

Summary

At the request of the Dutch Ministry of Finance, the Netherlands Authority for Consumers and Markets (ACM) carried out a market study into the role of major technology firms (“Big Techs”) in the Dutch payment system. In this study, ACM looked at the following Big Techs: Apple, Amazon, Ant Group, Facebook, Google, and Tencent.

This report offers a description of the current positions of these Big Techs on the Dutch payment market and, more specifically, on the submarkets for offline payments, online payments, and peer-to-peer payments. Among other topics, the report explores the question of what the Big Techs’ considerations are for entering the Dutch payment market, and what their strategies or plans are. In addition, this report examines possible opportunities and risks for competition, should the positions of Big Techs on the payment market become stronger. Finally, the report examines the question to what extent the current legal framework and regulatory toolbox are sufficient for mitigating any anticompetitive concerns, and for keeping the payment market open.

Positions of Big Techs on Dutch payment market are small, but on the rise

ACM’s study reveals that, right now, Big Techs still have a small presence on the Dutch payment market, but one that is growing. So far, Big Techs have offered consumers primarily innovative payment solutions, including paying by e-wallet on mobile devices. With regard to offline payments, the introduction of Apple Pay in June 2019 stands out. The percentage of contactless payments using mobile devices is now over 5% of the total number of offline payments. The payments using Apple Pay make up a significant share of that percentage. On a much smaller scale, Ant Group and Tencent also facilitate the acceptance of payments by Dutch stores (online and offline) for Chinese tourists and citizens. All Big Techs in the study currently offer online methods of payment, mostly in collaboration with license holders. None of the Big Techs currently offer methods of payment for peer-to-peer in the Netherlands (see also Table A).

Payment activities of Big Techs to expand

Across the board, the developments in the Netherlands and the rest of Europe lag slightly behind the developments in the rest of the world, where Big Techs are often further ahead in their initiatives on the payment market. Nevertheless, in European countries, including the Netherlands, several Big Techs recently launched collaborations with existing competitors, or strengthened their positions on the European payment market through acquisitions or minority stakes. It is therefore expected that, in the foreseeable future, these developments will continue on the Dutch payment market, and that Big Techs will continue to expand their activities on the Dutch payment market.

Table A. Activities of Big Techs on payment markets and reasons for entry

<i>Big Techs</i>	<i>Offered in the Netherlands (NL) or Outside the Netherlands (BN)</i>			<i>Reason(s) for entry</i>	
	<i>Offline</i>	<i>Online</i>	<i>Peer-to-peer</i>	<i>Supporting the ecosystem</i>	<i>Direct revenues</i>
<i>Apple</i>	NL	NL	BN	X	X
<i>Google</i>	NL*	NL	BN	X	
<i>Amazon</i>	BN	NL		X	X
<i>Facebook</i>		NL	BN	X	
<i>Tencent</i>	NL**	NL**	BN**	X	X
<i>AliBaba</i>	NL**	NL**	NL**	X	X

*Only available for credit card payments in banking app of bunq, among other banks.

**Only available to Chinese tourists / citizens.

PSD2 is not a major reason behind the entry of Big Techs

The Big Techs indicate that the introduction of PSD2 is not the reason (or the most important one) for entering the European and Dutch payment markets. Although some Big Techs – such as Google – have licenses for offering payment services under PSD2 in the EU, they often act as technical service providers (which do not require a license), and they work together with current license holders such as banks or payment card schemes in order to offer their payment services.

Expansion of the ecosystem is the main reason for entering the payment market

The Big Techs that have been studied indicate, in general, that they choose offering payment services in order to strengthen their ecosystems, and to make it easier for consumers to stay in the ecosystem. An additional but secondary reason for Big Techs to offer payment services is the generation of direct revenues from these activities (see also Table A).

Acceptance of innovative methods of payments will increase further

As part of this study, ACM asked PwC to conduct a consumer survey relating to their choice for method of payment. The results of the survey reveal that consumers under 40 see the e-wallet as a replacement of more accepted methods of payment such as iDEAL (a widely-used online payment method in the Netherlands). In that context, the survey results suggest that e-wallets that are based on the Near Field Communication (NFC)-chip technology such as Apple Pay are accepted at a faster rate than e-wallets, which are based on QR-codes. This is because consumers value the ease of payment associated with the NFC-chip more. Considering the results in this age category, acceptance among a wider group of consumers can be expected in the medium run.

Big Techs compete and work together with banks

ACM has also asked a number of banks in the Netherlands how they view the entry of Big Techs into the payment market. Banks compete with Big Techs, but also work together with them. For example, several major banks offer Apple Pay, which, in fact, competes with the contactless use of the debit cards that are issued by those same banks. With regard to online payments, Big Techs are, generally

speaking, competitors to payments using iDEAL. For peer-to-peer payments, banks have a strong position with Tikkie (a popular payment system in the Netherlands for peer-to-peer payments), and payment requests in their online banking environments, while Big Techs do not (or not yet) have a peer-to-peer presence in the Netherlands.

Loss of interaction with customers is seen by banks as greatest risk

Banks see Big Techs taking over the interaction with customers as the greatest risk to their own business models. Customer interaction is important because of the information that the bank is able to collect through such interactions, and because of the opportunities to sell payment services and loans together. Interest income from products such as loans and mortgages still remains the most important business model of Dutch banks. On the other hand, banks also see opportunities: the enormous market reach of Big Techs also offers banks (especially new banks) that offer services over the internet opportunities to make their services available to large groups of users sooner.

Potential risks to access for competitor payment services to Big Tech platforms

On the one hand, anticompetitive risks on the payment market may consist of impediments that make it harder for new, innovative competitors such as Big Techs and fintechs to enter the market. For example, entry into the Dutch payment market may be impeded by the fact that Dutch debit-card numbers are composed differently than what is common in the rest of Europe. On the other hand, there is a risk that, although they are currently not dominant on the Dutch payment market, Big Techs leverage the market power that they do have on adjacent markets, and, by doing so, are able to ‘tip’ the payment market. That is why ACM remains vigilant against possible refusals to grant access to competitor payment services, against the risk that Big Techs give their own payment services preferential treatment on platforms of Big Techs, and against the risk of leveraging market power by bundling products.

Effective risk management calls for strengthening the regulatory toolkit

ACM has assessed to what extent the current legal framework and regulatory toolkit are suitable to address such risks. It has been concluded that competition rules, PSD2, and the IFR, in their current forms, offer various opportunities to step in if these risks materialize. However, there is a concern that the toolkit comes up short in terms of addressing the risks in a sufficiently timely and effective manner in potential ‘tipping’ markets such as the payment market. We see two policy options for strengthening the current toolkit. These options focus on keeping the markets open to competitors in order to prevent these from ‘tipping’, after which interventions would be more difficult.

1. *Adjusting PSD2.* Under PSD2, payment institutions must grant access to payment systems on the basis of objective, non-discriminatory, and proportionate criteria in order to create a level playing field for payment service providers so that they are able to compete with each other under the same conditions. This requirement may offer a solution for the risks that occur if Big Techs act as de facto gatekeepers, and deny other payment service providers access to their platforms or give their own products preferential treatment. In practice, Big Techs currently do not often act as payment service providers, but rather as technical service providers, as a result of which they are not subject to this requirement laid down in

PSD2. A realistic policy option is to adjust PSD2 in such a way that payment service providers gain access, under the above-mentioned criteria, to the ‘facilitating technology’ of Big Techs, if they act as gatekeeper when offering payment services. This ensures a level playing field for market participants that wish to offer their payment services through this ‘facilitating technology’, and that consumers are able to choose for themselves what payment service they use if they pay over a Big Tech platform or device.

2. *Ex-ante instrument.* Under the competition rules, ACM is able to intervene if an undertaking abuses its dominant position. Such an intervention is ex-post, so after any harm has already materialized. In dynamic, innovative markets such as the payment market, where network effects play a large role, it is vital to be able to step in quickly. Such interventions may be able to limit the anticompetitive risks of exclusionary or exploitative behavior in the form of unreasonable access at an early stage. For that reason, ACM, together with the Belgian and Luxembourg competition authorities, and the Dutch Ministry of Economic Affairs and Climate Policy, already took the initiative and drew up a proposal for an ex-ante instrument that can be deployed against platforms (including Big Tech platforms). This type of instrument targets various markets within ecosystems, and could also be effective in the payment market. ACM therefore supports the corresponding initiatives that the European Commission is currently undertaking.

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1 Introduction

Technological developments are prompting new technology firms to start operating in financial markets. This delivers benefits for consumers through innovation, but also entails new risks – in terms of privacy and cybersecurity for example – and hence new oversight issues for the joint regulators in the financial sector.¹ In its role as a competition and market regulator, ACM has conducted a market study at the request of the Ministry of Finance into the role of major technology firms – also referred to as Big Techs – in the Dutch payment market². The aim of this study is to survey the services that the Big Techs provide or could introduce in the payment market and the resulting opportunities and risks in terms of competition and innovation in the payment system.

ACM's findings in this report are based on information obtained from the Big Techs and banks themselves and on interviews with market participants and fellow regulators. PwC has also conducted surveys on behalf of ACM³ among consumers and retailers to gauge acceptance of new methods of payment. The full results of these surveys are appended to this report.

This report addresses the following research questions:

- 1) What is the current position in the Dutch payment market with regard to the entry of Big Techs?
 - a. How do consumers and retailers view the acceptance of new methods of payment?
 - b. What activities do Big Techs have in the Dutch payment market and how do these compare to activities outside the Netherlands?
 - c. What role does the introduction of PSD2 play in the entry of Big Techs into the Dutch payment market?
 - d. How are banks (including traditional banks) reacting to the entry of Big Techs into the payment market?

- 2) What opportunities and risks in terms of competition and innovation does ACM see in the entry of Big Techs into the payment market?

The coronavirus pandemic makes these questions even more important, because the hygiene and distancing rules in force have caused a shift to even more online purchasing and contactless payments. This is going hand in hand with the deployment of new technologies by Big Techs among others.

¹ AFM (2020), Trendzicht 2020.

² See the ACM news bulletin dated 22 October 2019, <https://www.acm.nl/nl/publicaties/marktstudie-naar-grote-techbedrijven-op-de-nederlandse-betaalmarkt>

³ ACM is the commissioning authority, while the survey was financed by the Ministry of Finance.

What do we understand by Big Techs?

Big Techs are playing an ever greater role in our society. They manage global ecosystems of related products that are seamlessly integrated with each other. Big Techs benefit from scale and network effects and have access to large volumes of data. In its app store study⁴ ACM uses the following definition for Big Techs' ecosystems and platform-ecosystems:

“We define an ecosystem as a set of businesses functioning as a unit and interacting with a shared, compatible market for software and services, together with the relationships among them. These relationships are frequently underpinned by a common technological platform or market, and operate through the exchange of information, resources and artifacts. A platform-ecosystem is an ecosystem that supports a collection of complementary assets with one platform as central controller of the underlying architecture that functions as a hub within the technology-based business system.”

Big Techs can thus add value for consumers by enabling optimum interoperability of different products. However, this also enables Big Techs to lock consumers into their system and keep out competitors.

Big Techs have also started operating in the payment market in recent years so as to further expand their ecosystem. The Financial Stability Board (FSB) believes the entry of Big Techs into the payment market could have a considerable impact on the payment market due to the characteristics of Big Techs, such as large, established customer networks, brand awareness and trust, extensive customer and business information and substantial financial resources.⁵

Which Big Techs do we examine in this market study?

In this study we examine six Big Techs, including four American companies: Alphabet Inc. (referred to henceforth as Google), Amazon, Facebook, Apple, and two Chinese companies: Ant Group and Tencent. We have chosen these operators because they are the only ones that provide an ecosystem (or platform-ecosystem) and are licensed to provide payment services in the European Union and/or already actively provide payment solutions in or outside the European payment market.⁶

In this report we first consider the main developments⁷ in the Dutch payment market and the acceptance of new methods of payment. We then summarise the main initiatives of Big Techs in the Dutch payment market and the way these initiatives fit in with their broader business strategy, as well as the banks' reaction. Thereafter we assess the main opportunities and risks in terms of competition and offer possible scenarios highlighting opportunities and potential risks that could arise. Finally, we

⁴ See ACM (2019), *Market study into mobile app stores*. (<https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf>)

⁵ FSB (2019), *BigTech in finance: Market developments and potential financial stability implications*. (<https://www.fsb.org/2019/12/bigtech-in-finance-market-developments-and-potential-financial-stability-implications/>)

⁶ For this reason Microsoft has not been included in this study.

⁷ This report draws on the latest data but disregards developments occurring after July 2020.

also consider the scope afforded by the current regulatory toolkit to mitigate these risks and we recommend improvements to the current legislation.

2 The Dutch payment market

Before we consider the strategy and activities of Big Techs in the payment market, in this chapter we present a picture of the payment system in the Netherlands. We focus specifically on various non-cash payment instruments and the acceptance of new methods of payment such as the e-wallet. This provides a clearer picture of the position that Big Techs occupy or could occupy in the payment process by offering new electronic methods of payment.

2.1 Payments

The rise of electronic payments

The Dutch payment market is growing rapidly. From 2010 the number of offline transactions rose to over 7 billion in 2019, with a transaction value in excess of €151 billion, a rise of more than 10%.⁸ In absolute terms offline payments thus have a higher transaction value than electronic online payments and peer-to-peer payments. In 2019 those values were €25.8 billion⁹ and €22 billion respectively¹⁰. At the same time Dutch consumers are placing increasing trust in electronic payments using debit cards¹¹, which is reflected in the growing use of electronic money at the expense of cash. In 2010 two out of three offline payments were still made with cash. By 2019 two out of three payments were made with a debit card.¹²

In order to be able to store electronic money or use it to make or receive payments, consumers or retailers need a payment account. At present the Big Techs' payment instruments are mainly a 'shell', or 'facilitating technology', around existing non-cash payment instruments, such as the debit card, providing access to balances on payment accounts.¹³ If the payer and payee have a range of payment options at their disposal, they must choose on the basis of available resources (debit card or computer), the ease of approving a transaction (pincode or fingerprint) and the costs of processing the payment.¹⁴

Below we describe a number of recent developments in the payment market that create new opportunities for Big Techs. We have adopted the distinction used by the European Commission in the payment market between offline payments, online payments and peer-to-peer payments.¹⁵

Strong increase in contactless offline payments

⁸ DNB and Betaalvereniging Nederland (2020), *Betalen aan de kassa 2018*, p. 1; Betaalvereniging Nederland (2020) *Factsheet Betalingsverkeer 2019*, p. 3.

⁹ Thuiswinkel.org (2020), *Thuiswinkel Markt Monitor 2019*.

¹⁰ DNB and Betaalvereniging Nederland (2020), *Betalen aan de kassa 2019*, p. 10.

¹¹ Betaalvereniging Nederland (2020), *Infographic Factsheet Betalingsverkeer 2019*.

¹² The value of debit card transactions already exceeded the value of cash payments in 2010. See: Betaalvereniging Nederland (2020) *Factsheet Betalingsverkeer 2019*, p. 3, and DNB and Betaalvereniging (2020) *Betalen aan de kassa 2018*, p. 1.

¹³ A more detailed description of non-cash payments can be found in ACM (2017), *Fintechs in het betalingsverkeer*.

¹⁴ See EC decision (M.8251) Bite/Tele2/Telia/Lietuva (2017); EC decision (M.5384) BNP PARIBAS/FORTIS (2008)

¹⁵ See Commission Decision 2001/782/EC (27); Case COMP/29.373 (2002); Case Comp32017M8251 (2017)

The possibility of combining payment data with other data to which they already have access can therefore give Big Techs a lead in providing certain financial services compared to banks that only have access to payment data. However, abuse can only occur if Big Techs request excessive data from their users, or if they use the data of users (companies) with which they compete to strengthen their own position.

At the beginning of December 2019 it was announced that the EC was investigating how Google and Facebook use and monetise data, including for advertising purposes. In addition, the EC launched an investigation into Amazon in July 2019 in connection with possible abuse of an information advantage that it has as a platform operator over competing retailers using the Amazon platform, by using data on transactions of competing retailers on the platform to make its own offering more attractive to consumers.

5.3 Oversight of competition in the payment market

The risks outlined in the previous section raise the question of how suitable the existing regulatory toolkit is for preventing these risks materialising or for intervening if they do unexpectedly materialise. ACM has ex post instruments that can be used retrospectively under the Dutch Competition Act as well as instruments that can be used to intervene in the market in advance. The access requirements for the revised Payment Services Directive ('PSD2') or the regulation of fees under the Interchange Fee Regulation (IFR) are examples of ex ante instruments. Violations of these can naturally lead to retrospective intervention.

ACM oversees compliance with Sections 6 and 24 of the Competition Act in all sectors, including regulated sectors such as the financial sector. Section 6 is the cartel prohibition and Section 24 is the prohibition of abuse of a dominant position. The Competition Act applies to the wide range of practices referred to above, such as the aforementioned risks associated with unreasonable access requirements, preferential treatment, bundling and abuse of power in data requests. The possibility of enforcement of the Competition Act can lead ex ante to a change in market participants' behaviour. ACM's enforcement under the Competition Act is ex post, which means action can be taken after a violation of the Competition Act has been identified. By definition, the 'harm has already been done' and the consequences of the violation may even be irreversible, for example because network effects have also arisen.

PSD2 requires payment institutions among other things to grant access to payment systems and business payment accounts under objective, non-discriminatory criteria. In many cases, however, Big Techs do not act as payment institutions, but as technical service providers. For example, they provide a kind of interface, a 'facilitating technology' that enables consumers or retailers to use certain payment services, but they do not provide these themselves. Under PSD2 they therefore have no obligation to provide access to payment systems under the aforementioned criteria. Hence PSD2 does not currently provide a basis for enforcing access to payment systems in the case of Big Techs operating as technical service providers, even though the aforementioned Big Techs actually

operate as gatekeepers for access to payment services, and they have taken over the customer contact with consumers and retailers from the banks.

Big Techs are also covered by the IFR when they operate as owners of payment card schemes, issuers, acceptors, processors and/or other providers of technical services. This regulates the fees that banks pay each other per transaction and thus limits the risk of abuse of power in advance. This fee may be a means by which owners of the payment card scheme (Visa/Mastercard) can increase the value of the platform (and hence the payment instruments that use it).¹²⁹ Various European Commission competition cases (Mastercard I and II, and Visa I and II) have shown that without ex ante oversight the interchange fees are set at much too high a level.¹³⁰ In the case of payment cards this regulation also ensures that the activities of technical service providers do not restrict choice for consumers.¹³¹ The IFR thus also offers a legal basis for intervening in cases where technical service providers act as gatekeepers and allow others no access to their platform or ecosystem.

5.4 Conclusion

In addition to opportunities for innovation in the payment market, ACM sees potential risks in the entry of Big Techs into the payment market. Most of these risks could materialise if a Big Tech with a dominant position in a certain market used its market power to establish itself or strengthen its position in the payment market (or part of it). These include the risk of unreasonable access or denial of access to its own platform for competing payment services. Where Big Techs fulfil a gatekeeper function, those with a dominant position may request excessive data from their users, or use this data to strengthen their own position relative to competing companies that use the platform.

As stated earlier in Chapter 3, none of the Big Techs currently has a dominant position in the payment market, but their position is growing. In many cases Big Techs also have a dominant position in other markets which they could exploit in the payment market.

Some risks may materialise particularly over the somewhat longer term. For example, preferential treatment could take the form of a Big Tech giving prominence to its own vertically integrated service on its own platform. Viewed from a static perspective, this could produce benefits for the consumer in terms of improved convenience. But in a context of dynamic competition it may mean that the Big Tech's own service gains a better position in terms of data and more finely tuned technology than the competitors, ultimately leading to a decrease in competitive pressure and innovation. In new bilateral markets small divergences in the level playing field can lead to major differences in competition.

As noted above, the current toolkit available under the Dutch Competition Act is focused on retrospective action to curb abuse of power resulting from dominant market positions, i.e. when a

¹²⁹ Under the Interchange Fee Regulation (IFR), three-party systems working with licensees, agents or co-branding are also subject to oversight with regard to the level of interbank fees.

¹³⁰ See: http://ec.europa.eu/competition/sectors/financial_services/enforcement_en.html.

¹³¹ Article 8 of Regulation 2015/751.

company has already committed a violation. In addition, ACM (and DNB) have powers under PSD2 to increase access to payment accounts and payment information and hence to limit the risk of exclusion. PSD2 cannot, however, prevent all the aforementioned forms of discriminatory behaviour. The question is whether this toolkit is sufficient to maintain a level playing field in markets such as the payment market, with strong dynamics and innovation, where Big Techs have not so far occupied a dominant position, but market conditions can change rapidly.

6 Scenarios

In view of all the developments described above, the precise development of the payment market in the years ahead is difficult to predict. It will depend partly on the role that the Big Techs are willing and able to play in this market (see Chapter 3) and the way in which banks can maintain their position by reacting to this development (see Chapter 4). There is no doubt that in many other sectors the Big Techs have grown exponentially in recent years and have brought about major transformations in the economy and society, and the competition conditions in these sectors have also changed considerably. It is not inconceivable that the same will happen in this sector with the entry of the Big Techs into the payment market.

In order to better anticipate future developments, we describe a number of scenarios in this chapter. These scenarios are not intended as a prediction or an ideal, but as an analysis framework to assess the various opportunities and risks that may arise in a range of scenarios in the payment market. The reality will probably be a combination of the scenarios outlined below.

6.1 Four scenarios: assumptions

Figure 6.1 shows four scenarios that differ in terms of the extent to which consumers trust Big Techs that provide payment services (*horizontal axis*) and the reason why the Big Techs offer payment services (*vertical axis*).

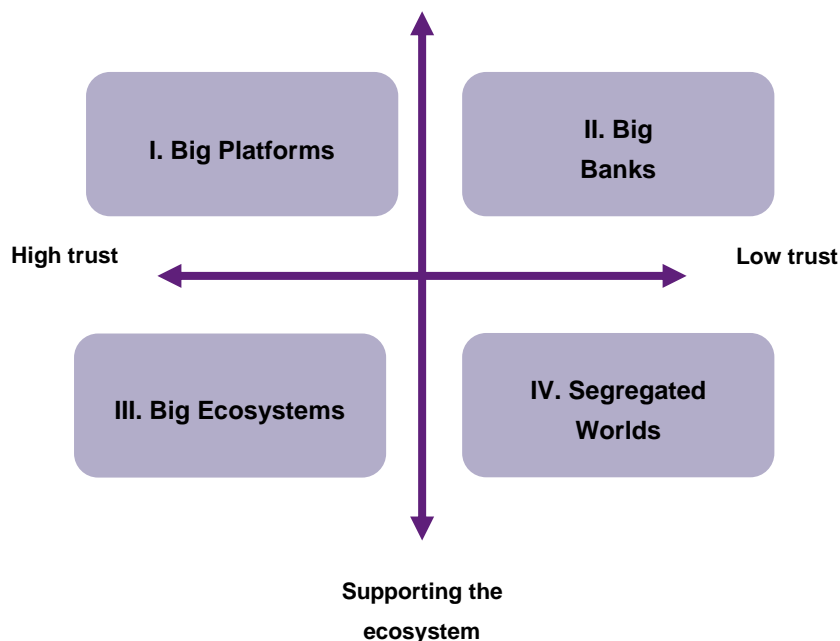
The *horizontal axis* shows the trust, justified or otherwise, that consumers place in Big Techs' payment services relative to those provided by banks, ranging from 'high trust' to 'low trust'. This trust plays an important role, alongside convenience, in consumers' acceptance of Big Techs' payment services.

The *vertical axis* shows the dominant reason why a Big Tech operates in the payment market. On the one hand, the reason may be primarily to generate direct revenues and to provide an independently profitable product. On the other hand, a Big Tech may have the primary aim of supporting the ecosystem and thereby strengthening its own business model. This can be done by offering the consumer a better user experience or by collecting more data so as to advertise more effectively. In practice a combination of factors can sometimes play a role for various Big Techs. The vertical axis is based on a sliding scale from Big Techs that mainly provide payment services for direct revenue generation through to Big Techs that do so primarily to strengthen their ecosystem.

Both trust in the Big Techs' payment services (*horizontal axis*) and the reason why Big Techs operate in the payment market are seen in the scenarios as exogenous factors which are determined in the first place by the consumer or the company.

In the following sections the individual scenarios are considered in more detail, focusing specifically on the risks and opportunities in terms of competition. This report does not deal with the consequences for financial stability¹³², consumer protection¹³³ and privacy¹³⁴.

Figure 6.1. Scenarios for the role of Big Techs and banks in payments



6.2 Scenario I. Big Platforms

In this scenario Big Techs enjoy the trust of the consumer and use that to offer a payment service from which they can generate independent revenues. The Big Techs take over the customer contact from banks. Banks have to cooperate with Big Techs in order to serve consumers for certain financial services that Big Techs are not willing to provide. For Big Techs it is more profitable to leave the banks to bear the risks of some financial services.

Big Techs

In this scenario the initial contact with the customer goes through the Big Techs' payment platforms, such as e-wallets, payment apps, voice-controlled software or another 'facilitating technology'. Big Techs can thus operate as gatekeepers, determining who is permitted to provide its services on the

¹³² Falls within the purview of the regulators De Nederlandsche Bank (DNB) and/or the Dutch Authority for the Financial Markets (AFM).

¹³³ Falls within the purview of the regulators ACM and/or AFM.

¹³⁴ Falls within the purview of the regulator the Dutch Data Protection Authority (Dutch DPA).

platform. Big Techs earn money from payments by offering their own methods of payment, but also by charging banks for access to the platform for the sale of other financial services. Consumers prefer these payment platforms to those of other parties (such as banks) because they offer greater ease of payment and the consumer is confident that the Big Techs will handle the payment data and other data carefully. The Big Techs' platform gives consumers an overview of various payment solutions and other financial services, including the Big Techs' own services. In addition to payment solutions Big Techs can offer other financial services so as to provide a financial one-stop shop. These financial services are provided on a white label basis under the name of the Big Techs, for example by banks. The risks associated with these financial services are therefore borne not by the Big Techs but by these banks.

As a result of the large volume of payment and other data to which they have access, the Big Techs are better able than banks to assess the creditworthiness of potential customers. Loan applications are therefore approved or declined in real time. Big Techs charge consumers subscription fees to provide services. As gatekeepers they can also control the contact with the customer.

Banks

In this scenario banks provide the payment infrastructure. They process all payments at the back end of the payment chain in the form of clearing and settlement. For efficiency reasons the Big Techs choose to leave these services with the banks. The Big Techs have taken over the front end. Banks will have to offer their services on the Big Techs' payment platforms in order to contact customers and must therefore cooperate with Big Techs. Almost all customer interactions go through the Big Techs, as they can offer this more efficiently due to their reach and experience.

Competition

Competition in this scenario will take place on multiple levels. The first level is between the Big Techs' platforms. Big Techs must ensure that they have a competitive offering for the consumer by having sufficient providers within the platform and providing superior service. The Big Techs need the banks to provide a complete offering. The banks need the Big Techs to maintain contact with customers. The platform with the best personal offers will gain the strongest position.

As well as cooperating, Big Techs and banks will also compete on the Big Tech's platform in providing methods of payment and financial services. Competition between the providers is fierce due to the transparency and ease of comparing offers. Economies of scale are necessary in order to make attractive offers to all types of customers and consolidation will ultimately mean that only a few large international banks survive.

Consequences for the payment market

Opportunities in this scenario are:

- Banks are very likely to innovate because they have to make greater effort to establish and maintain contact with the customer.
- Payments can be made very conveniently and the group of consumers that can use the

payments is also larger because the use of data and AI technology allows better risk assessment through the Big Techs' payment platforms.

Risks in this scenario are:

- Exclusion by Big Techs either by denying the parties wishing to operate on the platform access or by charging unreasonably high rates or setting other unreasonable conditions for access to the platform.
- Competition on the platform can be limited if preference is given to the Big Tech's own products. This can be done, for example, by offering less technical support to third parties or by recommending or ranking the company's own products more highly than competing products. Another possibility is offering products on a bundled basis.

6.3 Scenario II. Big Banks

In this scenario Big Techs see the payment market primarily as an opportunity to generate direct revenues, but they do not enjoy the trust of the consumer. The banks control the customer contact, because the consumer places their trust in the bank. That forces the Big Techs to cooperate with banks in order to offer their methods of payment and to be able to earn money from them due to the great ease of payment.

Big Techs

In this scenario Big Techs only create a 'shell' around banks' services, but they do not take over the customer contact and do not operate as gatekeepers. Services of fintech companies also have access to the Big Techs' platforms. The added value and convenience that the Big Techs' platforms offer customers means that banks want to be on the Big Tech's platform. However, there are also disadvantages in providing services on these platforms. Consumers worry, for example, that the data on these platforms is not secure. The Big Tech needs the bank in order to radiate trust to consumers. In this scenario Big Techs can also charge access fees for the platform, but as the banks are less dependent on the Big Techs than vice versa, these fees will be limited.

Banks

In this scenario banks control the initial customer contact as a result of the payment accounts that customers have at the bank. Banks enjoy greater trust, but offer less ease of payment. In order to increase ease of payment, they are prepared to cooperate with Big Techs and to pay a price for doing so. Most payments still pass through the banks' digital environments.

Competition

There will be competition particularly between banks, which will have to participate in the Big Tech platform so as not to lose any customers due to the greater ease of payment. Big Techs do not compete directly with the banks in the payment market but do compete among themselves for convenience/price/privacy.

Consequences for the payment market

Opportunities in this scenario are:

- Big Techs have to overcome the lack of trust. They can secure the loyalty of users by improving privacy and security and innovating to offer superior convenience. This also encourages Big Techs to innovate.

Risks in this scenario are:

- In this scenario banks have a strong position, so they can erect high barriers to entry into the payment market. After all, the Big Techs enjoy little trust and banks consequently control the customer contact.
- Due to their strong position, banks can give preferential treatment to their own payment platforms rather than the shell of the Big Techs.
- Since Big Techs are more dependent on banks, which control the customer contact, there is less competitive pressure on banks to innovate and provide methods of payment offering greater convenience.

6.4 Scenario III: Big Ecosystems

In this scenario the Big Techs offer methods of payment to support their ecosystem and they see these as a way of generating payment data. Banks offer financial products through the Big Techs' platforms. They also provide the infrastructure for payments. Big Techs do not charge banks and other commercial operators for access to their means of payment/platform, but they may charge for preferential treatment on their platform.

Big Techs

Due to the convenience and high level of trust, consumers in this scenario are willing to remain within a Big Tech's ecosystem. The consumer does not even have to go outside the ecosystem to use methods of payment. Other financial products such as loans and insurance are also offered on the platform. In principle the business model is based on offering convenience and a total experience as well as generating data to support the Big Tech's ecosystem. The central aim is to have the customer remain in the ecosystem for as long as possible, so that the Big Tech, for example, can sell more targeted advertisements.

Competition is not based on specific markets or specific products, but much more on the time that users spend on an ecosystem. Big Techs therefore compete in terms of the best artificial intelligence (AI) that enables them to sell as many advertisements as possible and generate as much consumer engagement in the ecosystem as possible. This artificial intelligence technology is fed with consumer and provider data to which Big Techs have access.

A Big Tech does not charge the consumer directly for access. Providers on the platform may be charged to appear prominently on the platform, or to have the possibility of gearing their services closely to the needs of the customer. Big Techs obtain their revenues from creaming off the added value that their ecosystem offers, for example through sales of hardware, the service of matching

users with third-party goods and services or the sale of advertisements.

Banks

One of the providers on the platforms may be a bank. Banks compete purely on the quality of their financial product, i.e. its convenience and the extent to which it meets the customer's requirements. The bank products are intended particularly to increase the value of the ecosystem. Banks also provide the payment infrastructure. However, they mainly operate in the background and support the Big Techs with clearing and settlement.

Competition

Only Big Techs have the real-time data to make their AI superior and to compete in terms of a personalised experience. Data is not interoperable between the ecosystems and the switching costs may be high because data may be lost or different hardware may be required.

If the ecosystems offer equivalent services, the competition will lie in providing the best user experience combined with the best available data. Where Big Techs offer complementary services, they will cooperate. The ecosystem that achieves this most effectively can offer the consumer convenience and the best personal offering with the highest value. The Big Techs try to keep the consumer in a bubble of the ecosystem and secure their loyalty with discounts or excellent customer service. Pressure on the Big Techs to be and remain the most attractive platform comes from informed consumers.

Consequences for the payment market

Opportunities in this scenario are:

- The services can be closely aligned with the consumers' preferences, generating strong consumer value.
- Because the initial customer contact will be with the Big Tech, banks will be challenged to innovate in terms of ease of use.
- The group of consumers that can gain easier access to financial services and products is larger, because Big Techs can more easily serve all consumer groups at efficient rates due to better risk assessment.

Risks in this scenario are:

- Big Techs can adopt a tying/bundling strategy due to the strong position of the platforms/ecosystems in available data and available AI technology.
- Big Techs can exclude competitors offering similar services from their ecosystem by means of low interoperability, data interoperability and data portability.
- The Big Tech can give preference to its products over other products.
- The Big Techs can also abuse their position by requesting an excessive amount of data from consumers/providers on the platform for the use of the ecosystem or of the tied products that they provide.

6.5 Scenario IV. Segregated Worlds

In this extreme scenario Big Techs enjoy little trust among consumers and focus their payment market activity purely on growing their ecosystem. Both Big Techs and banks offer payment instruments. The part of the population that can pay for security opts for the bank; the other part is persuaded by convenience and lower prices to remain within the Big Tech ecosystem. Once in the ecosystem they find it difficult to leave it due to low data interoperability.

Big Techs

In this scenario Big Techs want to keep their customers within the ecosystem as far as possible by providing methods of payment. For example, they could introduce their own digital currency. The payment platform for this is free of charge and freely accessible to consumers and providers, but there is limited interoperability between the bank platform and Big Techs' ecosystems. The consumer needs to be fenced in because he has limited trust in the Big Techs. There will be groups of informed consumers who place their financial affairs outside the Big Techs' ecosystem, because they have little trust in Big Techs. This group could purchase other services from the Big Techs, but they will be cautious about sharing data.

Banks

In this scenario banks focus on the group of customers for which they primarily offer privacy, security and certainty. The bank's business model is based on charging for these payment services. However there is also a group in society that is unwilling or unable to pay for privacy, security and certainty. Privacy, security and anonymity are central given the limited interoperability with Big Techs. Banks also have their own methods of payment. They do not offer the Big Techs' payment solutions since they do not have the same data and AI as the Big Techs in order to make attractive offers.

Competition

Among the Big Techs there is a contest to develop the best AI, combined with the best dataset. There will be consumers who want to complete their day-to-day activities, such as shopping, financial affairs and social media, within the ecosystem. They will not readily switch to a different ecosystem.

The payment instruments are an integral part of the experience in the ecosystem. Since digital currencies are difficult to convert into other currencies, holding them can be a barrier to switching to a different ecosystem. It is conceivable that Big Techs will compete with each other on the economies of scope and scale within their ecosystem.

Consequences for the payment market

Opportunities in this scenario are:

- Amid the opposing forces of trust in the bank on the one hand and convenience and affordability with the Big Tech on the other, both parties will have to innovate in those areas to attract new consumers and not lose any customers.

Risks in this scenario are:

- The risk is that a dual payment system will arise with little competition among participants. That means the banking system is not very innovative, but it is secure and privacy-protected.
- Like the 'Big Ecosystems' scenario, this scenario entails a risk of excessive data being requested from customers.
- Since the Big Techs' various digital currencies are not interoperable and only convertible to a limited extent outside the ecosystem, this may lead to a fragmentation of markets and hence an uneven playing field.
- The low consumer trust means the risks of exclusion, transfer of market power and preferential treatment are lower than in the 'Big Ecosystems' scenario.

6.6 Conclusion

The scenarios described above are intended to provide an analysis framework for the opportunities for prosperity and innovation and risks to competition that may arise in the medium term. Table 6.1 provides a summary of the findings.

Table 6.1 Risks and opportunities in terms of competition in various scenarios.

	Big Platforms	Big Banks	Big Ecosystems	Segregated Worlds
Opportunities				
Convenience	X		X	
Access for a larger group of consumers	X		X	
Innovation among Big Techs in security		X		X
Innovation among banks in convenience	X		X	X
Risks				
Exclusion	X	X	X	
Bundling	X		X	
Preferential treatment	X	X	X	
Excessive data requests			X	X

The table shows that the biggest challenge for Big Techs is to compete in terms of security and privacy in the scenarios where the consumer has no trust in the Big Techs. In scenarios in which consumers trust Big Techs and the initial customer contact is with the Big Techs, the opportunity for convenience and access to financial services for a larger group of consumers in society is greater than in scenarios where such trust is absent.

Competition risks arise particularly in the *Big Platforms* and *Big Ecosystems* scenarios in the form of exclusion, bundling and preferential treatment by Big Techs. In the *Big Ecosystems* scenario there is the additional risk of excessive data requests, which is also a factor in the *Segregated Worlds* scenario. In the *Big Banks* scenario the risks of exclusion and preferential treatment of a company's own platforms compared to the Big Techs' shell also play a role, but in this case in relation to the banks.

The next chapter examines the extent to which ACM's existing toolkit is sufficient to resolve the identified competition risks. On this basis policy recommendations are also made which can contribute to a level playing field between Big Techs and other market participants in the payment system.

7 Conclusion and policy options

ACM notes that the Big Techs' position in the payment market is growing, and that this is leading to greater ease of payment for consumers and putting innovative pressure on the banks to also develop payment services offering greater convenience. The introduction of PSD2 does not appear to be the reason why the Big Techs are entering the Dutch payment market.

At the same time ACM sees that the entry of Big Techs entails both risks and opportunities in terms of competition. Specifically, ACM is focusing increased attention on the risk of exclusion of third-party payment services on the Big Techs' platform.¹³⁵ The question is now to what extent ACM's existing toolkit provides a sufficient basis to limit the risks referred to in Chapter 6 in the various scenarios.

In the *Big Banks* scenario in which the banking system has a strong position in the payment market, there is a risk that banks will exclude not only Big Techs but also fintechs or give preference to their own products. In that case ACM has various tools at its disposal under the Dutch Competition Act, PSD2 and the IFR to counter these risks and promote competition. This scenario is closest to the current situation.

PSD2 is intended to stimulate competition and innovation in the provision of payment services and ensure an efficient payment system. One of the ways in which PSD2 tries to achieve this is by offering (possibly licensed) providers of new payment services access to the bank environment, so that the providers of these new services ('fintechs') can compete on an equal footing for the favour of the consumer and retailer. This provides an incentive for both fintechs and banks to offer innovative and efficient payment methods.

The description of Big Techs in this study shows that in a number of cases they do not choose to act as fully fledged payment institutions, but as technical service providers to support the provision of payment services. In these cases the Big Techs offer, for example, a wallet, an app, voice-controlled software or another 'facilitating technology'¹³⁶ which consumers of payment services can use and with which retailers can offer payment services. All consumers and/or retailers can use these, with the Big Techs taking over the customer contact with consumers and retailers from the banks. In such cases the consumer indicates through the Big Tech which payment service he or she wishes to use.

Hence the Big Techs may find themselves acting as the de facto gatekeeper. They can determine which payment methods and brands are offered through their ecosystem or platform, and use this position to charge fees to payment institutions that wish to use them.

As also stated in the Big Platforms scenario, the Big Techs' gatekeeper function described above

¹³⁵ See: Agenda ACM (2020).

¹³⁶ Because not all technological developments in the years ahead can be foreseen, the term 'facilitating technology' is used here in a general sense.

may undermine the objectives of PSD2. PSD2, which was adopted in 2015, currently includes no obligation on Big Techs acting as technical service providers to grant access on the basis of objective, non-discriminatory and proportionate criteria to the ‘facilitating technology’ on their ecosystem or platform in a way that matches the banks’ obligation to grant fintechs access to the banking environment. The other tools at ACM’s disposal (see section 5.3) also only offer the possibility to a certain extent of compelling technical service providers to grant such access.

In order to take account of these developments, one of the obvious policy options is to amend PSD2 in such a way that payment institutions gain access under objective, non-discriminatory and proportionate criteria to the ‘facilitating technology’ of Big Techs which have a gatekeeper function as technical service providers in the granting of access to payment services. This guarantees that a level playing field is created for parties wishing to provide their payment services through this ‘facilitating technology’ and that Big Techs cannot abuse their role as gatekeeper. This policy option can be included in the national and European evaluation of PSD2 due to take place in 2021 and 2022.¹³⁷

In the *Big Ecosystems* scenario payment services are only provided to strengthen the ecosystem, compel single homing among users and generate data. A Big Tech can engage in exclusionary or exploitative behaviour in the form of unreasonable access, self-preferment or excessive data requests. The payment market is one in which market participants can rapidly create different network effects through users. These network effects are magnified by the Big Techs’ ecosystem-strengthening strategy combined with AI technology, as a result of which there may potentially be ‘tipping markets’. Retrospective intervention after a violation of PSD2 or the Dutch Competition Act due to the above practices is therefore less effective because of irreversible transformations of the market. The use of the current toolkit is too slow in highly dynamic and innovative markets such as the markets for ecosystems. In payment markets there are large direct and indirect network effects, users are inclined to stay loyal for longer and there are high access barriers as a result of data collection that impede a level playing field.

For that reason *ex ante* measures should be added to the current toolkit. In order to prevent abuse by dominant online platforms, ACM has taken the initiative, jointly with its fellow competition regulators in Belgium and Luxembourg and the Ministry of Economic Affairs and Climate Policy, of issuing a proposal for an *ex ante* instrument¹³⁸ for these platforms, which can include Big Techs. In order to prevent competition problems, consideration could be given to measures providing *ex ante* guarantees of, for example, platform access, data portability, data sharing and non-discriminatory ranking. ACM therefore supports the initiatives being taken in this area by the European Commission.¹³⁹ These steps will ideally prevent an uneven playing field, as the Big Techs’ methods

¹³⁷ EC (2020), *Communication on Retail Payments Strategy*, p. 23.

¹³⁸ ACM (2019), *Extension of enforcement toolkit to increase effectiveness in dealing with competition problems in the digital economy*. (<https://www.acm.nl/sites/default/files/documents/2019-08/ex-ante-tool.pdf>)

¹³⁹ <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12418-Digital-Services-Act-package-ex-ante-regulatory-instrument-of-very-large-online-platforms-acting-as-gatekeepers>) <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12418-Digital-Services-Act-package-ex-ante-regulatory-instrument-of-very-large->

of payment will be more embedded than other players' methods of payment in the overall ecosystem.

Finally, in the Big Ecosystems scenario, structural payment market problems may subsequently arise that transcend individual markets. Dominant positions may arise, for example due to a temporary advantage in terms of information or AI technology in these markets, that are irreversible because consumers are inclined to single homing and do not change ecosystem (even with easy data portability).

In order to break such irreversible dominant positions, the European Commission should be able proactively, in cooperation with the national regulators, to impose proportionate structural remedies on companies in the respective market. What remedies these should be will depend on the situation. ACM therefore supports the European Commission's initiatives, in the framework of the Digital Markets Act, of creating a market investigation tool¹⁴⁰ at European level in cooperation with the national competition authorities. This new tool is expected to offer the possibility of investigating a market in which structural competition problems exist or may exist relating to large direct and indirect network effects, economies of scope and/or learning effects.¹⁴¹ These effects play an important role in ecosystems, so developments can be very rapid. It must be possible to investigate exclusion, for example in the form of unreasonable access, and preferential treatment of a company's own products by parties that are not (or not yet) dominant.

[online-platforms-acting-as-gatekeepers](https://www.rijksoverheid.nl/actueel/nieuws/2020/10/15/toegangs-en-gedragsmaatregelen-om-macht-grote-digitale-platforms-aan-te-pakken)), <https://www.rijksoverheid.nl/actueel/nieuws/2020/10/15/toegangs-en-gedragsmaatregelen-om-macht-grote-digitale-platforms-aan-te-pakken>

¹⁴⁰ See: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12416-New-competition-tool>. See: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12416-New-competition-tool.MLex>, 29 October, Google, Facebook, Amazon face new duties to police platforms for illegal content, faulty goods.

¹⁴¹ The Competition & Markets Authority (CMA) and the German Federal Cartel Office currently have such a tool in the form of a market investigation.

Annex I

During the investigation period ACM spoke to several companies and experts about their vision of the payment market and the possible entry of the Big Techs into the Dutch payment market.

The discussion partners were:

Arnout Boot

Simon Lelieveldt

Adyen

Albert Heijn

Bank XS

Betaalvereniging Nederland (Dutch Payments Association)

Bol.com

Bunq

De Nederlandsche Bank

De Volksbank

Detailhandel Nederland (Dutch Retail Association)

ING Bank

Innopay

Mastercard

Rabobank

Secured

Techleap

Thuiswinkel.org

Vaulut

VGI