



Account number portability

Switching to another bank without receiving a new account number: a contribution to the new cost-benefit analysis of EU-wide account number portability

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Please note that, although every effort has been made to ensure this translation is accurate and consistent, it is for informational purposes only. In case of any dispute or inconsistencies, the Dutch version is authentic.



About the Monitor Financial Sector

This study was carried out by the Monitor Financial Sector (MFS). The MFS is part of the Netherlands Authority for Consumers and Markets (ACM). It carries out studies into the degree and developments of competition on financial markets in the Netherlands. The economists of the MFS can be reached by email at MFS@acm.nl. Feel free to ask any questions about this report.



Contents

| | |
|--|-----------|
| Executive summary | 4 |
| 1 Introduction | 7 |
| 1.1 Background | 7 |
| 1.2 Objective of this study | 8 |
| 1.3 Scope of this study | 9 |
| 1.4 Sources of information | 9 |
| 1.5 Structure of this report..... | 10 |
| 2 The competition problem and possible solutions | 11 |
| 2.1 Relationship between switching and competition..... | 11 |
| 2.2 High barriers to switch reduce competition in the retail banking sector | 12 |
| 2.3 Two government measures for lowering barriers to switch | 15 |
| 2.4 ACM expects account number portability to be a better solution than a switching service | 17 |
| 2.5 The competition problem remains relevant irrespective of FinTech | 19 |
| 3 Social benefits of EU-wide account number portability | 21 |
| 3.1 Study into the social benefits of EU-wide account number portability (2013) | 21 |
| 3.2 Framework to quantify all social benefits of account number portability | 22 |
| 3.3 Applying the framework to the Netherlands | 25 |
| 3.4 ACM's reflection on Decisio's framework | 26 |
| 4 Social costs of EU-wide account number portability..... | 28 |
| 4.1 The use of the IBAN in payment systems | 28 |
| 4.2 Three variants of account number portability on a European level | 33 |
| 4.3 Costs of transitioning to a new numbering structure (for payment accounts) to be used by consumers and businesses..... | 37 |
| 4.4 Costs for transitioning to another routing method | 38 |
| 4.5 Overview of the differences between both variants..... | 42 |
| 4.6 ACM prefers alias-portability | 42 |
| 5 Conclusions and recommendations | 45 |
| 5.1 Conclusion about the competition problem and possible solutions..... | 45 |
| 5.2 Conclusion about the social benefits of account number portability..... | 46 |
| 5.3 Conclusion about the social costs of account number portability..... | 46 |
| 6 References | 48 |
| Annex 1: Market participants interviewed by ACM..... | 51 |
| Annex 2: Abbreviations used in this document..... | 52 |



Executive summary

High switching barriers for payment accounts reduce competition in the retail banking sector

Competition leads to better products and/or services at a lower price. The Netherlands Authority for Consumers and Markets (ACM) has previously established that competition in the Dutch retail banking sector could improve. Consumers and businesses are able to promote competition in the retail banking sector if they are able to actively compare the products and/or services available on the market, and if they are able to switch banks easily. Switching barriers stand in the way of active consumer behavior. This could result in higher prices, reduced efficiency, and less innovation in the European retail banking sector.

Europe initially opts for a switching service in order to lower barriers to switch

The European Commission (EC) recognizes this competition problem, and seeks to lower the switching barriers for personal payment accounts by introducing the Payment Accounts Directive (PAD).

In 2013, during the preparations of the PAD, the EC considered four measures to lower switching barriers for personal payment accounts. For each of these measures, an individual cost-benefit analysis was carried out. One of these measures involved the introduction of EU-wide account number portability (the ability to transfer your account number to a new provider). At a first glance this seems a promising solution, but based on the cost-benefit analysis, the EC came to the conclusion that the introduction of account number portability would not be proportional. That is why Europe opted for a manual switching service as an instrument for lowering the switching barriers for payment accounts (the PAD switching service).

ACM does not consider a switching service to be the best solution

In the Netherlands, an automatic switching service exists since 2004. The number of consumers and businesses in the Netherlands that use the switching service is limited (1 percent of all payment account holders at the most). The limited awareness of this service plays a major part in that. Consumers and businesses that are not familiar with the switching service thus believe that the switching barriers are higher than they actually are.

Other EU Member States are currently working on the introduction of a switching service for payment accounts. In the PAD, it is stipulated that Member States should have available, at the very least, a manual switching service for consumers (and not for businesses). Individual Member States have the option of introducing a more comprehensive switching service. ACM has doubts about whether the PAD switching service will have the desired effect, as a manual switching service is expected to have higher error rates than an automatic service, thereby potentially undermining consumer confidence in the service. In addition, no minimum level of awareness with the PAD switching service among consumers has been prescribed.



ACM thinks account number portability is a better solution than a switching service

In 2019, the European Commission will review the PAD. The effectiveness of the PAD switching service and a new cost-benefit analysis of EU-wide account number portability will be part of that review. ACM believes that account number portability is a better solution than a switching service for solving the competition problem. From the account holder's perspective, account number portability is a more effective way to lower switching barriers. Account number portability will completely eliminate the most important switching barriers, and is expected to have a stronger influence on the switching intention of consumers and businesses. Also, if account number portability were to be introduced, businesses would no longer need to adjust the account numbers of customers in their administrative systems (if these customers switched banks). With a switching service, however, these adjustments still have to be made. ACM wants to make sure that account number portability will get a fair chance in the review and in the subsequent policy discussion. A thorough and balanced assessment of the costs and benefits of account number portability is essential in that context.

Additional research is desired for a balanced assessment of the costs and benefits of account number portability

ACM is critical of the cost-benefit analysis of account number portability that was carried out in 2013. For example, the benefits for businesses have not been taken into account. Considering the complex and dynamic nature of this topic, it is crucial that the study into the costs and benefits is launched on time, parallel to the implementation of the PAD. This is necessary for getting a reliable estimate of the costs and benefits in 2019. ACM recommends the Dutch Minister of Finance to advocate, at a European level, for a timely launch of an additional study into the costs and benefits.

ACM contributes to the new cost-benefit analysis of account number portability in two ways

With the results of this study, ACM wishes to initiate, in the build-up to the PAD review in 2019, an international discussion on the desirability of account number portability. ACM contributes in two ways:

- ACM had a framework developed, with which EU Member State is able to estimate the benefits of account number portability as comprehensively as possible. This framework takes into account the specific market conditions in each Member State, such as the level of technological innovation (FinTech). According to ACM, separate benefit analyses are needed for each Member State, since national payment markets in Europe are different in several aspects.

The framework has been applied to the Netherlands. Direct benefits for Dutch consumers and businesses are estimated at **EUR 388 to 466 million** over a period of ten years. Most of these savings are realized through a reduction of the administrative burden for consumers and businesses that actually switch. Account number portability will also lead to more competition between banks. These are indirect effects such as improved service quality or lower tariffs for all consumers and businesses. These indirect effects are more difficult to quantify than the direct benefits. A part of these indirect benefits have been quantified. Over a period of ten years, they have been estimated at approximately **EUR 500 to 550 million**.



- The total costs of account number portability strongly depend on the choices that are made in the design of account number portability. ACM has fleshed out two variants of account number portability that cost less than the most common variant, because banks and other market participants in the payment chain will need to make fewer adjustments. ACM prefers a variant in which consumers and businesses pay using a unique alias, such as a mobile phone number or the registration number with the Chamber of Commerce.

The competition problem remains relevant irrespective of FinTech

The desire to promote competition in the retail banking sector cannot be seen as separate from the technological innovations in payment markets (FinTech). Some argue that innovations will solve the competition problem automatically because, in the future, consumers and businesses will increasingly use innovative services related to their payment account. With such innovations, the actual account number can retreat more and more into the background. In that scenario, switching to another bank while keeping one's account number will become less relevant for consumers and businesses.

ACM expects FinTech to become more of a supplement to the payment account than an outright replacement thereof. Consumers or businesses will shift part of their payments to alternative providers of payment services, which are used in addition to or on top of their existing payment account. However, at the moment, the actual magnitude of this shift is still unclear. That is why it continues to be relevant to launch a further study into the costs and benefits of account number portability.

ACM makes the following recommendations

Based on the results of this study, ACM makes the following recommendations to the European Commission.

- Stimulate other EU Member States to estimate the benefits of account number portability (parallel to the implementation of the PAD) and use the proposed framework by ACM as a starting point.
- Perform an EU-wide study into (i) switching behavior with business payment accounts, and (ii) the gateway function of personal and business payment accounts.
- Carry out a study into the technological options and costs of EU-wide alias-based portability.



1 Introduction

1.1 Background

In general, competition leads to better products and/or services at a lower price.. Consumers and businesses can promote competition in the retail banking sector if they are able to comparison-shop actively and switch banks easily. Switching barriers (like product offerings that are difficult to compare) stand in the way of active consumer behavior. This could result in higher prices, reduced efficiency, and less innovation in the European retail banking sector.

The European Commission (EC) recognizes this competition problem, and seeks to lower the switching barriers in personal payment accounts (also called current accounts) in all EU Member States by introducing the Payment Accounts Directive (PAD). The Netherlands Authority for Consumers and Markets (ACM) has previously established that competition in the Dutch *retail* banking sector is suboptimal¹, and that switching barriers play a key role.

The PAD came into force in 2014. The main objective of the PAD is to promote the internal market of retail banking in Europe.² The EC wishes to realize that objective by, among other things, increasing competition on the market of personal payment accounts.³ It aims to do so by making it easier for consumers to be able to compare the different offerings in the market. In addition, it should also become easier for consumers to switch to another bank with their payment account.

When it drew up the PAD in 2013, the EC considered four measures for lowering the switching barriers in personal payment accounts. For each measure, an individual cost-benefit analysis (CBA) was carried out. One of these measures was the introduction of account number portability at a European level. In the rest of this study, this will be referred to as 'EU-wide ANP' or just 'ANP', unless stated otherwise. ANP was seen as the most effective solution.⁴ However, based on the CBA carried out then, the EC deemed this measure not proportional as a way to lower switching barriers.

In the decision-making process at the European level at the time, another measure was selected: a manual switching service. In the rest of this document, this will be referred to as the 'PAD switching service.' This service means that, when a consumer switches (and thus gets a new account number), the new bank will take certain actions associated with the switch off their hands, for example, informing businesses that collect direct debits payments from the previous account number. The PAD switching service should be available for consumers in every EU Member State in September 2016 at the latest. Individual Member States have the option of introducing a more extensive switching

¹ (Authority for Consumers and Markets, 2014) and (Authority for Consumers and Markets, 2015)

² (The European Parliament and the European Council, 2014), point 1.

³ In this document the term 'market' does not refer to the term 'relevant market' within the meaning of competition law.

⁴ (European Commission , 2013, p. 215)



service than the one prescribed in the PAD.⁵

In 2019, the EC will review the PAD. The effectiveness of the PAD switching service, as well as a new CBA of EU-wide ANP will be part of this review.⁶

ACM is critical of the previous CBA

In the Impact Assessment of the PAD, the EC estimated the costs of ANP at EUR 14.7 billion, and the benefits at approximately EUR 11 billion.⁷ ACM is critical of the CBA that was carried out in 2013. ACM makes the following comments.

- In its study into barriers to entry to the Dutch banking sector, ACM already established that quantification of both the costs *and* the benefits of ANP is a very rough estimate.⁸ As it turns out, the estimate of the costs of EU-wide ANP is an extrapolation of a cost estimate of ANP in just the Netherlands.⁹ ACM expects an extrapolation to a European level to contain doublings as some costs do not necessarily have to be made in each Member State.
- Furthermore, the quantified benefits of EU-wide ANP are limited to private individuals that actually switch account numbers. The benefits for businesses, as well as the possible positive effects on competition between banks have not been taken into account.

Against the backdrop of the CBA to be carried out in 2019, these criticisms were a major reason for ACM to carry out this study.

1.2 Objective of this study

In 2019 the EC will assess whether the PAD switching service has been an effective measure. ACM doubts whether a switching service is the most effective measure to increase competition in the retail banking sector (see chapter 2). ACM therefore believes it is important that Europe takes an informed decision on EU-wide ANP in 2019. A high-quality CBA will be essential in that regard.¹⁰

⁵ (The European Parliament and the European Council, 2014), point 29

⁶ (The European Parliament and the European Council, 2014), article 28

⁷ (European Commission , 2013, pp. 215-216)

⁸ (Authority for Consumers and Markets, 2014, pp. 82-83)

⁹ This estimation of EUR 300 to 500 million was made more than 10 years ago by the Dutch Banking Association. The Dutch Banking Association and the Dutch Payments Association indicated that the document substantiating this estimate can no longer be retrieved. Therefore it is impossible for the ACM to judge the quality of this estimation.

¹⁰ (Authority for Consumers and Markets, 2014, p. 82)



In view of the complexity and dynamics of the subject, ACM is aiming to initiate the international discussion on the desirability of ANP right away by means of this study. The main aim of this study is to provide the EC with more information on the possible effects of ANP in the run-up to the new CBA. It will then be possible to produce a better assessment of all costs and benefits of ANP in 2019. Two main questions will be answered in this investigation:

- With regard to the benefits: What are all the relevant direct and indirect benefits of ANP and how can these best be quantified, taking into account the specific characteristics of the national payment market?
- With regard to the costs: What are the different ways of introducing ANP and what variant can best be used as the basis for a more detailed investigation into the costs of ANP?

1.3 Scope of this study

In this study, ACM focuses on EU-wide ANP and not on the national introduction of ANP. The primary reason for this is that the Netherlands is part of the *Single Euro Payments Area* (SEPA). SEPA has made an important contribution to the creation of a single internal financial market in Europe. For the payment system SEPA means that no distinction is made any longer between domestic and cross-border payments in euro's for credit transfers and direct debits. Any introduction of ANP at national level cannot be viewed in isolation from this European dimension and also requires adjustments among foreign parties in the payment chain.

Second, a national introduction of ANP may erect an additional barrier to entry for foreign banks because an entrant may have to make additional investments. ACM therefore believes a national introduction of ANP could signify an undesirable shift towards a more fragmented financial sector.

The focus of this investigation is on payment accounts for consumers, self-employed persons and SMEs. These market participants are expected to have a greater interest in lower switching barriers than large companies, since the latter group has greater negotiating power and is often a customer of multiple banks. There appears to be greater competition for payments by large companies than for payments by self-employed persons and SMEs. In the remainder of this report self-employed persons and SMEs will be referred to as 'businesses'.

1.4 Sources of information

During this study ACM gathered information from various sources and by various methods. These sources are described briefly below.

ACM has had discussions with a large number of stakeholders, such as different providers of payment accounts, consultancy firms in the field of payments and a processor of payments. ACM has also spoken to other government organizations, such as the Dutch and European Central Bank, the EC and the Dutch Ministry of Finance. Finally ACM has had discussions with consumer organizations and the Dutch Payments Association. A list of all the stakeholders concerned can be found in Annex 1.



ACM also commissioned economic research firm Decisio to develop the framework in which the benefits of ANP can be quantified as far as possible in each EU Member State.¹¹ Decisio is a research firm with extensive experience of cost-benefit analyses. Decisio was also asked to quantify the benefits of ANP for the Netherlands as far as possible on the basis of that framework. Decisio conducted two surveys for that purpose, one among consumers and one among businesses. As part of its research Decisio conducted discussions with multiple stakeholders.

Finally, consultations were held on the results of this study – prior to publication – with important stakeholders such the Dutch Payments Association and the Dutch Central Bank. Where relevant, the responses have been incorporated in this report.

1.5 Structure of this report

This report is structured as follows. Chapter 2 deals with the assumed competition problem and the possible solutions. Chapter 3 presents the framework for quantifying the direct and indirect benefits of ANP. This chapter also describes the results of the application of the framework to the Netherlands. Chapter 4 describes different ways of introducing ANP and weighs up the variants on the basis of a number of aspects. Finally, in chapter 5, ACM presents the main conclusions and recommendations of this investigation.

¹¹ Decisio worked with Periscoop Consult and GfK on this assignment.



2 The competition problem and possible solutions

The previous chapter describes the PAD and the objectives pursued by this European directive. One of the objectives is lowering the switching barriers in personal payment accounts. By lowering switching barriers, the EC aims to increase competition in the retail banking sector. ANP is one of the ways to lower switching barriers.

This chapter describes the assumed competition problem in the retail banking sector and the way in which ANP can solve this problem. ACM notes that a number of intermediate steps are required in order to move from ANP to more competition between banks. These intermediate steps are made explicit in this chapter. ANP is also compared to two other possible solutions in this chapter, namely a switching service and technological innovation.

2.1 Relationship between switching and competition

Consumers play an important role in the stimulation of competition. The threat that a customer may switch to a competitor forces providers to improve their products and services continuously. The switching threat plays an important role particularly in mature markets, because in this type of market relatively few new customers buy the product or service for the first time. Growth in market share comes predominantly from winning customers from competitors.

There is a competition problem in a market if companies do not sufficiently see the potential switching by customers to a competitor as a threat and therefore take insufficient account of it in determining their product offering (price, quality, variation etc.). The degree of switching threat depends largely on the height of the switching barriers. Switching barriers are the costs which a consumer has to incur in order to change provider. These are both financial switching costs and 'costs' in the form of time and difficulty, as perceived by the customer.¹²

The existence of switching barriers means that a consumer is tied to the current provider to a certain extent. This is known as the *lock-in effect*.¹³ A provider has a degree of market power over a locked-in consumer. That is because the provider is able to degrade his offering just to the extent that it would still be unattractive for the customer to switch. The higher the switching barriers, the greater the degree of market power.¹⁴ The lack of competition and the resulting market power can be expressed in the form of higher prices, lower efficiency and/or less product differentiation.

¹² See (Burnham, 2003) for a list of different types of switching barriers.

¹³ (Office of Fair Trading, 2003, p. 25)

¹⁴ It should be noted here that if switching barriers exist, the provider knows that in future he will have market power over customers who buy a product from him now. This means that in the first instance there will be greater competition to secure future market power over these consumers. Consequently all or part of the profit which the provider subsequently makes on locked-in consumers is eliminated ex ante by competition. This pattern is also referred to in the economic literature as 'bargains-then-rip-offs'.



The estimated benefits of switching also play a role in the degree of switching threat. Consumers may incorrectly perceive that switching will not be beneficial, even though there are substantial differences in the providers' product offerings.¹⁵ The threat of switching which firms experience is considered sufficient if (i) customers have a good insight into the differences between providers and (ii) perceive that they can switch provider without much difficulty.¹⁶ In such a situation firms have an incentive to offer a competitive product to their customers.

Low switching rates are therefore not a competitive problem in themselves. That is because limited switching behavior may be associated with low switching barriers and the fact that consumers have no strong incentives to switch, for example because they are satisfied with their current provider or there are too few differences between providers. In addition a relatively small group of switchers can produce sufficient competitive pressure if providers have limited potential to differentiate between customers.¹⁷ An increase in the actual number of switchers in a market is therefore not a goal in itself. The ultimate aim is to increase competition between providers.¹⁸

2.2 High barriers to switch reduce competition in the retail banking sector

Analysis by the European Commission

In the Impact Assessment of the PAD the European Commission states that the two conditions for a sufficient switching threat are not fulfilled in the markets for payment accounts throughout Europe. The EC writes, for example, that it is difficult for consumers to gain insight into the differences between providers because in many EU Member States the rates for a payment account are difficult to understand. In this regard the EC draws a distinction between consumer awareness of the level of rates charged to them and the quality of information provided to consumers.¹⁹ In addition, the EC believes that there are high barriers to switch.²⁰ An important barrier to switch is fear among consumers that after switching regular payments will be made late or not at all due to errors.²¹

In the PAD the EC writes that: "*it is essential to tackle the problem of low customer mobility [...]*"²² This passage implies that mobility in personal payment accounts is too low according to the EC. This problem was already highlighted by the EC in 2006.²³

¹⁵ The economic literature draws a distinction between *push* and *pull factors* for switching. An example of a push factor is an increase in the rates charged by the consumer's current provider. A pull factor, for example, is providing a welcome bonus for opening a new payment account. See (Optimisa Research, 2015, p. 6).

¹⁶ (Financial Conduct Authority, 2015, pp. 15-16)

¹⁷ (OECD, 2014, pp. 7-10)

¹⁸ The actual number of switchers in a market is also often seen as an important competition indicator.

¹⁹ (European Commission, 2013, p. 33)

²⁰ (European Commission, 2013, p. 38)

²¹ (European Commission, 2013, p. 40)

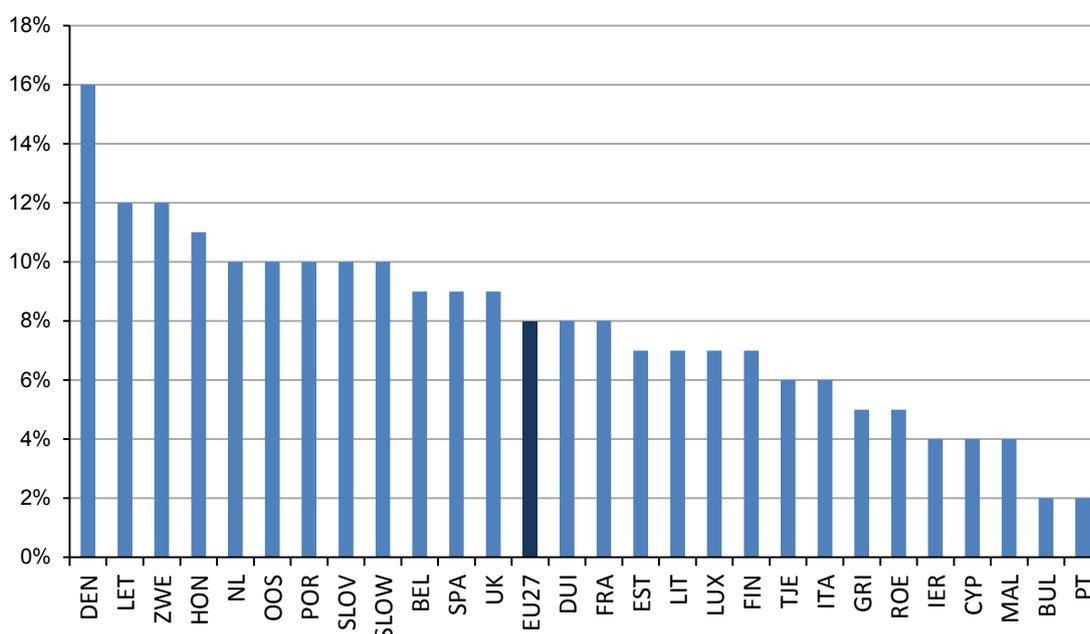
²² (The European Parliament and the European Council, 2014), point 9

²³ http://europa.eu/rapid/press-release_IP-06-619_en.htm?locale=en



The PAD does not give concrete switching figures for personal payment accounts. In the Impact Assessment the EC refers to an EU-wide investigation from 2012 into consumers' switching behavior for various financial products or services.²⁴ This study showed that for personal payment accounts approximately 8% of all surveyed consumers had switched to a different bank in the past five years.²⁵ There are large differences between EU Member States, as can be seen in figure 1.

Figure 1: proportion of consumers with a payment account who switched provider in the 2007-2012 period (per Member State and EU average)



Source: (European Commission, 2012, p. 87). The percentage shown is the sum of the categories 'you switched and it was easy' and 'you switched and it was difficult.'

The EC does not explicitly state which benchmark it uses when it describes the annual switching rates for personal payment accounts as 'low'. The EC does state, however, that it would expect higher switching figures in view of the (a) price differences between and within EU Member States²⁶, (b) switching figures for other products²⁷, and (c) the number of consumers who are dissatisfied with their current bank.²⁸

²⁴ (European Commission, 2013, p. 39)

²⁵ (European Commission, 2012, p. 85)

²⁶ (European Commission, 2013, p. 39)

²⁷ (European Commission, 2013, p. 193)

²⁸ (European Commission, 2013, p. 194)



According to the EC the limited switching behavior is “[...] largely due to the inadequate transparency and comparability of the fees charged and the service offering, as well as the problems which consumers experience in switching to a different current account.”²⁹ According to the EC, obstacles to comparing and switching make it more difficult for new players to enter the retail banking sector.³⁰ Neither the PAD nor the Impact Assessment describes how limited switching behavior in the case of personal payment accounts has detrimental effects on other banking markets.

Supplement to this analysis by ACM

ACM endorses the competition problem outlined by the EC. According to ACM there is insufficient switching threat in many markets personal payment accounts in Europe. Various international studies show that (i) price is an important reason in the choice of a bank³¹, (ii) there are significant price differences between providers of payment accounts³² and (iii) a proportion of consumers are dissatisfied with the service from their current bank.³³ In spite of that, most consumers in Europe have not switched their payment account provider in the last five years (see figure 1). Switching barriers are an important reason for the limited switching behavior according to ACM.³⁴

The EC has not taken switching barriers for business payment accounts into account in the PAD.³⁵ According to ACM the competition problem outlined above is also relevant to small and medium-sized businesses.

In a survey conducted among Dutch businesses in 2014 approximately 70% of those surveyed stated that they had never switched their business payment account to another bank.³⁶ There is also little movement in the market shares of the three major banks. This is consistent with the situation in the United Kingdom, where annually no more than 4% of businesses with a payment account switch their provider.³⁷

As far as ACM is aware, no EU-wide studies of switching behavior exist in the field of business payment accounts. Despite this lack of information at European level, ACM considers it likely that there is also insufficient threat of switch for business payment accounts. There are two reasons for this view:

²⁹ (The European Parliament and the European Council, 2014), point 5

³⁰ (The European Parliament and the European Council, 2014), point 5

³¹ (Bain & Company, 2013, p. 30)

³² http://ec.europa.eu/dgs/health_food-safety/pressroom/docs/bank-accounts-factsheet-01_en.pdf

³³ (Bain & Company, 2013, p. 9)

³⁴ (Authority for Consumers and Markets, 2014, p. 82)

³⁵ (European Commission, 2013, p. 6)

³⁶ (GfK, 2014, p. 25)

³⁷ (FCA & CMA, 2014, p. 123)



- First, the switching barriers for business payment accounts are expected to be higher than for personal payment accounts. Businesses make more intensive use of their payment account and therefore have to inform more parties in the event of a switch.³⁸
- Second, the links to other banking products are more intensive in the case of businesses than in the case of consumers. Previous studies by ACM show that most businesses see an overdraft as the most important form of external business financing.³⁹ An overdraft is only available to businesses if they also have a business payment account at the same bank. Consequently the switching barriers are higher with the payment account.⁴⁰

2.3 Two government measures for lowering barriers to switch

In the international discussion on lowering switching barriers for payment accounts, two government measures receive most attention. These are a switching service and account number portability. ACM takes the PAD switching service as an example of a 'switching service' measure.

Both the PAD switching service and ANP are intended to eliminate the main switching barriers for consumers and businesses. In Europe there are a large number of studies into switching barriers for personal and business payment accounts.⁴¹ Those studies show that the main barriers experienced by consumers and businesses are related to the fact that the switcher is issued with a new account number. This means that - in a situation without ANP or a switching service - the switcher has to inform all persons, businesses and institutions that regularly credit or debit the switcher's payment account.

Lowering the main switching barriers increases the threat that customers will switch. This increases competition in the markets for payment accounts. By means of the gateway effect, this can lead to more competition in other retail banking markets. The gateway effect means that banks can more easily sell other financial products (such as savings accounts, mortgages and insurances) to customers who have a payment account with them, than to other customers. Various studies point to the existence of a gateway function for payment accounts, but there is usually a lack of detailed empirical research.⁴² The relationship between the government measure and competition between banks is shown schematically in figure 2.

³⁸ Some businesses have an automatic link between their accounting system and the internet banking environment of the bank at which they hold their payment account.

³⁹ (Authority for Consumers and Markets, 2015, p. 14)

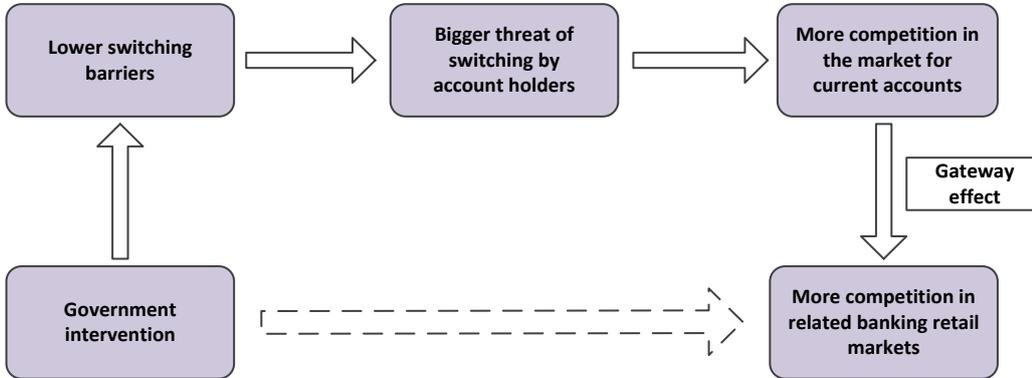
⁴⁰ (OECD, 2014)

⁴¹ (GfK, 2014, p. 19) and (SEO, 2008, p. 22)

⁴² (Bain & Company, 2013, p. 33), (Office of Fair Trading, 2010, p. 132) and (European Commission, 2007, p. 70)



Figure 2: Relationship between government measure and competition between banks



Source: analysis by ACM

Other switching barriers which are not eliminated by the PAD switching service or ANP continue to exist. For example, the fact that the switcher is given a new payment card with a pin code. Table 1 shows a list of the barriers which a consumer or business encounters when switching banks with a current account. It states which specific switching barriers are lowered or eliminated by ANP and the PAD switching service.

Table 1: list of switching barriers for payment accounts which are lowered or eliminated by the ANP and the PAD switching service

| Step in the switching process | Switching barrier | Switch Service | ANP |
|--|---|----------------|-----|
| Search for a new bank | Comparison of the product offering in the market | | |
| Open a current account at the new bank | Registering with the new bank and supplying relevant documentation | | |
| | Identification in the new bank | | |
| | Waiting for access to the new current account | | |
| | Waiting for new payment card | | |
| | <i>For businesses:</i> getting to know the new adviser | | |
| Use of the new current account | <i>For businesses:</i> entering into new agreements about overdrawn balances on the current account | | |
| | Getting used to the new internet banking environment | | |
| | <i>If applicable:</i> remembering the new PIN number for the payment card | | |
| | Remembering the new account number | | XX |
| Switch payments to the new current account | Setting up regular transfers again | XX | |
| | Informing collectors about the new account number and checking that this change has been processed | X | XX |
| | Informing employer, customers, friends etc. about the new account number | X | XX |



| | | | |
|---------------------------------|--|----|----|
| | <i>For businesses:</i> changing the account number in the internal business administration (letterhead, website, etc.) | | XX |
| Closing the old current account | Closing the old current account | XX | |
| | Saving or printing statements from the old current account | | |

Source: analysis by ACM. 'XX' means that the switching barrier is eliminated completely. 'X' means that the switching barrier is partly eliminated.

It is also conceivable that if ANP is introduced in Europe it will be part of a wider switching service. The additional elements of the PAD switching service (help with regular transfers and closing the old payment account) may well be retained in that case.

2.4 ACM expects account number portability to be a better solution than a switching service

Experience of the switching service in the Netherlands

There has been an automatic switching service in the Netherlands (hereinafter: NL switching service) since 2004 for both consumers and businesses.⁴³ The NL switching service ensures that collections and transfers are forwarded automatically to the new current account for 13 months. Businesses and institutions which send collection instructions to the old account number are also informed by letter of the customer's new account number.

Several evaluations have shown that consumers and businesses that use the NL switching service are satisfied with its technical functioning.⁴⁴ They also state that the switching barriers for payment accounts are lower than they had initially estimated.⁴⁵ Therefore, there appears to be a significant difference between the actual switching barriers and the perception that consumers and businesses have of those barriers.

However, the evaluations have not investigated whether the NL switching service has led to a bigger switching threat and hence to greater competition. On the basis of previous political discussions this should be an explicit aim of the NL switching service.⁴⁶

⁴³ The Netherlands is the first EU Member State to have introduced a switching service for payment accounts. See www.overstapservice.nl

⁴⁴ (Consumentenbond en Trigenum, 2011, p. 15)

⁴⁵ (SEO, 2008, p. 22)

⁴⁶ Kamerstukken II, 2003/04, 27 863, no. 17. "Eind 2004 wordt onderzocht of de overstapservice de overstapkosten voldoende reduceert en de marktwerking bevordert. Mocht uit de evaluatie blijken dat dit niet het geval is dan is nummerportabiliteit een alternatief" [At the end of 2004 it will be investigated whether the switching service sufficiently reduces the switching costs and promotes competition. If the evaluation shows that this is not the case, account number portability is an alternative.]



The number of users of the switching service in the Netherlands is relatively low in proportion to the total number of payment accounts (at most 1% of all account holders).⁴⁷ According to ACM unfamiliarity with the NL switching service is an important reason for the relatively low number of users and hence the limited number of switchers. (GfK, 2014) shows that 63% of surveyed consumers with a payment account had never heard of the NL switching service.⁴⁸ Despite the existence of a switching service in the Netherlands, there are still many consumers and businesses that perceive the switching barriers for current accounts to be higher than is actually the case. This reduces the competitive pressure account holders exert on banks.

ACM has doubts about the expected effectiveness of the PAD switching service

Other EU Member States are currently introducing a switching service for personal payment accounts. The provisions of the PAD serve as a basis for that. Individual Member States can opt to introduce a more extensive switching service than that prescribed in the PAD.⁴⁹ ACM doubts whether the PAD switching service will have the desired effect. There are two reasons for this doubt:

- Article 14 of the PAD imposes a number of requirements on the information provision concerning the PAD switching service in a Member State. Paragraph 2 states that all European banks must have an information leaflet on this service available in digital and analogue form. Article 14, however, specifies no requirements for minimum familiarity among account holders in a Member State. According to ACM, banks with a relatively large number of account holders have no strong incentive to place this information prominently on their website or in their bank branch. After all, this increases the risk that customers will switch to a different bank. The lack of a minimum level of familiarity in the PAD increases the risk that – as in the case of the NL switching service – most consumers and businesses will not be familiar with the PAD switching service.
- Second, the PAD switching service is largely based on manual operations by the old and the new bank. This is in contrast to the switching service in the Netherlands, which is largely automated. In the event of strong growth in new customers using the PAD switching service, there is a risk that things will go wrong in the new or old bank as a result of which the switcher will encounter problems with his payments. This may prevent consumers and businesses that are intending to switch from using the PAD switching service.

⁴⁷ (Consumentenbond en Trigenum, 2011, p. 3). In addition, the majority of the actual switchers in the Netherlands state that they use the switching service (p. 19).

⁴⁸ In the United Kingdom too, greater familiarity with the *Current Account Switch Service* (CASS) is an important area for improvement. See (Financial Conduct Authority, 2015, pp. 58-60)

⁴⁹ (The European Parliament and the European Council, 2014), point 29



Advantages of account number portability compared to a switching service

ACM believes ANP is a more effective measure to increase competition than a switching service. The PAD Impact Assessment also describes ANP as “*the most effective long-term option.*”⁵⁰ ACM has three arguments as to why it sees ANP as a more effective measure:

- First, ANP completely eliminates the most important switching barrier (informing third parties/fear of missed payments). The switching service does not completely eliminate this barrier. Users of the switching service must check themselves whether direct debits and credit transfers are forwarded correctly and whether businesses have entered the new account number in their records.
- An study by two employees of the Dutch Central Bank has shown that increasing the awareness of the switching service has no significant effect on consumers’ switching intention. The introduction of ANP, by contrast, does have a significant effect on the intention to switch.⁵¹ The investigation by Decisio also shows that ANP has a significant effect on the switching intention of consumers and businesses.⁵²
- After ANP is introduced, businesses no longer have to change a customer’s account number in their business records if he changes bank. They do, however, in the case of a switching service.

2.5 The competition problem remains relevant irrespective of FinTech

The need for increased competition in the retail banking sector cannot be seen in isolation from the ongoing technological innovations in the financial sector. The increased focus on this has to do with the growing volume of venture capital that has been invested in so-called *FinTechs*. With regard to payments, an increasing number of providers are entering the market with *Stored Value Accounts* (such as PayPal) and *Digital Wallets* (such as Google Wallet) for example. These innovations provide more choice for consumers and businesses.

The *Revised Payment Services Directive* (PSD2) may have a significant influence on the growth of FinTechs in Europe.⁵³ An important element of PSD2 is that banks must allow other innovative providers of payment services to access the transaction data of the payment account (*Access to the Account*). The account holder must give consent for this. This enables consumers and businesses to make payments from their payment account through other innovative providers. Correct implementation of this directive will make it easier for new parties to offer payment services. EU Member States have until January 2018 to transpose this directive into national regulations.

⁵⁰ (European Commission , 2013, p. 83)

⁵¹ (De Nederlandsche Bank, 2015, p. 20)

⁵² (Decisio, 2016). See the ACM website for the full report by Decisio.

⁵³ http://ec.europa.eu/finance/payments/framework/index_en.htm



According to some people, FinTech automatically solves the competition problem of limited switching threat because consumers and businesses in future will increasingly use innovative services relating to their payment account. As a result of these innovations, the account number may increasingly recede into the background. In that scenario switching with the payment account will be less relevant to consumers and businesses.

ACM expects that technological innovation with respect to payments will supplement rather than provide an alternative to the payment accounts.⁵⁴ A consumer or business will move part of his/its payments to alternative providers of payment services which are used in addition to or 'on top of' the existing payment account.⁵⁵ The payment account therefore continues to exist as a place where the customer's money is stored.

The extent to which the shift to alternative providers will take place is currently unclear. This depends greatly on the added value which those other innovative providers can offer consumers and businesses. As these developments are difficult to predict, ACM believes it is unwise to wait for them to materialize on the assumption that the market will solve the competition problem itself. It therefore remains relevant to conduct further research into the costs and benefits of account number portability.

⁵⁴ See also a study commissioned by the Dutch ministry of Finance:

<https://www.rijksoverheid.nl/documenten/rapporten/2016/07/07/bijlage-1-onderzoek-accnture-deel-1>

⁵⁵ In 2015 at most a few percent of retail payments in the Netherlands went through non-banking providers.



3 Social benefits of EU-wide account number portability

Chapter 1 states that in the preparation for the PAD the European Commission did not take all social benefits of ANP into account in its cost-benefit analysis. ACM therefore asked economic research firm Decisio to develop a framework with which an EU Member State could quantify as much direct and indirect benefits of ANP as far as possible. Decisio then applied this framework to the Netherlands. This chapter presents a summary of the results of the investigation by Decisio.⁵⁶

3.1 Study into the social benefits of EU-wide account number portability (2013)

This chapter starts with a description of the previous quantification of the benefits of EU-wide ANP. In the preparation of the PAD in 2013, the total social benefits of ANP were estimated at approximately EUR 11 billion over the period 2013 - 2022.⁵⁷ The EC had outsourced this quantification of the benefits to the research firm ICF International.⁵⁸ In its research this firm had identified various social benefits of ANP but had quantified only two of them.

The first category of benefits are the financial savings on payments expenditure for consumers who actually switch to a cheaper provider. ANP makes it is easier to switch banks and more consumers will switch. These benefits are estimated at EUR 9.504 billion.⁵⁹ It is assumed that each year one percentage point more consumers will switch as a result of ANP and that switchers save approximately 20% on their annual expenditure on payment accounts.

The second category of benefits are the advantages of a more efficient switching process. Consumers spend less time switching their current account. According to the EC this will deliver a saving of EUR 1.179 billion.⁶⁰ It is also expected that fewer errors will be made when a consumer switches banks with ANP than in the current situation. This has been quantified at EUR 156 million.⁶¹ Finally, sending fewer letters generates a saving of EUR 92 million because businesses and institutions no longer have to be informed about the new account number when a customer switches. In its report ICF International identifies ten other social benefits of ANP (which have not been quantified).⁶² These benefits can be divided into three categories. First, there are various benefits for consumers because it becomes easier to switch the payment account between banks. Second, a

⁵⁶ (Decisio, 2016)

⁵⁷ Discounted at an annual rate of 4%.

⁵⁸ (ICF International, 2013)

⁵⁹ (European Commission , 2013, p. 270)

⁶⁰ (European Commission , 2013, p. 270). It is assumed that switchers will save on average one hour at an hourly rate of EUR 33.

⁶¹ This has been calculated by taking 8.5% of the number of monthly direct debits in Europe multiplied by EUR 10. EUR 10 is an estimate of the average penalty for late payments or a potential debit balance that arises due to a direct debit from an incorrect payment account.

⁶² (ICF International, 2013, p. 46 en132)



lowering of the switching barriers may lead to more competition between banks. Finally, banks can achieve efficiency gains and access a larger sales market.

3.2 Framework to quantify all social benefits of account number portability

A CBA supports the decision-making on a policy proposal – such as the introduction of ANP – by giving the fullest possible picture of the relevant costs and benefits of the measure and its consequences for social welfare.⁶³ Specific costs or benefits are the differences between a world in which the measure has been carried out and a world in which that is not the case. In addition to the financial costs or benefits, other effects are also assessed, such as effects on competition and safety. All effects will then be expressed as far as possible in a financial value, so that a comprehensive assessment is possible.

The investigation by Decisio is not a full cost-benefit analysis of EU-wide ANP. First, the implementation costs of ANP do not fall within the scope of this investigation. The analysis and quantification of total implementation costs requires specific knowledge which ACM and Decisio do not have. Second, there are major differences between the retail banking markets in the European Member States. ACM and Decisio do not have the relevant information on the retail banking markets of all 27 European Member States. The total social benefits of ANP cannot therefore be assessed at this stage.

An important step in estimating the total social benefits of ANP is the development of a framework in which an EU Member State can quantify all direct and indirect benefits of ANP as much as possible. ACM has asked Decisio to develop such a framework. The application of this framework provides that EU Member State with a numerical estimate (in euros) of the total social benefits of ANP in the country concerned. This estimate takes account of the specific characteristics of the payment market in that country. The more EU Member States that apply the framework, the better the EU-wide social benefits of ANP can be estimated.

The Decisio framework consists of five principles for conducting research into the quantification of the benefits of ANP for an individual Member State. Applying these principles increases the reliability of the quantification of the benefits. The main principles of the framework are listed below. These are further developed in the Decisio report.

⁶³ (Centraal Planbureau, 2013, p. 10)



Principle 1: take account of relevant market developments by applying multiple base scenarios

The determination of the base scenario is an important part of a CBA. The base scenario is the most likely development that will take place in all markets of relevance in the event that the measure to be assessed is not implemented.⁶⁴ This makes it possible to identify the effects that can be attributed specifically to the proposed measure. If there is a relatively high degree of uncertainty about the future, multiple base scenarios can be formulated.

A number of important market developments are under way which will influence the switching behavior of consumers and businesses with regard to payment accounts. These are in any event the implementation of the PAD, the implementation of PSD2 and the emergence of FinTechs. The scale and direction of these market developments, however, cannot be predicted with certainty. Decisio has therefore based its investigation on two base scenarios: business-as-usual and the FinTech scenario. When applying the framework in the future, EU Member States can choose to develop other scenarios or, for example, take the average of the above scenarios.

Principle 2: quantify the benefits for both consumers and businesses

The benefits of ANP are not limited to consumers, as described in chapter 2. ANP also lowers a very important switching barrier for businesses and can thus contribute to competition in business banking markets. These benefits must be included in the quantification of the total social benefits.

Principle 3: quantify the indirect benefits of ANP as much as possible

In its report Decisio draws a distinction between direct and indirect benefits of ANP. The direct benefits concern particularly the advantages of lower switching barriers for account holders who change provider. The indirect benefits consist primarily of the positive effects of greater competition in retail banking markets which may result from ANP.

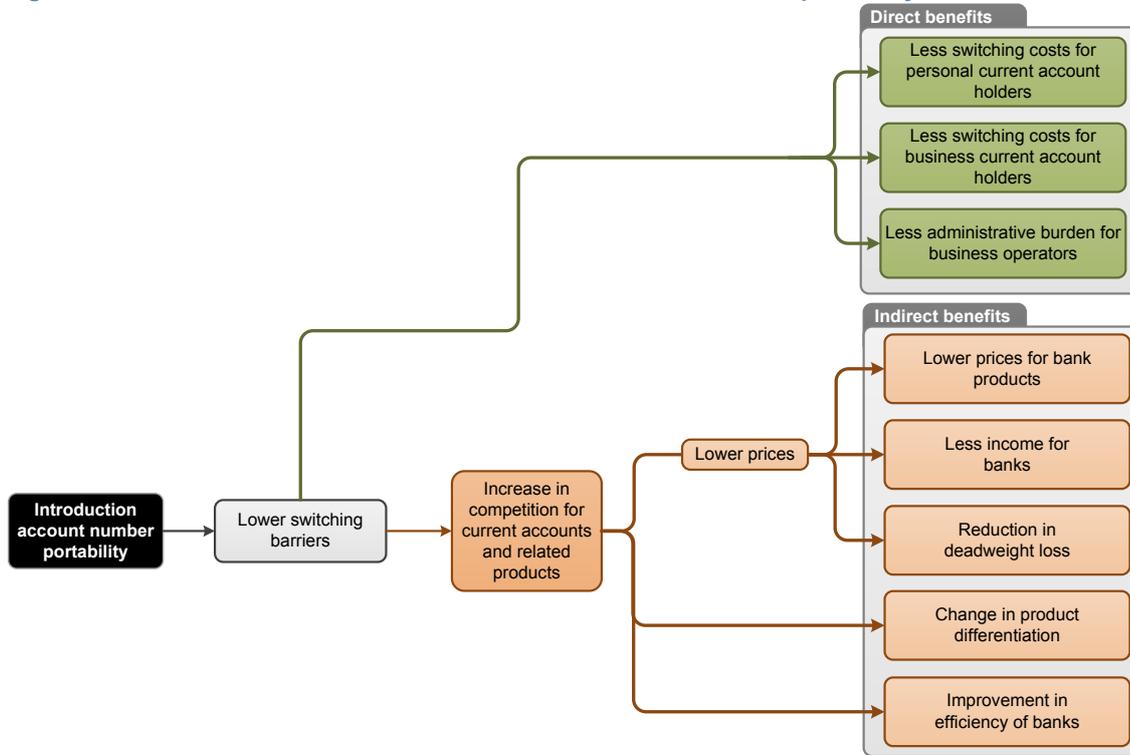
The extent to which ANP will generate more competition cannot be predicted *ex ante* with certainty. Statements about the scale of indirect benefits must therefore be interpreted cautiously. However, that doesn't mean not to incorporate the indirect benefits in the CBA at all. After all, the primary reason for introducing ANP is to stimulate competition in the retail banking sector. If these indirect effects are not taken into account, there will be an incomplete picture of the total benefits and the wrong conclusions may be drawn on the desirability of ANP. The indirect benefits must therefore be quantified as much as possible. An overview of all social benefits of ANP is shown in the figure below.⁶⁵

⁶⁴ (Centraal Planbureau, 2013, p. 83)

⁶⁵ Decisio uses a slightly different presentation in its report.



Figure 3: Overview of the social benefits of EU-wide account number portability



Source: (Decisio, 2016). Deadweight loss is a loss of social welfare because demand and supply in a market are not balanced, for example because the price is above the competitive level.

Principle 4: assume that ANP is currently being introduced when conducting market research

The introduction of ANP cannot be expected in the short term. After all, the EC will not make a detailed assessment of the costs and benefits of ANP at European level until 2019, as part of the evaluation of the PAD. The implementation of any market research – such as a survey – into the expected effects of ANP becomes too complex, however, if it is assumed that ANP will not be introduced until after 2019.

In the surveys of consumers and businesses conducted as part of the research by Decisio it was therefore assumed that EU-wide ANP would be introduced in 2016. Consequently, the expected consequences of ANP are related to the current market conditions, for example the situation in which the majority of consumers and businesses in the Netherlands are unfamiliar with the switching service.

Principle 5: assume a relatively long time horizon

The relevant time horizon has an important influence on the level of the social benefits. The shorter the horizon, the lower the benefits. The choice of time horizon is determined partly by the period to



which the relevant problem applies.⁶⁶ For measures requiring major investments, the basis is usually a relatively long time horizon.

Any introduction of ANP in Europe will lead to significant one-off investments by various market participants. The positive effects of the introduction of ANP on competition become evident, however, over a longer period. If an excessively short time horizon is used, the CBA may turn out to be unjustly negative.

Decisio has based its research – more specifically the quantification of the consequences of EU-wide ANP for the Netherlands – on a time horizon of 10 years (2017 - 2026). The reason for this horizon is that the benefits of ANP are discernible for a longer period. An even longer period than 10 years leads to greater uncertainties. The European Commission has also assumed a time horizon of 10 years in the Impact Assessment of the PAD.⁶⁷

3.3 Applying the framework to the Netherlands

On the basis of the developed framework, Decisio has quantified the direct and indirect benefits of EU-wide ANP as far as possible for the Netherlands. Decisio has been able to quantify all of the direct benefits and part of the indirect benefits. The quantification of the direct benefits of ANP is shown in the table below.

Table 2: quantification of direct benefits of EU-wide ANP for the Netherlands

| Direct benefits (for the period 2017-2026) | Base scenario 1 | Base scenario 2 |
|---|------------------------|------------------------|
| Lower switching costs for consumers | EUR 174 million | EUR 134 million |
| Lower switching costs for businesses | EUR 159 million | EUR 121 million |
| Fewer administrative operations for businesses and institutions when a customer is given a new account number | EUR 133 million | EUR 133 million |
| <i>Estimate of total direct benefits</i> | <i>EUR 466 million</i> | <i>EUR 388 million</i> |

Source: (Decisio, 2016, p. 67)

The first two direct benefits consist of less ‘hassle’ for consumers and businesses who actually switch their payment account.⁶⁸ The third category of benefits is the reduction of administrative operations for businesses and institutions because – as a result of ANP – they no longer have to change the new account number when a customer switches his payment account.⁶⁹

⁶⁶ (Centraal Planbureau, 2013, p. 87)

⁶⁷ (European Commission, 2013, p. 270)

⁶⁸ A distinction has been drawn here between switchers who use the Dutch switching service and switchers who arrange everything themselves.

⁶⁹ However, businesses and institutions have to make one-off adjustments to their administration for all customers when introducing some variants of ANP (see chapter 4). These administrative operations fall within the social costs of ANP.



The quantification of the direct benefits in table 2 can also be expressed in direct benefits for each payment account. In the Netherlands there are currently approximately 15.5 million⁷⁰ personal payment accounts and 1.5 million⁷¹ business payment accounts. On the basis of these numbers, the direct benefits are EUR 16 to EUR 19 per personal payment account and EUR 89 to EUR 114 per business payment account.⁷²

The indirect benefits consist of the positive effects of ANP as a result of increased competition in the retail banking sector. These are the following effects (see also figure 3):

- a) Lower prices of payment accounts and other retail banking products;
- b) Lower incomes for banks as a result of the lower prices;
- c) Reduction in the deadweight loss in the markets for personal and business payment accounts;
- d) Change in product differentiation; and
- e) Improved efficiency of the service provided by banks.

Decisio has tentatively quantified effect a). Lower prices for consumers and businesses lead, however, to less income for banks (effect b). On balance these two effects do not generate any social welfare gain. Decisio also assumes – on the basis of the available information – that the introduction of ANP in the Netherlands will not lead to a reduction in the deadweight loss (effect c). Finally, Decisio has not quantified effect d) due to a lack of information.

In the case of effect e), Decisio does expect a positive effect and it has quantified this tentatively. After all, having less income due to increased competition incentivizes banks to operate more efficiently in order to maintain their profitability. This is a welfare gain. Decisio estimates the indirect benefits of ANP due to improved efficiency at approximately EUR 500 to EUR 550 million.

3.4 ACM's reflection on Decisio's framework

Decisio has developed a clear framework which a EU Member State can use as a starting point for quantifying the social benefits of ANP for its national payment markets. ACM makes three additional comments below that are relevant to the application of the framework.

- First, the quantification of the indirect benefits must be interpreted with caution, as Decisio rightly notes in its report. These are more difficult to quantify than the direct benefits. However, that doesn't mean not to incorporate the indirect benefits in the CBA at all. These are relatively large benefits, as illustrated by the application of the framework to the Netherlands.

⁷⁰ (Authority for Consumers and Markets, 2014, p. 75)

⁷¹ (Decisio, 2016, p. 42)

⁷² The third category of direct benefits in table 2 has been divided between personal and business on the basis of the number of payment accounts.



- Second, the Decisio framework has the advantage that it takes account of the specific market circumstances in a EU Member State. The benefits of ANP may differ between Member States because there are differences in the degree of concentration in the market, the average prices of payment accounts, switching behavior and the adoption of technological innovations.⁷³ The difference in the annual cost personal payment accounts between the most expensive and the cheapest country, for example, is approximately EUR 200.⁷⁴ These differences mean that the social benefits of ANP will also be different in each country.
- Finally, the welfare perspective applied by the Member State is of significance for the quantification of the total social benefits. Lower prices for banking products as result of greater competition lead to less income for banks. This is a shift from producer surplus to consumer surplus. If ANP leads only to lower prices for banking products, and hence to no other positive effects of greater competition, the overall indirect social benefits will be zero. However, if society attaches more weight to an increase in the consumer surplus, the indirect social benefits of ANP will be greater.

⁷³ (ICF International, 2013, pp. 17-18)

⁷⁴ (Van Dijk Management Consultants, 2009, p. 13)



4 Social costs of EU-wide account number portability

The previous chapter considered the social benefits of ANP. This chapter deals with the social costs of ANP. As described in chapter 1, ACM makes some observations concerning the earlier estimate of the social costs of ANP from 2013. This estimate is based on dated information and it is no longer possible to determine which variant of ANP it is based on.

A substantial part of the social costs of EU-wide ANP consist of the adjustments which banks and other players in the payment chains⁷⁵ are required to make. The extent to which they have to make adjustments depends greatly on the choices made on the method of achieving ANP. ACM sees three important choices:

- Whether or not the IBAN is replaced by a new (account) numbering structure for use by consumers and businesses.
- Whether or not the IBAN is replaced by a new (account) numbering structure for the processing of interbank payments.
- The way in which payments are directed to the right bank.

In this chapter ACM describes three variants of ANP.⁷⁶ These variants differ because different choices are made on the above points. The description and comparison of these variants makes clear precisely what these choices involve and what the consequences are for the social costs of ANP. ACM looks not only at the one-off implementation costs but also at other costs such as ongoing costs and risks.

The central message of this chapter is that the level of the social costs of ANP depends greatly on the variant of ANP that is chosen. This knowledge will contribute to a better estimate of the social costs of ANP which the EC will produce in 2019.

4.1 The use of the IBAN in payment systems

This section provides an introduction to the aspects of the payment systems in Europe that are relevant in the context of ANP. This means primarily an explanation of the use of the account number – the *International Bank Account Number* (IBAN) – in the payment systems and the various functions of the IBAN. This introduction is necessary to understand the changes that are required in the payment chain for each variant of ANP.

Account number portability does not have consequences for all payment instruments

The payment systems in Europe comprises various methods of electronic payment. These are referred to as 'non-cash payment instruments'. Each payment instrument has its own set of rules and

⁷⁵ The payment chain comprises all the parties involved in an electronic payment.

⁷⁶ In this chapter ACM will not produce any new estimate of the total social costs of ANP. This would be too large an investigation for ACM to conduct itself.



technical standards. The main non-cash payment instruments in Europe are:

- SEPA Credit Transfer (SCT)
The European Payments Council (EPC) is the owner of the SCT scheme.⁷⁷ These rules offer banks and other market participants the possibility of developing their own payment products. Examples of these in the Netherlands are iDeal and Acceptgiro.⁷⁸
- SEPA Direct Debit (SDD)
A distinction should be drawn here between the standard direct debit (SEPA Direct Debit Core) and the business direct debit (SEPA Direct Debit Business to Business). The EPC is the owner of the SDD schemes.⁷⁹
- Card payments
A distinction should be drawn here between debit card payments and credit card payments.⁸⁰ Important owners of card schemes in Europe are MasterCard and Visa.

An important difference between these three non-cash payment instruments is the unique number (hereinafter: identifier) with which the contra account of the payment can be identified. The IBAN is used as the identifier for SCTs and SDDs. In the case of debit card and credit card payments, however, that is usually the *Primary Account Number* (PAN).⁸¹ This PAN number appears on the chip of the payment card.

Any introduction of account number portability would only have consequences for the payment instruments in which the IBAN is used as an identifier, because in these payment instruments the existing IBAN numbers are replaced or made portable. ANP has no consequences for card

⁷⁷ The rules of the scheme are set out in the SEPA Credit Transfer Scheme Rulebook (European Payments Council, 2016). This Rulebook contains rules, for example, on the format of the account number that is used (IBAN as specified in ISO 13616), rules on the structure of the messages which parties send to each other (as described in ISO 20022) and rules on the maximum time permitted between the receipt of the payment instruction and the receipt of the payment by the payee's bank (one Banking Business Day).

⁷⁸ (Currence, 2014, p. 43)

⁷⁹ The rules of the scheme for the standard direct debit and the business direct debit are set out respectively in the SEPA Core Direct Debit Scheme Rulebook (European Payments Council, 2015) and the SEPA Business to Business Direct Debit Scheme Rulebook (European Payments Council, 2015).

⁸⁰ There may also be debit and credit card based payments, for example when a consumer pays using a smartphone and the payment is processed as a debit card payment.

⁸¹ See for example the Maestro Global Rules (Mastercard, 2012, p. 111) The PAN number is between 12 and 19 digits long and consists of an Issuer Identification Number, an individual account number and a control number. The PAN number therefore has a structure similar to that of the IBAN.



payments.⁸² The advantage of this is that with these payment instruments no investments have to be made in order to change the identifier. On the other hand, this means there is no portability of PAN numbers. This is not a problem, however, because a customer who switches banks is issued with a new payment card bearing a different PAN number on the chip. By using this new card, the account holder immediately makes known his new PAN number. He does not have to inform third parties of it separately.

Although the introduction of ANP has consequences for the SCT and SDD, the remainder of the chapter only deals with the consequences of ANP for the operation of an SCT. There are differences in the transaction process for an SCT and an SDD, but the adjustments required to allow ANP are similar.⁸³ To maintain clarity in the chapter, it was therefore decided to illustrate the necessary adjustments only for the SCT.

Three functions of the IBAN in payment systems

The IBAN has two other functions in addition to identification of the contra account of a payment. This can be seen clearly in the structure of the IBAN. The IBAN consists of the following components:

- A two-letter country code.⁸⁴
This states the country in which the payee's bank is located.
- A two-digit control number.⁸⁵
On this basis the payer's bank can detect frequently made errors during the input of the IBAN (for example transposing two digits)⁸⁶
- A Basic Bank Account Number (BBAN).
The length and structure of the BBAN differs between countries but is always the same within a single country. The BBAN consists of a maximum of 30 letters or digits and in all cases includes a bank code and a local account number. In some countries the BBAN also includes a code of a specific branch of the bank.

⁸² In individual Member States non-cash payment instruments may exist in which – as in the case of card payments – the IBAN is not used as an identifier. No account number portability is then achieved for these payment instruments. A customized solution must be devised – if required – for each payment instrument.

⁸³ The main difference between the SCT and the SDD in the context of ANP is that in the case of the SDD the payment is originated by the payee rather than the payer.

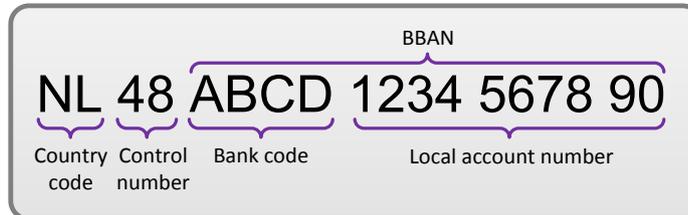
⁸⁴ As specified in ISO 3166, see http://www.iso.org/iso/country_codes.

⁸⁵ As specified in ISO 7064, see http://www.iso.org/iso/catalogue_detail.htm?csnumber=31531.

⁸⁶ See http://www.iso.org/iso/catalogue_detail.htm?csnumber=31531 for further information on the control number and common errors.



In the Netherlands the IBAN is structured as follows:



The IBAN in the Netherlands always consists of 18 alphanumeric characters. The bank code is based on the name of the bank, such as 'ABNA' for ABN Amro. The structure of the IBAN differs in each EU Member State. In Belgium, for example, the IBAN consists of 16 alphanumeric characters and in Malta of 31 alphanumeric characters.⁸⁷

It follows from the above description that the IBAN has the following three functions:

- Identification of the contra account of a payment;
- Check of any errors made during the input of the IBAN; and
- Routing of the payment to the correct bank in the correct EU country.

These three functions are explained in more detail below by illustrating the processing of an SCT (hereinafter: the transaction process).

The transaction process for a SEPA Credit Transfer and the role of the IBAN

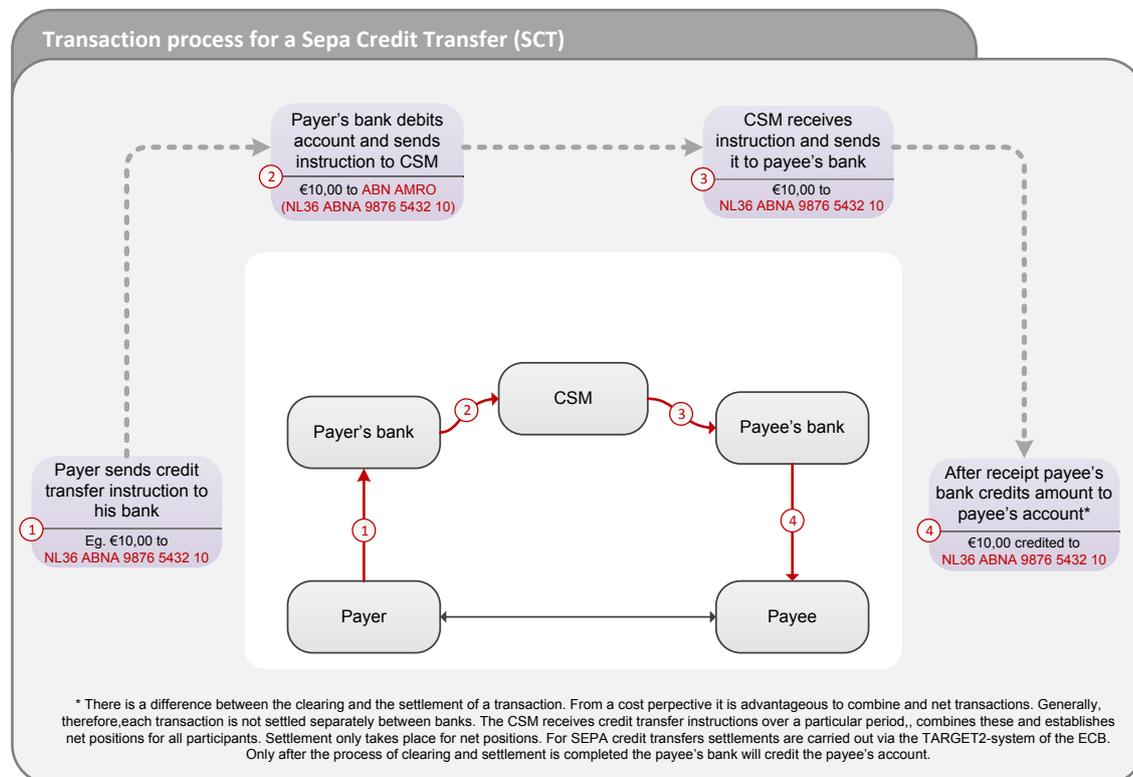
The processing of an SCT involves multiple parties. The main parties are (1) the payer, (2) the payer's bank, (3) the payment processor (*Clearing and Settlement Mechanism, CSM*), (4) the payee and (5) the payee's bank. These parties are shown in figure 4. This is a simplified representation of the actual situation. In practice more or fewer parties may be involved in a transaction, depending on the agreement between banks and CSMs.⁸⁸

⁸⁷ See https://www.iban.com/files/iban_registry.pdf for the IBAN format used by all countries in the SEPA area.

⁸⁸ For example, it is possible that a bank will be affiliated with a CSM not directly but through another bank. It is also possible that the payer's bank and the payee's bank will have a bilateral agreement, with the result that no CSM is involved in the transaction. In order to limit the complexity of this chapter, it is assumed that both the payer's bank and the payee's bank are affiliated with the same CSM.



Figure 4: Transaction process for a SEPA Credit Transfer (simplified representation)



32/52

Source: analysis by ACM. Steps 2 and 3 are also referred to as 'interbank payments'.

Figure 4 shows four steps in the transaction process. These steps are described briefly below, with explicit attention devoted to the function of the IBAN.

- Through his bank's information system (for example the internet banking environment) the payer gives an instruction to transfer an amount to the stated account number. The payer enters the payee's IBAN and other data.⁸⁹ In this step the IBAN is therefore used as an *identifier*.
- The payer's bank checks the instruction, including the validity of the entered IBAN by means of the control number that forms part of the IBAN. If the bank approves the instruction, it debits the amount from the payer's current account and forwards it to the CSM.^{90 91} The payer's bank supplies to the CSM among other things the payee's IBAN and the Business Identifier Code

⁸⁹ See the SEPA Credit Transfer Scheme Rulebook (European Payments Council, 2016, p. 29) for a full list of the required information.

⁹⁰ As specified in ISO 9362, see http://www.iso.org/iso/catalogue_detail?csnumber=60390. The BIC is a unique identification code for financial and non-financial institutions.

⁹¹ See <http://www.europeanpaymentscouncil.eu/index.cfm/sepa-credit-transfer/sct-scheme-compliant-clearing-and-settlement-mechanisms-csms/> for a list of all SEPA scheme compliant CSMs.



(BIC) of the payee's bank.⁹²

- The CSM receives the instruction from the payer's bank. The CSM uses the supplied IBAN and BIC to route the instruction to the right bank and country.
- After receiving the payment the payee's bank pays (credits) the amount to the payee's payment account. The final part of the IBAN tells the payee's bank which specific account holder the payment is intended for.

4.2 Three variants of account number portability on a European level

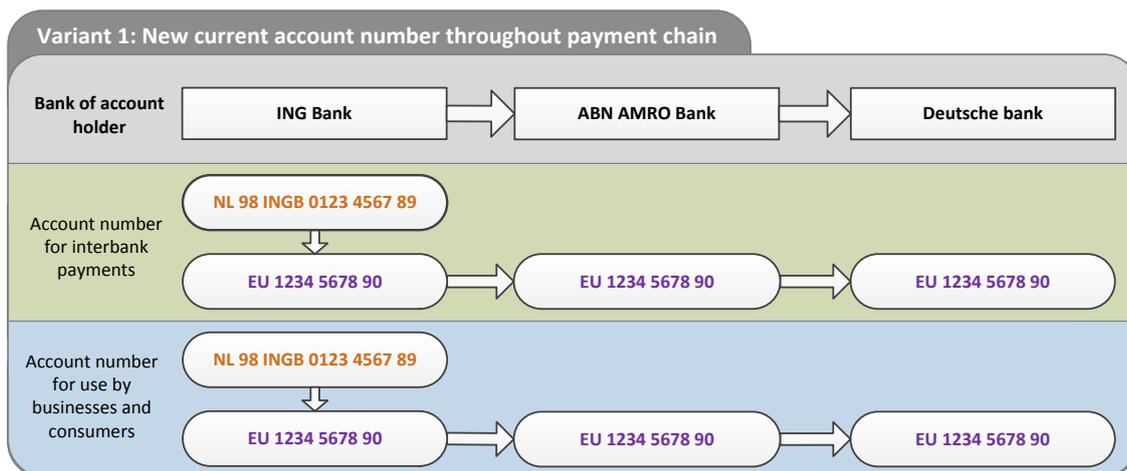
Now that it is clear what the functions of the IBAN are in the payment system, different variants of ANP can be developed. In the context of ANP, the routing function is of particular relevance. This function means that for technical reasons the IBAN cannot be transferred to another bank.

In this section ACM conceptualizes three variants of EU-wide ANP. These variants of ANP have one thing in common: the (account)number which consumers and businesses use to make payments will no longer have a routing function. This change makes it possible to transfer the (account)number to another bank.

Variant 1: New, portable account number throughout the payment chain

The first variant of account number portability is referred to in this report as the 'classic' variant of ANP. At a particular time all consumers and businesses will be given a new, portable account number that replaces the existing numbering system of the IBAN. If a consumer or business switches banks with a current account, this new account number can be transferred to the new bank.

Figure 5: schematic representation of ANP variant 1



Source: analysis by ACM. This figure shows the situation of an ING Bank customer who switches his payment account to ABN AMRO bank and then to Deutsche Bank.

⁹² See the SEPA Credit Transfer Scheme Rulebook (European Payments Council, 2016, p. 30) for a full list of the information to be supplied by the payer's bank.

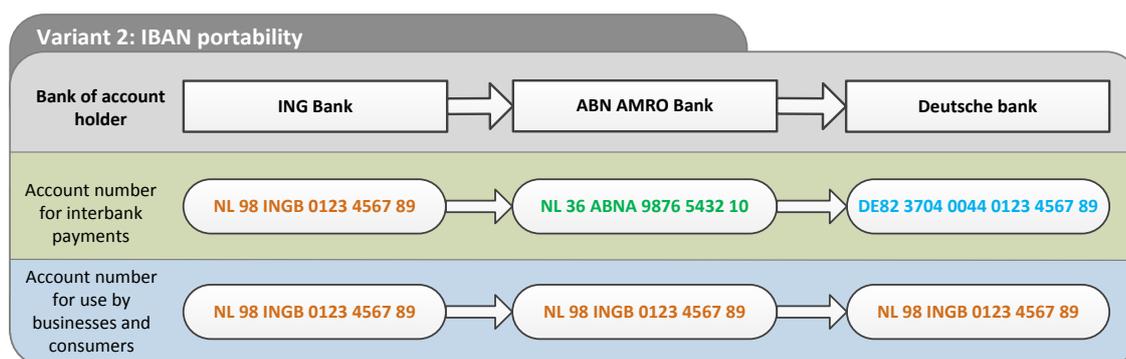


In this variant the issuing of the account number must be handled centrally in Europe to guarantee the uniqueness of the new account numbers. The new account number replaces the IBAN throughout the payment chain, i.e. also in interbank payments. In contrast to the current IBAN, this new account number no longer contains a country code and a bank code.

Variant 2: IBAN-portability

The second variant of account number portability is referred to in this report as 'IBAN-portability'. With the introduction of this variant consumers and businesses that have no intention of switch do not have to cope with changes in the method of electronic payments. If a consumer or business does wish to switch banks, he can transfer the IBAN from the current bank to the new bank. The switcher can continue to use the transferred IBAN to send and receive payments. This is not an obligation; the switching customer can decide for himself whether to retain his IBAN or to receive a new IBAN.

Figure 6: schematic representation of ANP variant 2



Source: analysis by ACM. This figure shows the situation of an ING Bank customer who switches his payment account to ABN AMRO bank and then to Deutsche Bank.

In the background, however, the switcher *does* receive a new IBAN from the new bank for the processing of the interbank payments. The new bank uses the customer's new IBAN to process the payment on the basis of the existing rules and procedures. With this variant it is nevertheless necessary to find some means of preventing the old bank from reissuing the transferred IBAN to a new customer.

Variant 3: Alias-portability

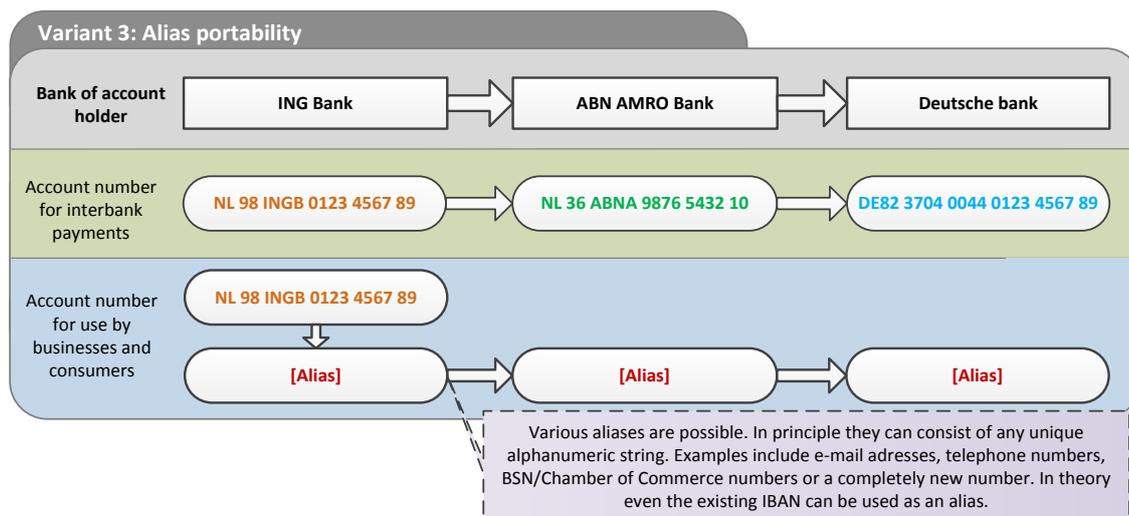
The third way of introducing account number portability is referred to in this report as 'alias portability'. With this variant all consumers and businesses in Europe receive a new, unique alias. This may be an existing alias, such as a telephone number or Chamber of Commerce number, or an entirely new alphanumeric string, comparable to the EU account number in variant 1.⁹³ The unique alias is then linked to the existing IBAN of the account holder.

⁹³ In theory the current IBAN can also be used as an alias, so from the account holder's perspective there is no longer any difference between ANP-variants 2 and 3.



An important precondition is that the alias is unique within Europe. Consumers and businesses then use the alias instead of the IBAN in order to send payment instructions. As in the case of the second variant, banks continue to use the current IBAN infrastructure in the interbank payment systems.

Figure 7: schematic representation of ANP variant 3



Source: analysis by ACM. This figure shows the situation of an ING Bank customer who switches his payment account to ABN AMRO Bank and then to Deutsche Bank.

An important choice in the introduction of this variant is whether the IBAN disappears completely from the foreground and is therefore used only in interbank transactions, or whether the IBAN and the alias continue to coexist for use by account holders. Depending on the chosen alias, both options are conceivable. If a new unique number is designed that will be used as an alias, it is logical for it to completely replace the IBAN for use by account holders and that payments by using the IBAN will no longer be possible. If an existing alias is chosen, such as a telephone or Chamber of Commerce number, it is logical for it to be introduced alongside the IBAN. Account holders can then decide for themselves whether they wish to make and receive payments using the IBAN or the alias. The account holder can then arrange the link between the alias and the IBAN himself. If the account holder switches, he can link his alias to the new IBAN himself.

Differences between the three variants

The table below summarizes the differences between the three variants with regard to three types of adjustments in the payment chain. All types of adjustments entail social costs.



Table 3: Differences between the ANP variants with regard to three types of adjustments

| ANP Variant | Transition to a new account numbering structure in interbank payment systems | Transition to a new account numbering structure for use by consumers and businesses | Transition to a different routing method |
|---|--|---|--|
| New account number throughout payment chain | Yes | Yes | Yes |
| IBAN-portability | No | Yes* | Yes |
| Alias-portability | No | Yes | Yes |

Source: analysis by ACM.

*In the case of IBAN portability consumers and businesses use their existing IBAN to make payments. Banks must nevertheless adjust their systems to accommodate switching customers who transfer an IBAN with a different numbering structure (for example a bank code in digits rather than letters). These adjustments entail costs.

Table 3 shows an important difference between variant 1 and the other two variants. Variant 1 is the only variant in which there is a transition to a different account numbering structure in interbank payment systems. Consequently, ACM considers that more adjustments are required in banks and other parties in the payment chain in this variant than in the other two variants. As a result the total social costs are expected to be significantly higher.

ACM believes the customer's perspective must be central

In the international discussion on the desirability and possibilities of ANP, the bank's perspective appears to have been central. The basis is a form of ANP in which the entire payment chain switches to a new, portable account number.⁹⁴ Variant 1 is considered to be the best form of ANP.

ACM believes the customer's perspective must be central in the discussion of account number portability. After all, the introduction of ANP is not a goal in itself, but a means of lowering switching barriers for consumers and businesses.⁹⁵ Since it is consumers and businesses that experience the switching barriers, it is particularly important that ANP is established from their perspective. From the bank's perspective the decision on whether or not to introduce ANP is relevant particularly to the total costs of ANP.

While maintaining a consumer perspective, ACM has a preference for the second or third variant of ANP. These attain the same goal – lowering of switching barriers – at lower social costs. The classic

⁹⁴ Experts from the banking sector state, for example, that the IBAN and BIC standards must be replaced when ANP is introduced, which would place unacceptable burdens on consumers and businesses (European Commission, 2007, p. 29).

⁹⁵ As a result of ANP a consumer or business who switches to another bank no longer has to inform third parties about the new account number. Examples are direct debit collectors, the employer, regular business customers and friends.



type of ANP will not therefore be discussed further in the remainder of this chapter. However, it is not yet possible to infer from table 3 which of the remaining variants is preferable. This requires to assess the necessary adjustments in the payment chain of both variants in greater depth. Section 4.3 describes the costs resulting from the transition to a new account numbering structure for consumers and businesses. Section 4.4 describes the costs resulting from the transition to a different routing method.

4.3 Costs of transitioning to a new numbering structure (for payment accounts) to be used by consumers and businesses

The transition to a new account numbering structure requires adjustments particularly by banks. In variant 2, consumers and businesses continue to use their existing IBAN to send and receive payments. Banks must nevertheless adjust their systems to accommodate switching customers who transfer an IBAN with a different numbering structure (for example a bank code in digits rather than letters). In the case of alias portability a new alias has to be introduced in the payment chain. These adjustments also entail costs. In any event, ACM sees the following four types of adjustments in the payment chain.

- Banks must make adjustments to the interfaces for communication between the account holder and the bank. These are required, for example, on the webpage for internet banking or the smartphone app for mobile banking. These must be adjusted to accommodate different numbering structures. In the case of IBAN-portability this involves accommodating IBAN structures of other, possibly foreign, banks. In the case of alias-portability it is necessary to accommodate an alias.
- Non-financial institutions must make adjustments to their systems. Both in their systems for communication between the customer and the business and internal administrative and other systems. These adjustments are less extensive in the case of IBAN portability. After all, many non-financial institutions already have to deal with customers (and hence IBANs) from different banks and countries.
- The introduction of the alias in variant 3 will require effort on the part of banks, governments and other stakeholders. This will mainly involve information and communication aimed at ensuring a successful introduction of the new alias. In variant 2 these costs are not necessary because the IBAN is retained.
- In the possible introduction of alias-portability it is conceivable that the alias will not include a control number as is the case with the IBAN. This depends on the specific alias chosen. Banks will have to carry out adjustments for this type of ANP in order to check the input of the alias for any errors.⁹⁶ This does not apply in the case of IBAN-portability.

⁹⁶ This can be done in different ways. If the e-mail address or telephone number is chosen as the alias, it is possible, for example, that the consumer's mobile app will check whether the entered alias appears in the phone's address book.



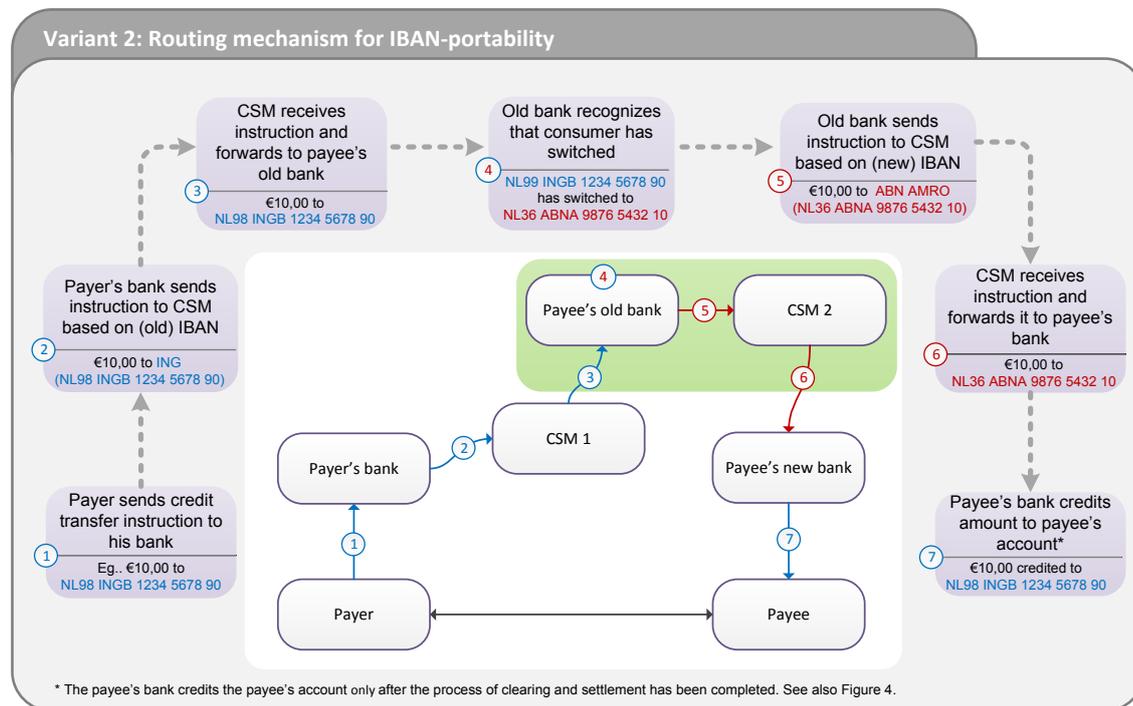
4.4 Costs for transitioning to another routing method

As described in section 4.2, IBAN or alias portability requires a transition to a different payment routing method. This means adjustments will be necessary somewhere in the payment chain to link the correct routing information to the account number or to ensure in some other way that the payment reaches the correct contra account. ACM draws a distinction between two routing mechanisms. The forwarding method in IBAN portability and a routing table in the case of alias portability.

Routing in the case of IBAN portability: the forwarding method

In the second ANP variant it is possible to make use of the fact that the transferred IBAN refers to the account holder's old bank. The payer's bank cannot send the payment directly (via a CSM) to the payee's current bank, but can send it to the old bank. The payee's old bank can then forward the payment to the current bank. The payee's old bank must know to which bank the account holder has switched. The routing of SCT payments in the automatic switching service in the Netherlands operates in a similar way.⁹⁷

Figure 8: routing based on the forwarding method for IBAN-portability



Source: analysis by ACM. In this figure it is assumed that the account holder has switched only once.

Each bank maintains its own table stating (i) the IBANs of customers who have switched to another bank and (ii) the bank to which the old customer switched. If the bank receives a payment instruction

⁹⁷ (DNB, NVB en Currence, 2009, p. 37)

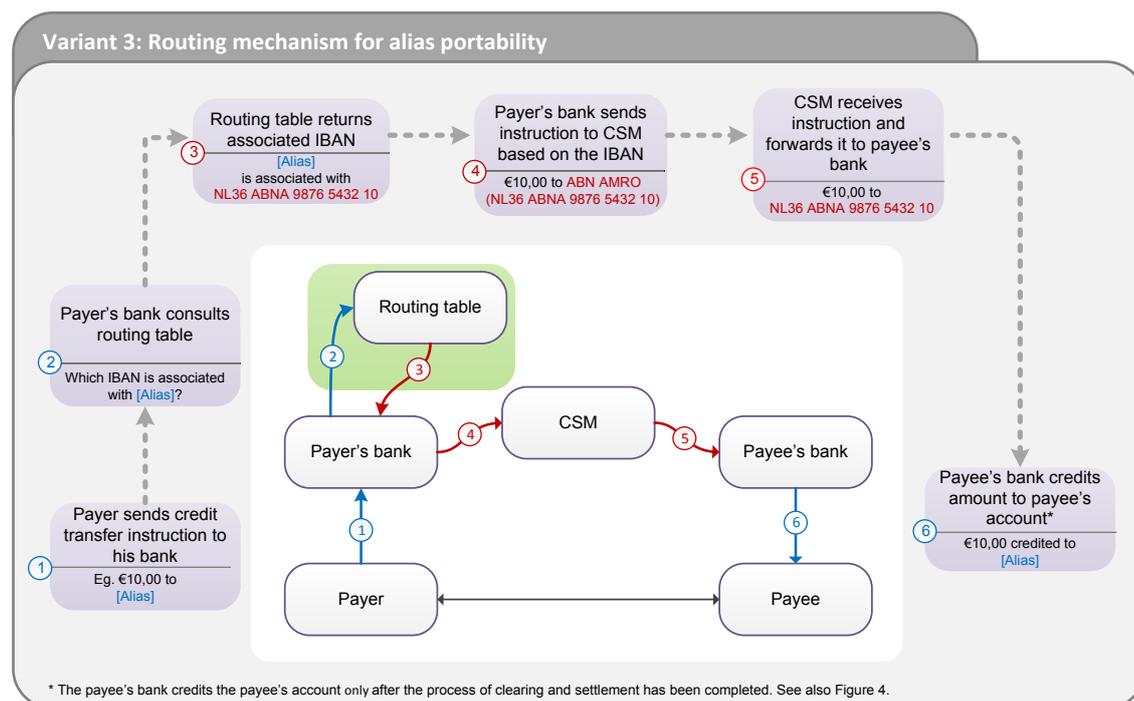


intended for an IBAN that appears in this table, it forwards it to the bank to which the old customer has switched. In the event that an account holder has switched more than once, the payment reaches the current bank via several old banks. The transaction process for a consumer who has switched once is shown in figure 8.

Routing in the case of alias portability: a routing table

In the third ANP variant, the alias includes no routing information. Routing based on the forwarding method is therefore impossible. Another means of routing payments is through a (de)centralized routing table. This table states which IBAN of the payee is linked to the unique alias. Banks can then consult this table so as to include the correct routing information in a payment.⁹⁸ Each bank in the SEPA area has a local copy of this table or has access to it through a secure connection. The routing of SDD payments in the automatic switching service in the Netherlands operates in a similar way.⁹⁹ The transaction process in which the alias is entered as the identifier is shown in figure 9.

Figure 9: Routing based on a routing table in the case of alias-portability



Source: analysis by ACM

Adjustment costs resulting from the transition to a different routing method

The adjustments required as a result of the transition to a different routing method differ between IBAN-portability and alias-portability. These adjustments may entail three types of social costs: one-

⁹⁸ Another possibility is that the CSM carries out the conversion from alias to IBAN.

⁹⁹ (DNB, NVB en Currence, 2009, pp. 37-38)



off adjustment costs, an increase in the transaction costs and the additional risks to the continuity of the payment system.

One-off adjustment costs

In the case of IBAN-portability all banks in the SEPA area must set up their own system to record which account holders have switched to which bank. Each bank must also ensure that incoming transactions intended for a switched account holder are automatically forwarded to the new bank. Finally, each bank must establish its own system to prevent the IBAN of a switched account holder being reissued.

In the case of alias-portability, an EU-wide routing table must be drawn up in which all aliases in Europe are linked to an associated IBAN. All banks in the SEPA area must be given access to this table. Any security risks must be taken into account. The market participants ACM has interviewed state that much is possible in a technical sense. The routing table could be both centralized and decentralized.

Increase in transaction costs

The extent to which transactions are more expensive due to the different routing mechanism depends among other things on the additional operations required for each transaction.

In variant 2, the number of additional operations required for each transaction depends on the number of times the account holder has switched. Each time an account holder switches, there are at least two additional participants in the transaction process, namely the account holder's old bank and a CSM.¹⁰⁰ In fact in the case of a consumer who has switched once, two interbank transactions take place in the background for each transaction. These are from the payer's bank to the payee's old bank and from the payee's old bank to the payee's current bank. The more account holders switch, the more parties there are in the payment chain and the more interbank transactions are required in order to complete a single transaction between the payer and the payee. This leads to higher ongoing costs in the payment system. The payment instrument actually becomes increasingly inefficient as more account holders switch.

In variant 3 there is one additional operation in the payment chain compared to a situation without ANP, namely consulting the routing table for those transactions in which an alias has been entered as an identifier. Depending on the way in which alias portability is introduced, this applies to all transactions (if the alias completely replaces the IBAN) or only part of the transactions (if the IBAN and the alias continue to coexist). These transactions therefore involve one additional party, namely the organization or institution which manages the routing table.

¹⁰⁰ Multiple market participants may be involved in the processing of an interbank transaction.



Risks to the continuity of payment systems

Account holders benefit from payment systems that are secure and reliable and operate in a fast and efficient manner. An account holder who wishes to transfer money from his account to another account must be able to assume that this is possible (in other words that the payment system is not 'down'), that sent payments will actually arrive in the payee's account and that this will happen within a reasonable time. If the continuity of the payment system is jeopardized, this can result in high costs.

In variant 2, payments are sent on the basis of the forwarding method. An important disadvantage of this variant is that this introduces a 'chain risk'. As described above, an increasing number of parties are involved in the transaction process of account holders who switch. As more parties become involved in a transaction, and more operations are required to complete a transaction, there is an increasing risk that something will go wrong in the execution of a transaction. It must be agreed who is responsible if a transaction does not arrive. It may also be difficult to ascertain where in the chain something has gone wrong, given that multiple parties are involved. It also remains unclear what action must be taken to deal with any bankruptcy of one of the banks involved. All consumers who have ever been customers of the bankrupt bank can no longer count on their old bank forwarding payments. In short, the risk that errors will be made somewhere in the payment chain as a result of which a payment fails to arrive or arrives late increases with this variant.

Box: difference in routing of payment instructions between SCT and SDD

The main difference between the SCT and the SDD in the context of ANP is the party that originates the payment. In the case of an SDD the payer authorizes the payee to debit funds from the payer's payment account. As a result it is the payee, with an authorization from the payer, who instructs his bank to debit an amount from the payer's payment account.

The forwarding method shown in figure 6 for the SCT is probably impossible in the SDD without adjustments. The payee's bank can send an SDD instruction to the payer's old bank. However, the payer's old bank cannot send an SDD instruction to the payer's new bank without adjustments. That is because it does not have an authorization to debit money from the payer's account. Therefore the payer's old bank will probably refuse the payment instruction. An alternative solution for the forwarding method is conceivable, however. On the refusal of the direct debit instruction the payer's old bank could return a message that the payer switched to another bank and state his new IBAN. This is also referred to as *smart-bouncing*.¹ The payee's bank can then send a new SDD instruction based on the data he has received from the payer's old bank. This process is repeated until the payee's bank reaches the payer's current bank and the SDD instruction is accepted.

It also remains possible to route payment instructions via a routing table in the case of SDD payment instructions. The only difference as compared to the SCT is that the payee's bank (rather than the payer's bank) consults the routing table and carries out the conversion from alias to IBAN.



In variant 3 a routing table is established to route payment instructions. This entails risks for the security and continuity of the payment system. Who has access to this table, for example. And does it result in a *single point of failure* in the payment system? The scale of these risks is closely associated with the way in which the routing table is set up. The discussions which ACM has conducted with the market participants show that there are a lot of technical possibilities and that these risks can be managed. One market participant, for example, cited the option of a decentralized routing table. The design and risks of a routing table are therefore important focal points in a possible introduction of ANP based on these variants. A full analysis of the design and risks of the routing table falls outside the scope of this study.

4.5 Overview of the differences between both variants

The differences between IBAN portability and alias portability are summarized in table 4. As described above, the required adjustments in the payment chain (and hence the costs) are broken down into two categories:

Table 4: IBAN and Alias-portability assessed in terms of two categories of costs

| Costs | Preference |
|---|--|
| Transition to a new numbering structure for use by consumers and businesses | IBAN portability |
| <i>Explanation:</i> | |
| In both variants adjustments are required to the banks' IT systems so that they can handle aliases or IBANs of other banks. In variant 2 these costs are expected to be lower because not all account holders are issued with a new account number and hence fewer adjustments are required in non-financial companies. Variant 2 also requires no adjustments in order to make different arrangements for the checking of the input. | |
| Transition to a different routing method | |
| <ul style="list-style-type: none"> • One-off costs • Ongoing costs • Risks to the continuity of the payment system | <p>No preference</p> <p>Alias-portability</p> <p>Alias-portability</p> |
| <i>Explanation:</i> | |
| The ongoing costs in variant 2 can increase substantially compared to alias-portability once account holders switch more frequently. After all, an increasing number of parties are involved in the processing of an individual transaction. That is inefficient. The risk of errors also increases. | |

Source: analysis by ACM

It follows from the above table that neither of the two ANP variants scores best for both types of costs. The preference for a particular ANP variant therefore depends on the weight that a policymaker attaches to the two aspects.

4.6 ACM prefers alias-portability

The previous section contains a comparison of the IBAN-portability and alias-portability variants. ACM prefers alias-portability. This preference is based on the three arguments below.



- ACM considers that the ‘chain risk’ that arises with the introduction of IBAN-portability is a major disadvantage compared to a routing table in alias-portability. Consumers and businesses must be able to have confidence that payments systems in Europe are properly organized. ACM considers that routing payments on the basis of the forwarding method entails too many risks with regard to the continuity and security of the payment system, because the chain then becomes increasingly complex. This risk increases as account holders switch more, which is at odds with the objective of ANP.
- This is not a purely cost-based argument, but it is important to state the difference between the two forms of ANP in terms of convenience for consumers and businesses. If IBAN portability is introduced, some EU Member States – including the Netherlands – will retain a reference to the old bank in the transferred IBAN.¹⁰¹ Several market operators ACM has interviewed expect some switchers to be unwilling to accept this. That applies particularly to consumers or businesses that have switched to another bank due to dissatisfaction. The introduction of an alias, on the other hand, has the potential to make sending and receiving credit transfers and direct debits more user-friendly. From the perspective of consumers and businesses, making payments with an alias may be easier than making payments using an IBAN. After all, an alias such as telephone number or e-mail address is easier to remember than an IBAN. Moreover, alias-based payments provide a platform for further developments.
- Finally, the possible introduction of alias portability has many similarities to existing systems in Europe which enable consumers or businesses to pay using an alias rather than an IBAN. Examples of such systems are PayM in the United Kingdom and MobilePay in Denmark. A similarity between all these national systems is that they are limited to a part of the payment system, often SEPA Credit Transfers. The *Euro Retail Payments Board* (ERPB) is currently investigating the possibilities of an EU-wide system of payments between consumers by means of a mobile phone number.¹⁰²

By taking alias-portability as a starting point in the forthcoming CBA, ACM believes a different picture of total costs may emerge. In previous studies on the lowering of switching barriers, account number portability is seen as a government measure that is many times more expensive than introducing a switching service. This viewpoint can be understood if the switching service is compared to the first form of ANP. However, given the similarities between the two other variants of ANP and the technical operation of the switching service in the Netherlands, ACM expects the cost of introducing these variants of ANP to be more in line with the cost of introducing an automatic switching service.

¹⁰¹ In some countries in the SEPA area the bank code is made up of letters. See section 4.1.

¹⁰² The ERPB, chaired by the ECB, promotes an integrated, innovative and competitive market for retail payments in the EU (Euro Retail Payments Board, 2015).



Alias portability has been developed in a conceptual way in this investigation. ACM sees several possibilities for conducting further research into alias portability. ACM makes the following suggestions for follow-up research:

- A study into the optimal set-up of the routing table. This may concern (i) the cost of setting up and managing the table,(ii) the way in which this table can be integrated within the current SEPA infrastructure and (iii) the way in which the security of payment systems and the privacy of account holders can be guaranteed.
- A study into the most suitable alias. This could include an investigation of the extent to which consumers and businesses are open to the use of different types of alias. It is also possible to investigate how the input of an alias can be checked for common errors.



5 Conclusions and recommendations

In this chapter, the most important conclusions and recommendations of this study are listed. With the results of this study, the Netherlands Authority for Consumers and Markets (ACM) wishes to stimulate the international discussion about the desirability of EU-wide account number portability (ANP) in the build-up to the review of the Payment Accounts Directive (PAD) in 2019.

5.1 Conclusion about the competition problem and possible solutions

High switching barriers reduce the threat of consumers switching to another provider, thereby reducing competition between banks. The European Commission (EC) recognizes this competition problem, and seeks to lower the switching barriers in personal payment accounts by introducing the Payment Accounts Directive (PAD). This is how the EC wishes to promote competition in the retail banking sector. The relationship between increased competition on the market for payment accounts, and competition on other retail banking markets is realized through the gateway function of payment accounts. ACM has established that, in Europe, little empirical research has been conducted on the gateway function of payment accounts. According to ACM, additional empirical research is desirable.

In ACM's opinion, it is plausible that the competition problem also applies to business payment accounts. For example, businesses use their payment accounts more extensively, and should therefore inform more parties in the case of a switch. As far as ACM knows, there are no EU-wide studies into switching behavior with regard to business payment accounts. According to ACM, additional empirical research is desirable.

Recommendation of ACM to the European Commission

In order to get a more accurate picture of the competition problem, more empirical research is desirable. Therefore, perform an EU-wide study into (i) switching behavior with business payment accounts, and (ii) the gateway function of personal and business payment accounts.

Europe initially opts for a switching service in order to lower the switching barriers (the PAD switching service). ACM considers a switching service not to be the best solution to the competition problem. This position is based on (a) the experiences with the switching service in the Netherlands and (b) the expected effectiveness of the PAD switching service. ACM believes ANP to be a better solution to the competition problem than a switching service, because account number portability, from the account holder's perspective, is a more effective measure to lower (perceived) switching barriers. Also, if ANP were to be introduced, businesses would no longer need to adjust the account numbers of customers in their administrative systems (if these customers switched banks). With a switching service, however, that would still be the case.



ACM expects FinTech to become more of a supplement to the payment account than an outright replacement thereof. However, at the moment, the actual magnitude of this shift is still unclear. Given the uncertainty surrounding the extent to which a switching service and FinTech are able to solve the competition problem, it is vital that EU-wide ANP remains on the political agenda.

Recommendation of ACM to the Dutch Minister of Finance

At a European level, argue for a timely launch of an additional study into the costs and benefits of EU-wide ANP. This study could take place parallel to the PAD switching service.

5.2 Conclusion about the social benefits of account number portability

ACM had a framework developed with which each EU Member State is able to estimate the benefits of ANP as accurately as possible. According to ACM, this framework is an appropriate instrument to estimate the EU-wide benefits of ANP. First, the framework takes into account the indirect benefits of ANP, which is the effect on competition in the retail banking sector. Second, the framework also takes into account the differences between EU Member States, for example, differences in price levels, switching rates, and adoption rates of technological innovations. ACM calls on other EU Member States to perform a benefit analysis of ANP for their own payment markets, using the framework that ACM had developed as the starting point.

The framework has been applied to the Dutch payment market. The research firm was able to quantify all of the direct benefits, and part of the indirect benefits. This exercise (applying the framework to the Netherlands) has underlined the importance of taking into account as much as possible the indirect benefits of ANP. These apparently involve relatively large amounts. If Europe were to estimate the benefits of ANP using this framework, a better assessment of all benefits and costs of ANP could be made in 2019.

Recommendation of ACM to the European Commission

Stimulate other EU Member States to estimate (parallel to the implementation of the PAD switching service) the social benefits of EU-wide ANP, and use the framework offered by ACM as the starting point.

5.3 Conclusion about the social costs of account number portability

ACM believes that the customer's perspective should be leading in the discussion about ANP. By making the customer's perspective leading in the discussion, two other possible variants for introducing EU-wide ANP are possible. These are (i) keeping your current IBAN when switching banks (IBAN-portability), and (ii) the introduction of a unique alias that is linked to an existing IBAN (alias-portability).



The main advantage of these two variants of ANP is that the current IBAN-based infrastructure will still be used in the interbank payment systems. As such, fewer adjustments and investments in the payment chains on the part of banks and other parties are needed with these two variants than in a scenario in which the entire payment chain transitions to a new account-number structure. As a result, total costs are expected to be lower, while the most important switching barriers are lowered in the same way.

When comparing IBAN-portability with alias-portability, ACM prefers the latter. ACM considers the 'chain risk' that would emerge if IBAN-portability were introduced to be a significant disadvantage in comparison with the central routing table with alias-portability. Furthermore, a possible introduction of alias-portability ties in with existing local system in Europe where consumers or businesses are able to pay using an alias instead of an IBAN. The Euro Retail Payments Board is looking into the different options for an EU-wide system of payments between consumers using mobile-phone numbers.

In this study, ACM has fleshed out a possible introduction of alias-portability. Additional research into introducing this variant of ANP at a European level is desirable, for example into the costs and design of a central routing table, and a study into the most suitable alias.

Recommendation of ACM to the European Commission

Carry out an EU-wide study into the technological options and implementation costs of alias-based portability. In that context, seek to collaborate with at least the Euro Retail Payments Board.



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Annex 1: Market participants interviewed by ACM

- Dutch Payments Association (*Betaalvereniging Nederland*)
- BEUC – The European Consumer Organisation
- Coin (*telecom provider association*)
- Dutch Consumer Association (*Consumentenbond*)
- The Dutch Central bank (*De Nederlandsche Bank*)
- European Central Bank – Directorate-General for Market Infrastructure & Payments
- Enigma Consulting
- Equens (*payment processor*)
- European Commission - Directorate-General for Financial Stability, Financial Services and Capital Markets Union (DG FISMA)
- InnoPay (*consultancy*)
- Knab Bank
- The Dutch Ministry of Finance
- The Dutch Banking Association (*Nederlandse Vereniging van Banken*)
- SNS Bank
- Svenska Handelsbanken
- Triodos Bank



Annex 2: Abbreviations used in this document

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|----------------|--|
| ACM | Netherlands Authority for Consumers and Markets |
| ANP | Account number portability at a European level |
| BIC | Business Identifier Code |
| CASS | Current Account Switch Service |
| CBA | Cost-benefit analysis |
| CSM | Clearing and Settlement Mechanism |
| EC | European Commission |
| EPC | European Payments Council |
| ERPB | Euro Retail Payments Board |
| FinTech | Technological innovation in the financial sector |
| IA | Impact Assessment |
| IBAN | International Bank Account Number |
| PAD | Payment Accounts Directive |
| PAN | Primary Account Number |
| PSD2 | Revised Directive on Payment Services |
| SCT | SEPA Credit Transfer |
| SDD | SEPA Direct Debit |
| SEPA | Single Euro Payments Area |