

6

IBANs or IPANs? Creating a Level Playing Field between Bank and Non-Bank Payment Service Providers

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6.1 Introducing the problem

The intention of the European legislative bodies, which is enshrined in different legal acts, such as the Payment Services Directive and the second Electronic Money Directive, is to boost competition and innovation on the payments market by creating new categories of payment service providers, i.e., payment institutions (PIs) and electronic money institutions (EMIs). Traditionally, banks operating current accounts of consumers and companies used to be major payment service providers (PSPs), which as a group faced only marginal competition in the payments business at the front end. However with the advent of new laws on payments in Europe and the rising willingness of customers to use innovative services of non-banks, questions need to be posed about the level playing field between old and new players.

Despite the fact that banks are not keen on PIs and EMIs, provided that new PSPs do not provide ancillary payment services but threaten banks' core payments business, it seems right to say that new entrants should have equal status with incumbents in the area of payments.

Currently PIs and EMIs are not fully independent of banks which, being well-entrenched players, are the more powerful group of payment service providers, with legally guaranteed privileges that are not available to new payment service providers. It is necessary to verify how to remedy this problem and make new players fully independent of banks. If non-banks are to operate on equal basis with banks, a few issues need to be addressed.

This chapter is organised as follows. Section 6.2 indicates potential benefits of the Single Euro Payments Area (SEPA) and the regulators' approach towards integration of the retail payments market in the European Union. Section 6.3 focuses exclusively on new PSPs. Section 6.4 shows how the path from IBANs (International Bank Account Number) to IPANs (International Payment Account Number) is being paved. Section 6.5 deals with the issue of PSPs' access to payment systems and to central banks' infrastructure and includes a short theoretical risk assessment. Section 6.6 investigates the issue of access of Third Party Providers to bank accounts and takes a look at mobile wallets. Section 6.7 concludes.

6.2 The SEPA and the approach of regulators

The payments industry finds itself in a state of flux. It is shaped by demand because consumers and businesses require services tailored to their needs, which adapt to social and economic context and must change quickly due to progress in technology. It is also shaped by supply because payment solution providers, in the pursuit of profit, attempt to cater to customers' satisfaction by inventing new products and services.

The new payments landscape emerges from the game of supply and demand, but, as the 2014 Nobel Prize Laureate in economic sciences Jean Tirole says, sometimes positive changes need coordination and support from regulators who set up an adequate legal framework and are able to reduce or eliminate market failures (2014). In the European Union (EU) the coordination takes place at the pan-European level, where laws are passed after the consultation process involving the Council of the European Union (representing Member States), the European Parliament and the European Commission (EC), which is often *spiritus rector* that prepares draft legal acts, as in the case of the Payment Services Directive (PSD), the Interchange Fee Regulation (IF Reg) and the Electronic Money Directive (EMD).

The Single Euro Payments Area project (SEPA) is grounded on the premise that there should be no distinction between cross-border and domestic electronic retail payments as well as cash payments, if the Single Euro Cash Area project (SECA) is included. The stress is, however, put on e-payments because cash is perceived as costly and not matching the vision of the advanced economy, where most processes become automated and digitised. Therefore we see a pan-European regulators' push for the end-to-end Straight Through Processing (STP), allowing all transactions to be processed seamlessly and entirely electronically

through the whole payments cycle without any manual intervention or redundant actions. The STP could result in high cost savings and fewer failures in handling of transactions, as its advocates put it.

According to the PricewaterhouseCoopers (PwC) analysis of sixteen EU countries representing 97% of the EU euro-denominated transaction values, all SEPA benefits, once fully embraced, could bring reduction of annual costs by €21.9 billion across all stakeholders as a result of efficient processing and streamlined bank account infrastructure, reduction of nine billion bank accounts and up to €227 billion in released liquidity and credit lines due to cash pooling and more efficient clearing (2014). PwC correctly mentions additional benefits which could be realised from adoption of e-invoicing and the extended use of the XML ISO 20022 standard. Erik Nooteboom notices that the SEPA strengthens the position of consumers and businesses (2014).

Facilitating electronic payments and invoicing is part of the first pillar of the Digital Agenda – achieving the Digital Single Market. The Digital Agenda itself forms one of the seven pillars of the Europe 2020 Strategy, which is designed to accelerate the growth of the European Union by making better use of the potential of Information and Communication Technologies (ICTs). The Digital Single Market should put an end to fragmentation of Member States' markets, bringing down barriers to easy cross-border access to digital content, completing the SEPA and raising the level of protection in cyberspace. The actions will, among others, include digitalising industry, unlocking the benefits of e-services and advancing digital skills, developing interoperability and standards in areas such as the Internet of Things, cybersecurity, big data and cloud computing (European Commission, 2015).

Before adopting in July 2013 proposals for the IF Reg and the PSD2, the European Commission, aiming to directly address major obstacles on the way to the integrated European retail payments market, initiated broad public consultation by publishing on 11 January 2012 the Green Paper "Towards an Integrated European Market for Card, Internet and Mobile Payments" (European Commission, 2012). The consultation involved a wide range of stakeholders – not only the government structures which work with the EC as part of the Payments Committee, and not only the Payment Systems Market Expert Group (PSMEG), representing supply and demand sides of the market and assisting the Commission in drafting legal acts and initiatives on payment systems, but also all other interested parties from the European Union. The Commission received more than 300 written contributions to the Green Paper (their full text

and the summary report are published on the EC's website), which should be seen as a satisfactory response for such a complex matter.

The Green Paper addressed following areas of concern:

- market fragmentation, market access and market entry for existing and new service providers;
- payment security and data protection;
- transparent and efficient pricing of payment services;
- technical standardisation;
- interoperability between service providers; and
- governance of SEPA.

The EC in the Green Paper analysed many issues within all areas of concern. With regard to the first one, which directly relates to increasing competition (see the list above), it was indicated that, in contrast to banks, payment institutions and e-money institutions do not have direct access to clearing and settlement systems, because only credit institutions and investment firms, under art. 2(b) of the Settlement Finality Directive, may participate in designated settlement systems. Owing to this fact, non-bank payment service providers are unable to compete on equal footing with banks because they have to use the services of banks to settle payments. Besides, it was emphasised that banks as keepers of bank accounts can deny access to the information on the availability of funds, which would be requested by non-bank entities, even when acting on behalf of bank accounts' owners.

The so-called account information services (AIS) and payment initiation services (PIS) will be covered by the revised Payment Services Directive (PSD2), for which the compromise has been reached on 5 May 2015 (the compromise final version was published on 2 June and the one referred to in this chapter was adopted by the European Parliament on 8 October). The PSD2 will replace the existing Payment Services Directive which has been in place since 2007 (effectively later since it needed some time to be transposed into national legislations).

European officials perpetually call for more competition in the payments market and equal treatment of all payment service providers. Lately Andrus Ansip, the Vice-President of the European Commission responsible for developing the Single Digital Market said (2015): "The revised directive, known as PSD2...will include Third Party Payment Providers, which were not covered until now, and make them supervised payment institutions...By increasing competition between existing and

new providers, it will give people a wider and better choice of payment systems.”

Yves Mersch, Member of the Executive Board of the European Central Bank put the issue in an even more straightforward manner (2015): “the emergence of new payment services and payment service providers requires a level playing field for newcomers and for long-established players, as well as an appropriate level of protection for the payment service users.”

6.3 Emergence of new categories of PSPs

Historically, the legal foundation for establishing electronic money institutions (EMIs) was laid down much earlier than for payment institutions (PIs). The European Parliament and the Council adopted the first Electronic Money Directive (EMD1) in 2000, while the second Electronic Money Directive (EMD2), repealing the first one, was adopted in 2009.

In Europe a debate about issuing electronic money and its impact on the stability of the monetary system took place in the 1990s. Electronic money, according to art. 2(2) of the EMD2 “means electronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions, and which is accepted by a natural or legal person other than the electronic money issuer.” Electronic money is classified as the third type of money next to cash and deposit money (Bleyen *et al.*, 2010). At first, prospects for a fast take-off of e-money seemed to be promising, although it had to tackle typical problems of networks goods by overcoming the chicken-and-egg deadlock (Van Hove, 1999). Malte Krueger (2002), analysing the position of the European Commission and the European Central Bank, underlined that regulators were dubious about the idea that only banks should be allowed to issue e-money, hence, in order to stimulate competition and e-money product innovations, the EMD1 introduced a new class of financial intermediaries – the EMIs, which – being subject to an adequate level of prudential supervision – could have benefited from lighter regulatory regime than banks – e.g., the initial capital of €1 mln, no reserve requirement at the central bank. In the EMD2 the initial capital threshold was set even lower at €350 th., and EMIs were no longer considered credit institutions. EMIs are not allowed to take deposits and grant credits, unless from their own funds, but can offer payment services listed in the PSD.

The PSD, which backs implementation of SEPA, established another category of PSPs – payment institutions. They can, like EMIs, benefit

from the single passporting in the European Union and in fact many already have. According to the PSD-Annex, PIs are allowed to provide and execute the following payment services throughout the EU:

- cash deposits/withdrawals and operations required for operating a payment account;
- execution of payment transactions (credit transfers, direct debits, card and card-based payments), also covered by a credit granted for a maximum of twelve months if the credit is closely linked to a payment service provided;
- issuing and/or acquiring of payment instruments; and
- money remittance.

The PSD2 adds to this list two additional payment services – payment initiation services (PIS) and account information services (AIS), which similarly to issuing of payment instruments do not involve taking possession of payment service users' funds. As defined in art. 4 (15 and 16) of the PSD2, PIS “means a service to initiate a payment order at the request of the payment service user with respect to a payment account held at another payment service provider” and AIS “means an online service to provide consolidated information on one or more payment accounts held by the payment service user with either another payment service provider or with more than one payment service provider.”

PIs need to be licensed fulfilling a number of criteria. Depending on the type of payment services to be provided PI must ensure initial capital from €20 th. to €125 th. and on-going capital calculated according to one of three methods set out in art. 8 of the PSD and determined by the competent authority in a Member State. PIs are obliged to safeguard funds received from payment service users either by ring fencing those funds or by covering them with an insurance policy or another equally strong guarantee from an insurance company or a credit institution. Typically the second option is much more expensive, and PIs prefer to separate funds of users from other types of funds and deposit them at a credit institution or invest in low-risk liquid assets as defined by national competent authorities. Thus, in case of a PI's insolvency, fund owners should be able to recover their holdings. Besides PIs must comply with Anti-Money Laundering and Counter-Terrorism Financing (AML/CTF) legislation and abide by all the rules set out to protect payers and payees in a proper manner, in title III of the PSD on transparency of conditions and information requirements for payment services. According to art. 16 of the PSD, PIs are also permitted to

perform activities closely related to payment services, such as ensuring the execution of payment transactions, foreign exchange services, safekeeping activities, and the storage and processing of data. Also, consistent with the PSD philosophy, different entities, e.g. mobile operators or merchants, can become hybrid payment institutions by starting to provide payment services next to running their core business. All PIs are regulated. Their credibility is increased by the fact that they are subject to a supervisory and prudential regime proportionate to the financial and operational risks which are narrower than those arising from the activities of banks.

Janina Harasim aptly pointed out that new PSPs brought value added on the retail payments market because they were innovative, flexible, often rich in experience from other fields of economic activities (not always financial) and ready to offer services at a lower cost than banks (2013, pp. 96–99). Payment initiation services, for example, evolved in e-commerce in response to the need to offer a cheaper alternative to payment cards for consumers and merchants, providing the latter with the payment confirmation/guarantee, which incentivised vendors to prepare shipments of goods without undue delay.

EMIs and PIs are very similar in many aspects. However, PIs are usually not allowed to issue electronic money, although there are countries which, using the national option, granted PIs operating within their own territory the right to issue e-money. This is the case in Poland, where PIs can issue e-money, provided that the outstanding e-money value will not exceed €5 mln (art. 73a(4) of the Polish Act on Payment Services). Until recently, however, in the official statistics of the Polish central bank or the Financial Supervision Authority in Poland there was no e-money in circulation, although some pre-paid products from Poland would most probably qualify as e-money in other Member States. According to preliminary results of a study (VVA Europe, 2015) on the EMD2 impact, commissioned to VVA Europe by the European Commission, pan-European guidance on classifying products and services as e-money is needed, in particular highlighting the differences between payment accounts and e-money accounts. The study also mentions that the value and number of e-money transactions in Europe are steadily increasing although the existing data is not complete. As of July 2014 there were 177 EMIs in the EU with more licenses under way, but 27% of all of them had by that time been issued in the United Kingdom and 21% in Denmark (see Figure 6.1 and the note below). The majority of EMIs obtained their license since 2011, so it seems that the new Electronic Money Directive was supportive in this respect.

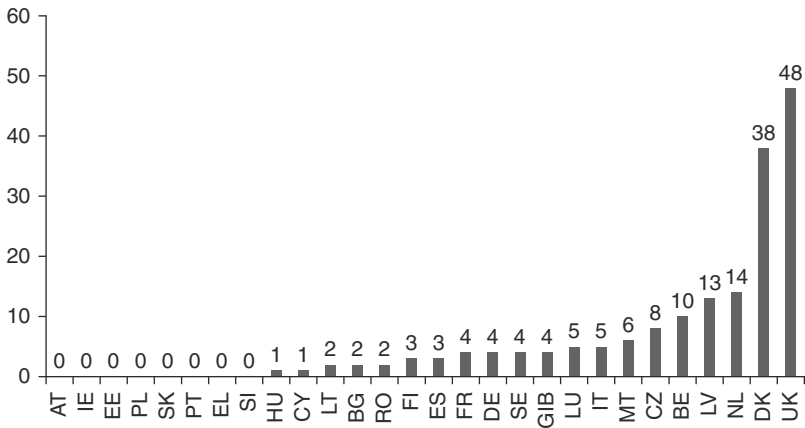


Figure 6.1 Number of EMLs per country in the EU, 2014

Note: The number of EMLs in Denmark seems to be overestimated.

Source: VVA Europe (2015).

Leo Van Hove and other specialists in the field once felt very enthusiastic about the widespread adoption of e-money, which is cheap in terms of societal costs (2008). Admittedly, this product category is today developing but in a different shape than it was envisaged in the past. Proprietary systems of electronic purses, such as Avant in Finland, Proton in Belgium or Mulibanco Electronic Purse in Portugal, did not succeed or have seen only limited success in Europe. However, there are a lot of other payment services offered by a growing number of payment institutions which meet the demand of consumers and businesses.

For every payment service listed in the PSD-Annex, PIs need an authorisation from a competent body. According to the study by London Economics, *iff* and PaySys, which served the European Commission as basis for evaluating the impact of the PSD, in 2012 the largest number of authorisations were issued for money remittance (40% of the total), the second most common type of authorisation was acquiring/issuing of payment instruments (19% of the total), and the third was execution of payment transactions including transfer of funds to a payment account (15% of the total) (2013, p. 33). At that time as much as 40% of all PIs (224 out of 568 in the EU) were registered in the United Kingdom. This shows that what also played an important role, apart from the development stage of the retail payments market in the UK, was regulatory divergences and effects of arbitrage between jurisdictions. Also, the PSD

provided an option to waive some PSD provisions for so-called small payments institutions dealing exclusively with money remittance business. Under art. 26 of PSD a waiver applied when the total amount of payment transactions executed by this entity did not exceed €3 mln per month, with some permissible variance across countries – in Poland the threshold was set significantly lower at €0.5 mln. According to the London Economics, *iff* and PaySys study, about 2,200 small payment institutions were registered in Europe by late August 2012, out of which 45% were in Poland and 44% in the UK (2013, p. 39).

Since 2012 the number of authorised and small payment institutions has increased rapidly throughout the EU, e.g., in Poland in December 2014 there were 27 authorised payment institutions and 1,356 small payment institutions, whereas in December 2012 there were only three PIs and 1,122 small PIs (data from the Polish Financial Supervision Authority, 2015).

The study by London Economics *et al.* (2013) presented a useful typology of activities undertaken by PIs, such as money remittance, foreign exchange broking, card acquiring, card schemes, internet payment service provision, other services (operating ATM networks, renting POS devices, providing IT solutions, etc.), card issuing, credit provisioning, other financial and business services provision and telecoms payment services.

What is evidently missing from this list is operating payment accounts. Under art. 4(14) of the PSD1 and art. 4(12) of the PSD2 “‘payment account’ means an account held in the name of one or more payment service users which is used for the execution of payment transactions”. In principle such accounts should offer full functionality, including the possibility to execute credit transfers, direct debits and card payments. Bank payment accounts, beyond all shadow of doubt, facilitate all of those operations, unlike different electronic/digital/mobile wallets of PIs and EMIs. Today e-wallets are typically prepaid accounts available online via electronic or mobile channels, possibly with an option to link a payment card or much less frequently other payment instruments. Services such as PayPal, Google Wallet (or AndroidPay), ApplePay, SamsungPay, PayU or native applications of smaller providers, e.g., offering ticketing and parking services such as SkyCash, mPay or moBilet in Poland, are examples of e-wallets. Some of them, like PayPal, naming but one, have large merchant and consumer bases. PayPal is useful in e-commerce in B2C and P2P domains but it has limitations. It cannot substitute for bank accounts entirely. PayPal took advantage of e-mail addresses, which may mimic the system of bank account numbers, but in fact PayPal accounts form a closed environment and are not compatible with bank accounts

at the same layer. A PayPal user cannot initiate a SEPA credit transfer to someone else's bank account.

In order to put non-bank PSPs on equal footing with banks, three issues intertwine:

1. One is an option to have a right to assign their own IBANs to accounts of payment service users.
2. Two is a possibility to directly access payment systems, also designated, on fair and objectively defined terms.
3. Three is a right to open accounts at central banks which operate designated payment systems.

6.4 From IBANs to IPANs

IBAN, which stands for International Bank Account Number, facilitates identifying bank account numbers in an easy and machine-readable form. According to the SWIFT IBAN Registry, as of June 2015, sixty-six countries worldwide, including all twenty-eight Member States of the European Union, were using the IBAN numbering system. IBAN enables communication and processing of cross-border as well as domestic transactions. It is designed in a way to allow validation of the information provided by calculating the check digits, so the probability of making a mistake while typing in an IBAN is low. IBAN can be of use in an electronic or a paper environment, in the latter case typically by adding blank spaces between every four characters.

The IBAN structure is subject to the international ISO 13616-1 standard of 2007 (with later amendments), while ISO 13616-2 defines roles and responsibilities of the registration authority – the SWIFT.

According to ISO 13616-1 the format of the IBAN shall be:

2!a2!n30c

where:

- The first two letters (2!a) should always be a two-character country code, as defined in ISO 3166-1 (e.g., FI for Finland, DE for Germany).
- The third and fourth characters (2!n) shall be the check digits.
- The remaining part should consist of up to thirty alphanumeric characters (30c) for a BBAN (Basic Bank Account Number), which has a fixed length per country and, included within it, a bank identifier with a fixed position and length per country.

The exact structure of IBAN is country specific, but it can have a maximum of thirty-four characters. Table 6.1 comprises examples of IBAN for selected countries.

In developing ISO 13616-1 for numbering bank accounts, the technical committee in charge agreed it was not necessary to develop one single method for identifying the account in each country. It recognised the need to retain, where possible, the current national identification system, which required some adjustments but in principle could have been kept. As a result, the IBAN structure is flexible, although it follows common rules. IBANs differ from country to country. In some of them the IBAN length is 16 characters, in others IBANs can be 28 characters long (see Table 6.1). The number must be fixed for a country. The inner structure of an IBAN is defined nationally by competent authorities, e.g., in Costa Rica, bank identifier does not include branch specification in the BBAN (Basic Bank Account Number), whereas in Italy it does. Table 6.2 below presents Poland's specific IBAN structure.

A bank identifier, as named in ISO 13616-1, is also called a business unit sort code in Poland. Those codes, based on the Ordinance No. 15/2010 of the President of Narodowy Bank Polski of 15 July 2010, are assigned by the Polish central bank as requested by a given bank. It can decide as to whether it will number their branches or other business units (such as bank departments) within the first eight digits of the Basic Bank Account Number. In practice many bank branches have not been numbered in Poland yet because banks, operating on a single centralised IT system, did not always deem it appropriate. In such a case those bank branches are not included in the registry of Narodowy Bank Polski, operated by the Payment System Department. According to the NBP official website, there are three times more bank business units which have not been granted separate sort codes than those which are listed in NBP registers (NBP, 2015).

Table 6.1 IBAN examples per country (selection)

Country	IBAN length	IBAN example
Belgium	16	BE68539007547034
Finland	18	FI2112345600000785
Germany	22	DE89370400440532013000
Netherlands	18	NL91ABNA0417164300
Poland	28	PL61109010140000071219812874

Source: SWIFT Registry (2015).

Table 6.2 The IBAN structure in Poland

		National Bank Account Number (BBAN + check digits)																									
P	L	2	5	1	0	6	0	1	0	2	8	2	2	7	6	7	2	7	2	1	4	3	8	5	7	4	1
Country code	Check digits		Bank code*		Account number																						
				Bank identifier/Sort code		IBAN (International Bank Account Number)																					

Note: *Four digits for cooperative banks, three digits for other banks.

Source: Narodowy Bank Polski (National Bank of Poland) (2015).

The last sixteen digits of IBANs in Poland are used as numbers that identify clients' bank accounts at given banks, which assign them according to their own numbering system. Checksums of entire IBANs must obviously be validated according to the standard. In Poland IBAN is determined by adding PL in front of the NRB – domestic account number.

Based on ISO 13616, a Polish norm for numbering domestic account numbers was developed. The Polish norm PN-F-01102 of December 2012 defines elements and principles of creating NRBs, that is, National Bank Account Numbers (BBAN + two check digits). Its scope is not restricted to banks but broadens to encompass payment service providers including credit unions, payment institutions and electronic money institutions.

However, the norm is more of a technical character and, according to Polish law, the central bank is authorised to grant sort codes only to banks and not to non-bank PSPs. In order to widen its competencies, a new law amending the Polish Act on Payment Services must be passed. As of June 2015 there was a proposal in place. The Polish Ministry of Finance had started the legal procedure already back in 2014 in order to enable non-bank PSPs to assign their own IBANs to clients, but then the proposal was left in limbo.

There is no need to replicate the same patterns across all European countries; nevertheless, the Polish example shows that PIs' and EMIs' rights to assign IBAN can encounter hurdles. In order to verify as to what extent it was still a problem in SEPA countries, I conducted a survey among Member States in May/June 2015 by distributing electronically a short questionnaire through the Polish Ministry of Finance to national payment experts or contacting directly competent authorities in Member States. The query consisted of three questions with an option to give comments. The first and most important question was: "Are there in your country non-bank payment service providers (PSPs), such as payment institutions and electronic money institutions, authorised to issue their own International Bank/Payment Account Numbers (IBANs/IPANs) and assign them to accounts of payment service users (PSUs) on a similar basis as banks do?" If the answer was "yes", respondents were asked to provide the underlying legal basis and the authority responsible for assigning bank identifiers / sort codes.

The response rate was 60%. This means that eighteen out of thirty countries (twenty-eight EU countries + Switzerland and Norway) answered to the query within the two-month period (see the results in Table 6.3).

Table 6.3 Information on issuance of IBANs (June 2015)

Country	Issuing authority for bank identifiers / sort codes	PIs and EMIs allowed to assign IBANs?
Austria	Oesterreichische Nationalbank	Not answered to the query
Belgium	Secretariaat van de Interbancaire Overeenkomsten/Secrétariat des Accords Interbancaires (managed by the central bank)	Yes
Bulgaria	Bulgarian National Bank	No
Croatia	Croatian National Bank	No
Cyprus	Central Bank of Cyprus	Not answered to the query
Czech Republic	Česká národní banka / Czech National Bank	Yes
Denmark	The Danish Bankers Association	Yes
Estonia	Estonian Banking Association	No
Finland	The Federation of Finnish Financial Services	Yes
France	ACPR (Banking Supervisor)	Yes
Germany	Deutsche Bundesbank	Yes
Greece	Bank of Greece	Not answered to the query
Hungary	Magyar Nemzeti Bank (The Central Bank of Hungary)	Yes
Ireland	Banking & Payments Federation Ireland	Not answered to the query
Italy	Banca d'Italia	Yes
Latvia	SWIFT	Not answered to the query
Lithuania	Lietuvos Bankas (Bank of Lithuania)	Yes
Luxembourg	The Luxembourg Bankers' Association	Not answered to the query
Malta	Central Bank of Malta	Not answered to the query
Netherlands	Dutch Payment Association	Yes
Norway	Finance Norway	Yes
Poland	Narodowy Bank Polski	No
Portugal	Banco de Portugal	Not answered to the query
Romania	SWIFT	Not answered to the query
Slovakia	National Bank of Slovakia	Not answered to the query
Slovenia	National Bank of Slovenia	Yes

Continued

Table 6.3 Continued

Country	Issuing authority for bank identifiers / sort codes	PIs and EMIs allowed to assign IBANs?
Spain	Banco de España	Yes
Sweden	Swedish Bankers' Association	No
Switzerland	SIX Interbank Clearing (in accordance with the Swiss National Bank)	Not answered to the query
United Kingdom	Payments Council	Not answered to the query

Source: Own survey and the ECB website (SEPA countries).

Depending on the country, a different authority can be responsible for providing bank identifiers (the first component of IBAN). It is most typically the central bank (in seventeen cases), but also an industry (payment or bank) association (in nine cases), the supervisory authority (in one case), the clearing house (in one case) or SWIFT (in two cases) (see Table 6.3). Sometimes Business Identifier Codes (BICs) issued by SWIFT are used as bank identifiers, like in Latvia, Romania, the Netherlands and in the United Kingdom. Then PSPs derive IBANs from BICs according to the ISO 13616-1 country-specific format. Often, unlike in Poland, the process of assigning bank identifiers is not governed by any particular law but is based on self-regulation.

Likewise, several Member States, such as e.g. Finland, Germany, Lithuania, Norway and Spain, indicated that the right to grant sort codes to banks, PIs and EMIs is a matter of self-regulation. Most of the eighteen countries responded that currently non-bank PSPs can be allocated their sort codes and subsequently these new market entrants can assign IBANs to accounts of PSUs. However, in five Member States surveyed – Bulgaria, Croatia, Estonia, Poland and Sweden – it was not possible, although in Estonia and Poland it is bound to change. According to the draft amendment to the Polish Act on Payment Services, the central bank will have the power to assign sort codes to non-bank PSPs, apart from assigning numbers to banks, and in Estonia the Financial Supervision Authority will be in charge. Norway, where the Norwegian Banking Association (Finance Norway) is responsible for assigning sort codes, did not give straightforward answer, stating that they had never been approached by a PI in this respect but if they were, the outcome would probably be a positive one.

A few countries, which responded to the query, noted that the right to assign IBANs by PIs and EMIs stems directly from the Payment Services Directive, but is not so relevant as long as non-bank PSPs cannot participate in designated payment systems. In Belgium non-bank PSPs may issue their own IBANs, but in practice very few do so because they prefer to organise their payment flows using accounts kept in commercial banks. As a consequence, they have indirect access to interbank payment systems similar to that of other bank customers. In Finland, according to the survey results, other PSPs like smaller banks and PIs are mostly operating based on a correspondent bank agreement with one clearing bank. They can then use some common accounts for all their customer transactions within the correspondent bank's IBAN series. They can also get a sub-series of IBAN numbers within the IBAN series of the correspondent bank. In both cases they would use the clearing bank's BIC. Norway commented that the real issue is not whether non-banks are assigned bank identifiers, but for which services non-banks are able to use them. And this is conditioned by the direct participation in the Norwegian Interbank Clearing System (NICS).

Survey results confirm the hypothesis that three issues intertwine here: the right to assign own IBANs, the possibility to directly access payment systems and the right to open accounts at the central bank. For designated and often also for other systemically important payment systems, it is not possible to get direct access without maintaining an account at a central bank, where the settlement occurs.

We can presume with high probability that in many of the countries whose representatives did not respond to the query PIs and EMIs are theoretically allowed to get their IBANs, but it may be of little use to them since they are not able to access designated payment systems. Such non-bank PSPs focus on other payment services, not on offering payment accounts with fully reachable credit transfers and direct debits, which is however guaranteed by banks. The Business Identifier Code (BIC), can be assigned not only to banks, but also to clearing houses and even to non-financial institutions (SWIFT, 2015). Therefore, in countries where IBANs incorporate BICs as bank identifiers and there is no other authority than SWIFT to assign sort codes, it is most probable that PIs and EMIs are technically able to create their own IBANs.

It seems that the right to have its own sort code and allocate IBANs to payment accounts of PSUs by non-bank PSPs is of lesser value without direct access to major payment systems, but it gives the latter one advantage. PIs and EMIs become less dependent on their bank PSPs, which operate their account and subaccounts of their clients. Non-bank

PSPs can then freely change their servicing bank PSPs. The migration to another bank becomes less difficult. The existing IBAN series of a non-bank PSP just need to be cross-linked to the IBAN series of technical accounts at a new servicing bank, but from the perspective of a PSU nothing changes. He or she has the same account number and can preload their e-wallet with funds exactly the same way they have been doing so far. In addition, if a PI decides to offer its client a credit transfer or a direct debit, a payee will see in the transfer details it was initiated at the PI and not at the PI servicing bank. This strengthens the relationship between a PI and a PSU, not to mention that banks face new competition in this area. Obviously benefits increase when a PI can access a payment system on equal basis with banks (see the next section).

Linking IBANs with mobile phone numbers opens new possibilities to develop P2P mobile payments (e.g., based on SEPA credit transfers) and increase mobile wallets' functionality, regardless of whether these services are offered by PIs and EMIIs or banks (see Section 6.6).

The significance of IBAN in Europe is rising. According to the so-called SEPA end-date Regulation (EU) No 260/2012, IBAN should be the sole number required to identify a payment account. Therefore from 1 February 2016 (from 1 November 2016 for non-euro Member States) onwards, payers and payees will not have to use any additional code, such as a BIC (SWIFT) code, for cross-border credit transfers and direct debits in euro. The "IBAN only" rule will come into effect.

Finally, it is worth considering whether in the SEPA area it is not justified to refer to IBANs as IPANs since the offering of payment accounts is not anymore restricted to banks only. Besides, this new terminology has already been incorporated in the law (see Payment Services Directive): we talk about payment accounts, not bank accounts. According to the so-called Payment Account Directive (PAD) passed in July 2014, every European citizen should have a right to open and use a payment account with basic features. PAD objectives are: to raise the level of financial inclusion and enhance consumer protection and competition on the market by easier switching of payment accounts (also cross-border) and more transparency and comparability of fees. After PAD implementation, which should happen within two years of its publication date, such accounts will be offered, for technical reasons, by credit institutions, but the objectives of the Directive could be better achieved if PIs and EMIIs were also able to offer such services, especially if these non-bank PSPs, due to their specificity, would be less willing to sell other products, such as, e.g., credits, which are not considered a basic payment account feature.

6.5 Access to payment systems and to central banks' infrastructure

Recital 16 of the PSD envisages that it is crucial for any PSP to access the services of payment system technical infrastructures in order to process payments and transfer money efficiently. Art. 28 of the PSD, and in the PSD2 art. 35, stipulates that it falls under the responsibility of Member States to ensure that "the rules on access of authorised or registered payment service providers that are legal persons to payment systems shall be objective, non-discriminatory and proportionate and that those rules do not inhibit access more than is necessary to safeguard against specific risks such as settlement risk, operational risk and business risk and to protect the financial and operational stability of the payment system." According to this law, operators of payment systems are not allowed to discriminate between different PSPs, neither on the basis of participation nor on their rights and obligations in the system. However, paragraph 2 of this provision leaves designated payment systems and closed loop systems out of the PSD2 scope. Luckily, it also says that

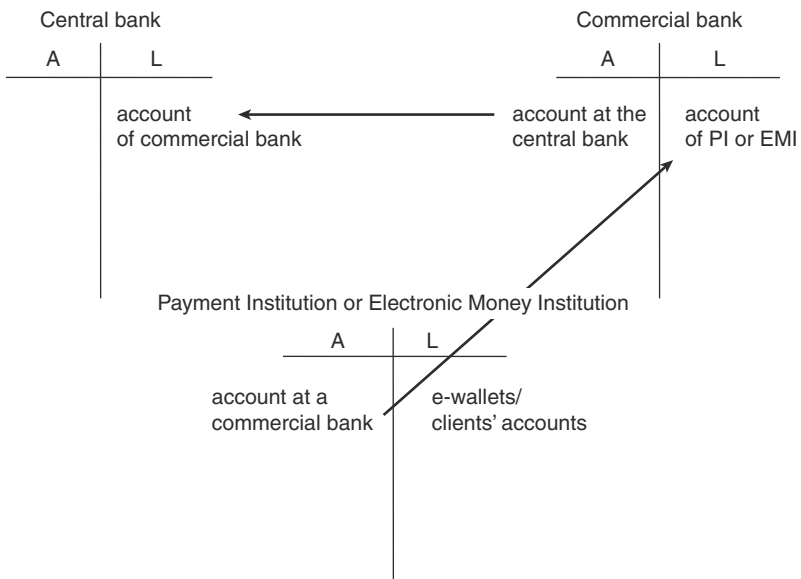


Figure 6.2 Current *modus operandi* of PIs and EMIs

Source: Own concept.

authorised and registered PSPs (such as PIs or EMIs) can demand that direct participants pass through their payment orders in an objective, proportionate and non-discriminatory manner. Thus new provisions will guarantee indirect access. In addition, art. 36 of the PSD2 ensures that PIs will have an access to credit institutions, which cannot refuse to open accounts for PIs and hinder PIs' activity.

As Figure 6.2 clearly depicts, PIs and EMIs are in a subordinate position vis-a-vis a competitor group – commercial banks. Their payment orders, to enter payment systems, must be processed through a commercial bank. There is a potential room to exert power on PIs and EMIs in terms of timely execution of payments or imposing additional conditions which may even be labelled by banks as objective and necessary. Besides, banks may monitor the entire payment flow generated by a PI or an EMI, thus being able to become aware of competitors' type of activity and even learn about their customers. Moreover, pricing remains an issue, although it cannot be negated that also direct access to payment systems entails costs.

According to feedback from the EC's consultation on the Green Paper "Towards an Integrated European Market for Card, Internet and Mobile Payments (2012), there was no consensus among stakeholders on whether non-direct access to clearing and settlement is problematic to non-bank PSPs. Most banks stated that indirect access for PIs and EMIs was sufficient and beneficial in terms of reduced costs and risks, whereas most non-bank PSPs disagreed and shared an opinion that indirect access generated higher costs, complexity and more lengthy processes. Most retailers and consumers were in favour of direct access of non-bank PSPs, indicating the need for openness and non-discrimination. Some stakeholders made suggestions to amend the Settlement Finality Directive (SFD) accordingly; however, the majority pointed out the need to ensure that direct access of PIs and EMIs does not raise operational and liquidity risks (London Economics *et al.*, 2013, p. 215).

In its impact assessment accompanying the proposal for revising the Payment Services Directive, the EC considered three options regarding access of PIs and EMIs to designated payment systems: option of no policy change, option to allow PIs to participate directly in designated payment systems and an intermediate option to establish objective and transparent rules for PIs to access indirectly designated payment systems (European Commission, 2013, pp. 263–264). As it was presented at the beginning of this section, the EC adopted the intermediate option, which will lead to easier access for non-bank PSPs to major payment systems,

although it will not make incumbents and new entrants exactly equal in this respect.

Concerning access to other payment systems, such as, e.g., card payment systems, PIs and EMIs have already benefited from provisions laid down in the Payment Services Directive 2007/64/EC. It appears that in four-party schemes the possibility to issue and acquire card payment transactions and provide ancillary services under the same conditions as banks brought value added to schemes, merchants and cardholders and did not give rise to higher risk.

It is, however, understandable that in terms of systemically important payment systems all risks should be scrutinised adequately before new entrants are permitted to directly access the designated infrastructure.

Central banks can have concerns about risks associated with PIs and EMIs because these new PSPs do not meet the same prudential and solvency supervision requirements and risk management policies as banks.

Besides, commercial banks, which are granted the right to open accounts at the central bank, are subject to reserve requirement. When facing liquidity problems, they can incur short-term loans on the inter-bank market or an intra-day credit directly at the central bank. These facilities are not available to PIs and EMIs at the moment. However, PIs and EMIs differ from credit institutions. According to recital 34 of the PSD2, the spectrum of PIs' activities is much narrower than the spectrum of credit institutions because PIs are specialised payment service providers which are not allowed to accept deposits and they can only use funds received from users to deliver payment services. Likewise, according to recital 13 of the EMD2, the issuance of electronic money is not deposit taking activity. Both PIs and EMIs cannot create money through lending. They do not use a money multiplier and are not subject to reserve requirements. Therefore their supervisory regime should be lighter and aligned more closely to the attendant financial and operational risks. Indeed, the initial and on-going capital requirements for non-bank PSPs are less stringent than for banks. However, PIs and EMIs must comply with a set of rules that ensure sound and prudent management (see Section 6.3). Before being granted an authorisation, but also in the course of conducting business, non-bank PSPs have to prove to the supervisory authority that their internal arrangements – including risk policy management, contingency planning, organisational structure, system of internal control and external audits, etc. – are robust.

PIs and EMIs have much more limited investment capabilities than banks, and they are obligated to maintain much higher liquidity.

Pursuant to art. 10 of the PSD2 and art. 7 of the EMD2, PIs and EMIs must fulfil rigid safeguarding requirements. They should ring fence funds or e-money received from users. These funds can be deposited at a credit institution or invested in secure low-risk assets, such as Treasury bills or bonds issued or guaranteed by public authorities. A catalogue of low-risk assets is defined by competent authorities of Member States.

In Poland as of December 2014, PIs had at their disposal about €100 mln in liquid assets out of which 96% was money held at a current account in banks, 1% was cash and 3% secure assets with a maturity date of up to seven days (Polish Financial Supervision Authority, 2015).

According to art. 10 par. 1a of the PSD2, assets backed by users' funds should be protected against claims of PIs' other creditors, in particular in the event of insolvency. As it was mentioned earlier (Section 6.3) PIs do not need to ring fence funds if those funds are covered by an insurance policy or a comparable guarantee. However, high costs deter PIs from such arrangements, and they prefer not to commingle funds of users with other types of funds.

Risk management in a payment system consists in its continuous monitoring and in using adequate security measures. Central banks operating designated payment systems must take into account a list of associated risks, such as credit, legal, operational, liquidity, settlement and systemic risk (Górka, 2013, pp. 21–22). Those types of risks are interdependent.

Non-bank PSPs do not have a long track record, and there is hardly any empirical research about their risk activity. For this reason most central banks in the EU are reluctant to open accounts to PIs and EMIs and permit them to access large-value payment systems whose smooth and uninterrupted functioning is vital to financial stability.

On the other hand, as it was presented, the risk profile of PIs and EMIs is well defined in the legal framework. Their assets, directly linked to users' funds transferable on demand, are liquid and in practice separated from other types of funds. In order to mitigate the liquidity and settlement risk in the payment system, central banks can freely require securing adequate amount of liquidity, proportionate to the level of PIs' and EMIs' obligations against their creditors. Using a prepaid model, where funds would be deposited by non-bank PSPs to accounts maintained at the central banks in advance, could well address credit, liquidity and settlement risks.

Enabling access of non-bank PSPs would, on the one hand, lead to transferring these types of risks to PIs and EMIs but, on the other hand, would force them to make technical and legal investments necessary

to link to the designated payment systems. Obviously, it should be left to the discretion of PIs and EMIs whether they would apply for a direct participation in large-value payment systems and bear related costs or organise the payment flow as smaller banks or credit unions through bigger players. It also depends on the type of payment services rendered. For the time being, for many non-bank PSPs the lack of direct access to major payment systems seems not to pose a problem. However, it can quickly change, in particular when PIs and EMIs are willing to offer payment accounts with full functionality or engage in instant payments. Therefore, although indirect access to designated payment systems warranted by art. 35 par. 2 of the PSD2 is a step in a good direction, in the longer run it seems questionable to discriminate between different categories of PSPs at all.

6.6 Access to bank accounts and the development of mobile wallets

Another issue, slightly different in nature than access to payment systems but also important in fostering competition and innovation on the payments market in the EU, is access to customers' payment accounts at banks (XS2A).

Opening up banks to the so-called Third Party Providers (TPPs) has been the most debated topic of the revised PSD. Until the very last moment before the compromise on the PSD2 in May 2015 was reached, hot discussions between stakeholders and regulators had taken place. In the opinion of the EC, a legal vacuum for payment initiation services (PIS) and account information services (AIS – see the definitions in Section 6.3) must have been filled, since both types of services were present on the market but they were not covered by any legal rules governing rights and obligations between TPPs, account servicing banks and users. PIS and AIS were recognised as beneficial to the market. Credit transfers initiated on behalf of clients by non-bank PIS providers (such as Sofort, Trustly, SafetyPay, DT-Online and Citadel) served as a cheaper alternative to cards payments for internet merchants and provided them with a payment guarantee (European Commission, 2013, pp. 137 and 224). Interestingly enough, banks, based on contractual agreements, also engaged in this business (e.g., iDEAL in the Netherlands, giropay in Germany, eps in Austria, MyBank in Italy and PostFinance in Switzerland). AIS, on the other hand, allow consumers to collect and consolidate information from different bank accounts in one single place, helping them to manage personal finances. There

are also other services that could be built on top of AIS; e.g., banks and non-bank lending institutions began to use information retrieved from customers' different bank accounts to rate their creditworthiness. AIS can contribute to many big/rich data services enabling different businesses to analyse massive datasets, linking financial and non-financial information.

Not surprisingly, representatives of the banking sector expressed concerns about the activity of non-bank TPPs in respect to a number of areas. Javier Santamaria, the chair of the European Payments Council, found sharing login and transaction credentials of account holders with a TPP unsecure, unless relying on a strong customer authentication and based on a redirection model through a standardised open European interface (not yet existing). Also, he regarded as problematic that account servicing banks would be the first "port of call" held liable in situations of unauthorised transactions executed with the involvement of TPPs. Moreover, he pointed out that TPPs should not have access to the payment infrastructure of banks and to the data of their clients without financial compensation to banks (Santamaria, 2014).

Harry Leinonen noted that TPPs involved in payment initiation services emerged due to a lack of standardised $t+0$ e-payment solutions (2015). His recommendation to support faster/instant payments and require, in the future, $t+0$ delivery instead of $t+1$ for credit transfers as a legal obligation for PSPs is worth considering.

After extensive consultations, the revised PSD took shape. Legislators addressed areas of abovementioned concerns, taking into account positions of all payment stakeholders. In light of the PSD2, the mandate for PIS and AIS activity must come from an explicit consent of account holders. Art. 66 and art. 67 set out rules on access to payment accounts for PIS and AIS services respectively. Briefly put, PIS providers shall:

- not hold users' funds in connection with the provision of PIS,
- keep personal credentials of account holders secure and not accessible to third parties,
- authenticate themselves to an account servicing PSP (usually a bank) every time a payment is initiated,
- not store sensitive data of PSUs and request from them any other data than those necessary to provide PIS,
- not use, access and store any data for purposes other than the provision of PIS, and
- not modify any transaction feature (especially the amount or the recipient).

Account servicing PSPs shall, on their part:

- securely communicate with PIS providers,
- make available all information on transaction initiation to the PIS provider immediately after the receipt of the payment order, and
- not discriminate payment orders transmitted by PIS providers (in particular in terms of timing, priority and charges).

Legislators acknowledged that security of electronic payments is of fundamental importance and all relevant security measures should be taken to protect PSUs and prevent risk of fraud, including phishing (see recitals 93–96 of the PSD2). Therefore, pursuant to art. 98, strong customer authentication would be required when the payer accesses his or her payment account or initiates a payment transaction. Such a strong customer authentication should even include elements dynamically linking the transaction to a specific amount and a specific payee (strong transaction authorisation) with a possible lighter regime for low-risk payments (such as, e.g., low-value mobile payments), to be further defined in the standard developed by the European Banking Authority as set out in art. 98 (regulatory technical standards on authentication and communication).

According to art. 73 par. 2 of the PSD2, indeed, an account servicing PSP liable for refunding losses to users will be the first port of call. However, in a situation where a PIS provider is liable for the unauthorised payment transaction, it shall immediately compensate the account servicing PSP for the losses incurred, and the burden of proof that a payment transaction was appropriately authenticated will be on a PIS provider.

PIS and AIS will not depend on the existence of a contractual relationship between TPPs and account servicing banks, and the PSD2 will not, for the provision of those types of services, define any particular business model, whether based on direct or indirect access (see recitals 30 and 93 and art. 66 and 67). It is clear that legislators did not put banks at the centre of these provisions, but rather account holders as the owners of funds and personal data, to whom a decision should be left about the choice of a trustworthy PSP. The lack of contractual arrangements will make it more difficult for banks to charge TPPs, but they will be free to charge customers, e.g., for executing credit transfers. The question of whether it is justified to charge twice for the same service was already raised when discussing new provisions on the pan-European forum. The current operational models will be in place before, pursuant to recital

93 and art. 98 of the PSD2, the European Banking Authority specifies the requirements for common and open standards of communication between TPPs, account servicing PSPs, payers, payees and, possibly, other PSPs.

Some time ago, Michael Salmony (2014) proposed a concept of an Open Standard Interface for Controlled Access to Payment Services (CAPS), linking the regulators' vision with the interests of account servicing PSPs and TPPs. In his opinion, open access to bank accounts could unlock the potential of the new services rendered by TPPs, but it can simultaneously bring benefits to banks in the form of new revenue streams. Salmony called for developing a safe infrastructure, where access to accounts based on contracts (signed with contract aggregators) would be granted in a limited way depending on a service type, where fees – attractive for all parties – would be determined by market forces and where consumers would remain in control, giving permission to exploit their payments account data to chosen service providers.

A similar concept has been introduced by the Euro Banking Association (not to be confused with the European Banking Authority), whose Working Group on Electronic and Alternative Payments issued, in May 2015, an opinion paper on Digital Customer Services Interface (DCSI) which could be defined as a pan-European application programming interface (API) facilitating access of TPPs to bank accounts but at the same time giving possible access to customers (and their data) via TPPs to banks. API is a technology allowing software applications to communicate without human intervention. An API specifies the mechanism to connect to software, what data and functionality is available and a set of rules (standardisation) that other software applications have to follow to access data and functionality (Euro Banking Association, 2015, p. 9). As Mounaim Cortet and Douwe Lycklama from Innopay note, APIs are nothing new. Google, Facebook and Twitter offer APIs to external parties, and PayPal is a prominent example of a PSP who used an API functionality to enhance its business and build an entire ecosystem of firms and services while being itself at the core of this ecosystem. However, XS2A disrupts the banking sector and requires adapting their business and operating models to new conditions, where dis- and re-intermediation processes triggered by TPPs take place (Cortet and Lycklama, 2015).

The DCSI concept aims to bridge the gap between fintech challengers with banks not only in the payments area but also in other areas, such as, e.g., digital identity. Payment account attributes could be reused to validate identity on other websites. The DCSI concept develops technical and business layers, with internal fees, like charge-per-request

collected for TPPs using account servicing banks' Know-Your Customer/AML expertise (Euro Banking Association, 2015, p. 18).

The future will show whether the Euro Banking Association's initiative to create the DSCI will manage to get sufficient support in the financial sector and outside of it – between merchants and consumers, as well as whether this concept will fit in with the approach of the European Banking Authority, which will be responsible for setting requirements for common and open standards of communication between TPPs, banks and PSUs, as set out in the PSD2.

Brett King noticed: “the unhinging of the bank account from the bank spells massive disruption for the financial services industry. It means that eventually the bank account will just be a value store commodity” (2013, p. 32).

The revolution brought about by the electronic/mobile wallets development is gaining momentum. Non-bank PSPs worldwide strive to deliver improved user experience by facilitating seamless one-click/one tap instant payments in physical, e-, m- and finally in universal commerce. Until recently, one of the major barriers to the growth of mobile payments initiated with cloud-based electronic wallets has been the problem of accessing the liquidity kept at bank accounts by transferring funds using a different payment instrument than a card of an international scheme (see Figure 6.3). However, with the push from regulators in Europe, who bring overlay services provided by TPPs into the scope of the PSD2, and with the possible development

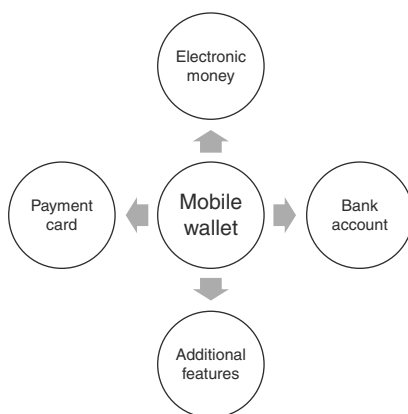


Figure 6.3 Functionality of mobile wallets

Source: Own concept.

of APIs to payment accounts at banks, this setback may soon cease to exist. Digital wallets, just as their physical counterparts, can also be equipped with additional features, such as loyalty cards, tickets, coupons or electronic receipts. Besides, just as in traditional wallets, users can store value in mobile wallets by keeping a positive balance of funds, electronic money or even private currencies – e.g., bitcoins (see Figure 6.3).

Mobile wallets can be provided by both bank and non-bank PSPs. However, it seems that non-bank players are more active in this area, like Google, Apple, Samsung, PayPal, PayU, or iPay, to name but a few. Banks, in cooperation with Visa and MasterCard, launch V.me by Visa or MasterPass wallets linked to payment cards. Banks also create mobile payment solutions designed for easy P2P transfers and C2B mobile payments, such as Blik in Poland, MobilePay in Denmark or Paym in the UK, which are connected to users' bank accounts.

Nevertheless, in general, banks are slow to innovate, because of heavy regulatory burden, legacy systems and complicated interbank agreements (King, 2013, p. 345). PIs and EMLs, on the other hand, are not entangled into high-risk deposit-lending or investment activities characteristic for banks. They can be agile and innovative.

Such companies as Amazon, Google, Apple and Facebook mastered building relationships with consumers. They all know how to leverage their business with information used as capital. This is the reason why banks worry about competition from them (Skinner, 2014, p. 104). Building a context around payments and shaping a positive user experience is key.

Jürgen Bott and Udo Milkau asked an accurate question in the context discussed in this section: *mobile wallets and current accounts: friends or foes?* (2014). According to the presented view the answer is: friends. Mobile wallets, defined more broadly as innovative ways to exchange payments, and current accounts, as a secure and stable platform for liquidity provided by banks as highly trusted partners, can coexist and collaborate, provided that non-bank and bank PSPs operate in a well governed environment with clear rules set by regulators (Bott and Milkau, 2014, pp. 297–298).

The payments ecosystem becomes more complex. In the payment chain there is space for many companies. Chris Skinner predicts: "In the near term, you might be buying an Apple download using a Zynga credit through an O2 wallet backed by a PayPal payment which is on a Visa card issued by a bank" (2014, p. 50).

6.7 Conclusions

PIs and EMIs are new payment service providers and special purpose financial institutions which have much to offer to consumers and companies. It is argued in this chapter that new entrants ought to be placed on equal footing with banks in order to fully exploit all opportunities.

First, they need to have the right to assign their own IBANs (IPANs) to accounts of payment service users. As the survey conducted between Member States revealed, this option is not yet available in all SEPA countries.

Second, they need to have the right to directly access payment systems, also designated ones, on fair and objectively defined terms. The position of PIs and EMIs considerably improved after adoption of the first PSD. They gained fair access to payment systems, like those of international card organisations, but still are not allowed to become direct participants of large-value or other systemically important payment systems.

Third, they need to be granted the right to open accounts at central banks. This will eventually make them independent of banks and facilitate settlement in the central bank's money.

The modalities of those three intertwining issues have been discussed in more detail throughout the chapter. Creating a *de facto* level playing field between bank and non-bank PSPs is a multistage process, and there are systemic and mental obstacles to be overcome. However, in the longer time horizon, there seems to be little justification for discrimination between PSPs. The approach towards all of them should be unified and purely risk based. The risk area needs to be further researched, also empirically.

The PSD2 reduces another hindrance impeding competition and innovation on the payments market in the EU because it opens up banks, i.e., it gives TPPs access to bank accounts which constitute a reservoir of liquidity. Thus, electronic and mobile wallets offered by PIs and EMIs will gain a new dimension and deliver greater functionality to users. It will not happen immediately. The value of such services will grow gradually, hopefully fostered by development of an open interface (API) to all of the EU's 7,000 banks across all countries.

It should be hoped that the revised PSD will fuel innovation among smaller non-bank PSPs, not just giant companies such as Google. Facilitating access to information and liquidity stored at bank accounts will certainly lower barriers to entry. PIs and EMIs will be able to offer

other payment services than provided until recently, including the basic one – operating a payment account. Addressing the three major issues discussed in this chapter and providing access to information and liquidity stored at bank accounts will help transform mobile wallets into fully fledged payment accounts. This can have diverse consequences, one of which might be a gradual substitution of card payments with SEPA credit transfers and SEPA direct debit serving as basic payment instruments for money transfers, including instant payments (their rollout on a pan-European scale is presently much desired). The second consequence might be an enhanced market status of PIs and EMLs. They can become more trusted parties, and this also generates obligations.

Note

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