition on the initiation of payments or the provision of account information is not really possible with the XS2A obligation in its current form.

One question that will arise in the implementation of the directive is whether banks can charge for granting access to front-end providers, and, if so, how much they can charge. The PSD2 Directive is unclear on this point. In practice, banks provide these services to their own customers as part of a payment package for which they charge a fixed amount. There are therefore no prices for individual payment or information services that could be used as a benchmark for a non-discriminatory price for granting access.

If the provision should be interpreted as meaning that banks may not charge any fee to front-end providers for complying with the statutory obligation to grant access⁴⁴, banks will have little incentive to provide a good service or to invest in the systems that enable access. After all, they will not earn anything from doing so and will also have no possibility of appropriating the fintech's revenues for themselves. On the contrary, as explained in Section 4.2, the fact that no fee can be charged could be interpreted as a form of price regulation that actually gives banks an incentive to foreclose fintechs. This can be avoided if the European Commission explains in its interpretation of the PSD2 Directive that banks may be compensated for an amount not exceeding the efficient costs they have to incur to provide access for other market participants.

Requirement of a contract

The PSD2 Directive states that no contractual relationship between the bank and the front-end

⁴³ No differently than if they were transmitted by a customer. According to the legislative proposal, the specific conditions under which access must be granted by the account-holding payment service provider to the payment initiation service provider and the account information service provider will be fleshed out in the Decree on Prudential Rules for Financial Undertakings (*Besluit prudentiële regels Wft*) pursuant to Section 3:17 of the Dutch Act on Financial Oversight.

⁴⁴ That does not include fees for extra services.

provider is required.⁴⁵ This formulation could be interpreted as meaning that no agreements at all are needed to provide the payment initiation services. It seems unlikely, however, that access can be provided without any contract at all. At the very least, the bank granting access will be making available a technical environment and will formulate the rules under which it can be used. These are, as it were, the bank's 'house rules', setting out how the third party must conduct itself if it is connected to the bank's infrastructure and the respective roles and responsibilities during the test phase and while the connection is being used.

It must also be borne in mind that various service levels will apply to the granting of access. At the first level of access, only the basic PSD2 Directive requirements will be met. But there are also higher levels, which will be agreed separately between the participants (in other words, with a contract and an appropriate fee). The European Commission's explanatory memorandum on the question of how often the bank must allow an account to be consulted each day gives an example of how that will work. The European Commission explains that the new payment service providers may consult the account up to four times a day, unless otherwise agreed with the bank concerned.⁴⁶

Match (or mismatch) with business models

Finally, there is a risk that the technical aspects of the PSD2 Directive will be fleshed out in such detail by regulators and market participants that the actual realization of the access envisaged by the European Commission will be threatened. For example, the information that can be requested by an account information service provider might be so narrowly interpreted that fintechs will be unable to implement their envisaged business models for the aggregation of customer information. Another possibility is a restriction of the period of time to which the information relates, the nature/content of the fields that are made available or the number of times a day the information can be requested.

5.3 Policy on end-to-end providers

5.3.1 Sector-specific rules on the basis of PSD2 Directive

Important elements in the PSD2 Directive that could prevent foreclosure of end-to-end providers are:

- Banks must grant payment service providers access to payment account services on an objective, non-discriminatory and proportionate basis. That access must also be sufficiently extensive as to allow payment institutions to provide payment services in an unhindered and efficient manner (Article 36).
- Payment systems that do not fall under the Finality Directive⁴⁷ and are not owned by a single participant in the system are obliged to grant equal access to payment service providers under objective conditions (Article 35).

⁴⁵ Articles 66(5) and 67(4).

⁴⁶ See: European Banking Authority: [Draft Regulatory Technical Standards on Strong Customer Authentication and common and secure communication under Article 98 of Directive 2015/2366 \(PSD2\)](#), consideration 30 on page 11, and http://ec.europa.eu/finance/docs/level-2-measures/psd2-rts-2017-7782_en.pdf, page 30.

⁴⁷ The Finality Directive provides that once they have been entered, transfer orders cannot be revoked or otherwise cancelled in systems falling under that directive. (Memorie van Toelichting - Wijziging van het Burgerlijk Wetboek en de Faillissementswet ter implementatie van Richtlijn 2009/44/EG).

- If a participant in a payment system covered by the Finality Directive provides services related to that system, that participant must also grant access to those services to other authorized or registered payment service providers in an objective, proportionate and non-discriminatory manner (Article 35).

5.3.2 Regulation of direct access

Direct access to the clearing and settlement systems falling under the Finality Directive is reserved to institutions with a banking license. However, a banking license also imposes other obligations, such as participation in the deposit guarantee system, that are not always appropriate to the business model of the fintech. The recent discussion concerning the so-called Depositobank shows that this could be an obstacle. The Depositobank did not wish to participate in the deposit guarantee system because it does not lend money, and therefore runs far less risk than a regular bank. In this context, there is, in fact, still a discussion underway about whether it is the European rules that are the impediment here, or their interpretation by the Dutch legislature.⁴⁸

Accordingly, the new provisions in the PSD2 Directive do not change the existing situation with regard to direct access to payment systems that fall under the Finality Directive. That access is still reserved to participants with a banking license. Payment institutions and electronic money institutions clearly have their own distinct role and function. The requirements for access could be further objectified by matching them to the risks ensuing from the activities of those institutions. This will ensure that new infrastructure that forms the basis of new settlement systems, such as instant payments, is accessible to all players and so create a more level playing field between banks and fintechs.⁴⁹ That would remove the obstacle to direct access to the clearing and settlement systems. It would hence also further restrict the dependence on and potential dominant position of banks and so further reduce the risk of foreclosure. Naturally, the related risks with regard to payment security and financial stability would have to be adequately mitigated in advance.

5.3.3 Regulation of access via a bank

Since direct access to the payment systems falling under the Finality Directive is currently impossible for market players without a banking license, an end-to-end provider's sole option is to open a payment account with a bank, from which all the relevant payments as a payment provider can be made. This option is also open to business customers in other sectors. Access can only be established if the bank allows an end-to-end provider to open an account and agreement is reached between the end-to-end provider and the bank on the terms and conditions.

The possibility of opening a payment account is therefore an important condition for gaining access to the clearing and settlement system via a bank, which is why Article 36 of the PSD2 Directive contains the aforementioned provision that banks must provide payment accounts to payment service providers.⁵⁰ ACM will monitor compliance with this obligation.

The aforementioned Article 35 of the PSD2 Directive further regulates access to payment systems,

⁴⁸ Dutch Ministry of Finance, 2017, Verslag van een schriftelijk overleg, Reactie op het schriftelijk overleg naar aanleiding van de brief over de follow-up van de toetredingsbrief, 2017-0000059625.

⁴⁹ See also the Bank of England's blueprint for the new Real-Time Gross Settlement (RTGS) system: <http://www.bankofengland.co.uk/markets/Documents/paymentsystem/rtgsblueprint.pdf>

⁵⁰ According to the legislative proposal, this obligation will be implemented in Dutch legislation with an almost identically worded Article 5.88a in the Dutch Act on Financial Oversight.

such as clearing and settlement systems, via a bank.⁵¹ ACM will also monitor compliance with that obligation. However, the most relevant systems, those for settlement with the Dutch central bank DNB and the system that effects the periodic settlement of retail orders for DNB at Equens/Worldline, are exempted from the obligation to grant access because they are designated systems on the grounds of the Bankruptcy Act. This would only be different if a participant in a payment system allows another payment service provider to transmit payment orders via the system. In that case, it must also offer that option to other payment service providers under objective, proportionate and non-discriminatory conditions. In most cases, however, a payment account with a bank will also be the only possibility for end-to-end providers to gain access to these systems.

The rules on enabling access to a payment account provide for non-discriminatory access subject to objective and proportionate conditions. The rules on access to payment systems via a bank provide for equal treatment of applicants for access. The requirement of non-discriminatory treatment only applies if a participant has already been granted access. It is important to make it clear how these conditions should be interpreted, for example to avoid the risk of applicants being wrongly foreclosed from access by unnecessarily strict conditions. ACM will monitor compliance with these provisions and can take action to enforce them in specific cases. In addition, the objections mentioned in Section 5.2 also apply to the choice of non-discriminatory conditions, and differences in national rules concerning conditions for access could create the risk of arbitrage between countries, with fintechs basing themselves in countries where the conditions are most favorable for them.⁵²

5.4 Applicability of the Dutch Competition Act

In addition to the sector-specific regulation described above, the Dutch Competition Act also always applies to every business. It is therefore also applicable to situations where foreclosure of fintechs might occur. The Dutch Competition Act is entirely separate from the sector-specific regulation. The existence of sector-specific regulation does not exclude the application of the Dutch Competition Act, even during the period before the act implementing the PSD2 Directive has entered into force. The Dutch Competition Act can apply to a far wider range of actions than refusing to grant access or adopting conditions for access that have the same effect. Because this chapter is devoted to instruments that can prevent foreclosure, this section is confined to describing the applicable framework for assessment of denial of access and the adoption of conditions for access with the same effect.⁵³ The discussion also extends to how public interests such as financial stability and payment security can be taken into account in the application of the Dutch Competition Act and the measures that can be taken on the grounds of the Dutch Competition Act.

5.4.1 Situations in which access could conceivably be denied

There are various situations in which access could be denied:

⁵¹ According to the legislative proposal, this obligation will be implemented in Dutch legislation in Section 5.88 of the Dutch Act on Financial Oversight.

⁵² De Bijl & Van Leuvensteijn, 2017, De invloed van fintech op publieke belangen in het betalingsverkeer, Economisch Statistische Berichten, ESB *Dossier 4753*, 37-42

⁵³ Further information about the rules governing competition and agreements between companies, including the prohibition of cartels and of abuse of a dominant position, can be found here:

<https://www.acm.nl/nl/onderwerpen/concurrentie-en-marktwerking/concurrentie-en-afspraken-tussen-bedrijven>

- A market participant with individual market power denies access to a third party;
- A number of market participants that together have collective market power jointly deny access to a third party. This is in practice a tacit agreement;
- A number of competing market participants agree not to grant access to third parties. This is an explicit agreement.

There may be an objective justification for denying access, so it is certainly not always a violation. In the first two situations, the prohibition of abuse of a dominant position might be applicable. The third situation might constitute a prohibited cartel agreement. In the following section, we discuss the relevant assessment frameworks for each of these situations.

5.4.2 Abuse of a dominant position (including collective)

Dominant position

As shown in Chapter 4, there are situations conceivable where a single business possesses market power in relation to an input that is essential for a fintech to be able to compete in the downstream market. For example, this might be the case where a provider of an account information service cannot reach agreement with a particular bank on access to the payment account (and information about that). Another example might be a situation where the operator of a payment system denies access to a particular party (see Section 4.2.2). It will have to be established whether the party denying access occupies a dominant position in a specific situation. Such a dominant position could arise from the market power held by the business concerned because it controls access to a specific essential input. The European Commission has issued guidelines on the factors that have to be considered in determining whether a business holds a dominant position.⁵⁴

Alternatively, there might be only a small number of suppliers of particular services that constitute an essential input for fintechs. In a market with a small number of participants that together control a large share of that market, it is theoretically possible for those participants to hold a collective dominant position. The conditions under which that might be the case were laid down in the so-called *Airtours* judgment⁵⁵ of the Court of First Instance of the European Union. In short, the criteria are as follows:

- Each member of the dominant oligopoly must have the ability to know how the other members are behaving in order to monitor whether they are adopting the common policy;
- The situation of tacit coordination must be sustainable over time. Inherent to this is the view that some form of retaliatory mechanism is required, so that a business that deviates from the common policy will face competing reactions;
- The anticipated results of the common policy must not be jeopardized by current and future competitors or by consumers.

This could occur in highly concentrated markets in which a small number of market participants jointly control a large share of the market, depending on a number of features of the market such as the degree of concentration, the transparency of the market, the symmetry of market participants, and the homogeneity of the supply. However, this can only be established in a specific situation

⁵⁴ Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, OJ, 2009, C 45, p. 7.

⁵⁵ Court of First Instance June 6, 2002, case T-342/99, *Airtours/Commission*, Jur. 2002, p. II-2585

after an in-depth study of the characteristics of the market. As already explained in Chapter 4, it is in fact unlikely that banks have collective dominance in the market for payment accounts (business).

Abuse

Conduct constitutes abuse if access to a so-called “essential facility” is denied by a market participant with a dominant position or market participants with a collective dominant position. Situations in which this might be the case are described in the European Commission’s aforementioned guidance on enforcement priorities.⁵⁶

In short, denial of access to an essential facility can arise if the following circumstances exist:

- The service to which access is requested is objectively essential to be able to compete in the downstream market;
- The denial of access or the conditions imposed for access lead to the elimination or a substantial reduction of competition in the downstream market; and
- There is no objective justification for the denial of cooperation.

Those conditions can only be assessed in each individual case. The analyses in Chapter 4 of this study give an initial indication of whether the first and second conditions could be met with respect to crucial inputs for front-end and end-to-end providers. The third condition, the existence of an objective justification for the conduct, is discussed in more detail here.

Objective justifications and the consideration of public interests

In determining whether there is abuse of a dominant position, it is relevant whether there is an objective justification for denying access, for example. In theory, an objective justification might be the protection of specific public interests that play a role in financial markets, such as financial stability, payment security, and privacy. The potential risks in relation to payment security and privacy apply mainly with respect to front-end providers. They form a new link in the payment chain, which increases the risk of mistakes in the chain. The public interest in financial stability is mainly relevant at the clearing and settlement level, where the counterparty risk arises from the fact that fintechs with a license as a payment institution or electronic money institution cannot gain access to the settlement infrastructure of banks. They are obliged to manage the funds they receive and transmit via separate bank accounts with a bank. The legal reality in that case is that the funds could be lost in the event of the bankruptcy of the bank where the payment institution holds the separate account. In short, an international retailer that arranges all its online transactions via a payment institution in fact also faces a counterparty risk in relation to those banks.

The question is to what extent this means that ACM, as the regulator responsible for enforcement of the Dutch Competition Act, must take into account public interests such as financial stability, payment security and privacy in assessing whether a particular form of denial of access constitutes abuse of a dominant position. The sector-specific regulation pursuant to the PSD2 Directive provides for a licensing system on the basis of which both banks and other types of payment service providers are admitted to the market. This licensing system is designed mainly to safeguard the interests of financial stability and payment security. Risks to financial stability and payment security can no longer serve as grounds for denying access if these public interests have already been weighed in granting these institutions a license. However, that does not mean that there could

⁵⁶ See footnote 55.

not be other objective justifications.

In applying the Dutch Competition Act to possible denials of access by parties with a dominant position, it is also relevant that sector-specific rules based on the PDS2 Directive already require certain market participants to provide access. According to the European Commission, it is easier to establish that there is abuse of a dominant position in such a situation.⁵⁷ In that case, the three aforementioned criteria would not have to be met for a finding of abuse. In practice, such a situation has never arisen with regard to the application of Section 24 of the Dutch Competition Act in the Netherlands.

5.4.3 Agreements between competitors that impair access

Another conceivable scenario is that a number of financial institutions conclude joint agreements or engage in concerted practices that lead to access not being granted to third parties. Such an agreement or concerted practice could be described as an anticompetitive agreement that is prohibited by Section 6 of the Dutch Competition Act. Once again, a number of criteria have to be met in order to qualify as an anticompetitive agreement. It must be 1) an agreement or concerted practice, 2) between undertakings, 3) that has the intention to or will result in the hindrance, impediment or distortion of competition on the Dutch market or part thereof.

Exemptions from the general prohibition of anticompetitive agreements are possible. Such an agreement might be permitted if:

- 1) it contributes to the improvement of production or distribution, or to the promotion of technical or economic progress; and
- 2) consumers enjoy a fair share of the resulting benefits; and
- 3) it does not impose any restrictions on the undertakings concerned that are not indispensable to the attainment of the objectives, and
- 4) it does not afford the undertakings the possibility of eliminating competition in respect of a substantial part of the goods and services in question.

It is conceivable that a number of the aforementioned public interests in the financial markets will be considered during the assessment of the aforementioned exemption criteria. The fact that there is sector-specific regulation aimed at promoting those public interests will then be taken into account as a relevant fact.

5.4.4 Possible interventions on the grounds of the Dutch Competition Act

In the event of a violation of the prohibition of abuse of a dominant position or the prohibition of cartels, ACM can impose a fine or compel particular behavior with an order subject to periodic penalty payments.

Another option is for participants that are the subject of an investigation based on the aforementioned prohibitions to make commitments to ACM that remove the alleged objections

⁵⁷ The European Commission addressed this situation in the guidance referred to above (see footnote 55). The Commission takes the view that this is particularly likely to be the case where regulation compatible with Community law already imposes an obligation to supply on the dominant undertaking and it is clear, from the considerations underlying such regulation, that the necessary balancing of incentives has already been made by the public authority when imposing such an obligation to supply.

under competition law. ACM can publish a decision making such commitments binding on the relevant undertakings.

Finally, the Dutch Competition Act gives ACM the power to assess proposed concentrations and to block them if they will significantly impede competition. It should be noted here that, given how small many fintechs are, the turnover thresholds in the Dutch Competition Act will in most cases present an obstacle to performing an assessment. However, the adoption of turnover thresholds is under discussion at European level because digitization is blurring the boundaries between product markets and large undertakings could be able to acquire emerging innovative businesses without a merger assessment because the turnover thresholds are not met. Consideration is therefore being given to the use of other thresholds, for example on the basis of transaction value.

5.4.5 Constraints on enforcement and oversight on the basis of the Dutch Competition Act

An important difference compared with the sector-specific rules described in Sections 5.2 and 5.3 is that enforcement of the Dutch Competition Act is based on ex post oversight. This means that intervention is only possible if there has been an actual violation of the law in specific cases. In other words, interventions on the basis of the Dutch Competition Act are targeted at specific undertakings in specific situations. Although such interventions will probably have a certain deterrent effect on other undertakings, the application of the Dutch Competition Act does not lead to generally binding rules of conduct.

An important advantage of enforcement of the Dutch Competition Act over enforcement of the sector-specific rules is the substantive flexibility of the system. In principle, the applicability of the instruments does not depend on a review against certain fixed definitions or qualifications, but on an economic assessment of the specific situation. On the other hand, access can only be compelled on the basis of the Dutch Competition Act if the undertaking denying access possesses an essential facility, and that represents a relatively high threshold for intervention.⁵⁸

The substantive flexibility of the Dutch Competition Act means that it could serve as a safety net for addressing certain forms of denial of access that are not addressed by the regulations based on the PSD2 Directive.

5.5 Conclusion

Foreclosure of front-end providers

The sector-specific regulation of the PSD2 Directive reduces risks of foreclosure of front-end providers by giving consumers the right to use payment initiation and account information service providers and by requiring banks to grant these types of service providers access to their payment accounts, provided the account holder has consented. The obligations imposed on banks mean that direct foreclosure by denying access can be prevented by enforcement measures. According to the draft implementation act we have consulted, this task will be delegated to the Dutch central bank (DNB). ACM observes that the PSD2 Directive and the European Commission's Regulatory Technical Standards (RTS) leave room for different interpretations and implementation of the obligations to provide access. A number of issues are therefore still unclear. There is a risk that market participants will use this uncertainty to formulate conditions in such a way that access is de

⁵⁸ The threshold for intervention under the rules on access for the electronic communication sector, for example, is substantial market power, which is a lower threshold than that of an essential facility.

facto impeded or made unnecessarily difficult.

It is likely that individual banks possess market power in the upstream market for information about a payment account of a specific customer. In principle, ACM can therefore use the Dutch Competition Act to punish actual cases of denial of access after the fact.

Foreclosure of end-to-end providers

There is little risk of foreclosure of end-to-end providers in opening a business payment account, since there is unlikely to be either individual or joint market power in the upstream market of payment accounts. Enforcement of the Dutch Competition Act with respect to denial of access therefore does not seem immediately necessary, unless it is based on an agreement (a cartel agreement).

Nevertheless, the sector-specific regulation pursuant to Article 35 of the PSD2 Directive imposes an obligation to provide access to business payment accounts. The directive provides that the access of payment institutions to payment account services of banks may only be subject to rules that are objective, non-discriminatory, and proportionate. It is important to make it clear how these conditions should be interpreted, for example to avoid the risk of applicants being wrongly foreclosed from access by unnecessarily strict conditions. ACM also has a task as regulator in this regard. ACM will monitor compliance with these provisions and can take action to enforce them in specific cases. ACM will monitor the conditions adopted by banks, such as prices, delivery times, and quality. It could also publish further opinions on the (legitimate) grounds for denial of a business account.

For the enforcement of these sector-specific rules, it is also important that their existence can have an impact on the incentives for market participants with a dominant position (see Section 4.1.4). The effect of price regulation at the level of the upstream market could be that the undertaking with market power is unable to realize the monopoly profit in the upstream market and therefore has an incentive to foreclose market participants. Although there is no obvious risk of foreclosure of end-to-end providers, the risk could increase as a result of the enforcement of sector-specific rules on access. It therefore seems illogical to deny banks the possibility of demanding a fee to compensate for a maximum of the efficiency costs of granting access.

6. Conclusions

6.1 Introduction

Fintechs are important forces behind many innovations in the payment system. These innovations could potentially increase the welfare of consumers, for example by reducing transaction costs and making payments easier. Fintechs compete with established players, such as banks. This competition leads to innovation and cost savings for the established players. The aim of this study was to establish whether foreclosure of fintechs by established players represents a significant risk for entry to the payment market and to make recommendations for reducing that risk. The study focuses on front-end providers and end-to-end providers, because they are the drivers of innovation at the front end of the payment system.

6.2 Front-end providers

Front-end providers depend on banks for information about the payment account of a specific customer. Banks have market power in the upstream market because they have exclusive access to information about payments by a specific client. Furthermore, front-end providers are competitors (potential or actual) in the downstream and related markets. It is plausible that banks will attach great importance to avoiding this competition and therefore have an incentive to exclude front-end providers.

ACM identifies four actors that can take measures to reduce the risk of foreclosure.

ACM can use the Dutch Competition Act to take action against anticompetitive practices. Undertakings with a dominant position may not refuse to provide essential information to fintechs on improper grounds, for example. Established players are also not permitted to collude in denying access to new market participants. If ACM determines after the event that undertakings have been guilty of anticompetitive practices, it can apply the Dutch Competition Act. ACM believes it is important to have more competition on the payment market and will therefore actively monitor how banks deal with requests for access. The PSD2 Directive does not give ACM any additional instruments for addressing this specific risk.

The new European PSD2 Directive provides that banks are obliged to provide access to a payment account if the consumer or business concerned has consented. The PSD2 Directive lays down rules for governing that access. These rules are fleshed out in the European Commission's Regulatory Technical Standards (RTS). Where the PSD2 Directive and the RTS leave scope for differences in the implementation and interpretation of the conditions under which access must be provided, and could therefore create uncertainty for market participants, it is for the regulatory bodies to define those conditions more precisely. That scope, where it exists, should logically be exercised by the Dutch DNB. ACM has considerable experience with regulating access to markets, for example in the telecom sector, and would be more than willing to share its expertise.

The European Commission allows banks to receive compensation for an amount not exceeding the efficient costs they have to incur to provide access for other parties. Requiring banks to provide access free of charge could give them an incentive to foreclose fintechs.

Finally, in line with the wishes expressed by the government in the coalition agreement, ACM recommends introducing a banking license 'light' for fintechs. Such a license would enable fintechs, subject to certain conditions, to offer their own payment accounts. Allowing entities without a

banking license to offer payment accounts could reduce the market power of banks. ACM believes that this is of great importance for fintechs to allow them to offer genuinely a competitive product.

Summary

Measures against foreclosure of front-end providers

ACM believes that it is important to generate more competition and innovation in the payment market. ACM believes there is a genuine risk of foreclosure of front-end providers, and will therefore keep a close eye on developments in the market and the practices of market players in the coming period. ACM can take action by virtue of its powers under the Dutch Competition Act. The PSD2 Directive does not provide ACM with any additional instruments with which to reduce the risk of foreclosure. Other authorities that could take measures to reduce that risk are the Dutch central bank (DNB), the European Commission and the Dutch government. ACM makes the following recommendations:

- Where the PSD2 Directive and the RTS leave scope for differences in the implementation and interpretation of the conditions under which access must be provided, it is for the regulatory bodies to define those conditions more precisely. That scope, where it exists, should logically be exercised by DNB. ACM has considerable experience with regulating access to markets, for example in the telecom sector, and would be more than willing to share its expertise.
- The European Commission allows banks to receive compensation for an amount not exceeding the efficient costs they have to incur to provide access for other market participants. Requiring banks to provide access free of charge could give them an incentive to foreclose fintechs.
- The government should introduce a banking license 'light' for fintechs, which would give fintechs the possibility of offering their own payment accounts.

6.3 End-to-end providers

The crucial input for end-to-end providers is access to the functions of interbank systems, particularly clearing and settlement systems. After all, the customer must be able to transfer money to and from the end-to-end provider's closed system. The end-to-end provider can facilitate that in two ways.

First, an end-to-end provider can be given direct access to the clearing and settlement system. At present, a banking license is required for direct access. ACM believes that the legal framework should be changed in such a way that payment service providers that have a license, are subject to oversight, and meet certain conditions should be able to gain direct access to clearing and settlement systems.⁵⁹ The dependence of these payment service providers on banks would then disappear, because they themselves would have direct access. ACM recommends, in accordance with the wishes expressed by the government in the coalition agreement, the introduction of a banking license 'light' for fintechs. That license would enable fintechs to gain direct access, under certain conditions. ACM believes that this is a very important option for fintechs if they are to be genuinely capable of providing a competitive product.

Second, an end-to-end provider can gain access by holding a business payment account with a bank. This requires the end-to-end provider to be a customer of a bank. We have found that banks

⁵⁹ See also the government's reaction to the Green Paper 'Towards an integrated European market for card, internet and mobile payments', March 7, 2012, <http://www.rijksbegroting.nl/algemeen/gerefererd/1/6/7/kst167724.html>.

are unlikely to have upstream market power, because there are a great many suppliers of payment accounts and there are major differences between the suppliers. Both factors make collusion difficult. This also means that ACM sees no major risks of foreclosure by banks. Nevertheless, the PSD2 Directive provides that access to a business payment account must be provided in a non-discriminatory manner on the basis of objective and proportionate conditions. The regulation of access to payment systems via a bank provides for equal treatment of all applicants for access. ACM will monitor compliance with these provisions on access in the PSD2 Directive and can enforce them in specific cases.

Finally, the PSD2 Directive makes no provision for preventing new risks of foreclosure. With regard to the instant payments systems that are currently being developed (and the clearing and settlement of those payments) there should be safeguards in advance that all licensed payment service providers can participate directly in the new system and the settlement arrangement by defining objectified requirements for access that match the risks of the activities performed by those institutions.

Summary

Measures against foreclosure of end-to-end providers

ACM does not at present see any serious risk of foreclosure of end-to-end providers. ACM can take action to enforce the provisions of the PSD2 Directive on access to business payment accounts in specific cases. ACM further concludes that direct access of fintechs to interbank systems will lead to a diminution of the risk of foreclosure. Measures that could help to achieve this are:

- The government should introduce a banking license 'light' for fintechs. This would enable fintechs to gain direct access to systems for clearing and settlement.
- The definition of objectified requirements for access that match the risks arising from the activities performed by these institutions.
- A safeguard that, in the development of instant payments infrastructures in Europe, fintechs will be able to participate directly in the systems and agreements for clearing and settlement on equal and objective conditions.