

L. Gramlich: Electronic Payments and Electronic Money

ELECTRONIC PAYMENTS AND ELECTRONIC MONEY – SOME GENERAL REMARKS ON FACTUAL AND LEGAL DEVELOPMENTS

by

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The author analyses parallels as well as differences between cash payments and cashless payments from a general juridical point of view. A closer look at some new developments often called “smart” or “innovative” shows that only central bank money possesses a very special quality. Various projects of e-payments lead to more risks and modify the fair apportionment of risks between debtor and creditor of a monetary obligation. Thus, the effects of electronic payment should only be held equivalent to those of transferring legal tender if the core parties of the transaction agree about this mode of final performance.

KEYWORDS

Payments, money, cash, legal tender, cashless payments, electronic payments, central banks

INTRODUCTION [1]

Is cyber-money or are cyber-payments a case for “Second Life”¹ or other computer games only? At a first glance, one might think that Linden Dollars (LD) are media of payments existing as well as being denominated in a “virtual” currency, and there seem to be no closer connexions to money used in the real world. But that perspective might be erroneous since there have

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¹ <http://www.secondlife.com>.

been discussions between lawyers already² whether the firm promoting “Second Life” does need a banking license at least according to EC law because the enterprise would probably act as “electronic money institute”. Another issue would be which, if any member State of the European Union will have jurisdiction in relation to the issuance of the means of payment used within the “Second Life” cyberspace.

Looking at the state of affairs going on in the real, “first” world at an international or even global level, there do not exist any general norms, whether in the field of public international law or within any important conflict of law rules, which are dealing with questions of electronic money or electronic payments. That does hardly mean that there is no global discussion on this topic at all. International financial institutions like the International Monetary Fund and, particularly, the Bank for International Settlement³ have been doing valuable research in this area but the results of their work are rather thin. The European Central Bank took a somewhat closer look at issues of e-money and e-payments, too,⁴ but that has not lead to more results till now than in the case of the other organizations mentioned before. Finally, in the framework of UNCITRAL there have been various activities resulting in legal texts (e.g., model laws) in the fields of electronic commerce in general as well as of electronic signatures in particular,⁵ but these have been rather focussing on electronic transactions and less on corresponding (media of) payments.

Thus, monetary obligations between persons or enterprises situated in different countries must till now be denominated either in the currency of the State of the creditor or of the debtor or in some (national) currencies used for international payments because they are accepted as regular currencies of payment world-wide. Certainly, less payments are made by de-

² Cf. Lange, E. 2007, „Second Life: Banken in der virtuellen Welt“, die bank, vol. 47, no. 11, 64 – 69.

³ Cf., e.g., Committee on Payment and Settlement Systems 2004, Survey of developments in electronic money and internet and mobile payments, BIS, Basle (<http://www.bis.org/publ/cpss62.pdf?noframes=1>).

⁴ Cf., e.g., European Central Bank 2003, Electronic Money System Security Objectives, ECB, Frankfurt/M. (<http://www.ecb.int/pub/pdf/other/emoneysecurity200305en.pdf>).

⁵ United Nations Commission on International Trade Law 2001, UNCITRAL Model Law on Electronic Signatures with Guide to Enactment (<http://www.uncitral.org/pdf/english/texts/electcom/ml-elecsig-e.pdf>); UNCITRAL Model Law on Electronic Commerce with Guide to Enactment (http://www.uncitral.org/pdf/english/texts/electcom/05-89450_Ebook.pdf).

delivering “hard monies” (i. e. cash) to the creditor than by using banking accounts of both parties of a monetary transaction, but those latter payments, although much more important from an economic point of view, are of a different and minor legal quality.

At a narrower, “regional” level, i.e. within the European Union and the European Economic Area currently comprising 30 States a lot of rules on electronic or e-money can be found, however. These rules are dealing with this topic from rather different perspectives: A first group of directives is looking at “vertical” relations between public authorities and (banking) enterprises, a second one is intending to set a legal framework for “horizontal” relations between debtors and creditors of monetary obligations. At last, a third group contains complementary rules related to specific aspects of e-money and e-payment.

The most important directive in the area of “vertical” relations was enacted in 2000 (Directive 2000/46/EC).⁶ The main purpose of this legal act was pointed out in its recitals 2 et seq. The approach selected in the directive should “achieve only the essential harmonization necessary and sufficient to secure the mutual recognition of authorization and prudential supervision of electronic money institutions, making possible the granting of a single license recognized throughout the Community and designed to ensure bearer confidence and the application of the principle of home Member State prudential supervision”. Within the wider context of the rapidly evolving e-commerce it was assumed to be “desirable to provide a regulatory framework that assists electronic money in delivering its full potential benefits and that avoids hampering technological innovation in particular”. Therefore, the directive introduced a technology-neutral legal framework that harmonized the prudential supervision of electronic money institutions to the extent necessary for ensuring their sound and prudent operation and their financial integrity in particular. Electronic money was seen as an “electronic surrogate for coins and banknotes, which is stored on an electronic device such as a chip card or computer memory and which is generally intended for the purpose of effecting electronic payments of limited amounts”.

⁶ European Parliament and Council 2000, Directive on the taking up, pursuit and prudential supervision of the business of electronic money institutions, Official Journal of the EC, part L, no. 275, pp. 39 – 43.

A proposal submitted by the European Commission in late 2005 and finally getting legal force in December 2007 (2007/64/EC)⁷ is dealing with payment services in the internal market because till now, the respective markets of the Member States have been organised separately, i. e. along national lines and the legal framework for payment services has been fragmented into 27 national legal systems. Although several Community acts have already been adopted in this area, e.g. Directive 97/5/EC on cross-border credit transfers⁸ and Regulation (EC) 2560/2001 on cross-border payments in euro,⁹ these acts could not sufficiently remedy this situation any more than did Commission Recommendations 87/598/EEC,¹⁰ 88/590/EEC,¹¹ or 97/489/EC of 30 July 1997.¹² Thus it seemed “vital to establish at Community level a modern and coherent legal framework” for payment services, “which is neutral so as to ensure a level playing field for all payment systems, in order to maintain consumer choice, which should mean a considerable step forward in terms of consumer cost, safety and efficiency, as compared with the present national systems”. This legal framework is intended to ensure the coordination of national provisions on prudential requirements, the access of new payment service providers to the market, information requirements, and the respective rights and obligations of payment services users and providers. However, that framework is not meant to be fully comprehensive. Its application should be confined to those service providers only whose main activity consists in the provision of payment services to users, but it should also include cases where the operator acts only

⁷ European Parliament and Council 2007, Directive on payment services in the internal market, Official Journal of the EU, part L, no. 319, pp. 1 – 36; cf. on the Commission proposal: Burgard, U. 2006, “Der Vorschlag der Kommission für eine Richtlinie über Zahlungsdienste im Binnenmarkt”, Wertpapier-Mitteilungen, vol. 60, no. 44, pp. 2065 -2071.

⁸ European Parliament and Council 1997, Directive on cross-border credit transfers, Official Journal of the EC, part L, no. 43, pp. 25 – 30.

⁹ European Parliament and Council 2001, Regulation on cross border payments in Euro, Official Journal of the EC, part L, no. 344, pp. 13 - 16; cf. Hoffmann, J. 2002, “Preiskontrolle oder Wettbewerb?”, Europäische Zeitschrift für Wirtschaftsrecht, vol. 11, no. 3, pp. 69 – 75.

¹⁰ European Commission 1987, Recommendation on a European Code of Conduct relating to electronic payment (relations between financial institutions, traders and service establishments, and consumers), Official Journal of the EC, part L, no. 365, pp. 72 – 76.

¹¹ European Commission 1988, Recommendation concerning payment systems, and in particular the relationship between cardholder and card issuer, Official Journal of the EC, part L, no. 317, pp. 55 – 58.

¹² European Commission 1997, Recommendation concerning transactions by electronic payment instruments and in particular the relationship between issuer and holder Official Journal of the EU, part L, no. 208, pp. 52 – 58.

as an intermediary who simply arranges for payments to be made to a third-party supplier. The categories of payment service providers which may legitimately provide those services throughout the Community, would not only extend to credit institutions, but also to electronic money institutions which issue electronic money that can be used to fund payment transactions and which should continue to be subject to the prudential requirements under Directive 2000/46/EC. Moreover, the Payment Services Directive will lay down rules on the execution of payment transactions where the funds are electronic money, as defined in art. 1 (3)(b) of that former Directive. The new legal act will, however, neither regulate issuance of electronic money nor amend the prudential regulation of electronic money institutions as provided for in Directive 2000/46/EC. Therefore, "payment institutions" are not permitted to issue electronic money.

The (general) directive on services in the internal market (2006/123/EC)¹³ does exclude "financial services" (in a wide sense) from its scope since these activities are the subject of specific EC legislation aimed, as the general directive, at achieving a genuine internal market.

A main "horizontal" legal act of the Community is Directive 2002/65/EC.¹⁴ This act covers all financial services to be provided at a distance. However, certain financial services are governed by specific provisions of Community legislation which continue to apply to them. If new elements would be added, e. g. a possibility to use an electronic payment instrument together with one's existing bank account, to an "initial service agreement", for example the opening of such an account or acquiring a credit card, that action would constitute an additional contract to which the directive applies. "Operations" under the directive will include payment by credit card. According to art. 8, Member States have to ensure that appropriate measures exist allowing a consumer to request cancellation of a payment where fraudulent use has been made of his payment card in connection with distance contracts, and in the event of such fraudulent use, to be re-credited with the sum paid or to have the money returned.

¹³ European Parliament and Council 2006, Directive on services in the internal market, Official Journal of the EU, part L, no. 376, pp. 36 - 68; cf. Schlichting, J. M., Spelten, W. 2005, "Die Dienstleistungsrichtlinie", Europäische Zeitschrift für Wirtschaftsrecht, vol. 14, no. 8, pp. 238 - 240.

¹⁴ European Parliament and Council 2002, Directive concerning the distance marketing of consumer financial services, Official Journal of the EC, part L, no. 271, pp. 16 - 24.

Other rules related to e-money and e-payments are laid down in rules on the prevention of the use of the financial system for the purpose of money laundering. The updated third version of the directive (2005/60/EC)¹⁵ is also relevant for electronic money institutions since it refers to “assets of any kind” (art. 2 [3]) of the directive). But member States may by way of derogation allow those institutions covered by it not to apply certain customer due diligence rules in the case of small amounts (stored on a device or transacted in a calendar year).

The establishment of a single European payment area (SEPA)¹⁶ starting in early 2008 will not only be a further big step towards deeper harmonization of border-crossing payments between (persons resident in) EC member countries but it might also promote more “electronification” of these operations. Today, most innovative developments take place within a single (member) State, so the examples to be given later on will be taken from national (German) projects. But surely, similar ideas will also be discussed and even put into effect in other countries in Europe or elsewhere around the globe.

VARIOUS KINDS OF PERFORMING MONETARY OBLIGATIONS [2] BASIC SITUATION: CASH PAYMENT(S) [2.1]

Analyzing more closely the various elements of regularly executing a monetary obligation existing between two persons both domiciled in the same country, this activity may be described as a transaction where person no. 1 (the debtor of this monetary obligation) is delivering domestic legal tender (notes and/or coins put into circulation by a monetary authority, in most cases a central bank), to person no. 2 (the creditor) who will receive these physical goods and take possession of them. The operation of transferring “hard” monies from one person to another does, however, necessarily involve some other (groups of) persons since without them, the debtor would not be able to act the way he did. First of all, a third person (“no. 3”) will be

¹⁵ European Parliament and Council 2005, Directive on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing, Official Journal of the EU, part L, no. 309, pp. 15 – 36.

¹⁶ <http://www.sepa.eu>,
http://www.bundesbank.de/zahlungsverkehr/zahlungsverkehr_sepa.en.php. On the EU-pay project, cf. <http://www.eu-pay.org/>.

a (public) monetary authority which is responsible for producing or at least for putting into circulation specific corporeal goods (paper notes as well as metal coins) which according to legislation are having the quality of legal tender within a specific currency area.¹⁷ Thus, from a legal point of view, these tokens have become the primary means of payment since the creditor must accept their delivery as regular and final performance of the debtor's monetary obligation. Next, a fourth person is just this other public institution, parliament and/or government, which is responsible for enacting legal tender legislation including rules against creating or using counterfeit money. A fifth group of persons is consisting of one or more (private or public) enterprises which are actually minting coins or printing notes (at the order and on behalf of the central bank or the Ministry of Finance) to be put into circulation as official means of payment (i. e. legal tender). Without those auxiliary activities, no cash payment would be possible at all. Finally, each payment transaction will be embedded in more general legislation relating to conditions and requirements how to agree upon as well as to fulfil monetary obligations between private and/or public partners in a due and timely manner.

To draw a first conclusion, it seems obvious that cash payments will be performed in an effective and final manner only if the media of payments, i.e. notes or coins, have been transferred to the creditor and this person has acquired possession as well as ownership on behalf of these physical goods. The finality of this transfer may depend upon the legal validity of the contract from which the monetary obligation is arising. In any case, only two persons (debtor and creditor) are needed to execute cash payments. All other persons and institutions mentioned above are acting as mere "enablers", they are not parties to the payment itself. Thus, the core transaction could be performed without any intermediaries.

GETTING MORE COMPLEX:

"TRADITIONAL" CASHLESS PAYMENT [2.2]

Since many decades, cashless payments have been going on the volume of which is today much larger than that of cash payments (although there may not necessarily be also more transactions). Traditional cashless payments

¹⁷ Proctor, C. 2005, Mann on the legal aspect of money, OUP, Oxford, 6th ed, p. 66.

are performed by changing debit or credit entries in the bank accounts (“books”) of the parties of a monetary obligation. There is no need to transfer physical goods from debtor to creditor, neither directly nor indirectly. Thus, the monies delivered and received do not have the quality of legal tender as in the case of cash. On the other hand, modern monetary legislation often extends to that kind of payment, too.¹⁸ If certain requirements are met, cashless payments may be used as an alternative to or even as a substitute for transferring notes or coins. In those cases, the creditor has no right to ask for payment in cash, whereas the debtor – often a public entity – will merely be obliged to put a certain monetary value at the disposal of his creditor. Whether a creditor will be restricted by law in this way or whether he will have to agree that his debtor would only have to initiate a cashless payment to meet a monetary obligation in order to put both forms of payments on an equal basis does not make any difference. But there are other differences remaining between payment in cash and cashless payments: In fact, any payer/debtor (“person no. 1”) as well as any payee/creditor (“person no. 2”) may choose cashless payment only if each of them has established contractual relations with a (banking) institution. So both will need an intermediary in order to offer (cashless) payment services to the public. This entity will execute the transfer of monetary value from person no. 1 to person no. 2 only if and when it has agreed to do so with each of these persons by its own free will. The involvement of this intermediary institution will necessarily lead to greater risks for the other parties of the core transaction because of the greater number of persons participating as well as of the nature of the financial operation as a whole. For example, the monies might be transferred not to the creditor/his bank account but to that of another person or the payment might be delayed. Therefore, as financial intermediation is inherently dangerous or “risky”, this activity should be reserved to persons or institutions which are highly qualified for their task. Consequently, in almost every country cashless payment services may only be performed by banks or near-banks under strict supervision by public authorities in order to reduce risks for other persons’ monies those institutions

¹⁸ Münch, C. 1990, *Das Giralgeld in der Rechtsordnung der Bundesrepublik Deutschland*, Nomos Verlag, Baden-Baden; Gramlich, L. 1997, „Elektronisches Geld“, *Computer und Recht*, vol. 13, no. 1, pp. 11 – 18.

are dealing with as far as possible.¹⁹ But an entity which will restrict its activities to solely offering payment services could be treated unlike enterprises performing several different banking activities. So the new EC Payment Services Directive (2007/64/EC) draws a clear distinction between credit institutions and providers of payment services in order to reduce unnecessary legal requirements in respect of this latter group of entities.

Cashless payments are executed by transferring “money” in a wider sense: The operation will lead to an increase of monetary assets at the creditor’s bank account, but only after the debtor’s account has been reduced by the same amount. This “money in the books” has an existence of its own but its use depends on a banking account which has been destined for (cashless) payment purposes. Thus, that sort of money might either be created by central banks in the course of implementing their monetary policies by performing banking operations with banks or similar financial institutions or even the general public. But moreover, any entity may use monies received for giving credits to others without delivering cash to its debtors and these persons will then not only be allowed, but obliged to pay back the sums due in the same (cashless) way. So creation and circulation of banking money are relatively independent from the existence of paper money issued solely by a central bank. There is an important link, however, between these two means of payment: A holder of a banking account destined for payment purposes may not only order “his” bank to use the monies held at that account for the purpose of cashless payment to third persons, but according to a stipulation in the contractual relationship with his bank, each customer can order that institution to pay a certain sum in legal tender directly to him- or herself. If the bank does not have enough cash to act in this way, it could get the amount of money claimed by its customer from the central bank using its own banking account at the monetary authority. Besides those every-day transactions in normal times, a central bank will act as a “lender of last resort” if there are greater financial problems. Because imminent illiquidity or insolvency of a banking institution might lead to dangers for other banks or even a national economy as a whole, the central bank could and will step in to prevent a further deepening of such a crisis.

¹⁹ Gramlich, L. 2005, „Zahlungsverkehr“ in Rechts-Handbuch zum E-Government, eds. Kröger, D., Hoffmann, D., Verlag Dr. Otto Schmidt, Köln, pp. 199 – 256, p. 233.

Rescuing banks or similar financial institutions from going bankrupt will have positive effects also for payments by and to those monetary authorities since the regular performance of their tasks will no longer be delayed or disturbed. Nonetheless, central banks are only indirectly involved in cashless payments between several banks or between those institutions and their customers as they do create the medium of payment used for this transaction.

Unlike payments in cash, cashless payments can be executed only if an intermediary takes part in this operation. The core transaction depends upon the cooperation of three persons (nos. 1, 2 and 6 above). On the other hand and very similar to the performance of monetary obligations by transferring legal tender, there is a greater circle of persons engaged in auxiliary activities. At first, a proper legislative framework has to be created and, if necessary, updated by parliament or other State institutions. Central banks as well as other, “normal” banks need technical assistance in order to produce and perform transactions with banking monies. But like mints or print offices, these actors will not become parties to the payment operation itself although without those helpers, cashless payments would hardly take place at all.

THIRD LEVEL: NETWORK OF INTERMEDIARIES [2.3]

Three persons are needed to execute cashless payments, so there must be (at least) three different contracts upon which this specific payment operation is based. At first, the reason for the particular payment arises from the fundamental relationship between debtor and creditor. These persons (“no. 1” and “no. 2”, respectively) are not necessarily bound by agreement, since the obligation to pay a certain amount of money to “no. 2” might also result from recovery of damages caused by a violation of this person’s rights. In respect of e-commerce, however, a typical example for this basic relationship would be a contract between seller and buyer containing the obligation to pay the price agreed for the sale of one or more goods. A first additional relationship is linking the debtor of the monetary obligation to a particular bank. A second additional relationship is connecting the same or another bank with person “no. 2”, i. e. the creditor. If even debtor and creditor are customers of the same banking institution, their respective (additional) con-

tracts are legally independent, although both are parts of one single economic transaction. It may not be surprising that the number of additional contracts will rise depending upon how many banks are involved in the monetary transfer. So at least a second bank will have to be included in the transaction if the creditor has no contractual relations with the bank of the debtor. One can easily imagine the participation of further banks, if one or both original institutions are operating in a local area only and are not both members of the same payments network at a higher, e.g. regional or national level. So the whole transaction will become ever more complex. Each gap or fault in the chain of several bilateral contracts will lead to the same negative result: The creditor ("no. 2") will not get any payment from his debtor, and contrariwise, this person "no. 1" will not be able to duly perform his obligation towards the former so that he might be liable for delayed or lacking performance. Depending upon the number of (banking) intermediaries, risks of failure and dangers to be held liable for damages will increase rapidly. Now, contracts are creating rights and obligations only between parties. Thus, the bank of the debtor is merely obliged either to perform the payment order of its customer itself by adding the relevant amount of (banking) money to the account of the creditor or to use other banks (as intermediaries assisting the sender) if and insofar these are bound by contract to the first one to "transport" the payment order as well as the sum of money due towards the creditor's bank.

Of course, cash payment may often be executed using auxiliary persons on one or on both sides. But in each of such cases, the additional complexity will be created by the free will of the relevant party so it seems but fair that this party should bear the risk of delay or failure caused by its assistant(s).

**FROM PAPER-BOUND/ACCOUNT-BASED
TO PAPER-LESS CASHLESS PAYMENTS [3]
ACCOUNT-BASED CASHLESS PAYMENTS [3.1]**

Payments in cash are performed in an open and transparent manner. The creditor will get notes or coins "in kind", the debtor will hand these physical goods over to the other party. In the case of cashless payments, the reduction of a debtor's banking account as well as the equivalent increase of the creditor's account are each made evident, originally and traditionally by

way of writing (“in books”), nowadays primarily by establishing relevant electronic (or digital) documents. The rapidly growing use of information technology in the banking sector did, however, not cause a real alteration in regard to the relevance of this documentation; it merely changed its form. So, each step of a cashless payment transaction has to be noted in “books” (hand- or type-written or electronically kept) and thus be open to proof by third persons. But there remains an essential divergence between (paper) notes and book entries (or electronic data) although both are representing a monetary value: Bank notes are today no longer supposed to be a specific kind of security authorizing their holder to claim payment of real “precious” money (i.e. gold or silver coins) from the issuing (central) bank, but their nominal value is based upon legal tender legislation alone.²⁰ Book entries were never intended for circulation, and although account holders are entitled to demand cash payment, they never had to present a specific paper document to get their money back in this way. Thus, in the case of banking money there is no securitization of a monetary obligation towards a certain bank, but merely a documentation declaring the value of money held at the debtor’s banking account (before and) after the bank acted according to his payment order and also manifesting the date at which the change has become effective. In the same way, date and amount of monies received are written down on behalf of the creditor and his banking account.

CARD-BASED CASHLESS PAYMENTS [3.2.]

Notes or coins are similar to cards insofar as both are tokens to be used for (or at least to initiate) payments. But in respect of other criteria, they differ widely: Whereas the specific value of each bank note (e.g. € 50) can be recognized and verified by everyone looking at a certain piece of paper and this amount printed on it cannot (lawfully) be modified by the holder, the monetary value stored on a card will change (and may sometimes be zero) depending upon how or when its holder uses this device for payment purposes. Whereas notes and coins are serving a single purpose, namely to effectuate a regular and final performance of monetary obligations (denominated and to be fulfilled in domestic currency), many cards can and will be

²⁰ Hahn, H. J. 1990, *Währungsrecht*, C. H. Beck, München, pp. 15 – 35.

used for other than payment purposes, too. For example, they may be also function as means of identification or of authorization etc.²¹ Whereas cash is always a (primary) medium of final payment, cards are also often used merely to initiate payments by other means or media, particularly if an enterprise has been issuing cards for its customers solely and the holders may use their cards only for “paying” the price of products bought from the card issuer – so there will also be no intermediary in this simple case. On the other hand, if card issuing institution and seller are different persons, payment by card will be a real substitute for payment in cash (to the third person involved, i. e. a merchant) from an economic point of view. A last important distinction should be drawn between personalized and so called white cards. The former are connected to a particular owner so they can be used lawfully only by this person himself or with his consent. White cards are means of payment which anyone could use as long as monetary value has been stored on these devices (by the present owner or any other person). Thus, they are apt to serve their purpose only if an earlier (cash or cashless) payment transaction has been executed transferring value to a particular card so these tokens are often called “pre-paid” instruments. A user of pre-paid cards may thus hardly be identified if he wishes to remain anonymous, a fact closely resembling the case of using of notes or coins. Such white cards are not necessarily linked to a banking account of an owner or user so the owner will get no interest on the value “deposited” on them, another situation similar to holding cash. However, if a cardholder will be charged just at the time when he uses this device for buying goods (“debit card”) or even later (“credit card”), these types of payment transactions are necessarily related to and depending upon a banking account because there will be transfer and credit risks for other participants which must be kept at a minimum level. Thus, a holder of a banking account has to meet certain personal and material requirements to get a card from “his” bank based upon the conclusion of an additional contract between bank and customer (cardholder).²²

²¹ Langenbucher, K. 2001, *Die Risikoordnung im bargeldlosen Zahlungsverkehr*, C. H. Beck, München, pp. 242 – 245.

²² Recknagel, E. 2005, *Vertrag und Haftung beim Internet-Banking*, C. H. Beck, München 2005, pp. 59 – 66.

If personalized cards are intended to be used for payment purposes, a lot of activities have to be arranged to ensure that a regular and final payment will be accomplished in the basic relationship between a cardholder (acting as a “buyer”, person no. 1) and a seller (person no. 2) who has given his consent that the former party would fulfil his contractual duty to pay the purchase price by way of cashless payment. As in other cases, there must be some general legislation relating to payment by cards and to other aspects of issuing, acquiring and using those devices to perform monetary obligations.²³ Moreover, enterprises issuing and/or administering credit cards whether they are banks or other financial institutions, will often be supervised by a national public authority (e.g., in Germany according to sec. 1 (1a) 2 no. 8 of the Banking Act)²⁴ although European law does not require that banking regulation has to extend to this kind of activities. Mostly, banks will issue their own debit cards, whereas in the case of credit cards they are only cooperating with separate institutions by performing all necessary banking activities on behalf of their customers, whether these persons are payer and/or payee in relation to a card payment. In respect of the banking parts of the transactions, strict supervision will take place due to harmonized EC banking law. To put it otherwise, banks will normally act as an intermediary between cardholder, card issuer and other customers, in particular creditors of the basic monetary obligation.

Since the 90's, developments in the field of ICT have led to a growing use of “smart” cards. These devices are not only apt to store monetary value as a sort of token-based (electronic) money but they are ready to process electronic data and even to exchange informations with other similar devices without direct human interference. By using those cards, some important parts of payment transactions will be executed automatically, but nevertheless, the performance of other parts will depend on human action, and the core payment transaction will still take place between cardholder and the person to be paid for delivering goods or services. This conclusion

²³ Cf. Schnauder, F. 2003, „Risikoordnung bei unbefugter Kreditkartenzahlung“, *Neue Juristische Wochenschrift*, vol. 56, no. 12, pp. 849 – 852.

²⁴ Kreditwesengesetz (Amendment) 2002, *Bundesgesetzblatt (Federal Law Gazette)*, part I, no. 39, pp. 2010 - 2072; cf. Tschull, C. 2003, „Das Kreditkartengeschäft als Finanzdienstleistung – Zusätzliche Pflichten für Kreditkartenunternehmen“, *Zeitschrift für Bankrecht und Bankwirtschaft*, vol. 15, no. 2, pp. 380 – 386.

may be illustrated by some examples to be dealt with in the following chapter (3.3.).

SMART ELECTRONIC PAYMENTS: SOME ACTUAL PROJECTS [3.3] „HANDY PAYMENT“ - MOBILE PAYMENT [3.3.1]

Earlier projects implemented rather successfully in some Asian countries²⁵ may have been the reason for German institutions and enterprises to think about using mobile (data) telecommunication services for additional purposes called “e-ticketing”. Such projects have been realized, for example, by the Federal German Railways (Deutsche Bahn AG) as well as by some local and regional firms cooperating in the area of public transports. In this context, mobile phones can be used by their owners for buying tickets. Looking more closely at the details of e-ticketing, three different functions of using the devices can be distinguished: At first, they will be instruments for concluding a (transport) contract because the declarations of a customer as well as of the transport company are transmitted by mobile telecommunication used to exchange all necessary data. Second, the customer is able to prove the existence of a valid contract by showing relevant data on the display of his phone if he will be asked for it. At last, this device can also be used to initiate the (cashless) payment for services (to be) delivered to its owner and will prove that this person has performed this action before he enters a railway car or a bus. At the website of the transport companies involved, each passenger will be informed about the several steps of the ticketing procedure.²⁶ In each of these projects, a mobile payment transaction will be based on the cooperation of various participants. Some of them are known from traditional cashless payments, but some others (group no. 2) must also perform specific activities without which the operation as a whole would not come to a successful result.

The first group includes the debtor (which has contractual relations with a telecommunications operator as well as a bank), the creditor (i.e. the enter-

²⁵ Becker K. 2007, „Mobile Phone: The New Way to Pay?“, Federal Reserve Bank of Boston, Emerging Payments Industry Briefing, ePSO Payments and Settlements News, no. 53 (<http://epso.intrasoft.lu/>); De Jong I. 2007, Pre-paid cards, ePSO payments and Settlements News, Discussion paper, 20 July 2007 (http://epso.intrasoft.lu/papers/De_%20JONG_Prepaid_Cards.pdf).

²⁶ <http://www.bahn.de>, <http://www.eticket-deutschland.de>, <http://www.dashandyticket.de>. Cf. also Deutsche Bundesbank 2006, “Recent development in payment cards and innovative electronic payment procedures”. Monthly Report, vol. 58, no. 12, pp. 89 – 99.

prise providing for transport or other service which is also a customer of the telecoms operator and of a bank), and a 1st bank in contractual relationship with the debtor and thus obliged to initiate a cashless payment in order to fulfil the monetary obligations between debtor and creditor at the request of the former delivered to it via telecommunication performed by the operator mentioned before. Further members of this group are State entities responsible for legislative (parliament) or administrative matters (banking supervision authorities in respect of relevant banking activities). This latter institution might have to look at the involvement of other banks, too, because often, a 2nd bank will be engaged acting as a contractual partner of the creditor receiving the incoming payment on behalf of its customer and finalising the monetary transaction by increasing the creditor's account by this amount although the bank may be identical with the 1st bank. Even a 3rd bank may be needed since the contractual partner of the telecoms operator authorized to execute payments caused by performing telecommunications services for the debtor and/or the creditor must be party to the operation if it is neither identical with the 1st nor the 2nd bank.

The second group consists of two entities which are both concerned with data transfer via telecommunication. One of them is a telecommunications operator providing its services on the basis of separate contracts to the debtor as well as the creditor as users of those (transmission) services. The other one will be the national regulatory authority in the area of electronic communications (to be) established according to the European legal framework of 2002.²⁷

Although both groups are performing quite different activities, they are linked together in two ways: On the one hand, as mentioned above, the payment will only be performed regularly if all participants will do their part of the work. On the other hand, the involvement of a telecoms operator may, depending upon its kind and scope, also include genuine banking activities. Then, this firm would have to apply for a banking licence from and be subject to the sector-specific supervision of a second governmental authority.²⁸ Till now, however, German law does not provide for any close or formalized cooperation between the banking supervision authority (Fed-

²⁷ European Parliament and Council 2002, Directives 2002/19/EC, 2002/20/EC, 2002/21/EC, 2002/22/EC, Official Journal of the EC, part L, no. 108, pp 7 – 20, 21- 32, 33 – 50, 51- 72; Directive 2002/58/EC, part L, no. 201, pp. 37 – 47.

eral Institution for Supervision of Financial Services)²⁹ and the national regulatory authority (Federal Net Agency)³⁰ so a telecoms operator could get into a rather ambiguous position restricting its business prospects.

In the projects described above, the debtor will have to do something to initiate the transfer of money to his creditor. But human action could be replaced by technical devices exchanging data directly without the interference of their (human) owner. A prominent example of this type is radio frequency identification (RFID) technology³¹ which may be – and indeed has already been (in the Frankfurt area, www.rmv.de)³² – used to perform a transfer of monetary values from the debtor’s device to that of the creditor. This new technique does not lead, however, to any major changes in respect of the number and content of the (contractual) relationships needed to perform “smart” cashless payments. Whether the communication is going on via phone call, short message service or data exchange between RFID devices, a monetary obligation will have been performed finally only after the full amount of the sums due has been added to the creditor’s account at his bank.

(GOVERNMENTAL) PAYMENT PLATFORM [3.3.2]

eGovernment projects will hardly be successful if they are not complemented by simple and effective ePayment solutions. Ideally, these instruments

²⁸ Cf. European Commission – DG Internal Market 2004, “Application of the E-money directive to mobile operators – Consultation paper” (http://ec.europa.eu/internal_market/bank/docs/e-money/2004-05-consultation_en.pdf); European Commission 2006, Commission Working Staff Document on the Review of the E-money Directive (2000/46/EC), SEC(2006) 1049 (http://ec.europa.eu/internal_market/bank/docs/e-money/working-document_en.pdf).

²⁹ Finanzdienstleistungsaufsichtsgesetz 2002, Bundesgesetzblatt (Federal Law Gazette), part I, no., 25 pp. 1310 - 1315.

³⁰ Gesetz über die Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen 2005, Bundesgesetzblatt (Federal Law Gazette), part I, no. 42, pp. 2009 - 2012; Gramlich, L. 2007, „Aufgaben und Verfahren der Bundesnetzagentur (Regulierungsbehörde)“ in Handbuch Telekommunikationsrecht, ed. Heun, S.-E., Verlag Dr. Otto Schmidt, Köln, 2nd ed., pp. 139 – 230, pp. 201 – 205.

³¹ European Commission 2007, Communication – Radio Frequency Identification (RFID) in Europe: steps towards a policy framework, COM(2007) 96 final; European Economic and Social Committee 2007, Opinion on Radio Frequency Identification (RFID), Official Journal of the EU, part C, no. 256, pp. 66 - 72.

³² For another (Austrian) example cf. <http://www.nfc.co.at>; more general information at <http://www.nfc-forum.org>. Cf. also GSM Association 2007, Pay-Buy-Mobile. Business Opportunity Analysis, Public White Paper, Version 1.0 (http://www.gsmword.com/documents/pbm/gsm_pbm_wp.pdf).

should not only enable to perform cashless payments between governmental entities and by those institutions, but they could also be used for citizens' payments to State bodies, e.g. in the case of fees for certain official acts. Thus, it seems hardly surprising that the Federal Government Co-ordination and Advisory Agency (KBSt, www.kbst.bund.de), a department of the German Federal Ministry of the Interior, has developed a payment platform called "ePayment" as a O(ne)-F(or)-All service in the framework of general Standards and Architectures of eGovernment Applications (SAGA). The latest version (3.0.)³³ describes this particular OFA service as follows: The range of services currently covered by the payment platform includes to a large extent the import of debit entries from the different Internet-based applications, eShops and workflow management systems using web services, the validation of and passing on these entries to the payment monitoring system right through to subsequent budget-related posting in the system of the Federal Budgeting and Accountancy Service. This can involve prices for goods or also fees for services.

The payment platform supports three payment methods: (electronic) direct debit (including repeated direct debit), bank transfer (prior to as well as after delivery), and credit card. The OFA service solely handles the revenue end of Internet-based transaction payments still using conventional methods. Some of the business cases of the service partly relying on service providers include an address and solvency check. The platform has been implemented using central web services, namely customer data management, bank search, bank transfer, direct debit and credit card payment methods, paypage and report. The ePayment OFA service is provided centrally.

Reference projects include German Institute for Medical Documentation and Information – webshop (www.dimdi.de), Federal Institute for Materials Research and Testing – webshop (www.bam.de), Federal Administrative Court – mailing of court decisions (www.bverwg.de), Federal Agency for Nature Conservation – CITES special applications (www.cites-online.de), Helmut Schmidt-University Hamburg – eLearning (www.hsu-hh.de), Federal Maritime and Hydrographic Agency – Workflow management (www.bsh.de).

³³ Bundesministerium des Innern 2006, SAGA (Version 3.0), Berlin (<http://www.kbst.bund.de/saga>).

The OFA service will be continuously developed further in order to consider and address new requirements. The Federal Ministry of Finance has established a special task-force for this purpose (Zentrum für Informationsverarbeitung und Informationstechnik; www.zivit.de).

A first assessment of the German Federal payment platform should insist upon four main points:

The service is related primarily to payments from citizen to administration. It has been established step by step focussing primarily upon measures of standardization. Till now, there are no real electronic payments. Services are delivered at a lower stage supporting only conventional, account-based payments.

CONCLUSION: OPEN QUESTIONS, SIMPLE SOLUTIONS? [4]

1. Performing a monetary obligation by way of executing a final payment will normally be the counterpart of a (real) delivery of goods or services. Typically, there are reciprocity and equality of rights and obligations of the contracting parties in these cases, so the risks which each of them would have to take into account are also fairly divided between the parties. A modification of this basic situation will necessarily lead to a deviation from the original equality of rights and duties so that the division of risks will be affected by this change, too. Thus, in the case of pre-payment, the payer (debtor of the monetary obligation) would have to take more than his normal business risks, whereas this increased risk will be that of an intermediary (financial institution) in the case of post-payment. Whether the payee (creditor) would be burdened with more than normal risks, will depend upon the respective forms of payments instruments used in a given case.

To put it in a different way: Any monetary obligation whether based directly upon statute or created by law will be regularly performed only if the creditor receives a final payment by or on behalf of his creditor. Whether the debtor will reach his aim depends mainly upon two elements, namely which means of payment he will be using (whether this would be legal tender or another instrument) and who will be the issuer of that means of payment. Thus, the legal status as well as the financial solvency and liquidity of this entity will be essential for the decision how best to proceed.

2. So it seems appropriate to look around for institutions the role, status and functions of which will secure that a final payment will be executed as good as possible. This research will soon lead to recognizing some specific attributes of central banks: These entities are the sole issuer of money in a narrow sense (i.e. legal tender), they are functionally independent and thus are authorized to decide without any interventions from political actors whether and when to supply new money to the public by issuing cash or performing financing transactions with the financial sector resulting in an increase of money on banking accounts of its partners. Last but not least, central banks can not go bankrupt, they are legally immune from insolvency proceedings.³⁴ Therefore, their customers will never lose their claim for (re)payment in cash, and even in cases of fundamental currency reform, their claim will not be abolished but merely modified in respect of its amount and denomination.³⁵

3. Consequently, central bank money in general and bank notes (legal tender) in particular have an extraordinary quality because these tokens must be accepted by any domestic person at their nominal value. No other means of payment does possess this specific quality of a general monetary instrument of an absolute nature. If cashless means are used instead of cash, the finality of a payment is only relative depending either upon a contractual agreement between two or more parties or upon a particular legal prescription aiming at a specific situation and/or certain payments only. Thus, because of these differences, there will be no total equivalence between cashless (including electronic) and cash payments because any other payment transactions than transfer of legal tender will take place only by involving more - and at least of some partially less (legally) privileged - participants.

4. At the end, three lessons drawn from the analysis above might be put as follows:

Extending the quality of legal tender to some or all cashless means of payment cannot be recommended since this would lead to a less appropriate apportionment of risks between the core parties of a monetary obligation.

³⁴ Cf. Proctor C. 2005, *Mann on the legal aspect of money*, OUP, Oxford, 6th ed., pp. 538 – 540.

³⁵ Hahn, H. J. 1990, *Währungsrecht*, C. H. Beck, München, pp. 70 – 71.

Neither should the issuance of means of electronic payments (“E-money”) be concentrated solely at central banks because and as long as some peculiar aspects of paying by cash cannot be copied or replicated when other means of payment are used. Whether and when electronic payments will be appropriate to execute monetary obligations regularly and finally should be decided freely by contracting parties as they are best prepared to decide who should take an increased risk in their specific situation. There is no need for financial or monetary legislation modifying or even correcting the free will of both parties.