



August 29, 2005

No. 27

# EU Monitor

## Financial Market Special

### Payments in Europe: Getting it right

There are currently two initiatives underway in Europe aimed at creating an internal market for payments in the EU.

- The European Commission is in the process of developing a harmonised legal basis throughout the EU with its "New Legal Framework for Payments in the Internal Market", which will apply to all types of payment service providers.
- At the operational level, the banking industry is designing pan-European standards and infrastructure to turn euro-area payments into domestic payments (SEPA: Single Euro Payments Area).
- At the moment, European retail payment markets still vary considerably by technical standards, national legislation and domestic customer preference for different payment instruments.
- New regulation must respect the principle of an open market economy with free competition as stipulated in the EC treaty. Only if the provision of payment services is a commercial activity will innovation and competition flourish in an EU-wide market.
- The New Legal Framework should consider the limits of EU legislation. Only payments within the EU and in EU currencies can effectively be regulated by the EU authorities. EU payment service providers must not be held liable for the business practices of non-EU payment service providers.
- Competition between payment service providers must be based on the principle "same risks, same regulation". Payment systems are of utmost importance for the economy. Prudential supervision and existing regulation in the EU, designed to protect the stability of payment systems and the confidence of citizens in cashless payments, should not be undermined by the New Legal Framework.
- New legislation should provide legal certainty for all payment market participants and adequate consumer protection.

Author: Heike Mai, +49 69 910-31437 (heike.mai@db.com)



**Editor**

Bernhard Speyer  
+49 69 910-31735  
bernhard.speyer@db.com

**Technical Assistant**

Sabine Kaiser  
+49 69 910-31831  
sabine.kaiser@db.com

Deutsche Bank Research  
Frankfurt am Main  
Germany

**Internet:** [www.dbresearch.com](http://www.dbresearch.com)

**E-mail:** [marketing.dbr@db.com](mailto:marketing.dbr@db.com)

**Fax:** +49 69 910-31877

**Managing Director**

Norbert Walter





## Introduction

The European Commission aims at creating a “Single Payment Area” in the EU, in order to make it “as easy, cheap and secure to make a cross-border payment (...) as it is to make a payment within one Member State.”<sup>1</sup> The “Single Payment Area” is expected to increase the competitiveness of the European economy because the integration of domestic payment markets into a European one would create a huge internal market. Competition among payment providers is supposed to intensify.

The Commission’s initiative is based on the fact that retail payment markets in the EU have remained domestic – in spite of monetary union and the internal market. The vast majority of payments were and still are made within member states, which have led payment service providers to build efficient, automated and competitive payment systems at the domestic level. National systems are not compatible because markets developed different technical standards, business practices and payment instruments. Also, national payments legislation differs. In contrast, cross-border payments within the EU have been less standardised and automated. The fact that the vast majority of payments are domestic provided no economic incentive to overhaul these highly efficient national systems to handle international transactions.

The EU’s Regulation 2560/2001, which came into force in 2003, fixed prices for cross-border intra-EU credit transfers in euro at the level of domestic transaction prices.<sup>2</sup> In order to avoid losses from such intra-EU payments, the banking industry joined forces in the European Payments Council (EPC) to create pan-European clearing and settlement facilities. The industry body is driving the development of pan-European payment instruments and standards in order to automate payment processes, similar to domestic systems. The European Banking Association (EBA) is building respective technical clearing infrastructure. The EPC is committed to create the Single Euro Payments Area (SEPA), i.e. to make euro-area payments similar to domestic ones.<sup>3</sup> In a parallel development, the European Commission is proposing legislation called the New Legal Framework in order to harmonise the legal basis for the EU payment market. The legislation is intended to create legal certainty for all parties concerned in the payment process and adequate protection of payment service users. Competition between payment service providers shall be on equal terms.<sup>4</sup>

Although the Commission often relates the proposed single market for payments to the euro, the legislation is intended to refer to the entire EU. In order to provide a level playing field and legal certainty for all EU citizens, the New Legal Framework must comprise the entire EU and all EU currencies. Nevertheless, for economic and technical reasons a “Single Payment Area” characterised by pan-European systems as efficient as current domestic ones can only be implemented for euro payments. This is why the EPC focuses on the Single Euro Payments Area.<sup>5</sup>

The single market for payments will be an important element of the internal market for goods and services. Any industry or legislative

**EU retail payment markets still domestic**

**Initiatives to integrate retail payment markets**

**Market-driven processes and fair competition are crucial**

<sup>1</sup> EU Press Release IP/03/1641 from December 2, 2003.

<sup>2</sup> This did not lead to more uniform pricing within the EU, as domestic price levels differ considerably between member states.

<sup>3</sup> European Payments Council, “Euroland: Our Single Payment Area!”, White Paper, 2002.

<sup>4</sup> European Commission, Communication from the Commission to the Council and the European Parliament concerning a New Legal Framework for Payments in the Internal Market, December 2, 2003.

<sup>5</sup> This will be discussed in more detail on pages 7 and 8.

action must be based on the principle of an “open market economy with free competition” as stipulated in the EC treaty.<sup>6</sup> Legislation must strike the balance between providing legal certainty and leaving decisions up to citizens and companies as much as possible. Otherwise, innovation and development will be stifled. Competition must be fair. Only if the playing field is level will the best service provider prevail at the expense of less efficient providers. Any regulation regarding payment services must apply to all payment service providers according to the principle “same risks, same regulation”. In order to make competition work and prevent market abuse, the EU already has recourse to existing and efficient anti-trust law.

In line with the principles of a market economy, price determination must take place as a result of a market process. Nevertheless, the Commission stipulates lower prices for payment services as an outcome of the Single Payment Area. This is a clear disregard for the market process. Only market prices will balance the consumers’ demand for economic and efficient services as well as the providers’ goal to work profitably. Only then will new services be developed, will new service providers be attracted to the market and will customers be free to use their negotiating power in a competitive market. Without a business case, no private company will provide payment services.

Payments are not exclusively made via bank transfer systems, but public attention has focused on these systems’ capability to deliver a truly pan-European payment system. Going forward, the EPC as the driving industry force behind market integration will have to deliver pan-European payment schemes. It is up to the industry to organise the funds transfer system between the participating institutions by self-regulation. Payment schemes, processes and technical details are best developed by the industry. This allows payment service providers to accommodate requirements from different customer groups and to adjust to potential future innovations more easily. Nevertheless, a timeline for implementation of the new standards could be agreed in true cooperation between EU legislators, local authorities and payment service providers to overcome diverse interests among providers.

Cooperation between legislators and the EPC is needed to dovetail the New Legal Framework and the payment schemes and standards. First, payment schemes have to be developed by payment service providers; second, a harmonised EU legal framework should back these schemes. Nevertheless, legislation must be generic to apply to all kinds of payment service providers and their payment services to create a level playing field. The basic regulatory framework to be guided by is the Core Principles on Payment Systems, developed by central banks cooperating in the BIS, which aim at preventing financial instability arising from risks in payment systems.<sup>7</sup>

The following study will start with a survey of EU payment markets based on the most recent statistics. In the main part, selected topics of the current debate on the New Legal Framework and SEPA will be discussed and commented. For readers who are not familiar with the payment market, the annex provides an overview explaining the general structure of different payment systems and instruments. This includes definitions of terms frequently used when discussing payments business.

### **Self-regulation of industry**

### **Cooperation between legislators and industry**

<sup>6</sup> Consolidated Version of the Treaty Establishing the European Community, Article 4.

<sup>7</sup> BIS: Core Principles for Systemically Important Systems, 2001; ECB: Oversight Standards for Euro Retail Payment Systems, 2003.



## EU payment market

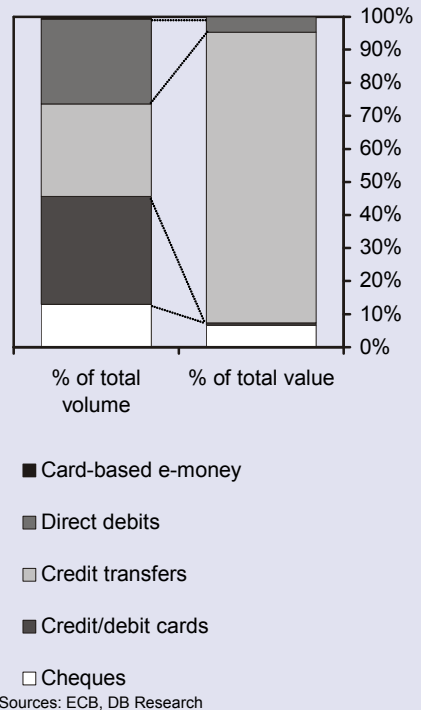
### Transactions

Some 59.7 billion cashless payments were executed in the EU-25 in 2003.<sup>8</sup> These transactions include payments by debit or credit card, credit transfers, direct debits, cheques and card-based e-money. Even though cheque payments accounted for 7.4 billion transactions or 12.5% of the total, they are not in the focus of the New Legal Framework. Card payments and credit transfers lead the statistics by volume<sup>9</sup>, as each are used for about 30% of total cashless payments. Direct debits represent 25% of total transactions, whereas payments with card-based e-money account for a mere 0.5%. For the EU-15, figures are available for the value of payments in addition to volume. 87% of value transferred by payments in 2003 was transported via credit transfers. Card payments, though, were only used for small-value payments, as they represented less than 1% in value.

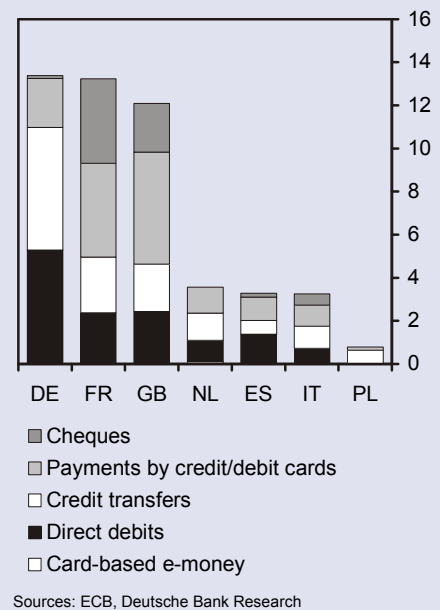
Looking at the transaction numbers, France, Germany and the United Kingdom are by far the biggest national cashless payment markets (with and without cheques). Payment users show quite different preferences and habits across the EU. This is evident even when looking only at the biggest markets. The French like to pay by card (33%) or by cheque (30%), whereas Germans prefer to transfer money by credit transfers (43%) and direct debits (39%). The use of cheques has been almost completely abandoned in Germany (below 1%). In the United Kingdom, card payments (43%) are the most favoured, with cheques, credit transfers and direct debits making up the rest of the market at almost equal shares. When taking a closer look at card payments in the EU-25, debit cards are used more frequently than credit cards. Debit card payments outnumbered credit card payments in all countries except Greece, Ireland and Slovenia. On average, each EU citizen made 34 payments by debit card and 12 by credit card in 2003. Nevertheless, credit card payments are used for higher value amounts than debit cards in all member states except Italy, Cyprus and Hungary. The average amount of purchases paid by debit card was 60 EUR, whereas the average credit card transaction amounted to 97 EUR. The number of all cashless payments per person in 2003 varied greatly from 10 in Greece to 227 in Finland.

These differences are partially explained by the preference for cash payments as opposed to cashless payments in the different member states. Furthermore, differences could be influenced by the degree of development in national payment markets. But mostly, differences in payment instruments used in different countries reflect the preferences and practices which have developed in the respective domestic markets, as well as different payment legislation. Therefore, any EU legislation must be generic enough to accommodate all existing payment markets. Only then will all EU citizens and companies be free to choose the payment systems and instruments they prefer.

Transaction volumes and values in EU-15, 2003



Use of cashless payment instruments in 2003, in billion transactions



<sup>8</sup> The figures are based on the ECB's Blue Book on Payment and Security Settlement Systems and recent statistical addenda (see ECB web page). If not indicated otherwise, figures refer to 2003 (most recent data available) and to the EU-25. Note that available statistics are not detailed enough to show figures for all payment systems and instruments. Data on account-based e-money, for example, is missing, as well as on cumulative collection schemes.

<sup>9</sup> Volume of payments: number of transactions. Value of payments: aggregate payment amount.

## Structure

According to the ECB, there were 9,016 institutions in the EU which offered payment services in 2003. The number of institutions per domestic market, of course, is smaller and varies from country to country (see table). Nevertheless, customers can choose from a considerable number of payment service providers in today's markets. In addition to banks and other institutions offering end-user payment services, there is a variety of other firms or associations supplying services in the payment market: companies providing network facilities like SWIFT, clearing houses, processing firms which offer back office operations for payment service providers, as well as specialised hardware and software providers.

On the user side, payment service providers face a wide range of different customers with specific expectations: individuals, companies, public bodies and financial institutions. Private individuals making payments for personal purchases will use different payment services than an international corporate making payroll payments. This refers to payment instruments, access channels for payment initiation and value-added services. Depending on the situation, the private individual might prefer a point-of-sale card payment or online credit transfer. A corporate, though, will be interested in a seamless connection between his accounting system and the payment service provider for payment initiation as well as for account reporting. As there is no uniform payment user, payment service providers serve different needs and requests and services cannot be tailored to only one type of customer. In order to offer efficient and competitive services to different users, payment service providers need to be flexible and responsive.

## New Legal Framework

In order to facilitate a Single Payment Area, the European Commission is proposing a New Legal Framework for the payment industry, harmonised and obligatory for all member states. In line with better regulation principles, the Commission consulted with stakeholders to discuss the project. On some issues, payment service providers – especially banks – do not fully agree with the Commission's proposals where these are biased towards the interests of consumers and non-bank payment service providers. Payment service providers are calling for a more balanced and market-based view. The following chapters will highlight and comment on the critical points.

### Geographical scope

In addition to intra-EU payments, the Commission plans to include "one-leg-out" payments in the scope of the New Legal Framework. "One-leg-out" means that either the payer's or the beneficiary's payment service provider is not located within the EU. Such a provision carries many problems. EU legislation is only applicable inside the EU. Outside, the EU cannot enforce its law – and even less so can private institutions. If an EU bank, for example, transfers money in the name of a European fruit importer to an Israeli plantation, the sending bank cannot oblige the receiving bank to comply with specific EU regulation, e.g. concerning value dating or information duties. The receiving bank will respect the rules and market practice in international funds transfers, but no specific foreign law. The more EU regulation on payments is different from market practice in international payment systems, the higher is the legal exposure of any EU-based payment service provider offering cross-border transactions via an international payments system. The

### Number of institutions offering payment services, 2003

Austria	899
Belgium	114
Cyprus	378
Czech Republic	41
Denmark	183
Estonia	19
Finland	344
France	1,491
Germany	2,311
Greece	55
Hungary	233
Ireland	83
Italy	745
Latvia	23
Lithuania	69
Luxembourg	171
Malta	18
Netherlands	97
Poland	650
Portugal	198
Slovakia	22
Slovenia	32
Spain	291
Sweden	122
United Kingdom	427
EU-25	9,016

Sources: ECB, Deutsche Bank Research

### Potential competitive disadvantage for EU payment service providers



sending bank must cooperate with the bank the customer chooses as receiving institution, including potential correspondent banks in between. It is not feasible for a bank to ensure specific EU payment standards outside the EU by private contract with non-EU banks, as the international bank fund transfer system comprises thousands of institutions.<sup>10</sup>

If EU regulation forces European participants in international payment systems like bank or card-based systems<sup>11</sup> to guarantee detailed services and quality standards for their customers contrary to market practice, this could well affect the service offering. Depending on the liability model imposed on the EU-based banks, the situation could worsen (see below). Facing higher legal risks, European banks will have to reconsider their service range regarding “one-leg-out” payments and adequate, risk-adjusted pricing. In the end, it might be cheaper for the European fruit importer to do his international payment business with a non-EU payment service provider which does not face conflicting domestic and international rules. In order to avoid competitive disadvantages for EU providers, the New Legal Framework must therefore limit its scope to the European Union; in other words, to payments with the payer’s and the beneficiary’s payment service provider based within the EU.

### Currency scope

The Commission proposes to include payments in euro, other EU currencies and any other international currency in the legislation. However, it is not feasible to apply detailed rules regarding execution etc. to transactions in all currencies, as not all existing currencies are widely traded, and some are even unconvertible. From a legal perspective, the New Legal Framework should be the basis for payments in all EU currencies and all EU member states. This would certainly promote a level playing field and legal certainty for market participants.

Having said this, it should also be noted that, from a technical and economic point of view, differences exist even between payments in euro and those in other EU currencies. To make cross-border retail payments within the EU as easy, cheap and secure as domestic payments, a pan-European payment system needs to be run with characteristics similar to current domestic systems. Domestic retail payment systems, though, process payments in only one currency. Building pan-European retail payment systems for all currencies used in the EU would not make economic sense. First, most cross-border payments are euro-denominated and within the EU. This is suggested by an analysis of Deutsche Bank, which finds that 70% of total cross-border payments by private and SME payment users are in euro and with both legs in the EU.<sup>12</sup> Second, in the long run, market consolidation might lead to the pooling of former national domestic or cross-border transaction volumes into one or a few pan-European automated clearing houses.<sup>13</sup> Payment service providers might outsource back office processing to a few providers. Such concentration processes, leading to high volumes and potentially increased economies of scale, are only possible for euro payments. The euro is the only European currency used in more than one

### Definition of payment

A payment is “the payer’s transfer of a monetary claim on a party acceptable to the payee (beneficiary). Typically, claims take the form of banknotes or deposit balances held at a financial institution or at a central bank.”<sup>1</sup> When looking at cashless payments, a payment consists of three basic elements: messaging, book entries on accounts and clearing & settlement. Any transfer of book money is necessarily tied to debit and credit entries on the accounts of the payer and the beneficiary respectively.<sup>2</sup> This implies that the payment amount to be transferred is debited either against deposits or against a credit line on the payer’s account. Therefore, a payment service provider offering payment services to an end user (e.g. consumer, business) is at the same time maintaining an account for this user. Please refer to annex p. 16ff. for a more detailed description of different payment instruments (e.g. credit transfer, direct debit).

#### Different payment systems:

- Bank payment system (annex pp. 16-17)
- Card payment system (annex pp. 18-21)
- Money remittance system (annex p. 21)
- E-money payment system (annex p. 22)
- Cumulative collection payment system (annex p. 23)

#### New access channels for payment initiation:

- M-payments (annex p. 23)
- E-payments (annex p. 23)

<sup>1</sup> BIS: Core Principles for Systemically Important Systems Glossary, March, 2003.

<sup>2</sup> Only exception: payment with card-based e-money.

### New legal Framework to cover all EU currencies

### Pan-European infrastructure makes sense for payments in euro

<sup>10</sup> See annex p. 18 for “international credit transfer”.

<sup>11</sup> See annex pp. 16-17 for “bank payment system”, pp. 18-21 for “card payment system”.

<sup>12</sup> Deutsche Bank AG Internal Survey, May 2005.

<sup>13</sup> See annex p. 17 for “automated clearing house”.

country for high-volume retail payments. Euro-denominated payments account for over 70% of all cashless transactions in the EU (see chart) – and this share is bound to increase with the eventual accession of more member states to EMU.

Non-euro EU currencies are used domestically in their respective home country only. Building and maintaining pan-European clearing and settlement infrastructure for retail payments in several EU currencies is expensive and has no potential to pay off. Such non-euro facilities would simply replicate existing efficient domestic systems, i.e. driving costs up without adding value, as almost all payments are domestic anyway and no cross-border pooling with other national volumes would be possible. Competition would not be enhanced, either. Therefore, the European Payments Council joined forces to design and implement a retail payment system for a Single Euro Payments Area (SEPA).

Moreover, the New Legal Framework must be generic enough to allow for the economic differences that exist between a typical domestic, i.e. single-currency, retail payment and multi-currency payments. A multi-currency payment would be, for example, a transfer from a British payer's sterling account to a French beneficiary's euro account. This payment inevitably involves a foreign exchange transaction, which is subject to international foreign exchange market practices regarding pricing, provision of information, two-day foreign exchange cycle, etc.

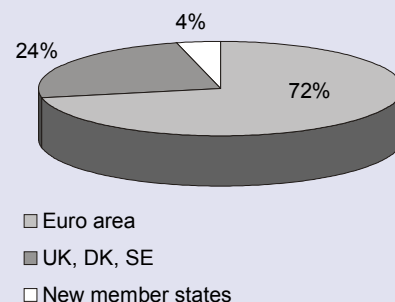
#### Payment scope

The New Legal Framework as proposed does not distinguish adequately between payment services and “ancillary services”. Without differentiating clearly between payments and other financial services, the New Legal Framework will conflict with existing EU law. This is especially important in view of the Commission's proposal to introduce a new legal concept, viz. “payment institutions”. These institutions would be entitled to provide “ancillary services” and would benefit from a European passport.

However, “ancillary services” as defined by the Commission include e.g. the issuance of guarantees and foreign exchange services. But, according to the Banking Co-ordination Directive (2000/12/EC), these services are constitutive for financial institutions. By the backdoor, the New Legal Framework would undermine the existing law concerning financial institutions, their right of establishment and related prudential oversight provisions.

Payments are usually part of a broader commercial process, e.g. between the buyer and the seller of a good. With the rise of electronic data transfer, software products have been developed to facilitate the exchange of information between buyer and seller: e-billing solutions (also called e-invoicing). While a payment is the transfer of the payer's monetary claim against his account-maintaining institution to a party acceptable to the payee, e-billing refers to the communication between a buyer and a seller. The basic feature is the electronic exchange of commercial information, e.g. the seller sends the bill as a data file to the buyer. Interfaces between e-billing software, payment service provider and a company's accounting system often facilitate electronic payment initiation or account reconciliation. E-invoicing clearly is not a fund transfer service but merely a communication network between sellers and buyers, and thus should be outside of the scope of payments legislation.

#### Share of cashless transactions, 2003



Sources: ECB, Deutsche Bank Research

#### Provision for multi-currency payments

#### Payments and “ancillary services”

#### E-billing is not a payment service



### Consistent rules for all payment service providers

The Commission is proposing to give payment institutions the right to execute payments for customers, to provide operational and related “ancillary services” and to access and operate payment systems for the purpose of transfer as well as clearing and settlement of funds. They will be subject to a lighter supervisory and regulatory regime than other payment service providers like financial institutions or credit institutions. This approach does not respect the principle “**same risks, same regulation**”.

The smooth functioning of payment systems is of utmost importance for the economy, financial stability and the transmission of monetary policy. But payment systems display several inherent risks. Each participant is exposed to credit and liquidity risk, materialising if one participant in a system fails to fund its debit positions vis-à-vis other participants in the settlement process. The failure of one or more participants to meet their obligations within the system can cause serious liquidity shortfalls for other participants, provoking a domino effect and potentially causing these to fail. Banks invest in safety mechanisms to mitigate these risks in clearing and settlement systems. Participants also face operational and legal risks when providing payment services for their customers. A disruption in an important payment system would have serious effects on citizens’ confidence in money, the economy and financial stability. This is why the ECB has defined quantitative characteristics of a systemically important retail payment system. If classified as systemically important, a payment system has to fulfil clearly defined requirements to mitigate risks.<sup>14</sup>

Within the supervisory framework, payment systems should be self-regulated. Importantly, the scope of self-regulation should encompass the right for access to the payment system. The requirements to access or operate a payment system should reflect the systemic importance of a certain system. The requirements must be objective and publicly disclosed. Every participant must satisfy the access requirements of a respective payment system. Potential new participants which are denied access must have the possibility to have such decisions reviewed by courts or an independent board of arbitration. Otherwise, self regulation of access could lead to protectionist behaviour by incumbents. Nevertheless, for risk reasons, it would be wrong to grant access by law to a certain payment system to any payment service provider. “Imposing restrictions on access may be warranted in order to protect participants against undue risks resulting from the participation of other parties.”<sup>15</sup> Payment systems are networks, therefore they only function as smoothly as the weakest participant.

The light regulatory regime envisaged for payment institutions is probably motivated by the desire to increase competition in the market for payment services. However, if that were the case, lawmakers would first of all have to establish evidence for a lack of competition. Then, even if such evidence were found (e.g. cases of unfair restriction on access), existing EU anti-trust legislation would offer sufficient and tested ways to cut off market abuse or anti-competitive behaviour.

Besides regulation based on the systemic importance of a payment system, there are more risks which need to be mitigated and managed by all payment service providers in order to maintain public confidence in the reliability of cashless payment systems.

### Same risks – same regulation

### Systemic risk

### Payment system only as reliable as weakest participant

<sup>14</sup> The retail standards to be fulfilled as defined by the ECB are based on the BIS Core principles for systemically important payment systems.

<sup>15</sup> ECB, Oversight Standards for Euro Retail Payment Systems, June 2003.

These risks include operations<sup>16</sup>, money laundering and deposit protection.

In order to mitigate operational risks when providing payment services, e.g. an IT breakdown, banks are obliged to maintain cost-intensive back-up facilities. Moreover, Basel II regulation will require banks to back operational risk by capital, similar to financial risk capital requirements. Nevertheless, all payment service providers bear operational risks. Operational risk in payment services was highlighted on September 11, 2001, when the payment-clearing facilities of some leading US banks in New York were affected. Without a fast move to back-up facilities huge numbers of payments would have failed execution, resulting in liquidity shortages in the payment systems and the real economy.

The banking industry complies with tight anti-money-laundering rules in order to impede money transactions relating to criminal activities like terrorism or economic offences. This can only be effective, though, if all payment service providers are subject to these rules. Banks have invested heavily in IT and legal infrastructure to combat money laundering, and incur higher running costs due to these measures. Therefore, it is also for reasons of fair competition that anti-money-laundering as well as rules on operational risk mitigation must apply equally to all payment service providers.

If payment service providers execute payments against a deposit instead of a credit line, the question of adequate protection of consumer funds arises. In order to keep the money deposited for payment purposes safe, the payment service provider must be obliged to either refrain from investing the money in risky or illiquid assets or to register as a credit institution. Only a credit institution is allowed to "receive deposits or other repayable funds from the public and to grant credits for its own account".<sup>17</sup> In return, credit institutions are obliged by regulation to fulfil solvency criteria, risk management standards, requirements for participation in deposit insurance schemes, etc. to mitigate the risks involved in their financial intermediation business. For the purpose of keeping customer funds safe, e-money institutions<sup>18</sup> may invest the money they received for conversion into e-money in defined liquid assets only, and are explicitly prohibited from granting credit.<sup>19</sup> Any type of payment service provider executing payments against customer funds will have to be subject to existing regulation in order to protect these funds. Also, for the safety of the payment user, money accepted by a payment service provider for the sole purpose of transfer to a third party needs to be clearly segregated from the institution's other financial businesses and potential bankruptcy.

From a legal perspective, "payment institutions" should not undermine existing EU legislation on financial service providers. This is especially important as the EU Commission proposes to admit payment institutions to a range of vaguely defined "ancillary services". When defining "payment institutions", the ancillary services which they are entitled to should not interfere with existing EU legislation. A "payment institution", besides payments, must not undertake businesses reserved for credit institutions. Credit as well as e-money institutions need to be licensed as such by the respective national authority; they then benefit from a European passport for those financial businesses detailed in the respective

## Operational risk

## Anti money laundering rules

## Protection of deposits

## Financial business requiring a license

<sup>16</sup> In important payment systems, operational risk can also lead to systemic destabilisation.

<sup>17</sup> EU Directive 2000/12/EC.

<sup>18</sup> See annex p. 22 for "e-money".

<sup>19</sup> See EU Directive 2000/46/EC.

directives. Likewise, financial services constitutive of investment firms cannot be in the scope of “payment institutions” as these businesses require an investment firm license.<sup>20</sup> Investment firms are less strictly regulated than credit institutions, because they do not finance their credit related businesses by deposits. They are also allowed to offer their services under a European passport regime. “Payment institutions” will for the first time provide a European passport for non-bank companies specialised in payments and other “ancillary services”.

When considering the concept of “payment institution” as a new legal type of payment service provider, the legislator should clearly bear in mind the risk-based reasons for existing regulation in the financial sector and payments business in particular. In order to avoid regulatory loopholes and to mitigate the risks associated with payments, no provider should be exempt from these rules. Networks must not be destabilised by disregard for existing legislation and prudent oversight standards. Furthermore, regulation must not produce competitive distortions, but should respect the principle “same risks, same regulation”.

#### **Strict liability contrary to EU law**

The Commission proposes to hold the payment service provider strictly liable vis-à-vis the payment service user. In a four-party payment system<sup>21</sup>, this means that the payer’s payment service provider is liable for the receiving institution’s crediting of the beneficiary’s account. If a client pays for a car by initiating a credit transfer on Monday, his bank would be strictly liable for ensuring that the car dealer’s bank credited the latter’s account on Wednesday at the latest. Yet, the receiving institution’s actions are beyond the control of the sending payment service provider. Moreover, the crediting of the beneficiary’s account is part of the contractual account relationship between the beneficiary or account holder and his payment service provider. What the sending institution can do is to ensure that the funds which it has been instructed to transfer will be credited to the receiving institution within a certain period of time, according to the funds transfer mechanism. This principle is laid down in the EU Cross-border Credit Transfer Directive.<sup>22</sup> In contrast, strict liability is not a concept in civil law and it is contrary to the commonly accepted concept of liability for one’s own fault. It would considerably increase the legal risk and therefore the cost of offering transfer services. Moving beyond this notion would be even riskier if the New Legal Framework were to include payments with one leg outside the EU. EU institutions would be liable for the failure of non-EU institutions to comply with EU law, instead of international payment rules. The result could be that payments to banks in some foreign countries might become very expensive or unavailable.

#### **Balance of responsibility between user and provider**

A payment service provider will execute a payment after receipt of a payment instruction which fulfils all information and security requirements. For example, a card payment would be executed after the relevant checks. Nevertheless, this card payment could have been made without the authorisation of the card holder, e.g. if the card was stolen. In the case of a disputed payment authorisation, the burden of proof and subsequent allocation of losses must be

#### **No loopholes to existing payments regulation**

#### **Liability to be limited to one’s own fault**

<sup>20</sup> According to EU Directive 2004/39/EC on markets in financial instruments (“MIFID”), investment firms provide investment services to third parties and/or on a professional basis, e.g. reception and transmission of orders in relation to one or more financial instruments like transferable securities or derivatives. For an exact list of investment services and financial instruments please see annex I of Directive 2004/39/EC.

<sup>21</sup> See annex p. 16 for “four-party payment system”.

<sup>22</sup> EU Directive 97/5/EC.

balanced between payment service provider and user. Only then will both parties have strong incentives to take all precautions possible to prevent misappropriation or fraud.

In order to prevent unauthorised transactions in the first place, both payment service users and providers need to act with due diligence. Card holders need to keep the card (payment verification instrument) safe, and card companies need to offer at all times the possibility for card holders to have their cards frozen. The card holder will only be motivated to keep his card in a safe place and respect his duty to exercise due diligence if he faces financial losses from theft or fraud. It is the card holder who has control over his payment verification instrument.

If the card holder claims an unauthorised payment but has acted with gross negligence or fraudulently, he must be liable for all losses incurred. This rule would be obsolete if the burden to prove gross negligence or fraud is solely placed upon the payment service provider, as proposed by the Commission. The burden of proof must be balanced between payment service user and provider. Ultimately, the courts must have the power to consider all evidence and to judge. A presumption of the card holder's compliance and innocence based on "factual information or elements" without recourse to and the ultimate judgement by a court will make it easy to use cards fraudulently without being held responsible. The risk of loss from fraud as well as theft would increase significantly for payment service providers. Increased costs, though, will result in higher prices for all customers.

If the card holder did not violate his obligations, but the card was lost and abused nevertheless, a limit on his liability could be considered, as long as the card holder did not notice the misappropriation. Any ceiling on his own liability, though, must still be high enough to provide a strong incentive to keep the card safe. In many European countries, a limit of EUR 150, as suggested by the Commission will not be "painful" enough to persuade card holders to practise diligent safe-keeping and react immediately in case of an irregularity.

When a payment service user notices the loss or abuse of his credit card, he must inform the card company immediately. Only by immediate action can the card be blocked and abuse prevented. As the card holder is aware of the risk he should be fully liable for any losses incurred between noticing and notifying the issuer. Otherwise, the burden of loss allocation would be inappropriately put onto payment service providers and would unduly add to business risk. After notification, the card holder should not be liable for any further related losses.

As the New Legal Framework refers to all cashless payment instruments and to individual as well as corporate customers, more problems arise. Low mandatory liability limits and unbalanced burden of proof might hinder the development of e-payments.<sup>23</sup> Especially corporate users frequently initiate and transmit payment instructions of high aggregate value via communication networks (usually internet). If an employee fraudulently authorises payments on behalf of the company, the payment service provider cannot know this but might still be held liable for the losses incurred by the company. Online payments by consumers pose similar risks, although at a lower value per customer. Therefore, payment service providers might be forced to introduce tight limits on amounts transferred electronically in order to manage increased risk.

## **Obligations for both parties**

## **Ultimate decision on valid authorisation lies with courts**

## **Liability is motivation for due diligence**

## **Low liability and corporate payment service users**

<sup>23</sup> See annex p. 23 for "e-payments".



Instead of imposing legal limits, potential losses for consumers can be limited by optional contractual agreements. For example, credit cards can be designed with a daily or weekly spending limit. Similarly, appropriate limits can be agreed for online payments.

### **Consumers and corporate customers**

The proposed New Legal Framework should relate to all payment service users. Nevertheless, it is important to differentiate between consumers and corporate customers. Corporate payment service users are well-educated clients in a highly competitive market – multi-national companies as well as small and medium-sized enterprises. This gives corporates a strong negotiating position. Furthermore, the freedom of contract should not be infringed. On the user side, corporates should have the choice to agree on conditions which fit their business and clients and are well established in international markets. For example, this would include the freedom to choose how fees are to be distributed between payer and beneficiary.<sup>24</sup> On the supply side, payment service providers should enjoy the freedom to tailor services to specific needs of the corporate segment. Offering tailored services in a competitive market is key for providers to differentiate themselves and to drive innovation. Corporate users and payment service providers should explicitly have the right to agree on terms convenient for both parties. Standardisation would lead to a utility-like product offering to the detriment of clients.

A higher level of regulation is acceptable for individuals, as these might be less experienced in financial services and, on their own, have weaker negotiating power than a company. Nevertheless, payment service providers compete strongly for retail clients and are aware of their reputational risk. Moreover, consumers are responsible and educated citizens. According to existing EU legislation, a consumer is defined as a natural person acting in a non-professional capacity. There is no reason to change this concept in the New Legal Framework. Only a clear distinction between consumers and corporates allows payment service providers to comply with the respective provisions for both user groups.

### **Balance of payments reporting**

Traditionally, national legislators have normally obliged payers who transfer money across borders to report these payments. Reporting duties only have to be followed, though, if the payment exceeds a certain amount. The objective of such reporting duties is to collect data for the national balance of payments statistics. However, this adds cost to cross-border payments. Moreover, reporting duties differ from one country to another, even within the EU. If the EU is supposed to be one market, balance of payments reporting should be abolished. This is even more important as it is an obstacle to SEPA. At the very least, reporting duties would have to be harmonised for all member states and a reporting hurdle would need to be chosen high enough to exclude retail payments.

### **Outlook**

The New Legal Framework will be the basis for all payment market participants in the EU. It is crucial that legislators base this document on the principles of market economics and free competition. As payment systems are of special importance for

### **Corporates are experienced payment service users**

### **Definition of “consumer”**

### **Reporting is obstacle to SEPA**

<sup>24</sup> Other options for individual agreements between corporate users and payment service providers include framework contracts, information agreements, payment verification and allocation of losses of unauthorised payments.

public confidence in the currency and the functioning of the economy, risk aspects have to be considered. In this field, the central banks – with their mandate to safeguard the stability and smooth functioning of payment systems – are in the lead, also regarding non-bank payment systems. Regulation must provide a level playing field for all competitors.

Concerning bank-based payments, the industry is implementing standards, payment instruments and infrastructure for a true euro retail payment system. Truly pan-European payment instruments like credit transfers and direct debits will be available by 2008. A SEPA card payment framework will also be developed. For a while, pan-European schemes and legacy national payment instruments will co-exist. A big bang for migration to European schemes is not feasible as individual, corporate and public customers will need to adjust to the new instruments. Payment service providers will have to educate consumers on the new arrangements. They will also have to convince corporate customers of the soundness of the new schemes. As at the time of the introduction of the euro, corporate customers in particular will have to invest heavily to adopt their internal accounting and treasury systems to the new technical standards. Within banks, legacy systems can be given up when demand for pan-European payment schemes wins sufficient momentum. At this point in time, no serious commitment on retirement dates for legacy systems can be made.

What competition effects can be expected? Looking at all payment service providers, potential developments in “alternative” payment systems and in bank or card payment systems could be as follows. From the payment user’s point of view, it is important to have a choice of efficient and secure instruments. Prices will depend on production cost as well as competition between the payment service providers.

However, even if “alternative” payment systems such as cumulative collection or e-money systems gained in importance, this would mean only a very small number of additional payment service providers to choose from for the customer. Payment systems are networks which gain in value for their users, the more users participate. Only a critical mass of participants makes a payment system attractive.<sup>25</sup> Therefore, only one or very few “alternative” systems will be able to establish themselves in the payment market. As these systems are three-party systems, each system will consist of one payment service provider only, thus limiting the additional number of payment service providers for customers.

In a four-party set-up like a bank or card payment system, providers cooperate to build an efficient and competitive network for funds transfer. This refers to technical standards as well as business rules. At the same time, though, each payment service provider in the system works hard to differentiate himself from the rival participants by innovation, value-added services and pricing. Participants in a four-party system compete against each other in order to win business, which is to the benefit of customers.

SEPA standards and infrastructure will probably promote a consolidation among bank payment providers for at least two reasons. First, implementing the new payment schemes and standards will require huge investments by every single payment service provider, whereas their efforts can only be expected to pay off in the long run. Second, payment processing in the retail market is driven by scale. Creating a European market means more leeway

## **SEPA roadmap**

## **Potential competition effects**

## **Few additional competitors by rise of “alternative payment systems”**

## **Consolidation among bank payment service providers**

<sup>25</sup> See Heng, Stefan: E-payments: modern complement to traditional payment systems, E-economics No. 44, Deutsche Bank Research, May 2004, Frankfurt am Main.

for pooling payment volumes among a few processors and clearing hubs. Therefore, especially smaller payment service providers might decide to outsource this business to a fairly small number of specialised payment service providers. In the light of these potential developments, consolidation – including cross-border consolidation – may occur over time, leading to less payment service providers competing for payment business.

In the past, the money markets and cross-border high-value payment markets have integrated around the single currency. Now, the SEPA initiative will facilitate the integration of national payment markets for cross-border euro retail payments. Later on, SEPA will encourage the integration of cross-border and national domestic euro payments. Thus, all euro-area payments will be domestic, processed in a pan-European payment system. The New Legal Framework will provide legal certainty for payment service providers and users in the EU. Given a level playing field and market-based processes, payment service providers will have a reliable basis to compete for business across the EU. The supply side of the payment market will undergo a significant restructuring, especially in the euro area. New opportunities will arise and pressures will increase on each payment service provider to work more efficiently. Consumers and businesses will be able to choose from a range of payment service providers and payment instruments that differ from those in the market today.

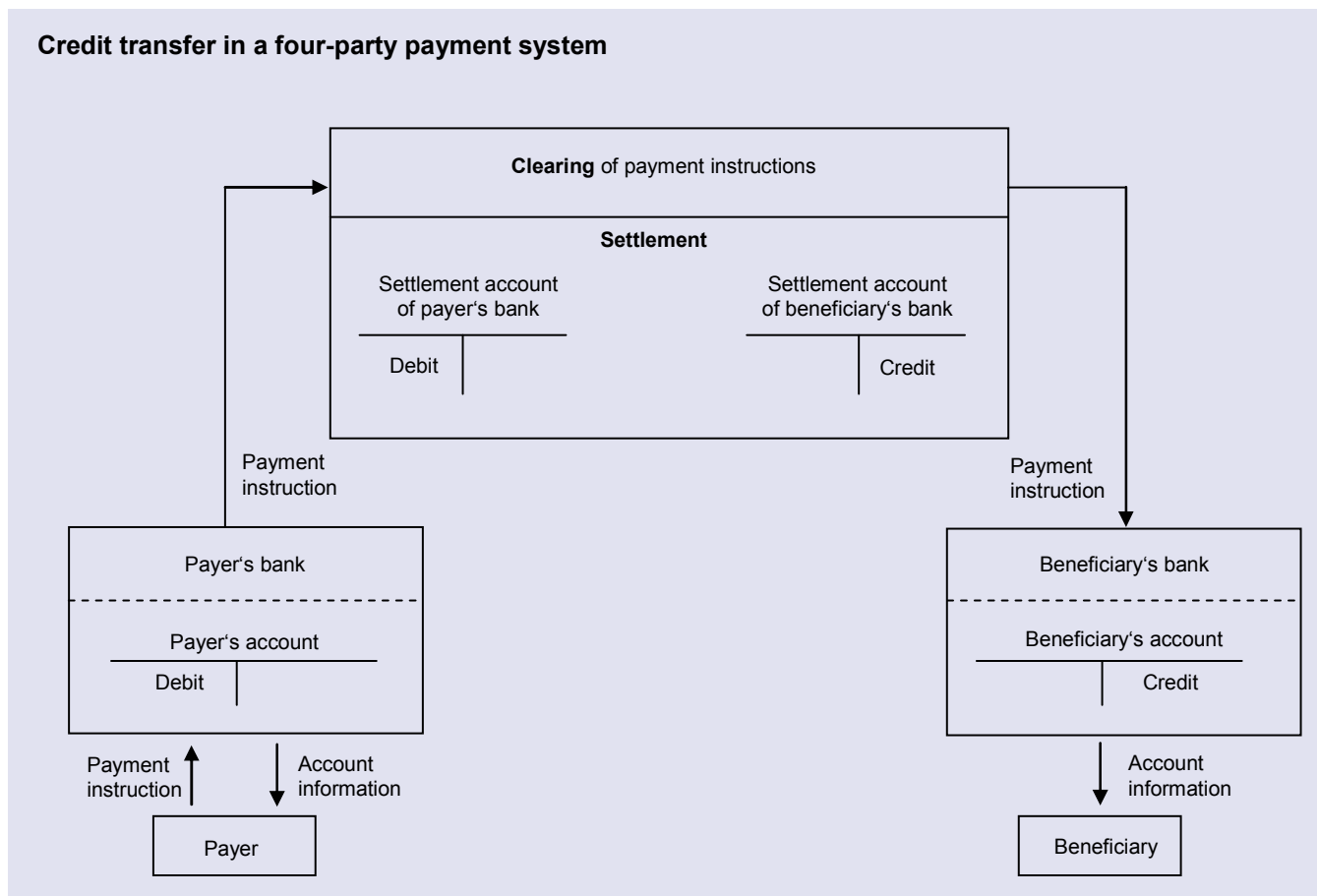
#### **Development of future EU payment market**

## Annex

### Bank payment system

Bank-based systems for retail payments handle payments between parties with accounts at the same institution (book-to-book transfer, see next page) as well as payments between parties with accounts at different institutions (**four-party system**, see chart below). Such a system requires the exchange of information between the two account-maintaining banks. As an example, a customer paying the invoice for an airfare ticket wants to make a credit transfer from his account at bank A to the travel agency's account at bank B. After receipt of the payment instruction from the payer, bank A will debit the payer's account ("in-house") and will instruct bank B to credit the travel agency's account. Bank B will credit the beneficiary's account after settlement (see below). By this process, the payer transfers a monetary claim against his bank to the beneficiary's bank, in favour of the beneficiary. Both the customer and the travel agency will receive account information reporting the transaction and stating their accounts' current balances.

### Four-party payment system



Nevertheless, the payment transaction is not completed until the banks involved settle the resulting claim of the receiving bank on the payer's bank. Banks will maintain accounts at the given country's central bank, which usually acts as a settlement agent. Upon information on the amount to be settled, the central bank will debit the account of the payer's bank and credit the account of the beneficiary's bank (settlement).<sup>26</sup> In a retail system, large numbers of payments are processed every day between many different

### Clearing and settlement

<sup>26</sup> This is the basic procedure for an "individual payment", which is also called "high value payment" or "same-day value payment".



account-maintaining banks. In order to save costs, retail payment instructions<sup>27</sup> are not executed individually and immediately but bundled and processed in batches at given times. The data is transmitted and sorted between participating banks (clearing). Usually, the clearing of retail payments will also include a netting process. Only the net positions calculated will be settled, i.e. each bank's account at the settlement agent is debited or credited respectively. In most European countries, clearing and settlement of retail payments are conducted via an **automated clearing house** (ACH), usually managed by a private banking association. Alternatively, payment batches can be cleared bilaterally or via a correspondent bank.<sup>28</sup> Settlement can also take place at an agent other than a central bank, as long as all banks involved in a payment transaction maintain an account with the settlement agent.

If both payer and beneficiary maintain accounts with the same institution, the transfer of funds can be done rather easily by a **book-to-book transfer**. This means, that the account-maintaining unit only books the amount requested in-house from one client's account to another client's account. In the case of cashless payments, funds are book money, i.e. monetary claims of the account holder against the account-maintaining entity. A payment system where all participants hold their accounts with the same institution is a **three-party system** (payer – payment service provider – beneficiary).

Returning to the above chart, the character of a **cashless payment** becomes evident: payment data is exchanged between the parties involved, booked on accounts maintained by payment service users with payment service providers, and settled between payment service providers. The exchange of data requires consistent technical and legal standards throughout the payment system. The fund transfer requires a chain of account relationships between the parties involved to execute the necessary book entries. These characteristics are generic for all cashless payment systems, except for card-based e-money. The Bank for International Settlements (BIS) defines a **payment system** as "a set of instruments, banking procedures and, typically, interbank funds transfer systems that ensure the circulation of money."<sup>29</sup>

### Basic payment instruments in bank-based systems

The payment described above refers to the generic process of a **credit transfer**. As a credit transfer is initiated by the payer, this payment instrument is an example of a push transaction.<sup>30</sup>

#### Direct debit

By contrast, a direct debit is categorised as a pull transaction. It is the beneficiary who initiates the payment by instructing his bank to collect the amount owed by the payer at the payer's bank. Typically, recurrent bills are paid by direct debits. For example, an electricity utility usually collects the monthly bill from clients by direct debit. This means that the electricity company will instruct its bank to collect the specific amount owed by the consumer. The company's

### Automated clearing house

### Three-party payment system

### Cashless payment

### Direct debit: initiated by beneficiary

<sup>27</sup> "Retail payment" (also: "mass payment") is a very common, but rather vague term. It refers to payments which are processed via "retail payment systems", i.e. systems which clear and settle high numbers of transactions every day. A retail payment is usually of low value, but there is no ceiling to the amount of a retail payment. Retail payments are usually highly standardised and cost efficient.

<sup>28</sup> In Germany, for example, most retail payments are cleared between banks via bilateral file exchange.

<sup>29</sup> BIS, Committee on Payment and Settlement Systems Glossary, March 2003.

<sup>30</sup> Card payments are also push transactions by this definition, please see below for a detailed description of card payments.

bank will then send information to the payer's bank to collect the funds. The payer's bank will debit the payer's account, and the beneficiary's bank will credit the beneficiary's account. Clearing and settlement between the banks will take place in analogy to credit transfers. As with credit transfers, the direct debit transactions will be reported to the consumer and the utility via an account statement.

The current national direct debit schemes operated in the member states differ considerably as regards the required documentation, the process steps and their timing as well as the liability between the parties involved. For example, the debtor can agree in advance that the electricity company may collect the bill every month by direct debit (pre-authorised direct debit). Other direct debit schemes present each direct debit to the debtor to ask for his consent (non pre-authorised). These characteristics are closely related to the questions as to whether and at which stage the direct debit becomes irrevocable (final) and as to what the duties of the parties involved are. Moreover, the beneficiary's bank can credit the beneficiary's account before receiving the funds itself, i.e. giving credit as a value-added service. This would mean that the beneficiary bank runs a credit exposure until receiving the funds in the settlement process from the payer's bank.

### International credit transfer

When a payer instructs his bank to pay a beneficiary in a foreign currency area, messaging and booking at the banks' level will be similar to a domestic credit transfer. Nevertheless, there are usually no payment systems with central clearing and settlement facilities comprising more than one country. Therefore, the banks involved will transfer the funds via bilateral accounts, e.g. the payer's bank may maintain an account in its own name at the beneficiary's bank. In order to settle its claim on the payer's bank, the beneficiary's bank will debit the payer's bank account in-house. If the two banks do not maintain a direct account relationship, they will transfer the funds via a **correspondent bank** with which they both maintain account relationships. Alternatively, claims between the banks can be settled via the foreign country's payment system, e.g. for a dollar payment if both banks or their correspondent banks participate in US dollar clearing in New York. For international payments, messages between banks are exchanged via the SWIFT network. Rules are less strict than for domestic, highly automated payment systems so as to accommodate for the different types and structures of information used in different countries. Within the EU, correspondent banking has been complemented by standardised pan-European payment systems, e.g. Target and EBA Euro 1 for individual high-value payments and EBA Step 2 for retail credit transfers.

### Correspondent banking

### Card payment systems

Card payments are initiated by the payer, either at the point of sale or – in the case of distance purchasing – via internet or phone. They also classify as push transactions. Several types of cards have evolved which differ according to the point in time when the payer is charged. When paying with a debit card, the amount will be debited directly to the payer's bank account. In contrast, the holder of a credit card has been granted a line of credit, which entitles him to make purchases or to withdraw money up to a set limit. Here, two different forms exist. On the one hand, charge card arrangements (also called deferred debit cards) provide credit to the holder until the end of a specified period (usually a month), when the amount of credit used has to be repaid in full. On the other hand, "true" credit cards refer to cards which allow the holders to use a revolving credit

#### Payment cards

Debit card	account directly debited
Credit cards	
Charge card	account debited at end of period
Credit card (narrow sense)	charged against revolving credit line



facility. Interest is charged on the amount of credit used and not repaid by the holder at the end of the period.

At the core of a card payment system is the **card company**. It provides a technical and legal network available and valid for all system participants regardless of their geographical location. Participants are issuers, serving the card holders, and **acquirers**, servicing the card-accepting entities like merchants, airlines, etc. Generally, card companies require issuers and acquirers to be banks or part of a bank holding company. The actual processing of the payment is usually not done by the issuers and acquirers. Instead, to achieve economies of scale, they outsource operations to an issuing or acquiring **processor** respectively. The issuer or the issuing processor will keep a credit card account for the card holder to track the transactions accumulating each period and to control the credit limit. The card issued to the customer will bear the logo of the card company and of the issuer.

### **Credit card payment**

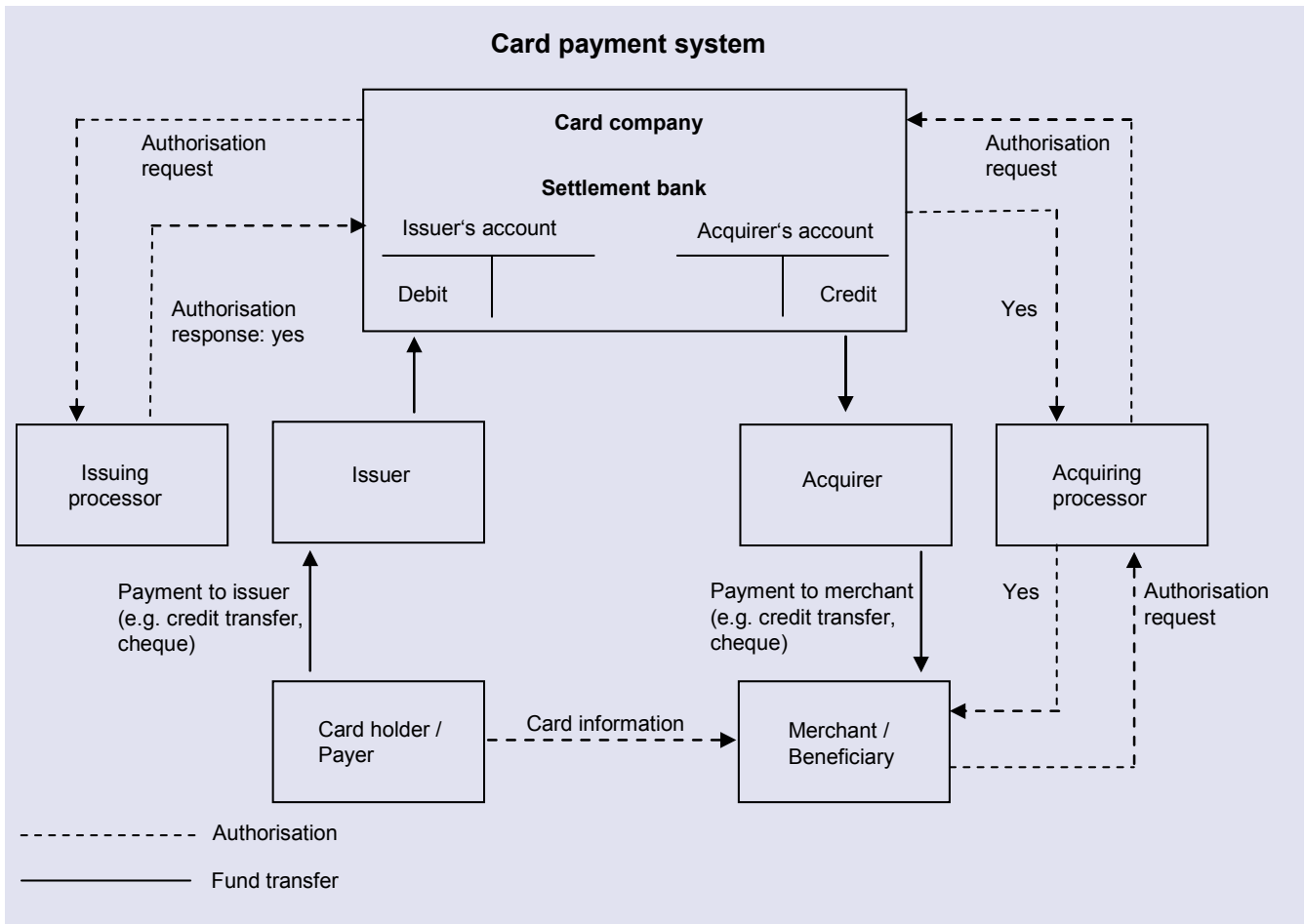
As an example, a typical payment by credit card would include the following steps: A card holder wants to buy goods worth EUR 100 at a shop. The merchant will usually request authorisation for the particular transaction from the acquiring processor. The authorisation request will be initiated by the merchant's card equipment, and forwarded through an electronic network to the acquiring processor, which in turn will recognise which card payment system the card belongs to and will route the request through the respective network to the issuing processor. The issuing processor will perform a limit check on the holder's card account and will possibly run further routines like anti-fraud checks. The response will be routed back the same way to the shop within seconds. If authorisation is given, the merchant can be sure to receive funds for this transaction from the acquirer and will hand the goods to the buyer.

Nevertheless, no funds have been transferred up to this point. According to the shop's contract with the acquiring bank, the merchant will receive funds for the authorised transactions at regular intervals, e.g. on a weekly basis. This means that the acquirer will make a credit transfer to the merchant's bank account, which can be with the acquiring or any other bank. Alternatively, the acquirer could send a cheque to the shop. Clearing and settlement between issuing and acquiring bank are done daily via the card company. The card company will require all participants to hold accounts at a designated settlement agent, usually a big commercial bank. The issuer's settlement account will be debited and the acquirer's settlement account will be credited. The issuing bank, though, will only receive funds from the card holder at the end of the period agreed contractually, e.g. end of month in case of a charge card. The payment instrument used by the card holder to repay the issuing bank can vary. For example, the card holder could instruct a credit transfer from his bank account to the issuer as beneficiary. Also, the issuer could be authorised to regularly initiate a direct debit to collect the funds from the card holder's bank account. Therefore, when (cashless) funds are transferred into or out of the card payment system, bank accounts are usually the gateway.

### **Parties involved in card payment system**

### **Authorisation**

### **Funds transfer**



A discount – known as the interchange – is levied on the purchase amount. The exact percentage discounted is negotiated between merchant and acquirer. For example, the shop will receive EUR 97 of the EUR 100 owed by the purchaser. The disagio will be divided between the service providers involved in the transaction process. The issuer will also have to cover the cost of the credit conceded to the card holder between the day of the purchase and the day the purchaser repays the issuer.

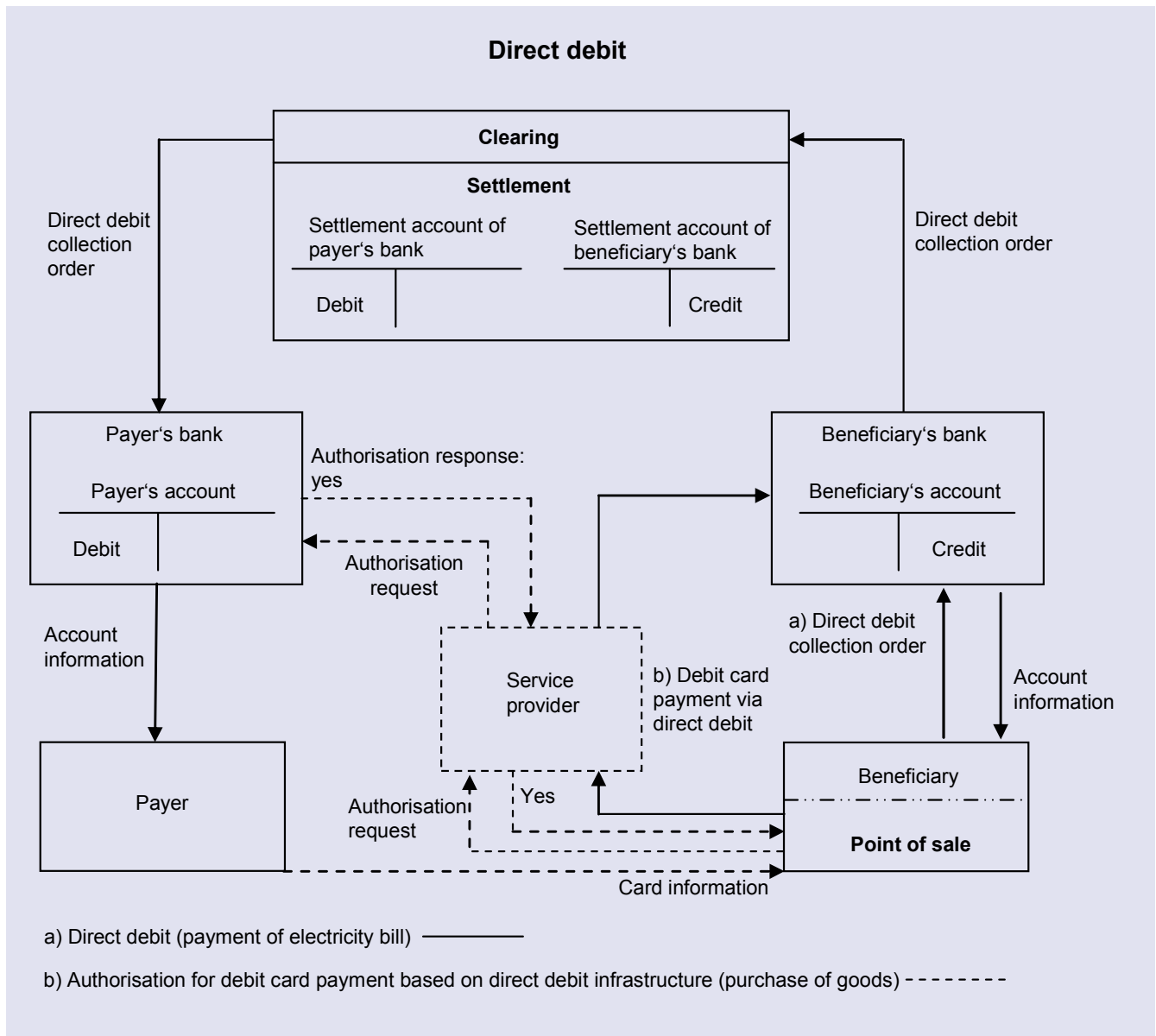
A payment with a debit card can be processed in a similar way as a credit card payment. The basic difference is that the card holder's bank account will be debited without delay, instead of transferring funds against a credit line. This holds true for those debit card schemes which can work on a cross-border basis.

**Debit card payment based on direct debit**

Nevertheless, there are debit card schemes which do not rely on a card payment system but are simply based on direct debit infrastructure through the retail bank payment system. The merchant slides a debit card based on direct debits through a reading device to request an authorisation. The request is routed via a network to the issuing bank to check whether funds are available and whether the card holder's transaction limit is not exceeded. Depending on the scheme, the authorisation given might also represent a guarantee for the merchant to receive the funds. The actual fund transfer is done by a direct debit, initiated by the merchant who instructs his bank to collect the funds at the card holder's bank. The process is comparatively lean: besides the banks, where payer and beneficiary maintain their current accounts, there is no additional acquirer, issuer or card company involved. The information needed to initiate a direct debit is stored on the card. The merchant will use

**Debit card payment benefitting from direct debit infrastructure**

service providers for the card equipment, the network and maybe other services, e.g. for clearing claims on customers before sending direct debit instructions to the respective banks.



Apart from the card-based initiation process, this type of debit card payment is basically a direct debit by the way funds are transferred. Debiting of the payer's (card holder's) account and crediting of the beneficiary's (merchant's) account as well as clearing and settlement between the banks involved are conducted according to the direct debit process described above. So far, debit card payments based on direct debits have been used only for domestic transactions. This might change with the introduction of the pan-European direct debit infrastructure.

**Money remittance systems**

Payers without a bank account can make payments in the form of money remittances. This payment instrument is often used by immigrant workers. To send money home, the sender can give the amount to be transferred to the intermediary institution (drawee) in cash. Through its network, the drawee will make the funds available at the location indicated by the payer, e.g. in the sender's home town. On the receiving side, there is no need to own an account

**Payments to beneficiary without account**

either. The family can collect the funds at the local agent in cash. The funds could also be made available as a cheque. The actual transfer of the funds is not conducted in cash, though. The drawee will transform the cash received into book money and clear and settle the claims of the different agents of its network. This will be mainly in-house. Institutions offering money remittance services are in most cases postal offices and special money remittance providers, as well as other financial institutions.<sup>31</sup>

## E-money systems

When it introduced legislation on electronic money institutions, the European Commission aimed at providing a regulatory framework favourable to electronic money within the wider context of evolving electronic commerce. The EU legislators consider e-money as a surrogate for coins and banknotes, stored on an electronic device and generally intended for payments of limited amounts. Nevertheless, account-based e-money institutions have evolved offering payments for amounts common in the retail market, thus competing directly with bank and card payment systems for low and high value payments.<sup>32</sup> E-money is not only used for e-commerce, but also for small-value face-to-face payments, when issued in the form of card-based e-money (“e-purse”).

E-money is issued by **e-money institutions**, which are also classified as credit institutions, according to Directive 2000/46/EC. “Electronic money shall mean monetary value as represented by a claim on the issuer which is: (i) stored on an electronic device; (ii) issued on receipt of funds of an amount not less in value than the monetary value issued; (iii) accepted as means of payment by undertakings other than the issuer.”<sup>33</sup> The issuer receives money (cash or book money) and will immediately exchange it into e-money. The e-money must be redeemed by the issuer at par value in cash or sight deposits, if requested. In order to ensure the issuer’s ability to redeem the e-money, e-money institutions are only allowed to invest the accepted funds into sufficiently liquid assets.

E-money can be stored on electronic devices in the consumer’s possession, i.e. card-based microprocessor chips or special PC-based software. Loading e-money onto these devices is similar to a cash withdrawal from an automated teller machine. When making a purchase, e-money is transferred to the seller’s e-money device, similarly to cash being handed by the buyer to the seller.<sup>34</sup> So far, only domestic **card-based** e-money schemes exist. Moreover, e-money can be **account-based**, i.e. the e-money institution holds an account for the user, in which his funds – converted into e-money – are deposited. Both payer and beneficiary need to maintain an account relationship with the e-money institution. Therefore, an account-based e-money institution is a three-party payment system. A payment will be executed by in-house transfer, i.e. debiting the payer’s account and crediting the beneficiary’s account. In this category of payment system there are some providers which offer cross-border payment services.

### Value stored on electronic device

### Legal definition “e-money institute”

### Transferring e-money

<sup>31</sup> See BIS, Committee on Payments and Settlement Systems: Red Book 2003.

<sup>32</sup> For example, PayPal’s conditions do not foresee any limit on the amounts transferred. (UK-registered e-money institution with US parent).

<sup>33</sup> Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit of and prudential supervision of the business of electronic money institutions; Article 1.

<sup>34</sup> See BIS, Committee on Payments and Settlement Systems: Survey of e-money and internet and mobile payments, March 2004.



## Cumulative collection payment systems

Payment via cumulative collection is a service usually offered by phone companies. The customer can buy merchandise and have it debited to his phone bill. The merchant, a third party, will receive his money from the phone company. This means that the phone company as payment service provider is maintaining accounts for both payer and seller in order to keep track of the monetary claims against the payer and the monetary claims due to the merchant. At the end of the month, the phone company will collect the payer's phone bill (i.e. phone fees and debt for merchandise) from the payer's bank account and will transfer the amount due to the merchant. Obviously, this system is based on payments made against a credit line. Therefore, the payment service provider has to manage a credit risk exposure vis-à-vis the debtors. Companies with a large customer base and knowledge about their creditworthiness are therefore in a privileged position to establish this type of three-party payment system.

## New access channels

When discussing payment services, the terms "m-payments" and "e-payments" are frequently used imprecisely. They do not mean a payment system or payment instrument. Instead, they refer to certain channels which the payer uses to enter his payment instruction into a payment system.<sup>35</sup>

### "M-payments"

Mobile payment orders are entered into the payment system by mobile phone. They can be made through voice access, text messaging known as SMS (short messaging service) or WAP (wireless application protocol), which provide a gateway to the internet. Security is usually provided by a unique PIN which the mobile customer has to provide when making an m-payment. Until now, mobile payments have mainly been offered in the micro-payment segment. Although there is no clear definition of micro-payments, this term is widely used for payments below EUR 10. Execution can be through various payment systems, e.g. bank accounts or payment cards. But often, m-payments are channelled into a cumulative collection system (see above).

### "E-payments"

As with m-payments, the term "electronic payments" refers to the channel of payment initiation. Synonymously, e-payments are called "internet" or "online" payments. Typically, payments are initiated from the payment provider's secure website, with notification of the payment taking place via e-mail. For example, most banks offer online banking, i.e. the customer can instruct his account maintaining bank to make credit transfers via the bank's website.<sup>36</sup> Equally, card payments can be initiated via the internet, by keying in the card details into an online form. Payments in account-based e-money are usually commenced via the internet. Also, payment service providers offering cumulative collection procedures can grant access to their payment system via the internet, sometimes in addition to mobile access.

In a broader sense, electronic payments can also refer to payment initiation via accounting software and the internet, which is frequently used by corporates to initiate and transmit instructions to

## Payments against a credit line

### Payment initiated via mobile phone

### Online payment instruction

<sup>35</sup> Generally, a payment can be initiated via paper-based order, online, phone or mobile, etc.

<sup>36</sup> See BIS, Committee on Payments and Settlement Systems: Survey of e-money and internet and mobile payments, March 2004.

the payment service provider. The essence of e-payments is the communication and security standards used for transmission of the payment instructions to the payment service provider.

Author: Heike Mai, 49 69 910-31437 (heike.mai@db.com)

© 2005. Publisher: Deutsche Bank AG, DB Research, D-60262 Frankfurt am Main, Federal Republic of Germany, editor and publisher, all rights reserved. When quoting please cite "Deutsche Bank Research".

The information contained in this publication is derived from carefully selected public sources we believe are reasonable. We do not guarantee its accuracy or completeness, and nothing in this report shall be construed to be a representation of such a guarantee. Any opinions expressed reflect the current judgement of the author, and do not necessarily reflect the opinion of Deutsche Bank AG or any of its subsidiaries and affiliates. The opinions presented are subject to change without notice. Neither Deutsche Bank AG nor its subsidiaries/affiliates accept any responsibility for liabilities arising from use of this document or its contents. Deutsche Banc Alex Brown Inc. has accepted responsibility for the distribution of this report in the United States under applicable requirements. Deutsche Bank AG London being regulated by the Securities and Futures Authority for the content of its investment banking business in the United Kingdom, and being a member of the London Stock Exchange, has, as designated, accepted responsibility for the distribution of this report in the United Kingdom under applicable requirements. Deutsche Bank AG, Sydney branch, has accepted responsibility for the distribution of this report in Australia under applicable requirements.

Printed by: HST Offsetdruck Schadt & Tetzlaff GbR, Dieburg

ISSN Print: 1612-0272 / ISSN Internet and e-mail 1612-0280