Outlook for European retail payments

The creation of a Single Euro Payments Area (SEPA) has been on the European Union's policy agenda since back in 2000. The objective was to increase competition and efficiency in this market by introducing uniform procedures and standards for the settlement of euro-denominated payments throughout Europe. The changeover from national credit transfers and direct debits to a common set of European payment instruments on 1 February 2014, as stipulated by the European legislator, is now close to becoming reality. Given that the changeover date is just a few weeks away, the still-low take-up rate of SEPA instruments in Germany is worrying. It is now crucial for users to set about switching to SEPA with the utmost urgency. Yet the imminent transition to SEPA credit transfers and SEPA direct debits is just one of the milestones on the road towards creating a single European market for cashless payments. For one thing, a wide range of exceptions for national solutions will remain in place until 1 February 2016. For another, there is more to cashless payments than just credit transfers and direct debits. Other instruments include payment cards and, more notably, payment methods which can be used online or via mobile telephone, some of which tend to evolve more within national systems than in a European context. Adapting the statutory framework for retail payments and creating a stronger institutional platform for dialogue between market participants will take these changes into account. Suitably observing security concerns while simultaneously making steady improvements to the efficiency of European retail payments should be the goal here.

SEPA credit transfers and SEPA direct debits – new standards for Europe

SEPA to be rolled out on 1 February 2014, …

Credit transfers and direct debits are the two traditional cashless payment instruments, alongside card payments. The credit transfer and direct debit schemes currently in use across the euro area are to be largely phased out on 1 February 2014 and replaced by the corresponding SEPA payment schemes in accordance with Regulation (EU) No 260/2012 (the "SEPA migration end-date Regulation").[1] In Germany, this means that the DTA (exchange of data media) format, which has been the technological platform used for German payments since 1976, will be discontinued. The German SEPA Council, which is chaired jointly by the Bundesbank and the German Federal Ministry of Finance and whose members include top-level representatives of both providers and users in the German payments market, was established to support the launch of the Single Euro Payments Area in Germany.

The departure from the national legacy payment schemes and the narrow migration window present payment service providers (PSPs) and their institutional customers with challenges that should not be underestimated. Businesses, public authorities and associations will have to invest a great deal of time and effort to make their payment processes SEPA-compliant, notably so regarding migration to the SEPA direct debit schemes. Private customers, meanwhile, can look forward to quite a smooth changeover. Their main concern in the medium term will be getting into the habit of using the international bank account number (IBAN) rather than the customary account identifiers (account number and bank sort code).

… but the current take-up figures are worrying

With the weeks counting down to the statutory end-date on 1 February 2014, the current SEPA take-up rate is worrying. SEPA credit transfers still account for a very small percentage of all the credit transfers initiated in Germany, at 20.93% in October 2013. Not only are take-up rates in many other euro-area countries already significantly higher than in Germany, they have recently increased at a much more dynamic pace as well. In the euro area, credit transfers account for a market share of 36%[2] of the transaction volume in Germany, and are also an important payment instrument in France (18%), the Netherlands (10%) and Italy (7%).

The number of creditor identifiers (creditor IDs) that have been issued (1,228,777 as at 10 December 2013) is a useful gauge of Germany's readiness for SEPA direct debits because all direct debit creditors are required to apply for one. The sharp rise in creditor ID applications observed in recent months and the growing number of direct debit creditors informing their customers about the transition to SEPA suggest that ever more direct debit creditors are prepared for SEPA. But still, much remains to be done. SEPA direct debits as a percentage of all direct debit transactions in Germany were still extremely low in October 2013, at 3%. The situation is much the same elsewhere in the euro area. Direct debits are particularly widespread in Germany, with a market share of 47%, followed by France (19%), Spain (13%) and the Netherlands (7%).[3]

Narrow window for SEPA migration …

A host of German enterprises are planning to migrate to SEPA in the current fourth quarter of 2013. All in all, around 25 million credit transfers with a value of €227 billion and roughly 35 million direct debits worth something in the region of €52 billion need to be migrated every working day in Germany.

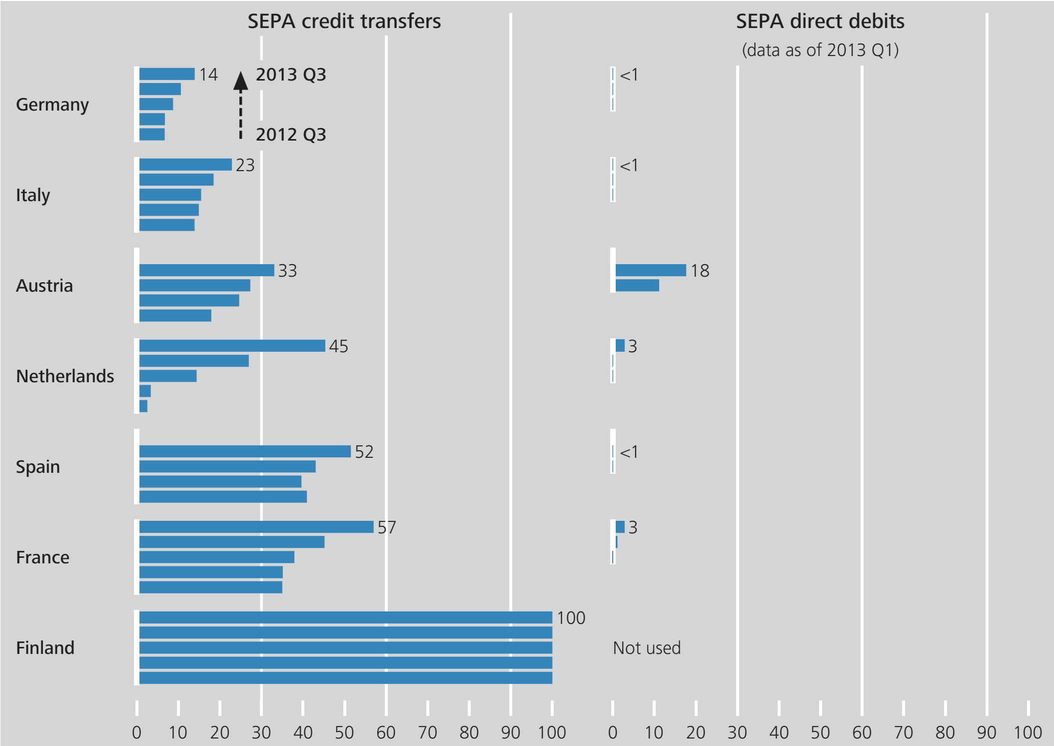
… harbours operational risk …

The imminent migration of the remaining 19.5 million credit transfers and more than 30 mil-

1 The Bundesbank last outlined the individual steps involved in the SEPA migration process in its January 2012 and July 2009 Monthly Reports. See Deutsche Bundesbank, The European single market in payments nearing completion, Monthly Report, January 2012, pp 47-59, and Recent developments in German and European retail payments, Monthly Report, July 2009, pp 45-60.
2 See European Central Bank, Statistical Data Warehouse, http://sdw.ecb.europa.eu/browse.do?node=2746.
3 European Central Bank, op cit.

Usage of SEPA credit transfers and direct debits in selected countries

As a percentage of all transactions



Source: ECB.
Deutsche Bundesbank

lion direct debits every working day will have to be effected under considerable time pressure, and entails substantial operational risk. Businesses which fail to become SEPA-compliant in good time risk exposing themselves, and their counterparties, to liquidity bottlenecks and costs owing to the incorrect or late processing of payments.

… but not macroeconomic risk

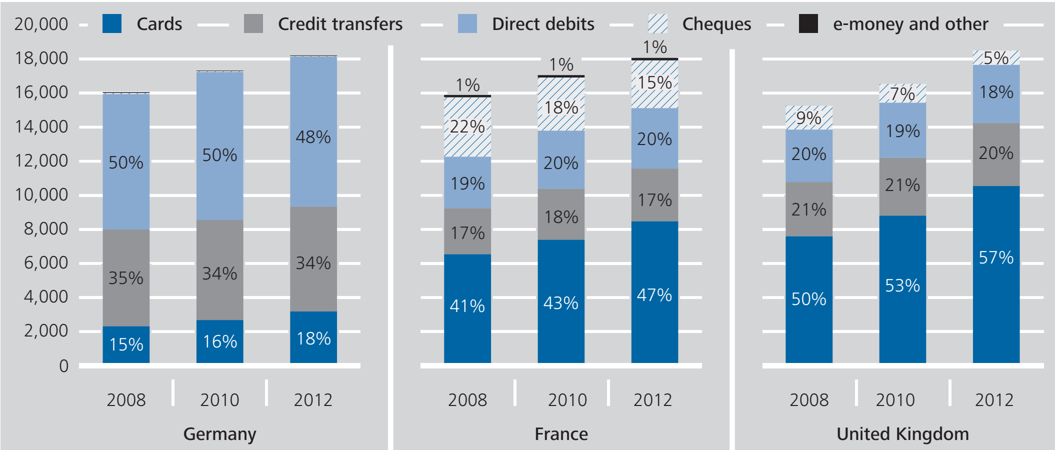
The advanced state of SEPA readiness in the financial industry, responses from market participants, and the growing number of market participants informing their customers about SEPA would suggest that many enterprises are sufficiently prepared for SEPA. So timely completion of the transition to SEPA by the statutory deadline of 1 February 2014 is still a likely scenario. However, Germany will see all the payments being switched over within a very narrow migration window, which could harbour the risk of increased disruptions in payment processing. Macroeconomic risk is a somewhat unlikely prospect as things stand, though, because the technical option of converting payment formats from DTA to SEPA also serves as a fallback solution.

Impact of SEPA on interbank clearing …

Providers and users of credit transfers and direct debits are not the only ones who will see a big difference when SEPA is rolled out; the new payment standards will also have an impact on the market for retail payments processing between banks. Settlement procedures and systems will need to be brought into line with the organisational and technological requirements of the SEPA schemes. Some of these adjustments were already in place when the respective schemes went live (SEPA credit transfers on 28 January 2008; SEPA direct debits on 1 November 2009). The clearing system run by the Bundesbank, the Retail Payment System (RPS), incorporated SEPA payment processing into its range of services early on. Once retail payments have been harmonised across Europe in February 2014, international clearing houses will also find it easier to serve the German mar-

Cashless transactions by payment instrument in selected EU countries

In millions



Deutsche Bundesbank

ket, which will probably contribute to more intense competition in the settlement landscape.

Traditionally, only a small share of domestic retail payments in Germany are processed via clearing houses, however. While it is true that almost 12 million payments are settled in the Bundesbank's RPS every working day, the bulk – roughly 85% – are processed purely on a bilateral basis or within the respective internal networks of the cooperative and savings bank sectors. Some of the payments settled bilaterally appear to be shifting to clearing houses, at least initially.

… leads to a shutdown of legacy processing infrastructures

Even after the SEPA credit transfer and direct debit schemes have become the new standards on 1 February 2014, it will still not be possible to shut down the processing infrastructures previously used under the corresponding national payment schemes on that date because some payments outside the scope of the SEPA migration end-date Regulation can continue to be processed under the legacy schemes for a transitional period. In Germany, these include cheque and card payments, and direct debits under the German electronic direct debit scheme (*Elektronisches Lastschriftverfahren*, or ELV), which can be used until 1 February 2016; this is because Germany elected to make use of a Member State option. The legacy and new infrastructures will therefore need to be run side by side until February 2016. The technical prerequisites for the SEPA-compliant further development of the ELV are essentially in place. But it is up to market participants to design and implement an appropriate scheme. The Bundesbank and the German Banking Industry Committee *(Deutsche Kreditwirtschaft)*[4] are working on developing SEPA-compliant alternatives for card and cheque transactions. While card payments are growing in importance in Germany, with a market share of 17.5%, cheques, at 0.2%, play no more than an insignificant role. Once cheque and card payment processing has been migrated to SEPA, the Bundesbank's RPS, which is based on the legacy national standard, is to be shut down on 1 February 2016.

Temporary derogations from the SEPA standard

Besides the option allowing the continued use of the ELV (Art 16 (4) of the SEPA migration end-date Regulation), the SEPA migration end-date Regulation permits Member States to

4 The German Banking Industry Committee (GBIC) represents the interests of the five central associations of the German banking industry. It succeeded the Central Credit Committee in August 2011 and continues its work.

Member State options under SEPA migration end-date Regulation keep national borders in place

make use of additional transitional Member State options until 1 February 2016 in order to make allowances for the temporary continued use of certain national procedures and to grant sufficient time for necessary adjustment processes. National legislators decide whether or not to take up the individual options.

For instance, Article 16 (1) of the SEPA migration end-date Regulation allows payment service providers (PSPs) to accept from consumers, until 1 February 2016, the national account identifiers (BBAN) – the account number and bank sort code in Germany – for domestic credit transfers and to convert these data, securely and free of charge, into IBAN and BIC. In addition, Article 16 (3) of the Regulation enables national niche products, that is, instruments with a market share of less than 10%, in the field of credit transfers and direct debits to be exempted from the requirements of the Regulation until 1 February 2016. Article 16 (5) of the SEPA migration end-date Regulation, meanwhile, allows the mandatory use of the SEPA message formats[5] based on the ISO 20022 XML standard at the customer-bank interface to be delayed until 1 February 2016. Finally, Article 16 (6) of the SEPA migration end-date Regulation gives PSPs the right to require their customers to state both the IBAN and the BIC for national SEPA credit transfers and direct debits up until 1 February 2016.

In order to make the transition to SEPA as smooth as possible for consumers, the German legislator has made corresponding amendments to the Payment Services Oversight Act *(Zahlungsdiensteaufsichtsgesetz)* by way of the SEPA Accompanying Act *(SEPA-Begleitgesetz)* so as to make use of the Member State options offered under Article 16 (1) and (4) of the SEPA migration end-date Regulation.

Interpretations of SEPA standard …

The European Payments Council (EPC) has stipulated that SEPA data formats are mandatory for interbank payments, but has so far only issued a recommendation for data formats at the customer-bank interface.

… hamper end-to-end settlement …

As a consequence, a host of specifications have been developed for the SEPA schemes at the customer-bank interface, which means that a uniform data structure currently does not exist for customer orders in the Single Euro Payments Area. This has been criticised, not without good reason, by users who have to support different versions of the standard for different PSPs.

The EPC's recommendation is not being followed to the letter in Germany, either. The GBIC may have implemented the EPC's standards word for word in its data format specifications, but the supplementary rules for completing fields, which are designed to enhance data quality, constrain these rules.

… making greater harmonisation desirable

Besides the introduction of uniform specifications for customer-bank data formats across the Single Euro Payments Area, further harmonisation steps are desirable as they could potentially give rise to additional efficiency gains. These include rolling out a common set of communication and security standards for the transmission of payment data files to PSPs to replace the inconsistent procedures and solutions currently used by PSPs across Europe. The establishment of EBICS Société coopérative à responsabilité limitée (SCRL), an enterprise jointly run by the GBIC and the French CFONB (Comité Française d'Organisation et de Normalisation Bancaires) to advance and maintain the EBICS standard,[6] which is available to all countries as an open standard, represents the first step towards achieving greater harmonisation in this field.

The EPC's SEPA Rulebooks make a point of granting PSPs a degree of scope to improve

5 The global ISO 20022 standard is a universal model for developing international message standards for financial services and is based on XML (eXtensible Markup Language). SEPA message formats were specified on the basis of the ISO 20022 standard.
6 EBICS (Electronic Banking Internet Communication Standard) is a technical communication standard which facilitates the secure exchange of data between customer and bank.

Member State options under the SEPA Regulation used in euro-area countries

Member State	BBAN-IBAN conversion facilities for consumers Art 16 (1)	Niche products (name) Art 16 (3)	One-off direct debits Art 16 (4)	Delayed mandatory usage of XML format Art 16 (5)	Delayed BIC elimination Art 16 (6)
Belgium	No notification so far				
Germany	yes	no	yes	no	no
Estonia	yes	no	no	yes	no
Ireland	no	no	no	no	no
Greece	no	yes "non-automatic credit" (credit transfer product used on the DIAS payment system platform)	no	yes	yes
Spain	no	yes "los anticipos de crédito (cuaderno 58) & los recibos (cuaderno 32)"	no	yes	no
France	no	yes "Titre Interbancaire de Paiement (TIP) & Electronic Payment order (telérèglement)"	no	no	no
Italy	no	yes "RID finanziario e RID a importe fisso (Rapporto Interbancario Diretto)"	no	yes	no
Cyprus	yes	yes "Business continuity arrangements for electronic credit transfers"	no	yes	yes
Luxembourg	no	no	no	no	no
Malta	no	no	no	no	yes
Netherlands	no	no	no	no	no
Austria	no	yes "image transfer Verfahren"	yes	no	no
Portugal	No notification so far				
Slovenia	no	no	no	no	no
Slovakia	yes	no	no	yes	no
Finland	no	no	no	no	no

Source: European Commission, as at July 2013, http://ec.europa.eu/internal_market/payments/docs/sepa/art16-member-statesoptions _07_2013_en.pdf.
Deutsche Bundesbank

Additional services provided by PSPs enhance efficiency of SEPA schemes, …

and differentiate the payment services they offer. These additional services, which are subject to an EPC licence, can be tailored to suit the requirements of specific user groups. PSPs may offer such services at their discretion, and they are essentially encouraged to do so because they enhance the efficiency of the SEPA schemes.

… but often contribute to insular national solutions …

Additional services might, however, lead to national solutions becoming entrenched because traditionally, user requirements tend to be similar within national borders, and domestic processing workflows between PSPs are often better attuned to each other than those at the European level. As a case in point, PSPs in Germany, Austria and Spain offer what is known as the "COR1 option" for SEPA Core direct debits, which allows the time cycle – that is, the lead time for presenting a direct debit to the paying agent ahead of the due date – to be shortened to one business day. The benefit for users is that liquidity is available sooner than under the SEPA Core Direct Debit Scheme, where the time cycles are five business days for initial and one-off direct debits, and two business days for subsequent direct debits. As things stand, bilateral agreements are needed between PSPs in the different jurisdictions to process cross-border COR1 direct debits; settlement throughout Europe is still not possible.

… and should therefore evolve into trans-European solutions over the medium term

The Eurosystem is very anxious to prevent the further development of the market from nurturing insular national solutions, which would go against the basic principle of SEPA, which is to create a single internal market for payments based on common standards and highly efficient processes. Bearing this objective in mind, national additional services can, at best, only be interim solutions for services offered across Europe within the Single Euro Payments Area.

Changed framework conditions in European retail payments

Regulatory developments reflect technological advances, …

Not only do retail payments have to be brought into line with a common set of European standards, the institutional framework likewise needs to be overhauled in order to incorporate innovative developments in the field of payments brought about by the now-ubiquitous use of the internet.

… increase competition and security standards in payments …

To revise the current Payment Service Directive (PSD), the European Commission, on 24 July 2013, presented a proposal for the "Directive on payment services in the internal market and amending Directives 2002/65/EC, 2013/36/EU and 2009/110/EC and repealing Directive 2007/64/EC", otherwise known as the Payment Service Directive II (PSD II). This new regime is designed to reflect technological advances in internet and mobile payment schemes. The Commission proposes that payment initiation services and account information services *inter alia* be added to the list of payment services, and that providers of such services be brought under the scope of the Directive and be supervised. The new service providers should be subject to the same rights and obligations (eg regarding data protection and liability) as the existing payment institutions. The Commission's proposal also suggests that account-carrying payment service providers should be obliged to grant these competitors access to their payment accounts.

… and should improve consumer protection

To offer enhanced protection for consumers, the maximum amount a payment user could be obliged to pay in case of an unauthorised payment transaction should be lowered from the current amount of €150 to €50, except in cases of fraud or gross negligence on the part of the payment user.

The conditional right to a refund under the PSD is to essentially be made unconditional, as has already been agreed in the SEPA schemes. However, according to the Commission's proposal, this unconditional right to a refund would be ruled out if the purchased good or service has already been consumed or used. This clause restricting the right to a refund should be viewed in an extremely critical light because the highly automated nature of bulk retail payments makes it almost impossible to establish a link to the underlying transaction. What is more, it is precisely the unconditional right to a refund within a certain period of time which has made the direct debit scheme in Germany, and thus the SEPA Direct Debit Scheme as well, such a popular payment instrument. This is crucial to the success of the SEPA direct debit.

European legislators planning to cap card-based multilateral interchange fees …

Alongside its proposal regarding PSD II, on 24 July 2013 the Commission also presented a proposal for a Regulation on Multilateral Interchange Fees (MIFs) for card-based transactions. The proposal promotes the idea of a single European regulatory system for interbank fees arising from card usage, both at the national level and for cross-border payments. MIFs constitute charges agreed between the merchant's bank (acquirer) and the card-issuing bank. The merchant's bank transfers this fee to the merchant who in turn either passes it on directly to the customer or factors it into his own price calculations. At present, there are considerable differences in the fees charged for credit or debit card use within the euro area.

The proposal to regulate MIFs envisages a cap of 0.2% of the transaction value for debit cards and 0.3% for credit cards. Depending on whether the payment is domestic or cross-border in nature, the rules should take effect either two months or two years after the Directive enters into force. In the event that the Commission's proposal becomes legally binding, statutory provisions regarding the upper limit of MIFs for card payment transactions would be stipulated.

… and measures to promote freedom of choice and transparency when paying by card

The proposal also envisages provisions relating to common business practices in card-based transactions. It is currently standard practice for the card-issuing bank to decide which card schemes can be mentioned on a single card (eg girocard, formerly referred to as EC card, coupled with Maestro or V PAY) and which card scheme is the most commonly used. In Germany, girocard is the most frequently used payment card for domestic transactions while international card schemes are preferred for cross-border purchases. In its Directive, the EU Commission now advocates that the cardholder be given the opportunity to decide for himself which of the card schemes specified on his card he would like to use to pay for a given purchase. It also proposes discontinuing the hitherto standard practice under which a merchant is automatically obliged to accept all the products belonging to a given card scheme if he accepts one of those products.

The draft version of the Payment Services Directive II as well as the draft Regulation on interchange fees for card payment transactions have yet to be adopted by the European Parliament and the Council of the European Union. The legislative process is not expected to come to a close until sometime during the next legislative period of the European Parliament, which begins in September 2014.

In addition, the EU Commission presented a proposal for a further Directive designed to strengthen consumer rights in terms of their access to and use of payment accounts. The proposal seeks to render payment account fees more transparent and more easily comparable for EU consumers. Moreover, it favours mandatory services for changing accounts that would make it simpler for consumers to switch from one provider to another within the EU. Ultimately, the rationale is that all EU consumers should be able to open a payment account with basic functions irrespective of their financial situation (and of their place of domicile in the EU).

European SecuRe Pay Forum recommends harmonised minimum standards as a means of increasing retail payment security

Besides efficiency, greater importance is being attached to retail payment security. This is particularly true given the technological progress occurring in this field. The ongoing development of harmonised European minimum standards to increase retail payment security are part of this development, as mirrored by the efforts of the SecuRe Pay Forum (Forum on the Security of Retail Payments) which was set up in 2011. These efforts take the form of a voluntary joining of forces by banking supervisors and payment systems overseers from across Europe with the additional involvement of observers from Europol and the EU Commission. In January 2013, subsequent to a public consultation, SecuRe Pay Forum published its "Recommendations for the security of internet payments" (focusing in particular on credit transfers, card payments and e-money transfers), which are scheduled to be implemented by the end of January 2015. A report on the aforementioned payment initiation services and account information services is in the process of being finalised. Meanwhile, work continues on drawing up recommendations for mobile payments (including contactless payments, payments effected using a mobile phone or apps saved on such phones) which will be subject to a public consultation until the end of January 2014. Overall, the Forum's work is likely to generate a higher level of security in retail payments.

The creation of a single market for retail payments combined with technological advances have led to increased regulation in the area of retail payments. Nevertheless, building and ex-

Retail payment regulation essentially necessary but its further development ought to be mainly driven by market forces

panding the underlying payment infrastructure necessitate large-scale investment which, in the case of retail payments, has hitherto been largely financed by private sector participants, in particular by the banking industry. This sector's active involvement is of pivotal importance in achieving future progress in payment instruments and infrastructures. As part of the ongoing regulatory efforts it is essential to ensure that European retail payment operations continue to be enhanced, primarily on the basis of market-driven action. Here, however, it is necessary to involve payment service users in an appropriate manner when setting the course for the future.

ERPB as new body charged with further development of SEPA

To date, no decision has been made as to how to approach the further strategic development of SEPA and who should be responsible for this task. In tandem with the SEPA roll-out and as a strategic benchmark for retail payments in the EU, in 2010 the ECB and the EU Commission set up the SEPA Council which accommodates representatives from both the user side and the supplier side at EU level plus a number of Eurosystem observers and is chaired by the ECB and the EU Commission. Up to now, the SEPA Council has not delivered on its promise to develop strategic intents for European retail payment transactions, which is why it is soon to be replaced by a Euro Retail Payments Board (ERPB) set up for this purpose and chaired by the ECB. The EU Commission will only have observer status. In designing this new body, three aspects have to be taken into account. First, it needs to be able to operate efficiently. To this end, the number of participants must be restricted and/or operational subgroups should be tasked with presenting proposals as a basis for making decisions. Second, all the parties involved have to be willing to provide sufficient resources to enable them to work effectively with this body and to lobby for acceptance of its decisions among relevant member associations. Third, it must be firmly rooted at the national level as the task of physically implementing the strategic requirements set by Brussels has in the past mainly fallen to actors at the national level, which will presumably remain the case in the future as well.

Leaving the territory of classic instruments: card, online and mobile payments

No pan-European standards for card payments to date

Having successfully introduced pan-European standards for credit transfers and direct debits, the Eurosystem is now pressing ahead with establishing an integrated single market for card payments. Unlike credit transfers and direct debits, however, this area is marked by a lack of uniform European technological standards. Up to now, efforts have been limited to guidelines and calls for action in pursuing the path to "SEPA for cards", such as the requirements pertaining to European card systems contained in the ECB's sixth SEPA Progress Report.[7]

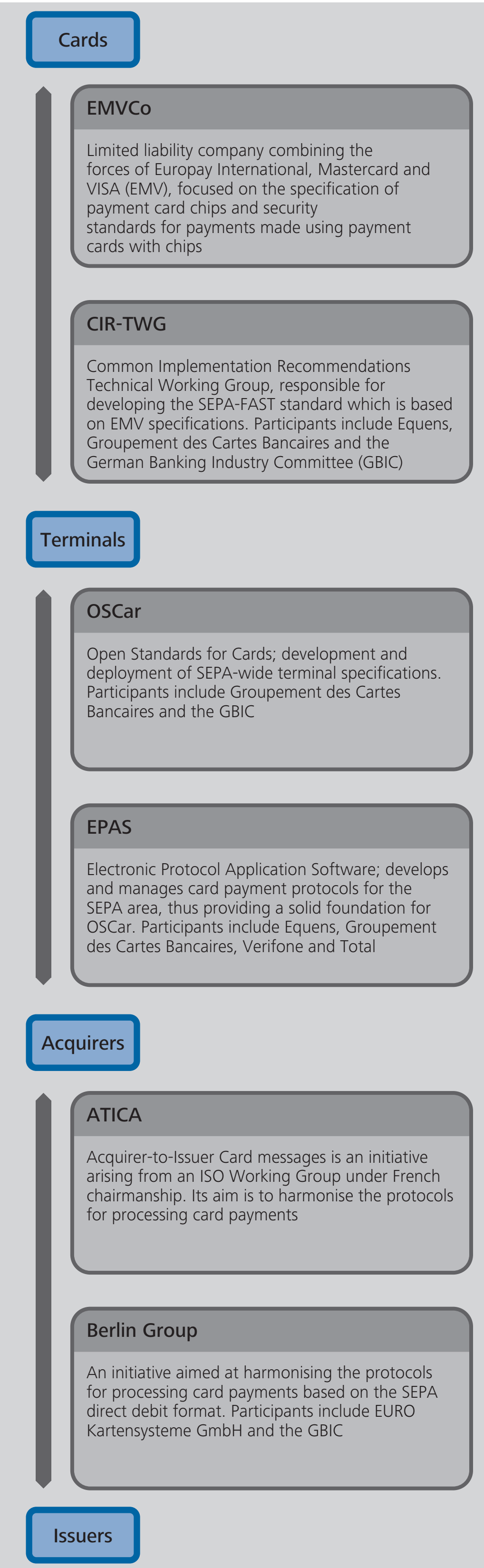
Given that the cards market entails more actors and interfaces and is thus more complex than the market for credit transfers or direct debits, the Eurosystem is focused on fostering a market-driven integration of the European cards market by standardising the three key technical interfaces which exist in the card payments domain. In the absence of a holistic approach, in some cases multiple standardisation initiatives are giving rise to competing specifications for the various individual interfaces.

Technological standardisation in the cards market necessary along three interfaces

The first relevant interface is between the customer and the terminal.[8] Here, the communication between the chip embedded in the card and the merchant's terminal are of pivotal importance. The second interface lies between the terminal and the merchant's bank (acquirer)[9] while the third interface in the specifi-

7 European Central Bank (2008), Sixth SEPA Progress Report, pp 22-26.
8 A terminal is a card-accepting machine found at the POS which can read the chip in the customer's card and sets the payment process in motion.
9 The term acquirer refers to the agent that concludes a contract with the merchant confirming acceptance of card payments and to whom all information needed to facilitate the card payment processing is then sent.

Current pan-European standardisation initiatives in the card payments market



Deutsche Bundesbank

cation chain is located between the acquirer and the card-issuing bank (issuer), in other words the customer's bank. This is especially important from a German perspective because Germany's card transactions environment achieves high levels of efficiency in terms of interbank settlement thanks to its shared use of the infrastructures in place for credit transfers and direct debits. The goal should therefore be to use the ISO 20022 format that is also applied for SEPA, as envisaged, for instance, by the Berlin Group's standardisation initiative.

In this context, the Eurosystem is promoting a far-reaching standardisation manifesto with an emphasis on open and free standards. Only then will it be possible to accomplish system interoperability throughout Europe as the ultimate basis for allowing any payment card to be used at any terminal within the EU.

Online shopping and specialised online payment methods are gaining ground, …

In recent years, the turnover generated by online shopping in Germany has gone up by an annual average of more than 10%.[10] In contrast to purchases made in a regular store, with online shopping there is often a time lag between the payment being made and receipt of the item. Sellers generally prefer not to dispatch the goods until they are certain that payment has been effected by the purchaser or have a guarantee that this will occur. The customer, on the other hand, wishes to avoid the risk inherent in advance payment of having to "chase after" his money should the goods not be delivered. This innate tension between both sides of the market is the backdrop against which online payment methods must operate. For a long time, online shopping was dominated by classic payment methods such as the credit transfer, purchase on account or payment by credit card, all of which are still widely used. Specialised online payment instruments, such as PayPal or Germany's "SOFORT Über-

10 See: http://www.einzelhandel.de/index.php/presse/zahlenfaktengrafiken/internetunde-commerce/item/110185-e-commerce-umsaetze.html.

weisung" scheme are gaining a stronger foothold, however.[11]

… but in many cases merely offer customers a new gateway to classic payment instruments

The bulk of new providers offering online payment methods, more and more of which are non-banks competing with the traditional actors involved in payment transactions, offer customers no more than an alternative channel for accessing the classic payment instruments which already exist. For the most part, the new online payment methods consist in unambiguously identifying the customer, say on the basis of that person's e-mail address or password so as to then carry out a credit transfer, direct debit or payment by card "in the background", as is the case with PayPal, Amazon Payments or ClickandBuy. It is further notable that a growing number of online merchants now offer their own procedures for this purpose, many of which can be used for purchases from other online shops. This has the advantage for users – and thus also for the online shop – that they are not obliged to register afresh and make their payment details known to yet more merchants.

Mobile devices spur momentum in the payment services market

New PSPs penetrating the market are faced with a changing market structure in terms of how online shopping operates. For one thing, increasing use is being made of mobile devices as a means of initiating a purchase; this can be attributed to the proliferation of smartphones and tablet computers. For another, it is possible to discern an ever-greater overlap between online shopping and over-the-counter (OTC) purchases. This development has likewise been made possible by the widespread availability of mobile devices which can also be used as points-of-sale (see the box on mobile points of sale on page 38).

Online PSPs making inroads into OTC trade …

Large PSPs closely involved in online shopping have launched pilot schemes as a way of also gaining a foothold in the OTC business. To this end they offer services which allow payment to be made at the POS by scanning a QR code;[12] payment is then effected using the PSP's processing system and the relevant amount credited to the OTC retailer. The benefits offered by the QR code technology are its high level of flexibility in terms of displaying codes, for example on a purchase receipt, the cash register display or payment terminal and the widespread incorporation of cameras in mobile phones that are able to read the codes. Nevertheless, QR codes also harbour a number of fundamental security risks. As no QR code-specific security certificates are currently available, when scanning a code the user may be directed to a website that is contaminated with malware or automatically activate the download and installation of a malicious programme. The risk of being exposed to such misuse is especially high if the user scans QR codes in a public space (eg from a billboard). QR code technology is just one example of the various initiatives through which internet-based PSPs are attempting to make headway in the OTC sector.

… and opening new avenues for online cash payment as well

That said, a parallel development is also underway in the opposite direction. While in the past it was only possible to use cash to settle invoices arising from cash on delivery (COD) purchases, new payment services are emerging that offer additional options for paying with cash when shopping online. COD is a relatively expensive way to make payment and the customer is obliged to hold the relevant amount at the ready when an item is delivered. Moreover, it is awkward to pay for services using this method of payment. Under the new payment schemes described above, upon completing an online purchase the buyer prints out a barcode or receives this information (as an on-screen image) on his or her smartphone. He or she then shows the code to an OTC merchant participating in the relevant scheme so as to initi-

11 See Deutsche Bundesbank (2012), Payment behaviour in Germany, 2011, pp 61-62.
12 The QR (quick response) code is a two-dimensional barcode. It is possible to embed any information in a QR code with the content essentially consisting of text data. This text can include a payment instruction which will be carried out after the code has been decrypted using a smartphone and dedicated software.

Accepting card payments by smartphone: mobile point of sale (mPOS)

A new app and card reader service for card payments called "Square" was introduced in the United States in 2009. The data on a payment card's magnetic stripe can be read by swiping the card through an adapter which plugs into the audio jack of a supported smartphone. Payment is initiated once the card holder has signed on the display.

In Europe, similar systems were launched by other service providers in 2010, at first employing the magnetic stripe readers in common use in the United States. At the beginning of 2010, however, the requirement that was adopted by the EPC to migrate to payment cards with a chip for new terminals entered into force.

In line with this, pure chip readers as well as chip readers with a PIN pad were introduced in Europe. With some of these devices, it was possible to make a contactless connection with a smartphone. Security concerns do exist, however, about systems that require inputting a PIN on a smartphone.

Unlike traditional card terminals, mobile points of sale (mPOS) are characterised by simple price models and, in many cases, straightforward online registration for merchants. The target group therefore consists mainly of small retailers and tradespeople who previously did not accept card payments. In contrast to customary POS terminals, no monthly fixed costs are incurred and commissions, which were uniformly 2.75% to begin with, now sometimes approach the amounts charged in the established POS market.

ate final payment using that merchant's POS system, be it by cash, debit or credit card.

Contactless card payment schemes have yet to catch on …

Although these new schemes have introduced an additional tool for the cash payment of internet purchases, cashless payment instruments have steadily gained in importance for OTC business in the retail sector, with a particular preference for debit and credit cards.[13] This trend is evidenced by the contactless technology NFC,[14] which is mainly intended as an alternative for small payments which are predominantly settled using cash. To pay by contactless card, it is merely necessary to hold this card in front of a sensor at a suitably equipped POS terminal. For amounts up to €25, there is no need to enter a PIN. Credit card companies are already issuing more and more cards featuring the relevant chip, while the Savings Banks Finance Group has been conducting an NFC pilot project known as "girogo" since 2012. As yet it is still unclear whether the German banking industry will equip all its girocards with a corresponding chip. Contactless cards could represent an interim step on the road to payment by mobile phone.

… and e-wallets are still in their infancy

Electronic wallets (e-wallets) embedded in mobile phones enable the user to virtually store not just payment cards but also admission tickets to events, rail tickets or vouchers, to name a few examples. However, most of the pilot projects currently underway in the market relate to "closed systems". In other words, each e-wallet is provided by just a single provider and can only be used within limited parameters. This aspect deters potential users from setting up such a wallet. Open standards could be helpful in this regard. A range of initiatives jointly orchestrated by the banking industry, the retail trade and mobile phone oper-

13 See Deutsche Bundesbank (2012), Payment behaviour in Germany, 2011, Table 3 on p 37.
14 NFC stands for near field communication and enables the contactless transfer of data via radio technology from a distance of no more than about 10 cm.

ators have been pursuing this approach since 2011 in France, and more recently also in Austria.

Outlook

Following many decades of only limited momentum, the creation of a single payments market together with fast-paced change in the field of communications technology have been setting a new course for the future of payments. In particular, the increasing prevalence of internet-based services in everyday life gives new PSPs access to some interesting areas of business. This is leading to a restructuring of the range of payment-related services on offer, accompanied by greater challenges for market participants and regulators alike. Thus far, payment services have almost exclusively been provided by credit institutions; now, however, new providers have taken the stage that are leaving their mark through innovative solutions although their market share is in many cases still negligible. By contrast, the banking industry enjoys the bonus of customer trust and, thanks to the services it has introduced, arguably finds itself in a relatively better starting position in terms of its ability to launch innovative products onto the market.

From a regulatory perspective, attention must remain focused on achieving the right balance between opening up the market and promoting competition on the one hand and ensuring secure payment transactions on the other. There is a risk that the associated regulations will become increasingly complex and more and more time will be needed to review the process. This would engender market uncertainty and in turn greatly impede the development and progress of new innovative products in the European payments arena. This could then result in a situation where providers concentrated on the European market would lose out against their international rivals on account of the fact that large multinational enterprises are already well-established in many European markets, not just in the field of card payments but also in the online payment services sector. With this in mind, caution should prevail when pushing ahead with efforts to harmonise rules across Europe, the overall aim being to offer actors a stable and efficient framework within which they can operate.