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MODULO JEAN MONNET

**BUILDING UP OF A PAYMENT SYSTEM
FOR THE EUROPEAN UNION
(2013-2016)**

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TABLE OF CONTENTS

BUILDING UP OF A PAYMENT SYSTEM FOR THE EUROPEAN UNION (2013-2016)

MODULO JEAN MONNET

Call for Papers	5
Liability on a cheque: a legal history, by BENJAMIN GEVA	9
Bitcoins, a new frontier of money?, by ANDREA BORRONI	69
End-to-end encryption in on-line payment systems: the industry reluctance and the role of laws, by SAFARI KASIYANTO	99
Money and its regulation. A challenge for the 21st century, by ISRAEL CEDILLO LAZCANO	127
The system of Adr in payment services and its implementation in the italian legal system, by MARILENA RISPOLI	151

CALL FOR PAPERS

*From chattels to bit-coins: how money changed through times.
Is the European Union managing the challenges ahead?*

Within the framework of the *Jean Monnet Teaching Module* on “The *Europeanisation* of the Payment System”, the Department of Business and Law of the University of Siena has the pleasure of inviting international academics and professionals working in the field of payment systems to submit proposals for papers. The participation of Ph.D. and tenure track scholars is particularly welcome.

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- The historical development of money;
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- The EU-based harmonisation process for payment services: credit transfers, direct debits, card payments, e-money and m-payments;
- The monetary policy and the financial stability policy in the European central banking system;
- Competition and regulation in the harmonization process for payment services;
- EU-based harmonisation process for payment services: comparing the role of stakeholders and the role of institutional policy-makers in the regulatory process;
- Main features and operative aspects of m-payments and bit-coins;
- The European citizens and the attitude to Internet-based money and on-line payments;
- Electronification process of money and data protection;
- Electronification process of money *vs* anti-laundering risk.

MODULO JEAN MONNET

**BUILDING UP OF A PAYMENT SYSTEM FOR THE EUROPEAN UNION
(2013-2016)**

LIABILITY ON A CHEQUE: A LEGAL HISTORY

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Table of Contents:

1. Introduction: cheques and cheque law
2. The origins of cheques in Ptolemaic Egypt
3. Some cheque law without cheques under Roman law
4. More cheque law without cheques under Jewish law
5. Cheque-equivalents under Islamic hawale doctrine in the early Middle Ages
6. Cheques under Roman law in the late Middle Ages in Continental Europe
7. Cheques and cheque law come of age in post-Medieval England
8. Final Observations

1. Introduction: cheques and cheque law

Cheques are old payment instruments widely used in various parts of the world. In the United Kingdom, they are governed by the Bills of Exchange Act (hereafter, the BEA or 'Act'),¹ as supplemented by the Cheques Act². As a rule, statutes in common law countries, and hence, their laws of cheques, are modelled on the BEA, though local variations may exist. A statute modelled on the BEA is in force for example in Israel³ and South Africa⁴. Both are not pure common law jurisdictions⁵. In Canada, cheques are governed by the federal Bills of Exchange Act⁶, modelled on its English predecessor, which is in force also in the civil law province of Quebec. In - Australia, cheques were excluded from the coverage of the Bills of Exchange Act,⁷ and are currently governed by a specific Cheques Act⁸.

However, the provisions of the latter statute are not substantially different from the former. For the purpose of the present discussion, all such legal systems having a statute modelled on the BEA can be characterized as common law jurisdictions. In a common law jurisdiction, the applicable statute⁹ effectively defines a cheque¹⁰ to be an unconditional¹¹ order in writing¹², given by one person (the drawer), addressed to (or drawn on) a

¹ 1882, 45 & 46 Vict., c. 61.

² 1957, 5 & 6 Eliz. 2, c. 36.

³ The Bills of Exchange Ordinance [New Version] 1957, Laws of the State of Israel, New Version 19572, p. 12 (hereafter: BEO).

⁴ No. 364 of 1964. Changes were made by the Bills of Exchange Amendment Act, 2000 (Act No. 56 of 2000) Govt Gazette 21846, 6 December 2000, proclaimed in force on 1 March 2001.

⁵ In fact, Scotland, which is also a constituent of the United Kingdom, falls into this category.

⁶ 18 R.S.C. 1985, c. B-4.

⁷ Bills of Exchange Act 1909.

⁸ No. 145 of 1986.

⁹ Unless otherwise indicated, all ensuing statutory references are to the BEA in the UK, South Africa, and Canada, to the BEO in Israel, and to the Cheques Act in Australia. With regard to cheques in Australia, BEA provisions are superseded by the Cheques Act and thus are not to be taken into account or referred to.

¹⁰ BEA ss. 3(1) and 73 in the UK, ss. 16(1) and 165(1) and (2) in Canada, ss. 1 and 2(1) in South Africa, ss. 3(a), and 73(a) in Israel, and s. 10(1) in Australia.

¹¹ For some elaboration see ss. 3(2) and (3) and 11 in the UK, to which correspond ss. 16(3) and 17(1) in Canada, ss. 2(3) and 9 in South Africa, and ss. 3(c) and 10(b) in Israel. In - Australia see s. 12.

¹² In the UK, the BEA clarifies in s. 2 that 'written' includes printed.

banker (or bank)¹³ (the latter being the drawee), payable on demand¹⁴, to pay a sum certain¹⁵ in money¹⁶, to or to the order of a specified person, or to the bearer¹⁷. A cheque is a species of a bill of exchange¹⁸, so as to be governed in the BEA by the provisions applicable both to cheques specifically and to bills of exchange in general. This, however, is not so in Australia, where the BEA does not apply to cheques anymore. The Geneva Uniform Law for Cheques (hereafter: the ULC)¹⁹ is the basis of cheque legislation in civil law

¹³ In the UK (s. 2) and Israel (both in s. 1), a banker is effectively defined as someone carrying on the business of banking. Australia (s. 3(1)) and Canada (s. 2) opted for an institutional definition, initially effectively referring to regulatory legislation governing banks. The SA Bill, above, n.4 departs from the original position that was (in s.1) like that of the UK and Israel and combines the two definitions. In Canada, for the purpose of the provisions dealing with cheques, ‘bank’ was effectively broadened (in s. 164) to cover all members of the Canadian Payments Association which include non-bank regulated financial institutions. In Australia, where the drawee is a non-bank financial institution, the instrument was originally called ‘payment order’ rather than ‘cheque’. The distinction, together with the ‘payment order’ category, was eliminated in 1998, and currently, under s. 10, a cheque must be drawn on a ‘financial institution’, broadly defined in s. 3(1) to cover domestic as well as foreign banks, the Reserve Bank of Australia, building societies, credit unions, and special services providers to credit unions and building societies.

¹⁴ Normally, a cheque does not express time for payment, which makes it payable on demand in the UK (s. 10(1)(b)), Canada (s. 22(1)(b)), Israel (s. 9(a)(2)), South Africa (s. 8(1)(b)) and Australia (s. 14(1)(b)). Post-dated cheques are not payable prior to the date they bear in Israel (s. 73(b)) and Australia (ss. 16(1) and 61(2)). Cheque post-dating is not prohibited in the UK, South Africa, and Canada. Cf. s. 13(2), 11(2), and 26(d) respectively. That provision validates the post-dated cheque but is silent as to whether it is payable on demand prior to the date it bears. The current judicial position is that it is not.

¹⁵ As elaborated in s. 9(1) in the UK, s. 27 in Canada, s. 8(a) in Israel, s. 7(1) in South Africa, and in s. 15 in Australia. In practice, a cheque states a fixed amount, without interest or any other charge.

¹⁶ A foreign currency cheque may express or indicate a rate of exchange. See s. 9(1)(d) in the UK, s. 27(1)(d) in Canada, s. 8(a)(4) in Israel, s. 7(1)(d) in South Africa, and s. 15(3) in Australia.

¹⁷ See ss. 7 and 8 in the UK, ss. 6 and 7 in Israel, ss. 18, 20, and 21 in Canada, ss. 4 and 5 in South Africa, and ss. 19-24 in Australia.

¹⁸ For a pre-BEA authority to that effect see judgment of Byles J. in *Keene v. Beard* (1860), 8 CB (NS) 372 at 381; 141 ER 1210 at 1213 (C.P.), conceiving of a cheque to be “in the nature of an inland bill of exchange ...” and discussion in Part 7 below.

¹⁹ *Convention Providing a Uniform Law for Cheques*, 19 March 1931, 143 L.N.T.S. 355, Annex I (“ULC”) adopted by the Second Geneva Convention as part of an international effort which also generated the Geneva Uniform Law for Bills of Exchange and Promissory Notes, *Convention Providing a Uniform Law for Bills of Exchange and Promissory Notes*, 7 June 1930, 143 L.N.T.S. 257, Annex I, (agreed upon in 1930) (“ULB”). For the latter, in the context of the overall international effort in which it was concluded, see M. O. Hudson and A. H. Feller, ‘The International Unification of Laws Concerning Bills of Exchange’ (1931), 44

countries, including France²⁰, Germany²¹, Italy²², Japan²³ and Switzerland²⁴.

Under art. 1, to be a 'cheque', an instrument must comply with six formal requirements. First, it must contain "in the body of the instrument and expressed in the language employed in drawing up the instrument" the term 'cheque'. Second, the instrument must contain "an unconditional order to pay a determinate sum of money"²⁵. Third, the instrument must name the drawee, that is, the person who is to pay. Fourth, a statement of the place where payment is to be made ought to be included²⁶. Fifth, the instrument must state the date and place where it is drawn²⁷. Sixth, the cheque must contain the drawer's signature. Under art. 3, a cheque must be drawn on a banker²⁸ holding funds at the drawer's disposal and in conformity with their agreement, "express or implied," as to the drawer's entitlement to dispose of those funds by cheque²⁹. The maturity of a cheque is stated in art. 28 to be 'at sight', so that "[a]ny contrary stipulation shall be disregarded". Finally, under art. 5, a cheque may either designate a specified payee³⁰, or be made payable to bearer.

In the various jurisdictions of the USA, cheques are governed by the provisions of Article 3 of the Uniform Commercial Code (hereafter: the

Harv. L. Rev. 333. For the Geneva Conventions legal systems, see P. Ellinger, "Negotiable Instruments", Chapter 4 in JS Ziegel, chief ed., Commercial Transactions and Institutions, vol. IX of U. Drobnig & K. Zweigert, (responsible eds.), *International Encyclopedia of Comparative Law* (Tübingen: JCB Mohr, 2000) at 56-80 (Ellinger, "Negotiable Instruments").

²⁰ Cheque Law, Decret-lois of 30 Oct. 1935.

²¹ The Cheque Act, 14 Aug. 1933 (RGBl. I 597).

²² R. D. 21 December 1933, n. 1736, as supplemented by L. 15 December 1990, n. 386.

²³ Law on Cheques, Law No. 57, 29 July 1933.

²⁴ Arts. 1100-44 of the Code of Obligations.

²⁵ Under art. 7, any stipulation in a cheque to pay interest shall be disregarded. Foreign currency cheques are governed by art. 36.

²⁶ This requirement is further elaborated on in art. 2. In general, even in the absence of an indication, the place of payment is deemed to be that of the drawee.

²⁷ Under art. 2, a cheque which does not specify the place at which it was drawn is 'deemed to have been drawn in the place specified beside the name of the drawer' and is nevertheless a cheque.

²⁸ Broadly defined in art. 54 to include 'the persons or institutions assimilated by the law to bankers'.

²⁹ UCC Art. 3 goes on to conclude, that '[n]evertheless, if [its] provisions are not complied with, the instrument is still valid as a cheque'.

³⁰ In which case, it may be with or without the express clause 'to order', or with the words 'not to order'.

UCC), as supplemented by UCC Article 4³¹. A cheque ('check' in the American spelling) is defined in UCC §3-104(f) to be essentially³² an unconditional³³ order³⁴ in writing³⁵, other than a documentary draft³⁶, to pay a fixed amount of money³⁷, payable on demand³⁸ and drawn on a bank³⁹. It may, but is not required to, be payable to bearer or to order.⁴⁰

³¹ UCC Article 3, Negotiable Instruments, and Article 4, Bank Deposits and Collections. The current text of Article 3 is from 1990. In case of conflict, Article 4 governs Article 3. See UCC §3-102(b). In addition to the UCC, federal law is relevant in the US as to the collection of cheques, a subject which is outside the scope of the present study.

³² The provision further specifies that a draft drawn by a bank, whether on itself (in which case it is a 'cashier's check' under §3-104(g) or on another bank (in which case it is a 'teller's check' under §3-104(h)), is also a 'check'.

³³ See UCC §3-106. For the possibility that a separate agreement may nevertheless affect the instrument see §3-117.

³⁴ An instrument which constitutes an order is a 'draft'. See §3-104(e). A 'draft' under the UCC is thus a 'bill of exchange' elsewhere. A cheque is a species of a draft.

³⁵ See UCC §3-103(8) defining 'order'.

³⁶ Under UCC §4-104(a)(6) 'Documentary draft' is stated to mean 'a draft to be presented for acceptance or payment if specified documents ... are to be received by the drawee or other payor before acceptance or payment of the draft'.

³⁷ Broadly defined in §1-201(24) to mean 'a medium of exchange authorized or adopted by a domestic or foreign government and includes a monetary unit of account established by an intergovernmental organization or by agreement between two or more nations'. UCC §3-107 specifically deals with instruments (including cheques) payable in foreign money. The amount of money payable on an instrument may be 'with or without interest or other charges', see UCC §3-104(a). In practice, cheques do not contain provisions for interest or other charges.

³⁸ According to UCC §3-108(a), an order (including a cheque) is 'payable on demand' if 'it (i) states that it is payable on demand or at sight, or otherwise indicates that it is payable at the will of the holder, or (ii) does not state any time of payment'.

³⁹ Broadly defined in UCC §4-105(1) as 'a person engaged in the business of banking, including a saving bank, saving and loan association, credit union, or trust company'. This effectively covers any type of a depository financial institution.

⁴⁰ This is a specific exception, applicable exclusively to cheques. See UCC §3-104(c). All other types of negotiable instruments must be 'payable to bearer or order', as set out in §3-109, at the time of issue or delivery to the first holder. See §3-104(a)(1). In any event, the words 'to the order of' are almost always preprinted on the cheque form. According to §3-109(b), a cheque is payable to order if it is payable '(i) to the order of an identified person or (ii) to an identified person or order' (emphasis is added). The drafters rationalized the §3-104(c) cheque exception by explaining that holders of cheques may overlook the omission of the usual 'order' language, and ought nevertheless to be protected. The omission of the required words from the cheque may either be in the original form of the cheque, as was some credit unions' practice, or caused by the drawer striking out the 'payable to order' language from the preprinted form. See Official Comment 2 to UCC §3-104. A cheque payable to an identified person, while technically not 'payable to order', is thus nevertheless a 'check' and 'negotiable instrument' governed by UCC Article 3.

As a rule, in all jurisdictions, a cheque must be embodied in a tangible form⁴¹ and is transferable by ‘negotiation’, namely, by delivery in the case of a cheque payable to the bearer, and delivery and endorsement in the case of a cheque payable to order.⁴² However, in connection with a discussion on the legal doctrine underlying liability on a cheque these features are incidental. Hence, stripped to its bare bones, broadly defined, the cheque is in essence an unconditional order to pay a specific sum of money on demand, addressed to a bank or another type of depository of funds (“drawee”),⁴³ issued by a debtor- payer (“drawer”) to his creditor⁴⁴ (“payee”)⁴⁵, authorizing the latter to collect payment from the drawee to his (payee’s) own use. As such the cheque is not only an order issued by the drawer addressed to the drawee to pay but also a mandate or authorization issued by the drawer to the payee to collect payment from the drawee. Finally, the cheque confers on the payee rights towards the drawee-banker and/or the drawer. The evolution of the payee’s remedies upon the dishonour of the cheque is the subject matter of this article.

In executing the drawer’s order a drawee of a cheque acts upon the presentation of demand by the payee. Accordingly, an order to pay communicated directly by the payer to the drawee, is not a cheque; in such a case the drawee acts on the order and not on a demand made by the payee to execute the order. An order to pay given in the presence of all three (drawer,

⁴¹ This emerges from the writing requirements under both the BEA and UCC and is implied from the signature requirements under the ULC See three preceding paragraphs. It also emerges from the ‘negotiation’ requirements as in the next note and e.g. from ULC art. 16 as to the writing requirements for an endorsement.

⁴² BEA s. 31; ULB art. 11; ULC art. 17; UCC §3-201. See also United Nations Convention on International Bills of Exchange and International Promissory Notes (UN Doc. A/RES/43/165) in *Yearbook of the United Nations 1988*, vol. 42 (New York: UN, 1988) at 834 (“UNCITRAL Bills Convention) art. 13. The term ‘negotiation’ appears only in the BEA and in UCC. Article 3. An endorsement which does not designate the transferee is an endorsement in blank, which effectively ‘converts’ the bill into one payable to the bearer. This is true even where instruments originally issued payable to the bearer are not recognized (see note 123, above). For the ‘conversion’ by blank endorsement of the bill payable to order see e.g. BEA s. 34(1); ULB arts. 12-13; UCC §3-205; UNCITRAL Bills Convention arts. 13-16.

⁴³ Cf. the Canadian definition which as indicated in note 13 above covers more types of regulated financial intermediaries.

⁴⁴ This study focuses on the issue of a cheque in payment of an obligation such as a debt. Certainly, a cheque may be issued to the payee also by way of gift. Whether in the latter case the cheque is enforceable may vary from one legal system to another.

⁴⁵ “Payee” is used here in the broad sense to include the first bearer to whom a cheque payable to bearer is issued. Where transfer is permitted “payee” includes the transferee.

payee, and drawee) thus generates ambiguity. In such a case the drawee may be seen as acting either on the drawer's order itself or on the payee's demand for its execution. A cheque is involved only in the latter case.

This study focuses on the payee's rights as of the issue of the cheque until full payment. Of particular interest is the payee's right against the drawee as well as the payee's recourse right against the drawer. These two rights are interrelated. Thus, a payee will not renounce his rights against the drawer unconditionally unless the payee has an enforceable remedy against the drawee. The reverse is however untrue: a payee may keep his rights against the drawer even as he has rights against the drawee. The payee's rights against the drawer may be on the drawer's original obligation to him.

Where the payee's rights against the drawer are in addition to the payee's rights against the drawee, the drawer's obligation may be converted into a guarantee. Finally, where the payee remains entitled to recover from the drawer, a question arises as to the availability of this remedy prior to the dishonour of the cheque by the drawee's failure to pay it.

Indeed, the legal underpinning of the cheque operation does not require the drawee to become liable to the payee. At the same time, such liability need not necessarily be precluded. Historically, a payee-creditor may have been considered as an assignee of the debt owed by the drawee to the drawer-debtor. More broadly, where the drawee has been held to be liable to the payee, the drawee may have been held liable to the payee on the drawer's obligation to the payee, on the drawee's own debt to the drawer, or on an independent new obligation.⁴⁶ And of course, he may not have been held liable to the payee at all. As discussed in this study, historically, at different periods, legal systems varied in their approach to all such possibilities.

According to Holdsworth, "[t]here is no doubt that, from the first, the order [on a cheque] given by a customer to the banker to pay was regarded as a bill of exchange..."^{46.1} Holden is in full agreement on this point.⁴⁷ He emphasizes that "a cheque is merely a special type of bill of exchange"⁴⁸ and adds that "cheques ... were simply bills of exchange drawn upon a person

⁴⁶ Whether and what defences are available to the drawee (and where applicable, whether and what securities are available to the creditor in pursuing his remedies against the drawee), may well depend on the type of the drawee's obligation to the creditor as in the accompanying text. Due to space limitations this aspect is not specifically covered by this study.

^{46.1} W. Holdsworth, *A History of English Law* vol. VIII, 2nd ed. (London: Methuen, Sweet & Maxwell, 1937, rep. 1966) at 190.

⁴⁷ JM Holden, *The History of Negotiable Instruments in English Law* (London: University of London: The Athlone Press, 1955, rep. 1993, WM. W. Gaunt & Sons) at 219.

⁴⁸ *Ibid* at 204.

carrying on a particular profession and payable on demand.”⁴⁹ Richards’ argument is not far off; while he endeavours to trace the cheque to an earlier demand note drawn on the Exchequer,⁵⁰ a point on which he is rebutted by Holden,⁵¹ he is of the opinion that “[u]nder the Law Merchant, cheques also, it would appear, were regarded from the outset as bills of exchange.”⁵²

Indeed, to a large extent, cheques and bills of exchange and the laws relating to them converge. Unlike a cheque a bill of exchange may be drawn on any person (and not only on a bank) and may be payable on a stated date (and not only on demand). Hence, it is only natural to expect a substantial overlap between the laws applicable between these two types of instruments. Nonetheless, this does not necessarily point out to a common origin or to the one being a type of the other. Notwithstanding view to the contrary cited in the previous paragraph, this study is designed to trace the origins and evolution of the cheque, as well as the law that govern it, in independent circumstances unrelated to those of the bill of exchange.

The ensuing discussion draws on my early work on comparative aspects⁵³ and legal history⁵⁴ of payment orders. The information is mostly there, particularly scattered in the latter study.⁵⁵ What is new here is the topical focus, namely, on the cheque, and the resulting selection and reorganization of materials shedding light on it. This allows me to have new ideas and insights so as to benefit the reader interested in the evolution of cheques and legal doctrine governing liability thereon.

In the context of an account on cheques and their origins, the study endeavours to trace the law that governs liability on the cheque to principles derived from pre-modern legal systems. Roman, Jewish and Islamic laws, of which ample sources remain available, are discussed. The study proceeds as follows. Part 2 sets out the origins of cheques in Ptolemaic Egypt. In the absence of specific information on the law that governed such cheques, Part 3 addresses cheques law under Roman law, even as no cheque system has been documented to exist in Ancient Rome itself. Part 4 critically examines

⁴⁹ *Ibid* at 208.

⁵⁰ R. D. Richards, *The Early History of Banking in England* (New York: A.M. Kelley, 1965, reprint of 1929 edition) at 52-64.

⁵¹ Holden, *supra* n. 47 at 207-208.

⁵² Richards, *supra* n. 50 at 49.

⁵³ Benjamin Geva, *Bank Collections and Payment Transactions: Comparative Study of Legal Aspects* (Oxford: OUP, 2001), particularly Part 3(B).

⁵⁴ Benjamin Geva, *The Payment Order of Antiquity and the Middle Ages* (Oxford and Portland Oregon: Hart, 2011).

⁵⁵ *Ibid* at Chapters 3-8 and 10-11.

cheque law under the Jewish Talmud. While there is no evidence to a cheque system among the Jews, the Talmud is the first legal source containing a comprehensive legal discussion on what may look like a cheque and hence on principal issues in cheque law. Part 5 addresses cheque-equivalents under Islamic *hawale* doctrine in the early Middle Ages. In fact this is the first time we encounter both cheques and cheque law. Part 6 discusses cheques under Roman law in the late Middle Ages in Continental Europe particularly Italy and the Netherlands. Part 7 sets out the birth of the modern cheque system and cheque law in post-Medieval England.

2. The origins of cheques in Ptolemaic Egypt

Becoming deposit takers who lend deposited funds and provide non-cash payment services, moneychangers in Ancient Greece (*trapezitai*) became, mostly during the 5th century BCE, the “creators of the bank of deposit”.⁵⁶ Their activity gave rise to a nascent payment system in which written payment orders were nevertheless rare. This remained generally true even subsequently, in the Latin-speaking Roman world.⁵⁷ As part of a standard banking practice, the earliest written payment orders are said to be found in Greco-Roman Egypt.⁵⁸ An extensive bank payment activity documented particularly for the Ptolemaic period (323 BCE to 30 BCE).⁵⁹ The first

⁵⁶ Raymond Bogaert, *Banques et banquiers dans les cités grecques* (Leyde: A.W. Sijthoff, 1968) at 413 [hereafter: Bogaert, *Banques et banquiers*]

⁵⁷ For this fact see e.g. M. Vasseur et X. Marin, *Le Chèque*, Tome II (Paris: Hamel, 1969) at 8. This is so notwithstanding E. Guillard, *Les Banquiers Athéniens et Romains suivis du Pacte de Constitut en Droit Romain* (Paris, Lyon: Guillaumin, H. Georg, 1875) at 40, to the contrary, whose view on the point may be based on the mistranslation of Greek and Latin terms. See J. Andreau, *La vie financière dans le monde romain: les métiers de manieurs d'argent* (Rome: École française de Rome Palais Farnèse, 1987) at 572-573.

⁵⁸ For detailed analysis see Roger. S. Bagnall and Raymond Bogaert, “Orders for Payment from A Banker’s Archive: Papyri in the Collection of Florida State University” (1975), in Raymond Bogaert, *Trapezitica Aegyptiaca*, Recueil de recherches sur la banque en Égypte Gréco-Romaine (Firenze: Edizioni Gonelli, 1994) [*Trapezitica*] at 219, 240 and Raymond Bogaert, “Note sur l’emploi du chèque dans l’Égypte ptolémaïque” (1983), in *Trapezitica ibid.* at 245. See also Raymond Bogaert, “Recherches sur la banque en Égypte Gréco-Romaine” (1987-89), in *Trapezitica, ibid.* at 1; and Raymond Bogaert, “Les opérations des banques de l’Égypte Ptolémaïque”, (1998), 29 *Ancient Society* 49 at 141.

⁵⁹ See K. Geens, “Financial Archives of Graeco-Roman Egypt”, in K. Verboven, K. Vandorpe & V. Chankowski, eds., *Pistoi Dia Tèn Technèn-Bankers, Loans and Archives in the Ancient World: Studies in Honour of Raymond Bogaert* (Leuven: Peeters, 2008) at 133, 140-150 [hereafter: Verboven et al., *Ancient World*].

documented cheque system is thus said to emerge in Ptolemaic Egypt during the first half of the 1st century BCE. No indication seems to be available in the literature as to the law that governed these instruments so as to confer on them the legal features of cheques. At the same time, they contained the ‘double mandate’ to pay and collect and are thus ‘cheques’ both in form and as a payment method.

Unlike the confirmation issued by a banker executing a payment order issued to it, the issue of a cheque by the payer does not carry with it the assurance of payment to the payee by the banker.⁶⁰ Perhaps this, together with the enhanced falsification risk, discussed further below, may explain the paucity of cheques from the Ancient era; and yet, there is evidence of the operation of a cheque system in Ptolemaic Egypt.

A collection of twenty six fragments of papyrus with Greek text, found in a mummy cartonnage in Abusir el-Melek may be the first evidence of a cheque system. Papyri contain written orders to bankers to pay a sum of money to third persons. They are from the close of the Ptolemaic era, or more specifically, from the first half of the 1st century BCE, most likely between 87 and 84 BCE. They range from complete documents to very small fragments. All are written on fairly small pieces; the maximum size is 14.5 x 10.2 cm; and most are smaller than 10 x 10 cm. Each document contains the text of the order, usually in seven lines, and bears wide margins on all or most sides. Some papyri have writings on their back, but in no case is this writing earlier than that of the payment order, and in no case can enough be read to yield meaning. The collection as a whole is known as the Florida collection, following its acquisition by the Robert Manning Strozier Library of Florida State University (Tallahassee) in 1973. Professor Bagnall presented the collection in 1974; he subsequently provided a translation on which Professor Bogaert commented in a joint paper.⁶¹

Altogether, twenty four payment orders, addressed to two respective bankers, were constructed out of the collection. The orders are addressed by various customers to their bankers. They bear similarities to instruments used in connection with payments out of grain deposits.⁶² Most of the texts

⁶⁰ For a cheque from Roman Egypt from 125 CE, giving rise to a dispute involving the unavailability of funds to cover payment, see R. Bogaert, “Recherches sur la banque en Égypte Gréco-Romaine” (1987), *Trapezitica*, above note 58 at 6, 23.

⁶¹ Bagnall & Bogaert, *supra* n. 58.

⁶² The grain deposit system is concisely described by C. Préaux, *L'Économie royale des Lagides* (Bruxelles: Édition de la Fondation Égyptologique, 1939) at 142, as well as by MI Rostovtzeff, *The Social & Economic History of the Hellenistic World*, Volume II (Oxford: Clarendon Press, 1941) at 1287. An authoritative text relied on is in German: F. Preisigke,

either specify copper or are for amounts which are in copper. As well, they are for relatively small amounts. Most of them are dated, address and identify the banker, as well as identify both the payer and the payee. Their most striking features are the brevity of the text and ample use of abbreviations; they omit all mention of the reason or object for payment, do not indicate the deposit from which payment is to be carried out, do not bear signature, and do not indicate performance, namely, receipt of payment by the payee.

Having elsewhere pointed out to possible earlier origins for a sparse use of cheques,⁶³ Bogaert asserts that the Florida collection is nevertheless the first evidence of a cheque system, albeit, involving non-transferable cheques. Such cheques did not circulate; nor could they be collected through a deposit at payee's accounts with other bankers. Rather, the procedure for payee, to whom the cheque was issued, was to present the cheque to the payer's bank, either in person or through an agent, and collect payment, usually in cash. However, in principle, the payment in cash of the non-transferable cheque of Antiquity could be bypassed by means of a credit posted to the payee's account in one of two cases. First, such could be the case where the payee held his account with the same banker that also maintained the payer's account. Second, as discussed further below, under limited circumstances, a mechanism existed for facilitating the payment into the payee's account with a banker other than that of the payer.

The issue of a payment order by a customer, directly to his banker, typically involved a direct contact between the two. A customer could give the order either orally and in person, or in writing; a written order was likely to be sent physically closed and sealed, and to bear the banker's name on its verso. Under each such a procedure, fraud risk was reduced. In contrast, irrespective of how the payee was paid, the presentment of a cheque by the payee to the payer's banker did not involve a direct contact between the banker and his customer, the payer. Obviously, lack of direct contact between the payer and his banker increased the risk of falsification. This remains true today; it was more so in Antiquity, where the instrument may have been written by a scribe, and not in the handwriting of the payer, and could have been unsigned.

Bogaert speculates that to reduce the possibility of payment to the wrong payee, payment by cheque was usually made to a payee either known to the

Girowesen im griechischen Ägypten (Strassburg: Verlad von Schlesier & Schweikhardt, 1910) [Reprinted: Hildesheim, New York: Georg Olms Verlag, 1971].

⁶³ Bogaert, *supra* n. 56 at 340-341.

payer's banker, or adequately identified, with great precision, in the cheque. In effect, this must be true also for a payment order issued directly to the banker, except that payment under it to the payee could be made in the presence of the payer, a procedure which would have defeated the purpose of a cheque. For its part, the absence of the payer from the bank at the time of the payment of the cheque further exposed the banker to the risk of falsification.

To that end, Bogaert asserts that, to reduce cheque falsification risks, the operation of the cheque system in the Antiquity was premised on the issue of two documents by the payer. One was the 'authentic' cheque itself, issued by the payer to the payee, and the other was an advice, or 'control note', issued by the payer to his banker, alerting him to the forthcoming presentment of the cheque by the payee. Under this scheme, the operative payment order was the cheque itself, issued by the payer to the payee, who was to present it to the payer's bank. The document issued by the payer to his banker was a mere advice or alert; by itself it did not require any action on the part of the banker.⁶⁴ In Bogaert's view, the Florida collection is an assortment of such advice documents, and not of the cheques themselves. In his mind, this explains the brevity of the documents, their use of abbreviations (including in the names of the payees), as well as the incomplete information contained therein. All this is contrary to texts of payment orders issued directly to a banker available from the same era. In short, the Florida collection testifies to the existence of a cheque system; yet, it does not contain the cheques themselves.

Bogaert's theory appears to have been confirmed in 1980 with the publication of the Berlin collection. The latter consists of sixteen orders of payment. They all originated from the same mummy cartonnage in Abusir el-Melek from which documents of the Florida collection originated. These orders are addressed to directors of royal banks^{64.1} and are dated from 82

⁶⁴ It is interesting to compare that ancient practice to the positive-pay procedure of the late 20th century CE, under which, prior to payment of cheques purporting to be drawn by them and presented for payment, corporate customers confirm to banks electronically the authenticity of the cheque. For this practice in the USA see Subcommittee on Payments of the Uniform Commercial Code Committee, *Model Positive Pay Services Agreement and Commentary* (Chicago, Business Law Section of the American Bar Association, 1999). Certainly this electronic advice, professing to be on the 'cutting edge' of technological innovation, is a variation on the 'control note' of Ptolemaic Egypt of 2,000 years earlier.

^{64.1} Royal Banks were called *basilikai trapezai*. They were located in the large cities and primarily served the state. Their principal task was to make and receive payments for the king; and yet they also kept accounts for individuals. For an overview of the banking system

BCE, namely very shortly after the last Florida document, so as also to belong to the Ptolemaic era. By comparison to those in Florida, the Berlin documents are of smaller amounts and yet are substantially more detailed; most names, and all those of the payees, are given in full; documents may give further details as to payee identification, such as family proximity or profession. As well, reason or object of payment is specifically indicated. Some documents are cancelled by crossed lines. In Bogaert's view, the Berlin documents are certainly authentic cheques, issued to payees; unlike the Florida counterparts, they are not mere 'control notes' or advice notes sent to banks.

It may well be that during both the Ptolemaic and Roman periods, a payee of a payment order, whether or not a cheque, rather than receiving payment in cash at the payer's banker, could instruct the payer's banker to make the payment into the payee's account with the payee's own banker. This could work only where the payer's banker kept funds in an account maintained by the payee's banker, namely, where the two bankers were correspondents. Under that mechanism, the payee of a cheque would instruct the payer's banker to draw on the payee's banker a cheque payable to the payee. The payee would then present that cheque to his own banker, on whom the cheque was drawn. That banker would then carry out payment by debiting the account of the payer's bank and crediting that of the payee. The process of payment of the cheque drawn by the payee's banker was like that of any other cheque; in fact, a 'control note' issued by the payer's bank to that of the payee was published together with the Berlin collection.

Being drawn by one banker on another, the cheque issued by the payer's banker was the forerunner of a bank draft or money order.⁶⁵ Its underlying mechanism was premised on the existence of bilateral inter-bank correspondent relationship. No interbank multilateral arrangements surfaced in Greco-Roman Egypt.

Cheque use appears to have been eclipsed in the course of the Roman period.⁶⁶ Arguably, in terms of the broad economic picture, and taking into account the lack of continuity in the documentary record, the historic

in Greco-Roman Egypt, see Geva, *The Payment Order of Antiquity and the Middle Ages* *supra* n. 54 at Chapter 3 §5.

⁶⁵ For legal aspects of these instruments under modern law see e.g. Benjamin Geva, "Irrevocability of Bank Drafts, Certified Cheques and Money Orders" (1987), 65 *Can. Bar Rev.* 107.

⁶⁶ For a reference to a cheque from the Roman period (year 125 CE) see *supra* n. 60. The Roman period roughly extended from the Roman occupation around 30 BCE and the partition of the Roman Empire in the course of the 4th century CE.

importance of the Greco-Roman non-transferable cheque in Egypt should not be overstated.⁶⁷ However, in the search for the origins of facilities for payment through banks by means of the execution of payment orders, the cheque may well be singled out as a principal contribution of Greco-Roman Egyptian banking.⁶⁸

3. Some cheque law without cheques under Roman law

Under Roman law a monetary debt is not an item of property; it is not an asset capable of being voluntarily conveyed or transferred from one person to another under the usual means for the transfer of property.⁶⁹ Hence, a payer-debtor could not transfer to a payee-creditor a debt owed to the payer-debtor by a drawee.

Rather, the order to pay has been analyzed as *delegatio*, or in English, delegation. In its narrow sense, the term has been defined as an order given by one person (“delegant”) to another (“person to be delegated”) to pay to, or assume an obligation towards, a third person (“delegatee”). In its broader sense, the term has come also to include the execution of the order.⁷⁰ As an

⁶⁷ A point made by J. Andreau, *Banking and Business in the Roman World*, trans. by J. Lloyd (Cambridge: Cambridge University Press, 1999) at 43.

⁶⁸ See e.g. V. Gabrielsen, “Banking and Credit Operations in Hellenistic Times”, in ZH Archibald, JK Davies, and V. Gabrielsen, eds., *Making, Moving and Managing: The New World of Ancient Economies* (Oxford: Oxbow Books, 2005) at 136, 140, referring to the use of non-transmissible cheques in “late Hellenistic and Roman Egypt” as “a further refinement of the practice of ‘order of payment through a bank’”, or more specifically, “a procedure that eased credit extension within the business community”.

⁶⁹ One reason, stated by HJ Roby, *Roman Private Law in the Times of Cicero and the Antonines*, vol. 2 (Cambridge: University Press, 1902) (also reprinted by Scientia Verlag Alen, 1975) at 45, is that “[a]n obligation is not susceptible, as a thing is, of bodily transference for the possession of one to the possession of another.” For another reason see e.g. R. Zimmermann, *The Law of Obligations-Roman Foundations of the Civilian Tradition* (Cape Town: Juta, 1990) at 58-59, who highlights the “highly personal” nature of an obligation and who further explains that “the action arising from [a debtor’s] obligation hinges on the bones and entrails of the creditor and can no more be separated from his person than the soul from the body.” For a comprehensive discussion, see E. Gaudemet, *Étude sur le transport de dettes* (Paris: Arthur Rousseau, 1898) at 154-95.

⁷⁰ For the definition of *delegatio* see e.g. A. Berger, *Encyclopedic Dictionary of Roman Law* (Philadelphia: American Philosophical Society, 1953) at 429. For an analysis of delegation, see e.g. HJ Roby, *Roman Private Law in the Times of Cicero and the Antonines*, vol. 2 (Cambridge: University Press, 1902) (also reprinted by Scientia Verlag Alen, 1975) at 42-45. See also WA Hunter, *A Systematic and Historical Exposition of Roman Law in the Order of a Code*, 3rd ed. (London: Sweet & Maxwell, 1897) at 631-32; R. Dannenbring

order to pay money owed by one person to another, *delegatio* is an order by the delegant, a payer-debtor, issued to the person delegated (the drawee), who may owe him (the delegant) money, to pay to the delegatee, a payee-creditor, a debt owed by payer-debtor to payee-creditor.⁷¹ The drawee may bind himself towards the payee-creditor by making a stipulation (or *stipulatio*).

The *stipulatio* is an oral solemn contract concluded in the form of a face-to-face exchange of a question and an answer between two persons who, on the basis of the successful completion of the exchange, become parties to a contract. Its formation requires a question to be asked by the stipulant, a would-be promisee-creditor, immediately followed by an affirmative answer given by the person to whom the question was directed, who thereby becomes the promisor-debtor. The two parties must be in each other's presence and the question and answer must be spoken; furthermore, "there should be precise correspondence between question and answer."⁷² A stipulation could encompass any type of obligation; where it is to pay a sum certain in money is a *stipulatio certa*.⁷³ Effectively, a delegation order is executed when at the 'bidding' of payer-debtor, payee-creditor stipulates from drawee for the money owed.

Even as the order on a cheque is a delegation, a cheque transaction cannot easily be characterized as the execution of a delegation. This is so if

(translator), *Roman Private Law*, 3rd ed. (Pretoria: University of South Africa, 1980, translation of M. Kaser, "Römische Privatrecht" 10th rev. ed.) at 269-70; and P. Gide, *Études sur la Novation et le Transport des Créances en Droit Romain*, (Paris: L. LaRose, 1879) at 379-480. For a comprehensive discussion see S. Maxwell, *De la délégation en droit romain*, (Bordeaux: Imprimerie V^e Cadoret, 1895) and P. Rutsaert, *Étude sur la Délégation en droit privé Romain* (Bruxelles: Émile Bruylant; Paris: Recueil Sirey, 1929). See also R. Lanata, *Thèse pour le doctorat: Droit Romain: de la délégation; droit français: de la compétence des tribunaux français à l'égard des étrangers* (Paris: Imprimerie de Charles Noblet, 1882).

⁷¹ Indeed, it is the benefit to the order giver from the execution of the order which turns an order into a delegation order. See e.g. A. Badareu 'Tomsa', *De la Délégation Imparfait*, (Paris: M. Giard & Brière, 1914) at 6.

⁷² RW Lee, *The Elements of Roman Law with a Translation of the Institutes of Justinian*, 4th ed. (London: Sweet & Maxwell, 1956) at 298. See also B. Nicholas, *An Introduction to Roman Law* (Oxford: Clarendon Press, 1962) at 193. Berger *supra* n. 70 states at 716, v. 'Stipulatio', that "[t]he answer had to agree perfectly with the question; any difference or restriction (addition of a condition) made the stipulatio void." But see Lee *Ibid.* at 416, Roby, *supra* n. 70 at 39, and Maxwell, *supra* n. at 57 as to the effect of a condition added to the stipulatory answer.

⁷³ Defined by Berger, *ibid* at 717 as a "stipulation in which the thing promised ... its quality ... and quantity were precisely fixed." It is thus to be contrasted with *stipulatio incerta*. *Ibid.*

only because the order to pay on a cheque is not communicated directly by the payer-debtor to the drawee, but rather by the payee-creditor to the drawee.⁷⁴ The novatory⁷⁵ stipulation⁷⁶ is ill fit to accommodate the cheque transaction also due to the need to procure the consent of the drawee and the extinction of securities⁷⁷.

Under such circumstances and against the impossibility of transferring anything other than “corporeal things” from one person to another,⁷⁸ to give impact to the delegation order, the cession (*cessio*), as an outright transfer of a debt owed, has developed gradually. Originally, as “a praetorian adaptation of a civil law action,”⁷⁹ under “a variant of procedural representation”,⁸⁰ payer-debtor/assignor appointed payee-creditor/assignee to act as his representative. Alternatively, he gave payee-creditor a mandate in payee-

⁷⁴ See Part 1, around n. 45 *supra*, and paragraph that follows.

⁷⁵ The underpinning legal theory of the stipulation is that of *novatio* or novation, namely the process of transformation and transfer of a former obligation into a new one, under which an existing obligation is extinguished and substituted by a new one. For this ‘chain reaction’ of required stipulation leading to novation, see Gaius’ Institutes §38, See e.g. translation by WM Gordon & OF Robinson, *The Institutes of Gaius* (Ithaca: Cornell, 1988) at 139-41. *Novatio* is defined in Berger, *supra* n. 70 at 600 and discussed in the context of delegation and stipulation e.g. in Roby, *supra* n. 70 at 38-41; Dannenbring, *supra* n. 70 at 267-69; and Hunter, *supra* n. 70 at 629-32. In our setting, it is the payer-debtor’s obligation to the payee-creditor which is transformed to the drawee’s obligation to the payee-creditor.

⁷⁶ For bypassing the inalienability of debts, not being ‘corporeal things’, either by a novatory stipulation between the debtor and would be ‘transferee’, or an action by the ‘transferee’ in the creditor’s name, see Gaius’ Institutes Book II §§38-39, Gordon & Robinson *ibid* at 139-41.

⁷⁷ In the process of creating drawee’s novated obligation to payee-creditor, both defences and securities available under and for the original obligations, that of drawee-debtor to payer-creditor and that of payer-debtor to payee-creditor, have been forfeited. Drawee-debtor may invoke against payee-creditor only defences based either on the nullity of the novated obligation or on public policy grounds. For a detailed discussion, see Maxwell, *supra* n. 70 at 95-105.

⁷⁸ The transmission by death of the inheritor’s debts as part of the transmission of his entire estate to his heirs and other instances of transmission as an incident to the transmission of an entire estate are distinguishable. This is so notwithstanding Gide’s view to the contrary, *supra* n. 70 at 238. See A. Demangeat, *Droit romain: De la cession de créances. Droit des gens: De la juridiction en matière de prises maritimes* (Paris: A. Giard, Libraire-Éditeur, 1890) at 4-12.

⁷⁹ Lee, *supra* n. 72 at 411, and see also his discussion on transferred actions at 433-34. For the particular function of the Praetor and his role in expanding and adapting civil liability in Roman Law, see in general Nicholas, *supra* n. 72 at 23-28; Lee, *supra* n. 72 at 433-35; and Berger, *supra* n. 70 at 347 (v. ‘Actiones praetoriae’).

⁸⁰ Nicholas, *supra* n.72 at 200. Dannenbring, *supra* n. 70 at 271-72 and Zimmermann *supra* n. 69 at 61.

creditor's own interest (*mandatum in rem suam* or *procuratio in rem suam*) to sue and recover from drawee (debtor's debtor). Acting on the authorization, payee-creditor could sue drawee in payer-debtor's name, seeking a remedy under which drawee was to be 'condemned' to pay to payee-creditor.⁸¹ Authorization however further permitted payee-creditor to keep, and not account to payer-debtor, whatever proceeds payee-creditor collected from drawee. The authorization was called "*mandatum ad agentum*". Strictly speaking, however, it was not a mandate. The mandate is broadly defined as "a contract whereby one person (mandator) gives another (mandatary) a commission to do something for him ...,"⁸² namely, the mandator; a mandate cannot be concluded wholly in the interest of the mandatary⁸³.

By the time of Justinian, payee-creditor had not been required to sue drawee (debtor's debtor) as a *cognitor* or *procurator* for payer-debtor; rather, payee-creditor was allowed to maintain an *actio utilis*⁸⁴ in his own name, and even when the 'mandate' had been determined by payer-debtor's death or revocation.⁸⁵ By either giving drawee a formal notice, called *denuntiatio*,⁸⁶ or receiving from him part payment, payee-creditor assumed full control of payer-debtor's claim against drawee, which precluded payer-debtor from accepting a settlement from drawee or otherwise giving him a

⁸¹ See Gaius' Institutes Book IV, *supra* n. 76, at §§83-84 (the appointment by a litigant of either a *cognitor* (namely representative), or a *procurator* (namely a mandatary) to substitute him in court) and §86 (debtor is 'condemned' to pay debt he owes to creditor to creditor's representative or mandatary). See Gordon & Robinson, above note 76 at 469-73. Unlike a *procurator*, a *cognitor* was appointed in court in the presence of the other litigant. *Ibid.*

⁸² See e.g. Lee, *supra* n. 72 at 334. A detailed monograph is A. Watson, *Contract of Mandate in Roman Law* (Oxford: Clarendon Press, 1961).

⁸³ See e.g. Zimmermann, *supra* n. 69 at 422, as well as Gide, *supra* n. 70 at 467.

⁸⁴ As "an adaptation or extension of an existing action" an *actio utilis* is a praetorian action which usually denotes "a modification of a civil law formula ... or to the application of a civil law formula to a new state of facts or to persons not entitled to make use of it." Lee, *supra*, n. 72 at 435. For the formula, as "[a] written document by which in a civil trial authorization was given to a judge ... to condemn the defendant if certain factual or legal circumstances appeared proved, or to absolve him if this was not the case", see Berger, *supra* n. 70 at 474. See also Lee *ibid* at 442-56.

⁸⁵ For payee-creditor's *actio utilis* as contrasted with, and being more advantageous than, payee-creditor's 'direct' action as *procurator* for payer-debtor, see J. Duponchel, *De la cession d'actions en droit romain. Du titre à ordre et des conséquences qui s'y rattachent en droit français*, (Versailles: Imprimerie de Beau Jeune, 1870) at 29-32.

⁸⁶ According to Berger, *supra* n. 70 at 431, *Denuntiare* means to give notice, to intimate, or announce. Duponchel, *ibid*, discusses at 5-7 issues relevant to the notice.

discharge.⁸⁷ It is only at this point that Roman law is said, at least in hindsight,⁸⁸ to “eventually ... have arrived at an effective system of assignment [of debts]”,⁸⁹ under which the transfer to payee-creditor of payer-debtor’s claim against drawee is fully recognized and protected.

Nevertheless, strong doubts arose in the post-Justinian era; they were based on confusion caused by the juxtaposition by Justinian as “existing laws” of “the various stages through which the development of assignment had passed.” In civilian legal systems drawn on the Romanist tradition, doubts persisted until the middle of the 19th century. It is only as of then that “the tide was turning” so as to accord full recognition and protection to payee-creditor as a transferee in full control of payer-debtor’s right against drawee⁹⁰. As a matter of history, what was doctrinally achievable in the 6th century CE, came to be fully recognized only 13 centuries later.

An outright assignment for value is tantamount to the sale to the assignee (payee-creditor) of the assignor (payer-debtor)’s right against the obligor (drawee). Under an outright assignment, the assignee (payee-creditor) becomes entitled to recover from the obligor (drawee). Whether, and to what extent, following the assignment, the assignee (payee-creditor) is to have recourse against the assignor (payer-debtor) is a matter to be mutually agreed between the assignor (payer-debtor) and the assignee (payee-creditor). Prima facie, the treatment of the outright assignment as a ‘sale’ to the assignee (payee-creditor), of the obligor (drawee)’s debt to the assignor (payer-debtor), appears to suggest the assumption by the assignee (payee-creditor) of the entire risk of default by the obligor (drawee) and hence the exoneration or release of the assignor (payer-debtor)⁹¹.

⁸⁷ Having received such notice, drawee could “possibly” raise a defence against payer-debtor’s action based on payer-debtor’s fraud (*exceptio doli*). See Zimmermann, *supra* n. 69 at 62.

⁸⁸ This qualification is based on the immediately following paragraph and is not of Nicholas.

⁸⁹ Nicholas, *supra* n. 72 at 201. Yet the transferability of a debt has remained subject to public policy restrictions, e.g. “in the case where the transfer was made in order to vex a debtor with a more powerful creditor,” or otherwise against “persons that made a trade of harassing debtors.” See Hunter, *supra* n. 70 at 628.

⁹⁰ For quoted language and discussion see Zimmermann, *supra* n. 69 at 63-64.

⁹¹ For the analogous passage of risk with the transfer of property to a buyer of goods under a contract of sale under modern law see e.g. Ontario *Sale of Goods Act*, R.S.O. 1990, c. S.1, s. 21.

In the absence of an express agreement or clear guidance from the sources, Demangeat treats the assignment for value⁹² as tantamount to an outright sale without recourse.⁹³ For his part, Duponchel⁹⁴ distinguishes between *cessio* and *assignatio*; the former is effectively an assignment without recourse, and the latter, which can be translated as ‘assignment’,⁹⁵ is an assignment with recourse.

Duponchel describes the assignation as creating a mandate for collection.⁹⁶ More specifically, it is a double mandate, under which the payer-debtor directs (i) his own debtor, the drawee, to *pay* the payee creditor and (ii) the payee-creditor to *collect* from the drawee. However, in my view, as the double mandate benefits the mandatary, this explanation is fraught with some difficulty.⁹⁷ True, in an assignation, payee-creditor, as the mandatary under the second mandate, that for collection, does not assume the risk of drawee’s default, which remains on the payer-debtor as a mandator. Collection is thus for the benefit of the mandator- namely the payer-debtor – who obtains thereby the benefit of discharge. This fits very well the mandate theory. At the same time, collection is also for the benefit of the mandatary – namely the payee-creditor, who keeps the proceeds. To a similar effect, payment under the first mandate, that for payment, is not only for the benefit of the debtor-payer, which fits the mandate theory; rather, payment is also for the benefit of the drawee mandatary. Each obtains discharge for his respective debt. Accordingly, in my view, there are difficulties in viewing the assignation as a true mandate. Unfortunately,

⁹² An assignment for value is broad enough to cover both an assignment in payment of an existing debt (or an antecedent obligation), and not only an assignment for fresh value.

⁹³ Demangeat, *supra* n. 75 *Droit romain* at 49-60.

⁹⁴ *Supra* n. 85 at 10.

⁹⁵ Terminology on the point is however quite confusing. For example, in Scotland ‘assignation’ is used to denote ‘assignment.’ See e.g. *Glossary of Scottish and European Union Legal Terms and Latin Phrases*, 2nd ed. (Edinburgh: The Law Society of Scotland & Lexis-Nexis UK, 2003), defining at 17 “assignation” as “the act of transferring rights in incorporeal moveable property from one party to another” or “the document transferring such rights.” See also *British Linen Co. v. Hay & Robertson and Brown* (1885), 22 S.L.R. 542 (First Division); and J. Bouvier, *A Law Dictionary: adapted to the constitution and laws of the United States of America, and of the several states of the American Union*, rev. 6th ed. (1856), online: Constitution Society <<http://www.constitution.org/bouv/bouvier.htm>>, defining **ASSIGNATION** in “Scotch law” to be “[t]he ceding or yielding a thing to another of which intimation must be made.” At the same time, the Swiss Code of Obligations distinguishes (in French) between ‘assignation’ and ‘cession’ (arts. 466 and 164 respectively), the former being an order or authorization to pay and the latter being an assignment of a right.

⁹⁶ Duponchel, *supra* n. 85 at 10.

⁹⁷ See text and notes 82-83.

Duponchel neither discusses the origins of *assignatio* as a distinct legal relation nor sheds further light on its doctrinal foundation.

For his part, pointing out the infrequent use of *assignatio* in Ancient Rome,⁹⁸ Sorbier disfavours the double mandate explanation. Rather, he advances a theory under which the assignor (payer-debtor) in an assignation acts as a surety under a non-novatory delegation.⁹⁹ Presumably, in issuing to the payee-creditor the instruction (delegation order) directed to the drawee to pay the payee-creditor, the payer-debtor guarantees¹⁰⁰ to the payee-creditor payment by the drawee – of the debt owed by the drawee to the payer-debtor. No novated obligation is generated; the drawee is to pay the payee-creditor the debt owed by the drawee to the payer-debtor, thereby discharging both payer-debtor's debt to payee-creditor and drawee-debt to payer-debtor, together with the payer-debtor's guarantee to the payee-creditor attached to it¹⁰¹.

However, ultimately, this theory is not all that attractive; in Sorbier's view the assignor (payer-debtor) under an assignation remains 'the master of the debt' (owed to him by the drawee) and in most circumstances may recover payment from the drawee even after the assignation (to the payee-creditor).¹⁰² I do not read a similar qualification by Duponchel who goes on to clarify the practical implication of the distinction between a cession and assignation. First he explains, in a cession, the payer-debtor does not guarantee the solvency or payment by the drawee. Nonetheless, the payer-debtor effectively warrants the existence of a debt owed to him by the drawee¹⁰³. *Quare* whether this means a defence-free debt¹⁰⁴. Second, Duponchel points out, payer-debtor's debt to payee-creditor is discharged by

⁹⁸ P. Sorbier, *L'ancien contrat d'assignation de créance; ou Délégation commerciale à titre de nantissement: son emploi dans les banques pour garantir un compte courant* (Paris: Imprimerie de France, 1937) at 22.

⁹⁹ It is the execution of the delegation which is non-novatory in the sense that it does not discharge the original obligation owed by the payer-debtor to the payee-creditor but rather 'supplements' it.

¹⁰⁰ In Roman law, *Cautio* denotes an obligation assumed as a guaranty for the execution of an already existing obligation or of a duty not protected by law. See in general, Berger, *supra* n. 70 at 384-85. At the same time, the *fidejussio* is a formal guaranty, given by way of a stipulation. See in general Berger, *ibid.*, at 350 (v. "Adpromissio").

¹⁰¹ Sorbier, *supra* n. 98 at 20-28.

¹⁰² *Ibid.*

¹⁰³ Duponchel, *supra* n. 85 at 10. On this point see also Demangeat, *supra* n. 75 *Droit romain* at 52.

¹⁰⁴ In the absence of novation, an assignee steps to the assignor's shoes and takes the debt subject to defences available to the debtor against the assignor had there been no assignment.

drawee's debt to payer-debtor in a cession, and by actual payment by drawee (or payer-debtor) to payee-creditor in an assignation¹⁰⁵. In each case discharge is absolute; no intermediary option of conditional discharge so as to revive payee-creditor's obligation upon drawee's default is considered.

In the final analysis, both *cessio* and *assignatio* are premised on the effect of the delegation order to make the drawee liable to the payee-creditor. In allowing the payee-creditor/assignee recourse against the payer-debtor/assignor for the existence of debt owed by the drawee to the payer-debtor/assignor, even the non-recourse assignment went a long way to serve as a doctrinal underpinning for a cheque transaction. To that end, in allowing the payee-creditor recourse against the payer-debtor upon any default by the drawee, the *assignatio* appears to be even more attractive.

4. More cheque law without cheques under Jewish law

Under the Talmud¹⁰⁶, an intangible such as a monetary debt may neither be possessed nor physically transferred and hence, can neither be owned nor

¹⁰⁵ Duponchel *supra* n. 85 at 10.

¹⁰⁶ The foundation Jewish legal text is the Talmud which is the summary of the oral law that evolved after centuries of post-biblical scholarly effort by the Jewish sages who lived in Eretz-Yisrael (Palestine, being biblical Canaan, or Judea as it was until shortly after the turn of the Common Era (CE)) and Babylonia. It has two complementary components; the Mishna, a book of law, and the extensive commentary, in the form of an edited record of the discussions in the academies, known as Gemara. In principle, each Mishnaic law is followed by the corresponding Gemara commentary, so that both form the Talmudic text on a given point. The compilation of the Mishna was completed in Eretz-Yisrael around 200 CE. A contemporary source not included in the Mishna but nevertheless reproduced and discussed in the Gemara is called a Beraitha. There are two versions of the Gemara; the one whose compilation was completed in Babylonia in the 5th century CE ('Talmud Bavli') is the more authoritative version. The compilation of the other version, known as the Jerusalem Talmud ('Talmud Yerushalmi') was completed in Eretz-Yisrael in the 4th century CE. For an introduction, see e.g. A. Steinsaltz, *The Talmud-The Steinsaltz Edition - A Reference Guide* (New York: Random House, 1989) [hereafter: Steinsaltz, *The Talmud: A Reference Guide*]. According to A. Steinsaltz, *The Essential Talmud* (New York: Basic Books, 1976) at 3: "If the Bible is the cornerstone of Judaism, then the Talmud is its central pillar." Other than where indicated otherwise, the ensuing discussion is on the basis of the Hebrew-Aramaic original text of the Talmud Bavli. English translation and comprehensive commentary is published by Mesorah Publications Limited, the Artscroll Series/Schottenstein Edition. Unless specifically indicated otherwise, all Jewish law sources cited and discussed in this study are in Hebrew (or Hebrew-Aramaic). A non-exhaustive glossary of post-Talmudic Jewish law sources can be found in Geva, *The Payment Order of Antiquity and the Middle Ages supra* n. 54 at 186-190.

disposed of¹⁰⁷. This is true unless the borrower's duly executed obligation is contained in a documentary note of indebtedness which is transferable by delivery¹⁰⁸.

This state of law necessitated a search for alternatives under which a payer-debtor could pay a payee-creditor by means of a debt owed to payer-debtor by a third party drawee. I will first discuss an attempt to effectively provide for a cheque accomplishing such a method of payment by means of a document, called *urcheta*, authorizing a creditor to collect a third party's debt owed to the debtor. The *urcheta* is a written and properly witnessed authorization given by a creditor to an emissary, turning him into an agent¹⁰⁹ with the power to collect from the creditor's debtor money or chattel owed by that debtor to the creditor¹¹⁰. It is drafted to confer on the emissary both the power to give an effective discharge to the debtor and the power to enforce payment against him. To give the emissary the power to enforce payment, namely, to bring a court action against the drawee, the *urcheta* must be drafted so as to convey a proprietary right to the emissary in the subject matter to be collected; otherwise, the emissary-creditor's action against the drawee for the money or chattel owed to the debtor (the *urcheta* issuer) will be dismissed for lack of standing to sue.¹¹¹ This proprietary effect also renders the authorization irrevocable so as to secure the effective power of the agent to give a discharge.

The Gemara records two disputations, one on the scope and the other on the effect of the *urcheta*¹¹². The first disputation is whether the *urcheta* may

¹⁰⁷ For this conclusion see e.g. S. Albeck, "The Assignment of Debt in the Talmud" (1957), 26 *Tarbiz* 262 [in Hebrew] [hereafter: Albeck, "Assignment of Debt"].

¹⁰⁸ See e.g. Talmud, *Bava Batra* at 76A, commentary by both Rashi D"H "Ve-otiyot bimsira", and Tosafot, D"H "Iy". It is however disputed whether an accompanying properly executed bill of sale is also required from the transferor-lender. See Talmud, *Kiddushin* at 47B-48A where it is further disputed as to whether, to effect a transfer, the bill of sale (if needed) is required to contain prescribed language. See also Talmud, *Bava Batra* at 75B-77B (with Tosafot at 77A D"H "Amar Ameimar"), Talmud, *Sanhedrin* at 31A, and Talmud, *Yevamot* at 115B. Hereafter, "Tosafot" is to mean Tosafot's editor.

¹⁰⁹ For a modern perspective on agency in Jewish law, see monograph by S. Ettinger, *Agency in Jewish Law in Comparison with Agency Law, 1965* (Jerusalem: Institute of Research in Jewish Law, 1999).

¹¹⁰ For a more detailed explanation, see *Talmudic Encyclopedia*, vol. 11 (Jerusalem: Yad Harav Herzog, 1965) [in Hebrew] at 15 s.v. "Harsha-a" (authorization).

¹¹¹ But note the view of the Maor Ha-Gadol, commenting on the Rif on Talmud, *Bava Kamma* at 27B (of Rif's page numbering), who understands Rav Ashi to argue not with Ameimar but rather with the view that a proprietary right must be conveyed.

¹¹² Talmud, *Bava Kamma* at 70A. The discussion which follows here does not set out the Talmudic account in the original sequence, but rather, as required for the understanding of the

be given by the issuer-debtor to the emissary-creditor with respect to the collection of money lent by the issuer-debtor to the drawee. Assuming a positive reply on that point, it is further disputed whether, with respect to money lent by the issuer-debtor to the drawee, the emissary-creditor may enforce payment against the drawee or only has the power to give him an effective discharge upon a voluntary payment. The second disputation is as to the effect of the *urcheta* to pass to the emissary (payee-creditor) ownership in the money he collected from the drawee, so as to apply it in the discharge of the debt owed to him (the emissary/payee-creditor) by the payer-debtor (the *urcheta* issuer).

As for the first disputation, most post Talmudic commenters maintain that the effect of the *urcheta* is to empower the emissary-creditor to collect from the drawee money lent to him by the payer-debtor. Furthermore, its effect is not only to authorize the emissary to give the drawee an effective discharge, but also to take the drawee to court and enforce payment against him. The explanation given is the primary nature of the *urcheta* as an authorization to collect, coupled with a conveyance of a proprietary right, even if solely for the limited purpose of allowing the emissary the standing to sue the drawee¹¹³.

The second disputation is as to the effect of the *urcheta* to pass to the emissary ownership in the proceeds he collected from the debtor. On this point, one sage, Ameimar, argues that, on the basis of the proprietary right conveyed to him by the *urcheta* issuer, the emissary may keep to himself the proceeds he collected from the drawee. Conversely, another sage, Rav Ashi, points out that the *urcheta* issuer states in the *urcheta* that he accepts upon himself all expenses incurred on account of the litigation¹¹⁴. On this basis, Rav Ashi maintains, it is obvious that the *urcheta* issuer appointed the emissary as a mere agent for collection and is therefore empowered to claim from him the proceeds so collected. Under another version, Rav Ashi concedes passage of ownership to the emissary on the basis of the conveyance of a proprietary interest, but argues, again on the basis of the

questions under discussion. A modern discussion on the Gemara text is by B. Lifshitz, "Authorization and Agency" (1999-5759), 58 Tarbitz 1.

¹¹³ Particularly see Nimukei Yoseph and Milcahmot on the Rif commenting on Talmud, *Bava Kamma* at 27A-27B (of Rif's page numbering).

¹¹⁴ The original is however not unequivocal; the translation here follows the Rambam, *Kinyan: Hilchot Sheluchin*, Section 3, Rule 1 and Shulcahn Aruch, *Choshen Mishpat*, Section 122, Rule 6. However, in the view of Meiri, D"R "Kol shékatavnu" commenting on Talmud, *Bava Kamma* at 70A, what the creditor accepts is the outcome of the litigation, not its expenses. In any event, either interpretation supports Rav Ashi.

urcheta issuer's undertaking to cover all expenses, that this is only transfer of co-ownership, so that the *urcheta* issuer is not taken to divest himself of the entire proprietary right.

The final ruling of the Gemara on this second disputation sides with Rav Ashi's first view. Thereunder, the *urcheta* issuer appoints the emissary as a mere agent who, notwithstanding the language in the document conveying to him a proprietary right in the money collected from the drawee, cannot retain it to his own use¹¹⁵. While between collection from the drawee and remittance to the payer-debtor he is accorded a temporary proprietary right in the proceeds, the emissary/payee-creditor cannot apply the proceeds in satisfaction of the debt owed to him by payer-debtor (the *urcheta* issuer).

Agency for collection has thus failed to 'upgrade' the payee-creditor's rights in the proceeds of collection so as to confer to him the property right in the proceeds he collected from the drawee. Hence, the *urcheta* does not qualify as a cheque or in fact any other payment method.

A more promising avenue in the search for a legal doctrine underlying liability on a cheque is reported by the Gemara in *Gitin*¹¹⁶. The text quotes Rav Huna to say in Rav's name that if one person instructs his debtor to give the money owed to a third party, that third party thereby acquires the right to that money. This is however true only as long as all three of them are present together at the time the instruction is given. As participants in a mechanism for the discharge of a debt owed by the person who gives the instruction to the third party, these two are, respectively, payer-debtor and payee-creditor; the intermediary, that is, the one who owes the money to the person who gives the instruction, is the drawee. The payer-debtor thus pays his debt to the payee-creditor by conferring on him the right to the money owed by the drawee. This mode of acquisition by the creditor of the right to the money owed by the drawee is known in Talmudic law as '*ma-amad shloshtam*' – in the presence of all three, or presence-of-all-three declaration. Thereunder, the oral instruction, uttered by one party in the presence of the two others, is adequate to confer the right to the money on the third party, without any formal act of acquisition¹¹⁷.

This principle is originally introduced in the Gemara in the context of piled up coins, that is, with regard to money owed by a depositary or custodian. However, Rav, in whose name the principle has been stated in the

¹¹⁵ According to the Bach (in Talmud, *Bava Kamma* at 70A) this is a later addition to Talmudic account - that nevertheless became part of the text.

¹¹⁶ Talmud, *Gitin* at 13A.

¹¹⁷ See in general, Albeck, "Assignment of Debt", *supra* n. 107 at 267-77.

first place, firmly asserts¹¹⁸ that the principle further extends to money lent. The point is then confirmed in the Gemara. To that end it cites a Mishnaic text, in the form of a Beraitha, to the effect that the drawee could be a borrower from the instruction giver (the payer-debtor).

Post -Talmudic sources raised various issues concerning many aspects of the presence-of-all-three declaration. One disputation is concerned with the discharge accorded to the payer-debtor towards the payee-creditor by the all-three-presence declaration instructing the drawee to pay the payee-creditor. One view supports an absolute discharge so that upon the default of the drawee no recourse is available to the payee-creditor against the payer-debtor. The other supports a conditional discharge, so that upon the default of the drawee recourse from the payer-debtor is available to the payee-creditor¹¹⁹.

The starting point in the discussion on this particular issue is an extract from the Jerusalem Talmud¹²⁰ dealing with the case of a debtor whose creditor agreed to rely on a drawee for the payment of the debt. It is explained in the Gemara that the debtor instructed the drawee to pay the creditor whatever the drawee owed the debtor. The drawee became impoverished and defaulted, at which point the creditor attempted to obtain recourse from the debtor. Recovery was, however, denied. It was noted though that this is the law as long as the debtor has not ‘cunningly’ misrepresented the drawee to be rich while he was not. The Rif (a post Talmudic commenter) cites this text in support of the proposition that in connection with a presence-of-all-three declaration, upon default by the drawee, and other than in the case where the misrepresentation exception applies, the debtor is absolutely discharged, and no recourse is available to the creditor against him¹²¹.

A view to the contrary is expressed by Baal Ha-Itur (a post Talmudic commenter), who is of the opinion that the presence-of-all-three declaration does not discharge the payer-debtor¹²². He explains that the creditor’s consent to be paid by the drawee and to discharge the debtor is revocable so that recourse is available to the payee-creditor against the payer-debtor. He reasons that the debtor retains the power to release the drawee, which is the

¹¹⁸ He is recorded as invoking God’s name to support his assertion.

¹¹⁹ See Shulchan Aruch, *Choshen Mishpat*, Section 126, Rule 9.

¹²⁰ Jerusalem Talmud, *Kiddushin*, Section 3, Rule 4.

¹²¹ Nimukei Yoseph, D”H “Yerushalmi” commenting on the Rif on Talmud, *Bava Metzia* at 68B (of Rif’s page numbering).

¹²² Baal Ha-Itur, Section 5, “Hamcha-a”.

minority view on the point¹²³. Indeed, it is hard to see how the debtor retains his power to release the drawee and still gets an absolute discharge against his creditor, thereby leaving the latter in the cold, with no recourse against either the drawee or the debtor. Stated otherwise, with respect to the debtor, an absolute discharge ought to suppose he has lost the power to release the drawee.

The Tur (a post Talmudic commenter) further elaborates on and expands on the position of Baal Ha-Itur¹²⁴. He explains the ruling in the Jerusalem Talmud as based on the express release given by the creditor (the beneficiary of the payment order). In his view, in pursuing his recourse from the debtor, who gave the instruction, the creditor, to whom the drawee was instructed to pay, may argue that he agreed to be paid by the drawee only in order to accommodate the debtor. The creditor may thus assert that has not agreed to discharge the debtor, until he, the creditor, receives actual payment in full. Hence, contrary to the plain language of the text in the Jerusalem Talmud and the position state by the Rif, it is only the express release of the debtor by the creditor, and not only the creditor's mere agreement to be paid by the drawee, that confers on the debtor an absolute discharge¹²⁵. In the absence of an express release, the debtor remains liable to the creditor, though effectively as a mere guarantor of the drawee, the new principal debtor.¹²⁶ In effect, the Tur goes beyond Baal Ha-Itur, as the Tur does not link the conditional release theory to the retention of the power to release. Indeed, the Tur does not deny Baal Ha-Itur's premises according to which those who

¹²³ For this minority view see Ramban, D"H "Bemalvé" commenting on Talmud, *Kiddushin* at 48A. See also the Raavad (mentioned in the text of the Rashba, D"H "Amar Rava" commenting on Talmud, *Gitin* at 13B.) according to whom renunciation power is retained by the debtor where the drawee has not consented explicitly to the instruction by saying "I hereby bind myself to you and whoever you will nominate". For the majority view to the contrary see e.g. Rosh, D"H "Amar Rav Huna" commenting on Talmud, *Gitin* at 13B and Ran, D"H "Veika" commenting on Talmud, *Gitin* at 13B.

¹²⁴ The Tur attributes this opposing view to the Rosh and Baal Ha-Itur. This reliance is however problematic; as indicated by Beit Yoseph in the Tur *Chosen Mishpat*, Section 126, the Rosh (D"H "Ibaie lehu" commenting on Talmud, *Bava Metzia* at 112A) dealt with a drawee who does not owe money to the instruction giver which, per discussion below, is a distinguishable situation. At the same time, as indicated in the preceding paragraph, Baal Ha-Itur (also cited by Beit Yoseph) does not go as far as the Tur in his reasoning and hence in the reach of his conclusion.

¹²⁵ The Tur, *Chosen Mishpat*, Section 126.

¹²⁶ *Ibid.* Note however that unlike Sorbier (see Part 3, text around note 100, *supra.*), he does not argue that (notwithstanding the right against the drawee conferred on the payee-creditor) the payer-debtor remains 'the master of the debt' owed to him by the drawee so as to continue to be able in most circumstances to recover payment from the drawee.

maintain that where the debtor, as the instruction giver, retains the power to release the creditor, the latter ought to be taken as permitting recourse against him (the debtor). At the same time, under the explanation of the Tur, the reverse is not true so that the conditional release and hence the availability of recourse stand on their own reasoning, and are independent of, so as to be also but not exclusively compatible with, loss of the power to release.

In the final analysis, this controversy is on the impact of the silence of the creditor, namely, the beneficiary of the instruction to pay. In the absence of explicit terms, the creditor's acceptance may be construed to generate either the absolute or conditional discharge of the debtor. An absolute discharge completely releases the debtor from any liability to the creditor. Upon the default of the drawee, recourse is available to the creditor only against the drawee. Conversely, conditional discharge releases the debtor towards the creditor only as long the drawee has not defaulted. Upon the default of the drawee, recourse is available to the creditor against the debtor¹²⁷. In effect, conditional discharge suspends the debtor's obligation until either default or actual payment made by the drawee.

This sticks out as a detailed discussion on the nature of discharge of a debtor who pays by debt owed to him from drawee. However, involving a situation in which all three are present, it remains unclear whether the drawee is required to act on the basis of the payer-debtor's instruction communicated to him by the payer-debtor (albeit in the presence of the payee-creditor) or whether the drawee is required to act on the basis of that instruction as it is communicated to him by the payee-creditor (albeit in the presence of the payer-debtor). Only in the latter case do we have a cheque¹²⁸.

A case closer to a cheque transaction is in a *Bava Metzia* Mishna. The text discusses a scenario in which an employer ('debtor'), having owed his worker ('creditor') wages, directs his worker to receive payment from a storekeeper or moneychanger ('drawee').¹²⁹ On this passage the Gemara asks whether the worker has recourse against the employer or not. One sage, Rav

¹²⁷ Though it may well be that recourse is available to the beneficiary against the instruction giver only after exhausting his remedies against the drawee. Shulchan Aruch, *Chosen Mishpat*, Section 126, Rule 9.

¹²⁸ For the ambiguity generated by an order to pay given in the presence of all three (drawer, payee, and drawee) see Part 1 supra, paragraph that follows the one containing note 45.

¹²⁹ Talmud, *Bava Metzia* at 111A.

Shesheth, does not allow the recourse while another sage, Rabbah, permits it¹³⁰.

Post Talmudic commenters' analysis of this passage revolves around the effectiveness of the renunciation by the worker (payee-creditor) of his claim against the employer (payer-debtor) so as to discharge the employer (payer-debtor) and disallow recourse by the worker (payee-creditor) against him.¹³¹ It is clear to Tosafot that no disputation could arise in two cases. The first is where renunciation is accompanied by an act of *kinyan* (meaning a proprietary act). In such case, according to Tosafot, even Rabbah would agree that renunciation is effective to generate a discharge so that recourse has been lost. This is so under the general rule providing for the enforceability of agreements for which the serious intention has been manifested by an act of *kinyan*¹³².

As well, according to Tosafot, the second case in which there cannot be any disputation. Such is where an express release of the employer by the worker is stated to be conditional on the drawee's default. In such a case, even Rav Shesheth agrees that recourse against the employer becomes available to the worker at least as of the default of the drawee.

In Tosafot's view, there is even no disputation as to the effectiveness of a renunciation unaccompanied by an act of *kinyan*¹³³, except that in such a case the renunciation scope and requirements have to be more carefully scrutinized. That is, an express absolute renunciation is effective so as to

¹³⁰ Talmud, *Bava Metzia* at 112A. Both sages endeavour to rationalize their positions on the Mishnaic text itself. Thus, Rabbah asserts that in merely stating that the employer is released from the transgression of the prohibition against withholding payment, the Mishna is telling us that the employer is not released from the responsibility to pay the worker. Conversely, Rav Shesheth asserts that in stating that the employer is released from the transgression of the prohibition against withholding payment, the Mishna is telling us that the employer no longer has any financial obligation whatsoever.

¹³¹ I suppose that any renunciation by the worker must be made in conjunction with his consent to abide by the employer's instructions. But contrast Kessef Mishna to Rambam, *Mishpatim: Hilchhot Schiruth*, Section 11, Rule 4, which requires worker's consent, and Beit Yoseph to the Tur, *Choshen Mishpat*, Section 339 which raises the possibility that worker's consent is not required.

¹³² "*Kinyan*" literally means property or acquisition. In Jewish law, as a *Halakhic* concept, an act of *kinyan* is a formal procedure to render an agreement legally binding. Acts of *kinyan* include pulling, transferring, controlling, lifting, or exchanging an article. See in general: Steinsaltz, *The Talmud: A Reference Guide*, *supra* n. 108 at 254. For a proprietary act for the transfer of ownership, see e.g. Talmud, *Kiddushin* at 22B, 25B-26A and *Kiddushin* at 25B and *Bava Batra* at 84B.

¹³³ Which is in line with Talmud, *Kiddushin* 16A, cited by Tosafot in Talmud, *Bava Metzia* 112A.

eliminate any recourse; it has the same effect as an act of *kinyan*, which on its own, and without any express words accompanying it, affects an absolute discharge¹³⁴. In contrast, a ‘bare’ renunciation, unaccompanied by an act of *kinyan*, requires support, in language, circumstances, or both, to ascertain its validity and scope¹³⁵.

Tosafot then proceeds to lay down two alternative scenarios in which, in the absence of either *kinyan* or an express absolute renunciation, the recourse controversy could arise¹³⁶. The first scenario is that of an *absolute* renunciation by the worker -where it is only implied from his reliance on the drawee. The alternative scenario is that of an express renunciation by the worker of his recourse against the employer, which is *conditional* on payment made by the drawee.¹³⁷ As explained below, while the disputation as to the first scenario is concerned with the nature of the drawee’s undertaking so as to lead to reliance by the worker, in connection with the second scenario, the disputation focuses on the impact of the condition on the enforceability of the renunciation.

Renunciation of recourse against the employer (payer-debtor) by the worker (payee-creditor) is assumed to occur on the basis of the drawee’s promise to pay the renouncing worker. In the first scenario, that of an *absolute* renunciation implied from the reliance on the drawee, the question is whether the renunciation is effective at all, so as to release the employer throughout. In the second scenario, that of an express renunciation *conditional* on payment made by the drawee, the question is whether the renunciation is effective to release the employer even prior to default by the drawee.

In discussing the first scenario, that of an *absolute* renunciation even where it is only implied from the reliance on the drawee, Tosafot is cognizant of the general rule under which in the absence of a deposit or loan

¹³⁴ *Ibid.*

¹³⁵ To that end, an act of *kinyan* serves as an indication of firm resolution, without which an undertaking is not binding and is revocable; in the absence of such an act, the firm resolution is to be evidenced by other extrinsic circumstances. Cf. S. Albeck, *The Law of Property and Contract in the Talmud* (Jerusalem: Dvir, 1976, 1983) at 114-15 [in Hebrew]. The binding effect of a promise is the theme of B. Lifshitz, *Promise: Obligation and Acquisition in Jewish Law* (Jerusalem: Ministry of Justice, 1988) [in Hebrew].

¹³⁶ A third sub-scenario, under which the recourse does not relate to the underlying debt owed to the worker, but rather to the remedy for the violation of the prohibition against delaying payment, is not relevant to the present discussion and is thus not elaborated on here.

¹³⁷ For sure, an express absolute renunciation will work – see preceding paragraph. Implied-conditional is certainly weaker than express- conditional.

owed to the instruction-giver by the instruction-receiver, the latter's promise to pay a designated payee is revocable, even when such promise was given in the presence of all three¹³⁸. Nonetheless, in Tosafot's view, an absolute release of the employer-debtor by the worker-creditor is possible in the context of the first scenario when the drawee assumes, towards the worker, an implied albeit binding and irrevocable obligation, guaranteeing that of the employer. At least where this obligation is incurred in the presence of all three this must be true according to Tosafot even where no money was owed by the drawee to the debtor (instruction giver). Nimukei Yoseph¹³⁹ explains the binding effect or irrevocability of the drawee's implied guarantee as premised on the nature of the storekeeper's or moneychanger's calling.

However, under the Talmud, an ordinary guarantor is secondarily liable; he is answerable to the creditor only where the creditor is unable to collect from the principal debtor. To that end, the giving of the guarantee does not usually release the principal debtor from his primary liability; yet, there are exceptions to this rule¹⁴⁰. Among those listed, the one exception in which the debtor is completely discharged¹⁴¹ is where the guarantor is '*no-sé ve-noten ba-yad*', in which case the guarantor physically took the money from the lender and passed it on to the debtor. In such a case, the guarantor is regarded as the debtor to the lender, and the borrower receives an absolute discharge; in fact, he has never even been liable to the lender, but rather only to the guarantor¹⁴². Arguably then, Tosafot ought to be taken to say that in

¹³⁸ Talmud, *Gitin* at 13B discussed above in this Part.

¹³⁹ Nimukei Yoseph, D"H "Hozer" commenting on Talmud, *Bava Metzia* at 68A (of Rif's page numbering).

¹⁴⁰ Talmud, *Bava Batra* at 173A-174A.

¹⁴¹ Other exceptions affect the sequence of recovery, namely, cover circumstances in which the creditor may or is to recover first from the guarantor, rather than from the debtor, who nevertheless remains liable.

¹⁴² The five categories into which a guarantee may fall are explained by Tosafot in Talmud, *Bava Batra* at 173B. The category under which the guarantor becomes a primary debtor and the principal (original) debtor is fully discharged is that of a '*no-sé ve-noten ba-yad*', literally translated as "carries [the money from the lender] and gives [it] by hand [to the borrower]". For a more detailed definition of '*no-sé ve-noten ba-yad*' see B. Kahana, *Guarantee* (Jerusalem: Moreshet Hamishpat Be-Yisrael, 1991) at 95-101 [in Hebrew]. Tosafot points out that even in such a case, the borrower-principal debtor, who remains liable to the guarantor (who is liable to the lender-creditor), may find himself liable directly to the lender-creditor, though only in circumstances under which the guarantor cannot pay the lender-creditor; this could happen under what is known as "Rabbi Nathan's lien" (see e.g. Talmud, *Pesachim* at 31A, *Ketovot* at 19A, *Gitin* at 37A, and *Kiddushin* at 15A). That lien applies where A owes to B who owes to C, in which case C may recover directly from A, but only where he (C) cannot collect from B. Yet, this is a matter of enforcement by C (creditor-

our case, the drawee is to be regarded *as if* he took money from the worker in order to pass it on to the employer, who had never been liable directly to the worker.

Alternatively, under a '*shlof-dotz*' ('detach and attach') guaranty, the guarantor replaces the debtor as the one liable to the creditor. In such a case, the creditor (worker) *detaches* himself from the original debtor (the employer) and *attaches* himself to the guarantor-drawee instead¹⁴³. The replacing guarantee absolves the debtor (employer) from liability towards the creditor (worker); instead, having been 'detached' from the creditor, the debtor (employer) becomes 'attached' to the guarantor (drawee), so as to be liable to him.

Arguing against the availability of recourse, Rav Shesheth appears to endorse both the guarantee undertaking of the drawee and its falling into the category under which the primary debtor (the employer) receives an absolute discharge. He further seems to be of the view that the worker's implied renunciation is fully effective. Conversely, it is not all that obvious whether Rabbah's view, under which recourse is available, is premised on a rejection of the guarantee theory, on a disapproval of the treatment of the guarantee as falling into the category under which the principal debtor is discharged, or else on deeming an implied renunciation as inadequate to generate a discharge.

worker) of the debt owed to him by B (the drawee-guarantor) by resorting to the security of the debt owed by A (the employer-principal debtor) to B (the drawee-guarantor); by itself this is not a matter of A (the employer-principal debtor) being directly liable to C (the creditor-worker). For this nature of "Rabbi Nathan's lien" see Rambam, *Mishpatim: Hilchhot Malve ve-Lovè*, Section 2, Rule 6; and Shulchan Aruch, *Chosen Mishpat*, Section 86, Rule 2.

¹⁴³ Admittedly, the position of such a guarantor is mentioned elsewhere, and almost in passing. The context is that of a guarantee given by a Jew for the repayment of an interest-bearing loan taken by a Jewish borrower from a non-Jew. See Kahana, *ibid*, at 92-93. For the origins of the expression, see Rashi in Talmud, *Yevamot* 109B D"H "Shalzion". In so far as it transforms a lawful obligation (on an interest-bearing debt owed to a non-Jew) into an unlawful one (on an interest-bearing debt owed to a Jew), the '*shlof-dotz*' guarantee is prohibited. See Talmud, *Bava Metzia* at 71B. Prohibitions against charging, taking and paying interest in transactions between Jews are based on three biblical cites: Exodus 22:24, Leviticus 25:36-7, and Deuteronomy 23:20. Under an ordinary (and contrary to a '*shlof-dotz*') guarantee, a Jewish guarantor who was forced to repay a non-Jewish creditor an interest-bearing loan the latter had given a Jewish debtor, claims reimbursement from the Jewish debtor; he is not enforcing an interest-bearing loan and is thus not in violation of the interest prohibition. In my view, there is nothing to prevent a valid '*shlof-dotz*' guarantee from applying to a non-interest bearing loan and, as such, from applying also to a transaction in which all participants are Jews.

Thus, by way of an interim summary, in the first scenario under which there is disagreement between Rav Shesheth and Rabbah, as it relates to the first case in which there is no disputation between them, it is agreed that where an absolute renunciation is expressly stated no recourse is available. In Rav Shesheth's view this is also the case even where the absolute renunciation is implied. Conversely, Rabbah holds that an implied absolute renunciation does not work so that recourse is available to the worker (payee-debtor) against the (payer-creditor). It is however unclear whether according to Rabbah recourse is available only as of default by the drawee or even any time prior to it.

As indicated, Tosafot's alternative scenario for the disputation between Rav Shesheth and Rabbah, is that of a renunciation by the worker (creditor) of his recourse against the employer (debtor), even where it is expressly stated to be *conditional* on payment made by the drawee. In invalidating the renunciation and allowing recourse Rabbah is taken to hold that renunciation is mistaken since it is based on contingent and hence unknown facts as to whether the drawee will honour his undertaking to pay.

On this point, the Rosh (a post-Talmudic commenter) explains that the conditional release given to the employer by the worker must be taken to be mistaken, and thus not binding, since the payment obligation of the drawee is revocable¹⁴⁴. Its revocability is premised on the absence of any deposit or loan owed by the drawee to the employer¹⁴⁵. The Mordechai (a post-Talmudic commenter) strengthens the mistaken release theory by adding that the worker is aware of the employer's power to countermand payment, that is, to revoke the authority given to the drawee to pay, and thus cannot be taken to release the employer, lest no one will remain liable to pay him his wages¹⁴⁶.

Presumably, in allowing recourse only after default, Rav Shesheth is not concerned with the revocability or even the existence of the drawee's obligation. This strikes me as logical; after all, on its own terms, the worker's renunciation does not release the employer after the drawee's refusal to pay. Indeed, in treating payment by cheque as conditional,¹⁴⁷ albeit premising it even on an implied renunciation, modern law echoes Rav

¹⁴⁴ Rosh, D"H "Ibaei lehu" commenting on Talmud, *Bava Metzia* at 112A.

¹⁴⁵ See Tur, *Choshen Mishpat*, Section 339 and Shulchan Aruch, *Choshen Mishpat*, Section 339.

¹⁴⁶ The Mordechai, D"H "Himchahu" commenting on Talmud, *Bava Metzia* at 112A.

¹⁴⁷ See Part 7 below.

Shesheth's position as to the second scenario, even as the latter addresses only an express renunciation.

Thus, by way of an interim summary, in the second scenario under which there is disagreement between Rav Shesheth and Rabbah, as it relates to the second case in which there is no disputation between them, it is agreed that in the case of a conditional renunciation expressly stated recourse is available at least as of the drawee's default. What is contested is the availability of the recourse at any time prior to the default. Rabbah submits that recourse is available during such period. Presumably, he holds the same for conditional renunciation, implied from the circumstances. On the other hand, Rav Shesheth submits that no recourse is available during that period, at least as long as the conditional renunciation was expressly stated. *Quare* as to Rav Shesheth's position as regarding conditional renunciation implied from the circumstances.

The final ruling in Jewish law appears to treat the *Bava Metzia* text as relating to the *second scenario* – that of an express conditional discharge pending default by the drawee. Furthermore, Rav Shehsheth's position represents the minority view¹⁴⁸, so that “the law is not according to him”, but rather, according to Rabbah, who considers the worker-creditor's renunciation to be ineffective, and permits recourse against the employer even prior to the drawee's default¹⁴⁹. To the disappointment of the modern lawyer, the disputation is resolved according to Rabbah's position as to the lack of validity of the *conditional* discharge even when it is expressly stated. This allows the worker (payee-creditor) to have his recourse against the employer (payer-debtor) throughout, namely, even prior to default by the drawee. The rationale given is that of the revocability of the drawee's obligation. Such revocability is premised on the absence of any deposit or loan owed by the drawee to the employer,¹⁵⁰ so as to lead to the invalidation of the worker-creditor's renunciation in the first place. This may be taken to reject as a matter of law the binding effect of the implied guarantee also per the first scenario, and thereby to harmonize the treatment of the two scenarios, with both taken to be premised, as a matter of law, on the revocability of the drawee's obligation.

¹⁴⁸ Albeit the one adopted by the Jerusalem Talmud, *Shevuot* 36B-37A.

¹⁴⁹ Mareh Hapanim to the Jerusalem Talmud, *Shevuot* 36B-37A

¹⁵⁰ See Tur, *Choshen Mishpat*, Section 339 and Shulchan Aruch, *Choshen Mishpat*, Section 339.

It has been further resolved in Jewish law that in the case dealt with in the the *Bava Metzia* text all three (employer/payer-debtor, worker/payee-creditor, and moneychanger-storekeeper/drawee) are present together¹⁵¹.

The scenario dealt with is nevertheless close to that of the issuance of a cheque since the text speaks of the employer directing the worker to the drawee,¹⁵² so that the drawee may be seen as acting on the basis of the payee-creditor's demand advising of the payer-debtor's payment order.

Indeed, where the worker (payee-creditor) is not present at the time the employer instructed the drawee to pay, there is no renunciation and hence no question that the employer remains liable throughout¹⁵³.

Even if it appears that the drawee is to act on the basis of the demand made by the worker/payee-creditor, we nevertheless do not have here a cheque system. First, the employer/payer-debtor's instruction is said to be oral. Second, the prevailing view¹⁵⁴ is that the text deals with a situation under which the drawee is extending credit to the payer-debtor, rather than charging an asset account in which the payer-debtor deposited funds¹⁵⁵.

Both points do not exclude the possibility of a cheque equivalent drawing on credit extended by the drawee to the payer-debtor but militate against a cheque system. However, in the final analysis, and notwithstanding the unsatisfactory resolution of the Rav Shesheth-Rabba's disputation, the *Bava Metzia* text and ensuing commentary reflects a most sophisticated and advanced discussion on issues that in hindsight underlie liability on a cheque.

¹⁵¹ Kessef Mishna, Rambam, *Kinyan: Hilchot Mechira*, Section 6, Rule 8.

¹⁵² See above, Part I paragraph that follows the one containing note 45.

¹⁵³ As in Talmud, *Shevuot* at 45A, and Jerusalem Talmud, *Shevuot* at 36B.

¹⁵⁴ A modern view to the contrary is by Albeck, "The Assignment of Debt", *supra* n. 107. He assumes that the presence of all three is not required in the *Bava Metzia* narrative and yet argues that this text is concerned with the case where the drawee owes the money to the employer.

¹⁵⁵ Rashi to Talmud, *Bava Metzia* at 111A; Rosh, D"H "Ibaei lehu" commenting on Talmud, *Bava Metzia* at 112A; Rif on Talmud, *Bava Metzia* at 68B (of Rif's page numbering). For a comprehensive discussion on the Rif's position, drawing also on additional sources, see Y. Francus, "The Rif's Methodology in the Law Concerning Presence of All Three", (5748-1988) 102 Sinai 196 [in Hebrew]. See also Mareh Hapanim and the Ridvaz to the Jerusalem Talmud, *Shevuot* 36B-37A.

5. Cheque-equivalents under Islamic *hawale* doctrine in the early Middle Ages

Documentation of Islamic payment instruments is quite rich;¹⁵⁶ this is particularly true for the period of the Fatimid Caliphate, which was in power between the 10th and 12th centuries¹⁵⁷. Approximately from that period, or more specifically, between the 11th and 13th centuries, plenty of documents¹⁵⁸ originate from the Jewish *Geniza* of Cairo¹⁵⁹.

Islamic payment instruments have not always acquired distinct names.

Thus, the withdrawal out of an account with a *sarraf* (private moneychanger) in the execution of a non-cash payment made by a small retailer to his wholesaler may be treated simply as a *hawale*¹⁶⁰. In turn, more

¹⁵⁶ See e.g. SK Bakhsh & DS Margoliouth, *The Renaissance of Islam* (translated from the German of Adam Mez) (Patna: Jubilee, 1937) at 476-77; and E. Ashtor, "Banking Instruments Between the Muslim East and the Christian West", 1 *Journal of European Economic History* 553; rep. (with same pagination) in E. Ashtor, *East-West Trade in the Medieval Mediterranean* (ed. by BZ Kedar) (London: Variorum Reprints, 1986). For summary and sources see e.g. ND Ray, "The Medieval Islamic System of Credit and Banking: Legal and Historical Considerations" (1997), 12 *Arab L.Q.* 43, at 66-79.

¹⁵⁷ For the Fatimid Caliphate visit <<http://en.wikipedia.org/wiki/Fatimid>>.

¹⁵⁸ A most recent comprehensive definite study analyzing the various Geniza payment instruments is by A. Shvitiel, "Orders of Payment, Order of Supply, Instructions for Payment, and Statement of Credit in the Genizah and other Collections at Cambridge University", in B. Outhwaite and S. Bhayro, "*From a Sacred Source*" -- Genizah Studies in Honour of Professor Stefan C. Rief. (Lieden & Boston: Brill, 2011) at 331 who builds on earlier work, particularly (*ibid* at 331) on the "monumental book" of SD Goitein, *A Mediterranean Society*, vol. I: Economic Foundations (Berkeley and LA: University of California Press, 1967) at 240-50. According to Shvitiel (*ibid* at 332), so far 134 documents have been discovered. He classifies them to mercantile payment order, orders for the delivery of goods, administrative payment instructions, and acknowledgements of debts.

¹⁵⁹ For the Cairo *Geniza* in general, see SC Reif, *A Jewish Archive from Old Cairo*, The History of Cambridge University's Genizah Collection (Surrey, Richmond:Curzon, 2000). *Geniza* (or *Genizah*) is a Hebrew word denoting the store-room or depository in a synagogue usually specifically for worn-out Hebrew-language books and papers on religious topics that were stored there before they could receive a proper cemetery burial, it being forbidden to throw away writings containing the name of God (even personal letters and legal contracts could open with an invocation of God). In practice, a *geniza* may have contained writings of a secular nature, with or without the customary opening invocation, and also contained writings in other languages that use the Hebrew alphabet. (see e.g. <<http://en.wikipedia.org/wiki/Geniza>>). Secular documents in the Cairo *Geniza*, such as payment instruments, were mostly written in Judeo-Arabic (an Arabic dialect using Hebrew alphabet) and may have contained the invocation of God.

¹⁶⁰ See M. Talbi, "Opérations bancaires en Ifrīqiya à l'époque d'al-Māzarī (453-536/1061-1141) – crédit et paiement par chèque", in *Études d'Histoire Ifriqiyenne et de Civilisation*

specialized terminology, though not necessarily uniform or precise, has also developed. Thus, the *ruq'a* has a few meanings. First, it means an order for the delivery of goods. Second, it is a payment order, issued to the payee, instructing the drawee to make payment against its presentment by the person entitled to obtain payment. Third, it denotes the drawee's own obligation to pay, or in fact, any promisor's debt or acknowledgement of debt instrument¹⁶¹. The first sense is outside the scope of the present study; in both the second and third senses, which are of interest in the context of the present study, the *ruq'a* overlaps with the *sakk*¹⁶², from which, linguistically, the modern word 'cheque' may be derived.¹⁶³ In fact the second and third meanings may converge; this is so, since the drawee's obligation to pay on a *ruq'a* or *sakk* is typically in pursuance to the payment order directed to the drawee which is at least implicit on the instrument. The express terms of the document may however reflect the debtor's order, the drawee's promise, or both.

Typically, a *ruq'a* or *sakk* does not designate a named payee and is payable to the bearer. As an order to pay addressed to a person acting as a banker, the *ruq'a* and *sakk* correspond to the modern cheque. As a promise to pay, they correspond to the modern promissory note. Being payable to the bearer, and inasmuch as the promisor usually acts as a banker (or more specifically, a moneychanger), in the third above-mentioned sense, they in fact correspond more to the post-Medieval English banknote¹⁶⁴.

What is the legal underpinning for these instruments? In the footsteps of earlier legal systems¹⁶⁵, Islamic law did not treat a debt or the claim to the money owed thereon as an item of property belonging to the creditor and

Musulmane Médiévale (Tunis: Publications de l'Université de Tunis: 1982) at 420. See also M. Gill, *In the Kingdom of Ishmael* (Tel Aviv: Tel Aviv University, 1997) vol. I: Studies in Jewish History in Islamic Lands in the Early Middle Ages, at 497 [in Hebrew] who speaks of the use of the deposit document to make payments to the suppliers.

¹⁶¹ For a *sakk*, from Western Sudan, in effect, in the latter sense, that of an 'IOU' (acknowledgement of debt) document, see e.g. N. Levtzion, "Ibn-Hawqal, the Cheque, and Awdaghost" (1968), 9 *Journal of African History* 223 who nevertheless (not having in mind precise legal terminology) speaks of the document as a 'cheque'.

¹⁶² For the *sakk* (and *suftaj* not covered by this study) see e.g. CE Bosworth, "Abū 'Abdallāh Al-Khwārazmī on the Technical Terms of the Secretary's Art: A Contribution to the Administrative History of Mediaeval Islam" (1969), 12 *Journal of the Economic and Social History of the Orient* 8, respectively at 125 and 140.

¹⁶³ See e.g. Goitein, *supra* n. 158 at 245.

¹⁶⁴ For the post-Medieval goldsmith system in England, generating banknotes and cheques, see in general below, Part 7.

¹⁶⁵ See the opening paragraphs to Parts 3 and 4 above.

hence disposable by him by transfer or otherwise¹⁶⁶. However, over the years, bypassing strict orthodoxy, a few mechanisms have developed to confer on a debt the quality of a transferable item of property¹⁶⁷.

The mandate for collection has played a principal role in that transformation. In this context, a person nominates a designated assignee,¹⁶⁸ typically his own creditor, as his ‘mandatary’, conferring on him the authority to collect a debt owed to the nominating person by another. In effect, this is a case of a debtor nominating his creditor to collect from the drawee the debt owed by the latter to the debtor. To achieve best results, the mandate to collect is to be reinforced by giving the mandatary-assignee/creditor the additional authority to sue a defaulting drawee on the debt the latter owes the mandator-debtor. The mandate is to be further strengthened by the inclusion therein of an express term under which the mandator (debtor) waives the right of revocation. *Vis-à-vis* the mandatary-assignee, the mandator/debtor may also waive the benefit of the debt to be collected by renouncing his claim to proceeds to be collected¹⁶⁹. Such a claim to the proceeds may anyway be lost to the mandator-assignor/debtor and accrue for the benefit of the mandatary-assignee/creditor, to whom the former owes, by means of the operation of the right of setoff¹⁷⁰.

Alternatively, a creditor may effectively waive his claim to a debt and confer it on a designated beneficiary, typically his own creditor, by ‘acknowledging’ that the debtor’s debt is actually owed to that assignee¹⁷¹.

Beside such methods, Islamic law developed the *hawale* as a mechanism under which a debtor was able to transfer or shift his own obligation to pay his debt to another person. Thus, under Islamic law, the obligation to pay

¹⁶⁶ J. Schacht, *An Introduction to Islamic Law* (Oxford: Clarendon Press, 1964, rep. 1998) at 134 [hereafter: Schacht, *Introduction*]; and C. Chehata, *Essai d’une théorie générale de l’obligation en droit musulman hanéfite* (Paris: Éditions sirey, 1936\1969) at 97.

¹⁶⁷ E. Tyan, “Cession de dette et cession de créance dans la théorie et la pratique du droit musulman (d’après le madhab hanafite)” (1946), 2 *Annales de l’école française de droit de Beyrouth* no 3-4, 23 at 25-27 [hereafter: Tyan, *Cession*].

¹⁶⁸ The mandatary, beneficiary of the transaction, is referred here as an ‘assignee’ (and the transaction as an ‘assignment’) by reference to the practical implication of the arrangement, and not its formal legal characterization.

¹⁶⁹ See e.g. *Constantine Emilianides v. Aristodemo Sophocli* (1910), 9 *Cypr. L.R.* 115, at 116, dealing with a creditor appointing an assignee as an agent for collection with authority to keep the proceeds.

¹⁷⁰ For the operation of setoff in general, see Chehata, *supra* n. 166 at 90-92.

¹⁷¹ This is quite analogous to the Talmudic *Oditta* – except that the latter cannot be used as a mechanism for the transfer of a right to a sum of money. See *Talmudic Encyclopedia*, vol. 1 (Jerusalem: Yad Harav Herzog, 1955) [in Hebrew] at 116.

money owed, namely the indebtedness, has been considered as conferring a quality attached to, or bestowed on, the person of the debtor. Under specified conditions, it is however within the debtor's power to pass on this quality to another person, who is to replace him and become a new debtor to the creditor¹⁷². The one who becomes a new debtor under the *hawale*, *i.e.* the drawee, may have already been a debtor to the debtor. By means of the mechanism the drawee receives a new creditor. Having owed the debtor, the drawee becomes the transferee of the debtor; he replaces the transferor/debtor as the new debtor to the debtor's creditor. To that end, as explained below, stretching but staying within limits prescribed by Islamic doctrine, the *hawale* has developed to affect not only a change of a debtor to a creditor; rather it also developed to effect a change of a creditor to a debtor.

Hawale literally means 'removal'¹⁷³ or 'turn'. It denotes the transference of an obligation from one person to another, constituted by "an agreement by which a debtor is freed from a debt by another becoming responsible for it"¹⁷⁴. What is transferred from the debtor to another person is an obligation to pay the debt; the *hawale* is thus distinguishable from the cession, which is the transfer from the creditor to another person of the right to the money owed or payment due on a debt¹⁷⁵. Strictly speaking, to avoid a terminological confusion, it may thus be better to speak of the *hawale* as covering the transference of an obligation rather than of a debt; the latter is ambiguous and may be taken to mean as relating to either the obligation to pay the debt or the entitlement to the money owed on the debt.

In a *hawale* facilitating a payment mechanism, it is the drawee ('transferee') who substitutes the debtor ('transferor'), and takes over the

¹⁷² A point highlighted by Tyan, *Cession*, *supra* n. 167 at 24.

¹⁷³ This is the preferred word used by *The Hedyā* or *Guide: Commentary on the Mussulman Laws*, trans. by order of the Governor-General and Council of Bengal. By C. Hamilton, 2nd ed. with preface and index, by SG Grady (Lahore: New Book House, 1957) at 330. "The Hedyā or 'guide' ... consists of extracts from the most approved works of the early writers of Mohammadan Law, and was composed in the later half of the 12th century." See *Louka v. Nichola* (1901), 5 Cypr. L.R. 82 at 86, quoted by CA Hooper, *The Civil Law of Palestine and Trans-Jordan*, vol. II (Jerusalem, Azriel Press, 1936) at 24.

¹⁷⁴ For this definition see HAR Gibb & JH Kramers, *Shorter Encyclopaedia of Islam* (Leiden: EJ Brill; London: Luzac, 1953) at 137 where it is further stated that the transference of the obligation "is the angle around which this legal mechanism 'turns'". The word further denotes the document by which the transference of the obligation is completed. *Ibid.* Particularly for other meanings, see also B. Lewis, VL Ménage, Ch. Pellat & J. Schacht, *The Encyclopaedia of Islam* New Edition vol. III (Leiden: EJ Brill; London: Luzac, 1971) at 283-85.

¹⁷⁵ For *cessio* in Roman law, see above Part 3.

debt owed by the latter to the creditor. In a practical setting, a drawee-transferee who owes money to the original debtor-transferor expects not only that his payment to the creditor will confer a discharge on the original debtor-transferor towards the creditor; rather, he also expects that in the process he (the drawee-transferee) will obtain his own discharge towards the original debtor-transferor. A drawee-transferee who does not owe money to the original debtor-transferor intends either to extend credit to him or to give him a discharge from the creditor by way of gift.

Legal theory underlying the *hawale* is contested among the four principal Islamic legal traditions which are the Hanafi, Maliki, Shafi'i, and Hanbali schools of law¹⁷⁶. Among them, the Hanafi school has been prominent in the east, particularly in Iraq and Syria, while the Maliki school has been prominent in the west, particularly in Egypt and North Africa¹⁷⁷. The controversy is ample with practical implications.¹⁷⁸

All Islamic schools require the creditor to become a party to the agreement establishing the *hawale*. These schools vary as to the identity of the other party to the agreement. Under the Hanafi Islamic school of law, the *hawale* is established by the agreement of the creditor and transferee (drawee). A specific agreement by the drawee is thus required. Conversely, under the three non-Hanafi Islamic schools, the *hawale* is established by the agreement of the creditor with the original debtor-transferor; neither the

¹⁷⁶ These schools are discussed by Schacht, Introduction, *supra* n. 166 at 57-68. For a succinct account see Hooper, *supra* n. 173 vol. II at 14-16. All such schools originated mostly in the course of the 2nd century of Islam.

¹⁷⁷ See Schacht, *ibid*, at 65.

¹⁷⁸ For the controversy underlying the *hawale* rules and its implications see Ray, *supra* n. 156 at 60-65. For a comprehensive discussion see A. Chéron & MS Fahmy Bey, "Le transport de dette dans les législations européennes et en droit musulman" II^e partie, "Le transport de dette (*hewala*) en droit musulman" (1931), 22 L'Égypte contemporaine 137. See also Chehata, *supra* n. 166 at 99-102; LWC van den Berg, *Principes du droit musulman selon les rites d' Abou Hanîfah et de Châfi'i*, trans. by R. de France de Tersant (Alger: Typographie Adolphe Jourdan 1896) at 100-01. Translated primary sources relied on are the Hedyā, *supra* n. 173 at 332-34; Khalîl ben Ish'âq, *Abrégé de la loi musulmane selon le rite de l' Imâm Mâlek*, vol. III: Le patrimoine, trans. by GH Bousquet (Alger: La maison des livres, 1961) at 69; Imam Malik ibn Anas, *Al-Muwatta of Imam Malik ibn Anas: The First Formulation of Islamic Law*, trans. by A. Abdurrahman Bewley (London and New York: Kegan Paul International, 1989) at 309 (§36.31); GH Bousquet, traduction française annotée, *Kitâb et-Tanbîh ou Le livre de l'admonition touchant la loi musulmane selon le rite de l'Imâm Ech-Châfi'i* vol. II opérations sur patrimoine (Alger: la maison des livres, 1951) at 34-35 [hereafter: Bousquet, *Kitâb*]; and H. Laoust, *Le Précis de droit d'Ibn Qudâma* (jurisconsulte musulman d'école hanbalite né à Jérusalem en 541/1146, mort à Damas en 620/1223) (Beirut: Institut Français de Damas, 1950) at 104.

agreement nor the consent of the transferee-drawee is required. The latter is dispensed with inasmuch as the transferee-drawee is anyway a debtor to the transferor-debtor. Since under these three schools the *hawale* is conceptualized as the exchange in the creditor's hands of one existing debt (owed by the debtor to the creditor) by another debt (owed by the drawee to the debtor), its operation does not adversely affect the drawee who remains charged with his original liability, though to a different person.

Under all schools the *hawale* may be initiated by the payer-debtor's instruction to the payee-creditor to collect from the drawee. To entitle the payee-creditor upon presentment of the instruction to the drawee, the latter's consent is required under Hanafi rules but is dispensed with under the other schools. However, either way the *hawale* can be conceptualized on the creditor's power's to demand payment from the transferee-drawee so that the *hawale* can be treated as a precursor for a legal doctrine underlying the cheque.

The general rule in Islamic law is that a suretyship does not discharge the liability of the principal debtor to the guaranteed debt¹⁷⁹. Being conceptualized by Hanafi law as the drawee-transferee's guarantee, the *hawale* ought to have accommodated a continuous original debtor-transferor's liability to the creditor¹⁸⁰. Ultimately, however, the notion that prevailed in Hanafi law is that, on the basis of the *hawale*'s effect to 'remove' or transfer the debt from the original debtor-transferor to the drawee-transferee, the original debtor-transferor is to be discharged altogether, other than when collection from the drawee-transferee becomes impossible¹⁸¹. Thus, the original debtor-transferor is taken to remain liable, though only contingently and in a quite limited way, in circumstances described as involving "the destruction of the debt" owed by the drawee-transferee to the creditor. Thus, in Hanafi law, once a *hawale* has been made, the original debtor-transferor becomes liable to the creditor upon the drawee-transferee's death in poverty, as well as when the drawee-transferee denies

¹⁷⁹ See e.g. Schacht, *Introduction, supra* n. 166 at 158-59. This is so at least as long as the guarantee was given at the request of the principal debtor.

¹⁸⁰ According to this logic, it is the drawee-transferee's liability which should have been secondary, or contingent upon the original debtor-transferor's (primary debtor's) default. But see e.g. van den Berg, *supra* n. 178 at 101 who speaks of the effect of the *hawala* under Hanafi law to confer a conditional discharge upon the original debtor, pending a default by the drawee-transferee (which is obviously the reverse of an ordinary suretyship or guarantee).

¹⁸¹ For this conceptualization of the creditor's recourse against the original debtor-transferor see E. Tyan, "Le transport de dettes en droit Ottoman" (1925), 1 *Gazette des Tribunaux Libano-Syriens*, no. 2, 25 at 29 [hereafter: Tyan, Transport].

the *hawale* which nevertheless cannot be proven by the creditor. This contingent liability is rationalized as analogous to the implied warranty of a seller of goods as to their quality¹⁸².

Consistent with their treatment of the *hawale* as a transfer or sale of a debt, all other schools deny to the creditor recourse against the original debtor-transferor who thus does not re-incur liability to the creditor upon the drawee-transferee's default. Yet, other than under the Shafi'i school, this principle is subject to exceptions. Thus, in Maliki law, recourse against the original debtor-transferor is available to the creditor under prescribed narrow circumstances. First, recourse is available against the original debtor-transferor when he is guilty of misrepresentation. Second, recourse is available against the original debtor-transferor where the drawee-transferee is shown to have been insolvent already at the time of the *hawale*¹⁸³. In fact, these are apparent and not real exceptions; continuous debtor-transferor's liability under Maliki law is more for misrepresentation and breach of warranty relating to the drawee-transferee's obligation and solvency than under a pure recourse for non-payment by the drawee-transferee¹⁸⁴. Hanbali law further restricts the creditor's recourse against the original debtor-transferor to a case of drawee's insolvency, but only in circumstances of an obvious error, as well as where the debtor either expressly warranted the drawee's solvency or deceived the creditor in that respect.

In general, all four schools allow creditor's recourse against the debtor when the requirements for effectuating a valid *hawale* have not been satisfied. For example, where a presenting payee-creditor fails to procure the drawee's consent, there is no *hawale* under Hanafi rules, in which case the

¹⁸² For this summary and the quotation see the Hedyā, *supra* n. 173 at 332-33. See also Chéron & Fahmy Bey, *supra* n. 178 at 140 and 162-67 (further elaborating on the controversies and their resolution over the centuries), and Tyan, Transport, *ibid.* at 28-29. According to the Hedyā, drawee-transferee's insolvency (or poverty) prior to death may be temporary and thus does not destroy the drawee-transferee's debt owed to the creditor so as to revive the original debtor-transferor's liability. But *cf.* Tyan nevertheless enumerates also the adjudication of the drawee-transferee's bankruptcy as an event that revives the original debtor-transferor's liability. Certainly, bankruptcy adjudication and the ensuing bankruptcy discharge did not exist in Medieval Islam (or elsewhere during that time).

¹⁸³ According to Khalil ben Ish'âq, *supra* n. 178 at 69, this is so only where the original debtor-transferor was aware of the drawee-transferee's insolvency.

¹⁸⁴ Another apparent exception under Maliki law is where a person voluntarily assumes a debt of another, in which case, upon his death or insolvency, recourse is available to the creditor against the original debtor. Malik ibn Anas, *supra* n. 178 at 309 (§36.31). Per Maliki doctrine this is however not a case of *hawale*, which is established by the agreement of the original debtor and creditor, and does not involve the voluntary undertaking of the drawee.

payee-creditor has not lost his remedy against the payer-debtor. An unresolved question in the Hanafi, Maliki and Shafi'i schools is the effect of an express term by the creditor as to either availability of recourse against, or continued liability of, the original debtor, whether in general, or under specified circumstances¹⁸⁵.

According to the Hanafi school, there is no requirement for a preexisting debt owed by the drawee-transferee to the original debtor-transferor; being a voluntary undertaking by him, the drawee-transferee may incur liability on a *hawale* as he wishes, whether or not he is indebted to the transferor-original debtor. Conversely, under all non-Hanafi schools, the drawee-transferee must have been liable for the money owed, albeit to the original debtor-transferor. An attempted *hawale* by a drawee-transferee who does not owe to the transferor is treated in Maliki law as an undertaking to pay the debt of another (namely, that of the original debtor). Such drawee's undertaking constitutes an "indemnity" contract¹⁸⁶. An indemnity contract is created by express words of the indemnifier and is treated as an undertaking by him to substitute the original debtor who is thereby released. No recourse against the original debtor is thus available to the creditor who accepted the indemnity. This is however only as long as the indemnity contract was pronounced between the indemnifier (that is, the drawee-transferee) and the creditor in clear and unambiguous language; otherwise, as where the creditor is not aware of the fact that he is paid out of an overdrawn account of the debtor¹⁸⁷, the latter remains bound on his original debt to the creditor¹⁸⁸.

In the final analysis, by itself, in the broad sense, the *hawale* is not a distinct type of an Islamic payment instrument; rather, the *hawale* is the legal

¹⁸⁵ Chéron & Fahmy Bey, *supra* n. 178 discuss this issue at 170-72 for all three schools but do not mention it in connection with Hanabali law. On the basis of the restrictive view of the Hanabali school on the availability of recourse (as in fact pointed out by these authors, *ibid.* at 171-72), one may speculate that this school does not treat such term as effective. According to van den Berg, *supra* n. 178 at 101, in Shafi'i law, recourse cannot be made available even by contract; Chéron & Fahmy Bey, *supra* n. 178 at 172 acknowledge this to be the dominant view of the Shafi'i school but cite a Shafi'ite opinion according to which this is an effective stipulation as long as it is stated to be an essential condition to the creditor's consent.

¹⁸⁶ Talbi, *supra* n. 160 at 433 does not use the term 'indemnity' (or any equivalent in French) and refers to such a contract as *hamāla*. However, according to Foster, the *hamala*, which is a synonym of *kafla*, is an ordinary guarantee, so that the indemnity contract which "should not be confused with the *hamala*" is the *haml*. See NHD Foster, "The Islamic Law of Guarantees" (2001), 16 Arab L.Q. 133 at 152.

¹⁸⁷ *Ibid.*

¹⁸⁸ Talbi, *ibid.*, at 433; and Foster, *supra* n. 186 at 152-53.

concept under which such instruments, and even oral agreements, operate as payment mechanisms¹⁸⁹. To that end, the term is also used to denote any document or arrangement which triggers the application of the *hawale*. It is a bilateral contract¹⁹⁰ between the creditor and either the drawee-transferee under Hanafi law, or the debtor-transferor according to the other schools. Either way, insofar as it embodies both an order to pay and a mandate to collect, the *hawale* suits to provide an underlying legal framework for the operation of a cheque transaction.

6. Cheques under Roman law in the late Middle Ages in Continental Europe

Cheques emerged in Continental Europe as enhancements to book transfers practiced by deposit bankers. In the Medieval era, deposit banking is said to be the outgrowth of manual money change¹⁹¹. As originally in Ancient Greece¹⁹², it was the moneychanger who commenced to take deposits. By 1350, in becoming bankers¹⁹³, moneychangers developed a system of local payments by book transfers, with the view of eliminating “[t]he great inconvenience of making all payments in specie, especially the

¹⁸⁹ The term is not mentioned in the *Geniza* (see Goitein, *supra* n. 158 at 460, n. 63 (for text at 241); arguably, this is so since, unlike the *ruq'a*, *sakk* and *suftaj*, the *hawale* is not a distinct category of a payment instrument. And yet it is quite common to refer to the *hawale* as a financial technique, side by side with the other instruments. See e.g. AL Udovitch, “Reflections on the Institutions of Credits and Banking in the Medieval Islamic Near East” (1975), 41 *Studia Islamica* 5 at 10 and AL Udovitch, “Bankers without Banks: Commerce, Banking, and Society in the Islamic World of the Middle Ages”, in Centre for Medieval and Renaissance Studies University of California, Los Angeles, ed., *The Dawn of Modern Banking* (New Haven and London: Yale University Press, 1979) at 263.

¹⁹⁰ Notwithstanding Rayner who asserts the *hawale* is a unilateral contract. See SE Rayner, *The Theory of Contracts in Islamic Law* (London; Graham & Trotman, 1991) at 307.

¹⁹¹ The view that attributes an important role in the early era of banking to the lending function, expressed by AE Sayous, “Les opérations des banquiers Italiens en Italie et aux Foires de Champagne pendant le XIII^e siècle” (1932) 170 *Revue Historique* 1 at 2 and 6, is now disfavoured. See e.g. MW Hall, “Early Bankers in the Genoese Notarial Records” (1935), 6 *Economic History Review* 73. At 76 and of R. De Roover, “New Interpretations of the History of Banking”, in J. Kirshner, ed., *Business, Banking, and Economic Thought in Late Medieval and Early Modern Europe: Selected Studies of Raymond de Roover* (Chicago and London: University of Chicago Press, 1974, Phoenix Edition 1976) at 200, 202 [hereafter: De Roover, “New Interpretations”].

¹⁹² See above beginning of Part 2.

¹⁹³ De Roover, “New Interpretations” *supra* n. 191 at 213.

waste of time involved in counting coin”¹⁹⁴. As in 12th century Genoa, the system that developed was strictly local; no facility for inter-city book transfers is known to have existed throughout the Middle Ages¹⁹⁵.

This pattern is evidenced by Venetian banking experience. Between late 13th and early 14th century the moneychangers of Venice, the *campsores*, became bankers¹⁹⁶. They accepted deposits, lent out of them, and provided payment services from and to current accounts kept with them¹⁹⁷. Bankers kept with them only a fractional reserve, namely, a limited amount of coined money, ready to satisfy an anticipated demand for cash withdrawal; they lent or invested most money received on deposit. Availability of payment by book transfers, recognized by early 14th century legislation in Venice, allowed banks to reduce cash holdings even further and increase their investments and credit extensions. This type of local banking system had spread in Continental Europe throughout the 14th and 15th centuries. It was premised on deposits made by customers for convenience or safekeeping.

Customers held with bankers current accounts, in which deposits were made, to be used for book transfers. Parties to a book transfer had to appear in person before the bankers; that is, only oral payment orders were accepted. Written orders, as distinguished from letters authorizing agents to act on behalf of parties, did not exist. The inscription by a banker of a debit and credit in a current account was authoritative as a notarial instrument, and

¹⁹⁴ See R. De Roover, “What is Dry Exchange?” in J. Kirshner, ed., *Business, Banking, and Economic Thought in Late Medieval and Early Modern Europe: Selected Studies of Raymond de Roover* (Chicago and London: University of Chicago Press, 1974, Phoenix Edition 1976) 183 at 184.

¹⁹⁵ A Medieval banker could be (i) a pawnbroker, (ii) a moneychanger who accepted deposits, or (iii) a merchant banker dealing in exchange. These were three distinct categories and only exchange bankers were involved in international (namely, inter-city) payments (that did not involve cheques). See R. De Roover, “Banking and Credit in the Formation of Capitalism”, Fifth International Conference of Economic History Leningrad 1970 (Paris, 1979) at 9 [hereafter: De Roover, “Banking and Credit”]. See in detail, R. De Roover, *Money, Banking and Credit in Mediaeval Bruges: Italian Merchant Bankers, Lombards and Money Changers: A Study in the Origins of Banking* (Cambridge, Mass.: The Mediaeval Academy of America, 1948; republished, London: Routledge/Thoemmes Pres, 1999 as vol. II of *The Emergence of International Business, 1200-1800*).

¹⁹⁶ W. Holdsworth, *A History of English Law*, vol. VIII (London: Methuen & Co., Sweet and Maxwell, 2nd ed.: 1937, rep. 1966) at 178 (though unfortunately at 128 he mistakenly attributes the invention, use and development of the bill of exchange to moneychangers, or in his language, to “the exchangers, whose business it was to give coins of one state in exchange for the equivalent value of coins of another state...”).

¹⁹⁷ See in detail: RC Mueller, “The Role of Bank Money in Venice, 1300-1500”, in *Fondazione Giorgio Cini et al., eds., Studi veneziani* (NS), vol. III (Giardini, 1979) at 47.

hence reliable. The personal-presence requirement did not involve any inconvenience since bankers and merchants were all located close to each other.

Bankers held accounts with each other which may have allowed for interbank transfers, albeit under a procedure that I was unable to ascertain¹⁹⁸. Accounts among major banks may have been settled only on irregular intervals. In fact, the existence of correspondent accounts by banks with each other was often abused. Such was the case when a customer wishing to withdraw cash was sent by his banker to a correspondent (holding an account for the customer's banker) – who may have sent the customer to another correspondent (holding an account for the correspondent of the customer's banker) – and so on.

De Roover explains payment by book transfer as an “assignment in bank” which “[a]ccording to the medieval jurists ... discharged the debtor from any other obligation.”¹⁹⁹ Relying particularly on a 14th century Italian jurist named Bartolo Da Sassiferrato, he refers to the book transfer as an ‘assignation’²⁰⁰, requiring the consent of the debtor, banker, and creditor. Upon the occurrence in a bank of that transaction, the debtor is irrevocably discharged, so that the transfer is equal to payment in current coins. This is so “on condition that the banker or moneychanger promises the creditor to hold the sum transferred at the creditor's disposition.” This rule effectively treats the book entry on the banker's books as an absolute discharge of the original debt, upon which the creditor forfeits his recourse against the original debtor. The rule is said, however, to apply only to a bank transfer. Otherwise, that is in an ‘assignation’ on a third-party other than a public moneychanger, the creditor keeps his recourse right against the debtor in case the non-bank third party declines to honour his undertaking²⁰¹.

¹⁹⁸ Note that contrary to Mueller above note 34 at 74-76, M. Manning, E. Nier & J. Schanz, eds., *The Economics of Large-value Payments and Settlement: Theory and Policy Issues for Central Banks* (Oxford: Oxford University Press, 2009) at 24 find “no conclusive evidence” for interbank transfers in Medieval Venice.

¹⁹⁹ De Roover, “New Interpretations”, *supra* n. 191 at 215, 216.

²⁰⁰ For this term see above towards the end of Part 3.

²⁰¹ R. De Roover, *L'Evolution de la Lettre de Change XIV^e – XVIII^e siècles* (Paris: Librairie Armand Colin, 1953) at 208. See also at 212-13. In these three pages he summarizes the views of Bartolo Da Sassofferato (1314-1357); Baldo Degli Ubaldi (1327-1400); and Giasone Del Maino (1435-1519). De Roover acknowledges (at 208) Bartolo's text to be “obscure” but, at 85-87, claims to follow its usual interpretation including by the two other jurists.

Underlying this distinction is the fact that the similarity between the bank and merchant book-transfers could not be overstated. In some respects, a debt owed by a merchant is not the same as a debt owed by a deposit banker. True, a deposit banker is not necessarily more solvent than an established merchant. Nonetheless, one's random debtor's debtor may be less reliable or creditworthy than one's debtor, and certainly, unlike one's banker, had not been pre-selected. Furthermore, already in the Middle Ages deposit bankers were subject to some degree of public scrutiny and regulation²⁰². Moreover, the theory under which payment on the books of a deposit banker may be treated by the payee/creditor as the equivalent of payment in cash, is premised on the assumption that the payee in any event would have deposited the cash received from the payer/debtor with the deposit banker, thereby replacing the payer by the deposit banker as his debtor. Payment by bank book-transfer eliminates the cumbersome process of counting and assessing the quality of the coins received²⁰³, so that the book transfer on the deposit banker's books is in effect a short-cut to a bank deposit, bypassing altogether the cash payment of which it consists. It is against this background that a debtor paying by means of a bank book-debt is absolutely discharged, as if he handed the cash which was then deposited by the payee-creditor with the banker.

This cannot be said on a debt owed by a merchant. Hence, a creditor paid by means of a debt owed by a merchant, as opposed to a debt owed by a deposit banker, is not to be deemed as relinquishing his claim against the original debtor. Stated otherwise, grounds making the effect of the bank book-transfer to release the debtor altogether, do not exist in the case of a non-banking book transfer. Had the law insisted on complete substitution, the procedure would have been less prevalent, and its practice would have been limited to circumstances where the replacing debtor (drawee) had been pre-screened so as to be absolutely acceptable to the transferee/payee in lieu of the original debtor (transferor). With this in mind, Medieval legal doctrine treated the non-banking transfer as carried out with recourse against the transferor/payer, to become available to the payee upon the default of the drawee, the latter being the merchant on whose books the transfer was carried out.

Unfortunately, terminology used by De Roover is confusing. First, as indicated above at the end of Part 3, assignation denotes a transfer with

²⁰² For Venice, see e.g. Mueller, *supra* n. 197, particularly at 73-74 (licensing and bonding requirements) as well as 49, 52-53, 62-64, and 84-90.

²⁰³ For a 15th century quote to a similar end see Mueller, *ibid*, at 49.

recourse. The bank book transfer is without recourse and hence to characterize it as assignation seems to be problematic. Alternatively, while *cessio* gives absolute discharge, like *assignatio*, it does not require the drawee's consent. Conversely, the Medieval banking book transfer requires the presence and consent of all three parties, namely, debtor-payer, creditor-payee, and drawee-banker. Indeed, a drawee-banker is likely to agree to the transfer of a credit balance from the account of one customer to that of another, and may breach his contract with the transferor if he declines to act on the latter's transfer instructions; hence the banker's consent is likely to be routinely given. At the same time, his consent and affirmative response in the form of posting on his books the entries reflecting the book transfer is an essential component of the payment transaction; this precludes the book transfer from being not only *assignatio* but also *cessio* from the payer/debtor to the payee/creditor.

For its part, the presence-of-all-three requirement, and hence, the lack of reliance on a written instruction, was bound to eliminate fraud. As indicated, the requirement was not a source of inconvenience, because usually all three were situated in the same vicinity and the banker tended to keep his books available on his desk²⁰⁴. However, on occasion, the debtor was ill and thus inhibited from coming to the banker. It is on such rare occasions that written payment orders started to be used. Gradually however, already throughout the 14th and 15th centuries, written payment orders spread and became common, first in Italy, outside Venice, particularly in Tuscany, including Florence, and then elsewhere outside Italy²⁰⁵. Initially, “[w]ritten instruments could be used ... only as supplementary memoranda or as instruments appointing an agent”²⁰⁶. When they became payment orders, whose presentment to the banker by one party dispensed with the presence of the other, their function was to generate either a cash payment or a book transfer.

Possibly some of such payment orders were in effect cheques, each issued by the payer/debtor to the payee/creditor, instructing the banker to pay to the payee/creditor, as well as authorizing the payee/creditor to collect

²⁰⁴ A point highlighted by AP Usher, *The Early History of Deposit Banking in Mediterranean Europe* vol. I (Cambridge, Mass: Harvard University Press, 1943) at 8 (covering 1240-1723 in Catalonia) at 90, where he speaks of “the custom of transacting all important business in person if possible” as facilitated by “[t]he compactness of medieval and early modern towns and the concentration of the commercial community...”.

²⁰⁵ For Barcelona, see e.g. Usher, *ibid.*, at 283-88.

²⁰⁶ *Ibid.*, at 283.

from the banker. It is in this process that a Medieval cheque mechanism was born. Medieval cheques were not negotiable, usually even non-transferable²⁰⁷; possibly other than in specific times and places they were not widely used²⁰⁸. They initiated either a payment in cash or a book transfer; either way the cheque accomplished “the transfer of the [depositor-drawer’s] right against the banker to [the payee].”²⁰⁹

As stated above in Part I²¹⁰, to be a cheque, an instrument containing a double mandate, to the banker to pay and the payee to collect, must confer on the payee the right to apply the proceeds to his own use, particularly in payment of a debt owed to him by the instrument issuer, i.e. the drawer. This right may be towards drawee-banker and/or the drawer. Stated otherwise, either the issue or presentment of the instrument to the banker may transfer or confer rights on the payee towards the drawee. Alternatively or in addition, either its issue or presentation to the banker need affect the drawer’s rights towards the payee. Unfortunately, in the process just described, it is not clear to me when the payee acquired such rights. Stated otherwise, I have not been able to find a discussion on the payee’s rights between the issuance of the cheque to him and the payment of the cheque whether in cash or in the form of credit posted to his account.

²⁰⁷ However, notwithstanding sources in the ensuing note, see the in-depth discussion (in Italian) of F. Melis, *Note di Storia della Banca Pisana nel Trecento* (Pisa: Società Storica Pisana, 1955) on an extensive cheque collection from the second half of the 14th century in Tuscany. Melis identifies cheques transferable by the instruction of the payee placed on the back (*recto*) of the cheque (*ibid.* at 112). The example given is of a situation in which the transferee was identified in the original cheque, that is, the payee was authorized to transfer the cheque to a specified transferee, from which I gather that no further transfer could have been made. This is of course a far cry from free circulation. I relied on an informal partial translation of Melis.

²⁰⁸ See in general, De Roover, “New Interpretations”, *supra* n. 191 at 216-17 as well as Usher, *supra* n. 204 at 90-94. For an extensive discussion, see M. Spallanzani, “A Note on Florentine Banking in the Renaissance: Orders of Payment and Cheques” (1978), 7:1 *Journal of European Economic History* 145. The author points out (e.g. at 146) the difficulty in identifying with certainty those payment orders which are cheques. Furthermore, his definition of “cheque” (at 148), as “an order of payment issued on a bank ... by someone who has funds available” is too broad and in effect does not distinguish between a cheque and a payment order issued directly to the bank on which it is drawn. At the same time, my overall impression from the article is that he speaks of a “cheque” in the correct sense.

²⁰⁹ Usher, *ibid.* at 91, referring in the quoted language to the depositor-drawer as ‘creditor’ (of the bank) and to his own (the ‘creditor’-depositor-drawer’s) creditor, namely to the payee, as the “third party”.

²¹⁰ Paragraph containing notes 41-44, above.

Enhancements in both practice and legal doctrine subsequently took place in Amsterdam, presumably in the transition from the 16th to the 17th century²¹¹. Thus, moneychangers, ‘transformed’ into ‘cashiers’ (or *kassiers* in Dutch), facilitated payments initiated by “written ... *assignaties*.” These instruments, embodying depositors’ payment orders given to their ‘cashiers’, “acted as cheques” that “[l]ike bills of exchange... were endorsable and thus might pass, as means of payment, from hand to hand.”²¹²

The use of such instruments spread with the establishment in 1609 of the Bank of Amsterdam (the *Wisselbank*)²¹³. To a large extent its operations superseded those of the moneychangers²¹⁴, and further heralded the appearance of other Continental public banks. Compelling merchants to open accounts with them, Continental public banks were deposit and transfer banks. Some allowed the use of cheques (or ‘assignments’)²¹⁵; others insisted on oral orders in the presence of all parties. Dave De Ruyscher speaks of the use during the first decades of the 17th century of “[o]rder notes ... called *assignatiën*” containing “orders of payment directed at the commissioners of the Bank of Amsterdam” which “introduced the Italian ‘*assengo in banco*’ on the Amsterdam market”²¹⁶. Presumably the issuance of such instruments

²¹¹ “By the 1690s Amsterdam was the world capital of financial innovation.” See N. Ferguson, *The Ascent of Money: A Financial History of the World* (New York: Penguin Press, 2008) at 127.

²¹² P. Dehing & M. ’T Hart, “Linking the Fortunes: Currency and Banking, 1550-1800” in M. ’T Hart, J. Jonker & J.L. Van Zanden, eds., *A Financial History of the Netherlands* (Cambridge: Cambridge University Press, 1997) at 37, 43. See also P. Spufford, “Access to Credit and Capital in the Commercial Centres of Europe”, in K. Davids & J. Lucassen, eds., *A Miracle Mirrored: The Dutch Republic in European Perspective* (Cambridge: Cambridge University Press, 1995) at 303, 306.

²¹³ For example, for the Bank of Amsterdam (founded at the beginning of the 17th century) and discussed further below, see JG Van Dillen, “The Bank of Amsterdam”, in JG Van Dillen, ed., *History of the Principal Public Banks* (London: Frank Cass, 1964, being 2nd impression of the 1934 1st edition, The Hague: Martinus Nijhoff, 1934) at 79, 84.

²¹⁴ P. Dehing & M. ’T Hart, *supra* n. 212 at 43-44, note that with the establishment of the Bank of Amsterdam in 1609 “the municipal authorities of Amsterdam temporarily prohibited all money changers and cashiers and their paper money...”. The ban was lifted in 1621 “and the remaining money changers and cashiers became licensed officials.” However, in this new capacity, cashiers were required to hold accounts with the Bank of Amsterdam and were prohibited from keeping money in specie for longer than 24 hours.

²¹⁵ See e.g. for the Bank of Amsterdam, Van Dillen, *supra* n. 213 at 86 where it is further stated that “[t]he assignments should be handed in by the customer personally or by his proxy.”

²¹⁶ Dave De Ruyscher, “Innovating Financial Law in Early Modern Europe: Transfer of Commercial Paper and Recourse of Liability in Legislation and *Ius Commune* (Sixteenth to Eighteenth Centuries)” (2011) 5 *European Review of Private Law* 505 at 510.

to payees did not discharge the payers. In his view it is the Dutch *assignatio* which links between Roman law and statutory provisions in Germany (BGB §§783-92)²¹⁷ and Switzerland (CO arts. 466-71)²¹⁸ addressing payment orders.

Under both Swiss CO art. 466 and German BGB §783, an order constitutes a double authority from the order giver (the ‘drawer’ in Germany). First, it is directed to the recipient of the order (drawee) to pay²¹⁹ the payee for the account of the order giver/drawer. Second, the order is directed to the payee, authorizing him to collect in his own name from the drawee. In both Switzerland (CO art. 468(1)) and Germany (BGB §784(1)), acceptance of the order by the drawee binds him towards the payee. Nevertheless, in both Switzerland (CO art. 467(1)) and Germany (BGB §788), where the order is intended to discharge a debt of the order giver/drawer to the payee, the debt is discharged only upon payment by the drawee to the payee. Stated otherwise, the acceptance by the drawee does not serve as an absolute discharge to the order giver/drawer towards the payee. In Switzerland, under CO art. 467(2), “the payee who has agreed to the order can only renew his claim against the order giver if, having demanded payment from the recipient of the order, he was unable to obtain it at the expiration of the term stated in the order.” The issuance of the payment order thus suspends the obligation of the order giver/payer and operates to conditionally discharge it. Under CO art. 467(3), to avoid liability for damages, the payee who receives the order directly from the order giver must, if he does not intend to follow up his claim on it, notify the order giver of his refusal promptly.

By way of summary, in post Medieval Europe, the cheque emerged as an instrument issued by a payer to a payee and containing a double mandate ordering a banker to pay and authorizing the payee to collect. When the instrument evolved to confer rights on the payee towards the drawee and/or the drawer it became a ‘cheque’. This evolution requires further research.

²¹⁷ *The German Civil Code*, Revised Edition translated with an Introduction by SL Goren, (Littleton, Colo.: Fred B. Rothman & Co., 1994).

²¹⁸ *Swiss Code of Obligations*, English Translation of the Official Text, Volume I Contract Law (Zurich: Swiss-American Chamber of Commerce, 2008).

²¹⁹ Under the provisions, the order directed to the drawee may be to remit to the payee money, securities or other fungibles. We are concerned here only with the remittance (namely, payment) of money.

7. Cheques and cheque law come of age in post-Medieval England

Except for the ongoing introduction over the years of technological improvements, the fundamentals of the modern cheque system can directly be traced to the 17th century interbank goldsmith cheque system²²⁰. For its part, the cheque system served also as a model for ensuing systems for the clearing and settlement of payment orders other than those on a cheque.

During the second half of the 17th century, through a tight network of correspondent banking facilitating a systematic debt clearing, goldsmith banking allowed interbank customer payments to take place on a regular basis²²¹. It was this tight network which underlay the emergence of a national banking system facilitating both a national payment system premised on the cheque as well as the indispensable role of banks as financial intermediaries. Arguably, it is the efficiency attributed to that network which enabled the goldsmiths to supersede altogether the scribes, on whose services as depositaries the goldsmiths themselves counted in the early days of their monetary operations²²².

Richards²²³ identifies *Vyner v. Clipsham*,²²⁴ as “[p]robably the first case involving the use of cheques.”²²⁵ According to his account, the case demonstrates the existence, albeit not the operation, of an interbank goldsmith system. It was concerned with a transfer from an account of a customer with one goldsmith to an account of the same customer with another goldsmith. The transfer was carried out by means of a cheque drawn on one goldsmith and deposited into the account with the other. The latter paid the depositor twice and was seeking to recover the second payment.

The goldsmith network manifested itself primarily in the effective clearing of interbank payments embodied in banknotes and cheques. The

²²⁰ The goldsmith cheque system developed to lay the foundations of the national cheque system as we know it today. See e.g. Vasseur & Marin, *supra* n. 57 at 11 where they also acknowledge that France followed suit in the middle of the 19th century.

²²¹ See in detail, S. Quinn, “Balances and goldsmith-bankers: the co-ordination and control of inter-banker debt clearing in seventeenth-century London”, in D. Mitchell, ed., *Goldsmiths, Silversmiths and Bankers: Innovation and the Transfer of Skill, 1550 to 1750* (London: Alan Sutton Publishing and Centre for Metropolitan History, 1995) at 53.

²²² For the use of the scribes by the goldsmith in the early days of the latter monetary operations, see e.g. see A. Feavearyear, *The Pound Sterling -- A History of English Money*, 2nd ed. by EV Morgan (Oxford: Clarendon Press, 1963) at 102.

²²³ Richards, *supra* n. 50 at 49-50.

²²⁴ Richards, *ibid*, cites it as PRO, Ch P., before 1714 (Reynardson), 35/66. I was unable to verify this source.

²²⁵ Holden, *supra* n.47 at 209.

goldsmith clearing system was strictly bilateral. “Moreover, the goldsmith-bankers avoided depositing large sums with each other by routinely creating overdrafts.”²²⁶ Stated otherwise, a goldsmith did not demand from a fellow-goldsmith a positive balance as a precondition for paying an instrument presented to him by the fellow-goldsmith. Rather, a cheque delivered for collection to a ‘cashing’ goldsmith was immediately paid by him in reliance on credit he extended to the fellow-goldsmith on which the cheque was drawn²²⁷. This did not unnecessarily tie up funds, and thus facilitated expansion²²⁸.

The initial trust, without which the system could not have operated, may be explained by the goldsmith trade’s earlier specialization in precious metals and the lengthy intensive apprenticeship required for the purpose of becoming a goldsmith. This method of apprenticeship was fully adapted to train the goldsmith to become a banker. “In exchange of seven years of non-wage skilled labour and often an initial fee, the master taught the apprentice the necessary banking skills, introduced him to established bankers and developed the ground work for a long professional relationship.”²²⁹ Thus, in laying down the foundations for the modern banking system on the basis of concepts and institutions that had already evolved elsewhere, London bankers took advantage of their goldsmith background and put it into use.

As pointed out in Part 1 above, the cheque has been overwhelmingly regarded as a type of a negotiable bill of exchange. Historically, this is incorrect. It is however true that the cheque evolved in England side by side with the transformation of the medieval bill of exchange both into (i) an instrument for the inland remittance of funds entitling the payee to recover thereon from the drawer with whom he has not dealt²³⁰ and (ii) an instrument

²²⁶ Quinn, *supra* n. 221 at 54.

²²⁷ This improved on the Amsterdam Exchange Bank system under which a bill presented for payment was paid on the following day and only against an offsetting bill in the opposite direction. See Quinn, *ibid*, at 55 and Richards *supra* n. 50 at 234-35.

²²⁸ At the same time, in this mutual dependence lies the roots of the ‘systemic risk’, being presently defined as “the risk that the inability of one of the participants to meet its obligations ... could result in the inability of other system participants ... to meet their obligations as they become due.” Committee on Payment and Settlement Systems (CPSS), *Core Principles for Systemically Important Payment Systems* (Basle: Bank for International Settlements, January 2001) at 5.

²²⁹ Quinn, *supra* n. 221 at 61.

²³⁰ *Chat and Edgar Case* (1663) 1 Keble 636, 83 E.R. 1156 (where having been indebted to the payee, the remitter instructed the drawer to issue a bill of exchange payable to the payee). For the earlier use of the bill of exchange as a machinery for the execution of an inter-city exchange transaction see *Burton v. Davy* (1437) 49 Selden Society 3, Select Cases

transferable by negotiation, that is, endorsement (where it is payable to a named payee) and delivery²³¹. This generated unavoidable convergence between the laws governing these two instruments so that pragmatically it became convenient to treat the cheque as a type of a bill of exchange.

Perhaps the awareness of the distinct nature of the cheque led to the fact that judicial pronouncement of it as a type of a negotiable bill of exchange came late, and not without hesitation²³². To begin with, *Grant v. Vaughan* (1764)²³³ held that a “cash-note” drawn upon a banker, namely a cheque, payable to a named payee or bearer, is “by law, negotiable”²³⁴. Subsequently, *Boehm v. Sterling* (1797)²³⁵ was an action brought “upon a bill of exchange”²³⁶ to enforce payment on a cheque payable to the bearer. It was, however, argued in that case that in contrast to the note, the cheque is not considered negotiable, so that “whoever receives it in payment takes it on the credit of the person giving it and not on the intrinsic credit of the instrument itself”²³⁷. In the final analysis in that case, to Lord Kenyon, this proposition “appear[ed] most extraordinary”²³⁸, and he dismissed it outright. Similarly, albeit only as late as in the middle of the 19th century, *Serle v. Norton* (1841)²³⁹ did not question the right of a non-payee holder of a cheque payable to the order to sue the drawer²⁴⁰.

The nature of a cheque as a negotiable bill of exchange was finally confirmed, albeit not without being first challenged, quite late, in *Keene v. Beard* (1860)²⁴¹. In the course of his judgment, Byles J. was of the view

Concerning the Law Merchant (H. Hall, ed., London: Bernard Quaritch, 1932) 117 as explained e.g. by JS Rogers, *The Early History of the Law of Bills and Notes: A Study of the Origins of Anglo-American Commercial Law* (Cambridge: Cambridge University Press, 1995) at 44-5.

²³¹ *Anon.* (1694) Holt, K.B. 115, 90 E.R. 962; *Williams v. Field* (1694) 3 Salk. 68, 91 E.R. 696. For an earlier obiter to that effect see *Hodges v. Steward* (1692), 1 Salk. 125, 91 E.R. 117 (second point). See also *Claxton v. Swift* (1685) 3 Mod. 86, 87 E.R. 55.

²³² For a review of the process, see Holden, *supra* n.47 at 215-19.

²³³ 3 Burr. 1516, 97 E.R. 957.

²³⁴ *Ibid.* at 1523 (Burr.), 961 (E.R.).

²³⁵ 7 T.R. 423, 101 E.R. 1055.

²³⁶ *Ibid.* at 423 (T.R.), 1056 (E.R.).

²³⁷ *Ibid.* at 428 (T.R.), 1058 (E.R.).

²³⁸ *Ibid.* at 430 (T.R.), 1059 (E.R.).

²³⁹ 2 M. & Rob. 401, 174 E.R. 331.

²⁴⁰ Unfortunately, the Report contains a “somewhat irrelevant and certainly inaccurate footnote” to the contrary. See Holden, *supra* n. 47 at 218.

²⁴¹ 8 C.B. (N.S.) 372, 141 E.R. 1210.

that a cheque “has ... all the incidents of an ordinary bill of exchange”²⁴²; as such it “falls within the class of ordinary bills of exchange”²⁴³.

Interestingly, Byles J. pointed out two unique features of a cheque which distinguish it from an ordinary bill of exchange. In his view, a cheque “is not discharged by delay in the presentment, unless ... he has been prejudiced thereby”²⁴⁴. On this point his ruling was subsequently codified²⁴⁵. As well he stated, a cheque appropriates drawer’s funds held by the drawee²⁴⁶. On this point he was subsequently overruled in *Hopkinson v. Forster*, (1874). In that case, having been “sure that [Byles J.] never meant to lay down that a banker who dishonoured a cheque is liable in a suit in equity by the holder,” Jessel M.R. specifically stated that being “a bill of exchange payable at a banker” “A cheque is clearly not an assignment of money in the hands of a banker”²⁴⁷.

This position was codified. To begin with, “[a] cheque is a bill of exchange drawn on a banker payable on demand,” so that in principle, “... the provisions of [the BEA] applicable to a bill of exchange payable on demand apply to a cheque”²⁴⁸. Accordingly, as any bill of exchange, a cheque, by itself, “does not operate as an assignment of funds in the hands of the drawee available for payment thereof, and the drawee... who does not accept²⁴⁹ ... is not liable on the instrument”²⁵⁰. For its part acceptance *per se* is not practiced with respect to cheques and is even precluded altogether under ULC art. 4 which goes on to provide that “A statement of acceptance on a cheque shall be disregarded”. Hence, upon the dishonour²⁵¹ of a

²⁴² *Ibid.* at 381 (C.B.), 1213 (E.R.).

²⁴³ *Ibid.* at 381 (C.B.), 1214 (E.R.).

²⁴⁴ *Supra* n. 241 at 381 (C.B.), 1213 (E.R.).

²⁴⁵ See s. 74 in the UK and Israel, s. 166 in Canada, and s. 60(1) in Australia.

²⁴⁶ *Supra* n. 241 at 381 (C.B.), 1213 (E.R.).

²⁴⁷ L.R. 19 Eq. 74 at 76.

²⁴⁸ BEA s. 73 in the UK; 165(2) in Canada; s. 73 in Israel; s. 71 (in conjunction with s. 1) in South Africa.

²⁴⁹ The acceptance of a bill of exchange (which other than in Australia includes a cheque is defined as ‘the signification by the drawee of his assent to the order of the drawer’. See s. 34(1) in Canada, s. 17(1) in the UK, s. 15(1) in South Africa, and s. 16(a) in Israel. No cheque acceptance is provided for in Australia under the Cheques Act. Cheque acceptance is precluded under ULC art. 4. Acceptance of a bill of exchange is governed by ULB arts. 21-29.

²⁵⁰ S. 53(1) in the UK, to which correspond s. 126 in Canada, s. 53(a) in Israel, s. 51 in South Africa, and s. 88 in Australia. See also UCC §3-408 (almost verbatim). This is the rule also under the ULC even in the absence of a parallel provision.

²⁵¹ A cheque is dishonoured by non-payment when it is duly presented for payment and payment is refused or cannot be obtained, or when presentment is excused. See s. 47(1) in the UK, s. 45(1) in South Africa, s. 94(1) in Canada, and s. 46(a) in Israel, Cf. s. 69 in Australia

cheque, as in the case of any unaccepted bill of exchange, regardless of the availability of funds owed by the drawee to the drawer, the payee has no remedy against the drawee. The payee's sole recourse is against the drawer, both on the underlying transaction²⁵² and the instrument²⁵³.

A prominent avenue fastening liability on a drawee who has not accepted nonetheless exists under French law. This route allows the holder to recover from the drawee on the basis of *la provision*, namely, what the drawee owes the drawer, even without an acceptance²⁵⁴. This exception originated in connection with bills of exchange and extended to apply to cheques²⁵⁵. As understood in French law in the late 17th century²⁵⁶, *la provision* is constituted by the sum of money held by the drawee for the drawer, or perhaps, more specifically, provided to the drawee by the drawer, with which the drawee is obligated to pay the bill. However, over the years, *la provision* acquired a more subtle and in fact broader meaning. It has become the drawer's right towards the drawee that may not necessarily be constituted only by a sum of money held by the latter to the former. *La provision* is thus distinguished from both 'cover' and 'value'; 'cover' requires an actual asset, possibly a sum of money, and 'value' refers to what is, or to be, provided by

providing that a cheque is dishonoured 'if the cheque is duly presented for payment and payment is refused by the drawee [bank], being a refusal that is communicated by the drawee [bank] to the holder ...' The ULC does not use the term 'dishonour' but rather speaks (in s. 40) of the refusal to pay upon presentment.

²⁵² See *Re Charge Card Services Ltd* [1988] 3 All E.R. 702 at 707 (C.A.) applying *Sayer v. Wagstaff* (1844) 5 Beav. 415, 423; 49 ER 639, 642 (dealing with payment by promissory note as a conditional payment).

²⁵³ As a rule, the holder may recover from any preceding party who has signed the instrument. See s. 47(2) in the UK, s. 45(2) in South Africa, s. 94(2) in Canada, s. 46(b) in Israel, and s. 70 in Australia. For the drawer's engagement to compensate the holder upon the dishonour of the cheque, see s. 55(1)(a) in the UK, s. 53(1)(a) in South Africa, s. 129(a) in Canada, s. 55(a)(1) in Israel, and s. 71 in Australia. Since under the Cheques Act 'dishonour' does not include circumstances where presentment is excused, the drawer's undertaking to compensate the holder is stated to cover the case where the presentment of the cheque for payment is dispensed with. For recourse for non-payment against parties liable on a cheque see ULC art. 40.

²⁵⁴ For *la provision* in French law, see e.g. C. Gavalda & J. Stoufflet, *Instruments de paiement et de crédit*, 7^{ème} éd. rédigée par J. Stoufflet (Paris: Litec, impr., 2009) at 105-14; and for a summary, P. Ellinger, "Negotiable Instruments", *supra* n. 19 at 110-13. See also G. Ripert & R. Roblot, *Traité de droit commercial*, 13^{ième} éd. (Paris: Librairie Gènerale de droit et de jurisprudence, 1992) at 181-86. For a more extensive analysis, see P. Lescot & R. Roblot, *Les effets de commerce*, vol. I (Paris: Rousseau, 1953) at 389-465.

²⁵⁵ For which it is now codified e.g. in arts. 3, 17, and 34 in the Cheque Law, *supra* n. 20.

²⁵⁶ For the statutory reference in 1673, see e.g. JV Tardon, *La provision de la lettre de change* (droit comparé – loi uniforme) (Paris, Laussane: Pichon, Roth, 1939) at 6.

the payee in return for the bill. On the other hand, *la provision* may be formed by an overdraft agreed by the drawee to provide the drawer. However, in its original meaning under French law, *la provision* was understood to give rise to a debt originally owed by the drawee to the drawer. Entitlement passes to the payee when he takes the bill. Its passage to the payee (and subsequently, to each ensuing endorsee), is predominantly seen as a matter of *cessio*²⁵⁷. To that end, the drawee's acceptance is viewed not as a new obligation, but rather, in the footsteps of the Roman *constitutum*²⁵⁸, as an acknowledgement, or confirmation, of an existing one, based on the receipt of 'the provision'²⁵⁹.

A similar exception fastening liability on a drawee not on the basis of acceptance applies in Scotland, albeit at present not anymore for cheques. Thus, under BEA s. 53(2), in Scotland, a bill of exchange other than a cheque is stated to operate as an assignment of funds "from the time when the bill is presented to the drawee"²⁶⁰.

Other than in connection with *la provision*, some jurisdictions adopted cheque certification as a means to fasten liability on the drawee bank against the holder. Certification of cheques is recognized in legislation governing cheques²⁶¹ in the United States²⁶², France²⁶³, Italy²⁶⁴, Japan²⁶⁵, and South

²⁵⁷ For the meanings of '*la provision*', 'value', and 'cover', see Lescot & Roblot, *ibid.* at 390, 411-412. For the transfer of *la provision* as a 'sale' which defeats the drawer's creditors see e.g. H. Levy-Bruhl, *Histoire de la lettre de change au France aux xvii^e et xviii^e siècles*, (Paris: Recueil Sirey, 1933) at 91-95. In any event, drawer's creditors are to be defeated also under the *cessio* theory.

²⁵⁸ The *constitutum* is a promise to pay an existing debt on a stated date and at a stated place; the existing debt is either that of the promisor or of another party. The former is a case of *constitutum proprii* and the latter is that of *constitutum debiti alieni*. In either case, the sum so promised is called *pecunia constituta* and accordingly, the action to enforce the promise, is *actio de pecunia constituta*. See e.g. H. Coulon, *Droit romain: Du constitut debiti alieni* (Poitiers: Typographie Oudin, 1889); A. Philippin, *Le pacte de constitute - actio de pecunia constituta* (Paris: Duchemin, 1929); and J. Déjardin, *L'action pecuniae constitutae* (Paris, Rousseau, 1914).

²⁵⁹ For explaining the acceptor's liability as a confirmation of liability, and the procedural advantage accorded to his plaintiff suing on the acceptance in the Low Countries, see WDH Asser, "Bills of Exchange and Agency in the 18th Century Law of Holland and Zeeland – Decisions of the Supreme Court of Holland and Zeeland" in V. Piergiovanni, ed., *The Courts and the Developments of Commercial Law* (Berlin: Duncker & Humblot, 1987) at 103, 112.

²⁶⁰ BEA s. 53(2).

²⁶¹ For cites of all national statutes see Part 1 above.

²⁶² UCC §3-409(d).

²⁶³ Art 12(1).

²⁶⁴ Art 4(2).

²⁶⁵ Arts 53-58.

Africa²⁶⁶. Certification is also recognized in Canada, albeit by case law²⁶⁷. In Germany it is recognized but only for cheques drawn on the central bank²⁶⁸. In both Canada²⁶⁹ and the United States²⁷⁰, cheque certification is analyzed as a form of acceptance of the cheque. In line with the provisions of the UCL, this mode of analysis is precluded in France, Italy, Japan, and Germany. Besides marking, certification in Canada and the United States involves the actual withdrawal of funds from the drawer's account and their placement in a suspense account, pending presentment for payment. Elsewhere, certification may involve the holding or blocking of funds by the drawee bank in the drawer's account for the short period within which a cheque must be presented. In fact, cheque certification is not practised in Japan and Italy.

Other than under *la provision* as well as under certification, a drawee bank is not liable on a cheque. Arguably except for upon certification²⁷¹ the drawer is not discharged of his liability on a cheque other than conditionally until either payment or dishonour²⁷². This is true even where drawee is liable to the payee on *la provision*. Presumably this is so since even where it applies, *la provision* does not exhaust the theory of liability on a cheque. Rather, it is in addition to drawer's liability, the latter remaining governed by ordinary rules²⁷³.

The drawer's liability on a cheque has been taken to be as that on a bills of exchange. As for the latter, consistently with earlier case law holding the drawer liable upon the acceptor's default²⁷⁴, Lord Holt explained in *Starke v. Cheeseman* (1700)²⁷⁵ that in ordering payment on a bill, while not unconditionally promising to pay, the drawer nevertheless "warrants

²⁶⁶ S. 72A(1).

²⁶⁷ See *Boyd v. Nasmith* (1889), 17 O.R. 40 (CPD).

²⁶⁸ See s. 23 of the Deutsche Bundesbank Act of 26 July 1957, BGBl. I745.

²⁶⁹ See e.g. *Re Maubach and Bank of Nova Scotia* (1987), 60 O.R. (2d) 189 (H.C.J.), aff'd. (1987) 62 O.R. (2d) 220; and *A.E. Le Page Real Estate Services Ltd. v. Rattray Publications* (1991), 5 O.R. (3d) 216 (Gen. Div.), aff'd. (1995), 21 O.R. (3d) 164 (C.A.). See in general, B. Geva, "Irrevocability of Bank Drafts, Certified Cheques and Money Orders" (1986), 65 Can. Bar Rev. 107 at 123 – 30.

²⁷⁰ UCC §3-409(d).

²⁷¹ For the discharge of the drawer (whose account has usually been already debited) see e.g. UCC §3-414(c).

²⁷² *Supra* n. 253.

²⁷³ Such is the case in France art. under 40.

²⁷⁴ *Anon* (1668) Hardes 585, at 487, 145 ER 560, at 561. *Browne v. London* (1670) 1 Mod. 285, 86ER 889.

²⁷⁵ 1 Ld. Raym. 538, 91 E.R. 1259.

payment on it ...” and is liable to pay if the bill is dishonoured. Upon the issue of the instrument the obligation on the transaction for which it has been given is suspended; this means that payment by bill or cheque is conditional. Indeed, the relationship between a contract and an instrument given in payment of it is discussed in English law already in 1422 when it was determined that “if I am your debtor ... by a simple contract and I make an obligation to you for the same [amount] on the same contract ... I am discharged of the contract by obligation”²⁷⁶. Contrary to such absolute discharge, the delivery of money by A to B for payment of A’s debt to C, in circumstances entitling C to claim from B, was held to constitute a conditional discharge of A’s debt to C²⁷⁷. In *Ward v. Evans* (1702)²⁷⁸, Lord Holt applied the “conditional payment” presumption to a goldsmith note. Subsequently, in *Currie v. Misa* (1875), Lush J. applied it “to a cheque payable on demand, as to a running bill or a promissory note”²⁷⁹. It is thus “common ground that where a debt is ‘paid’ by cheque ... there is a presumption that such payment is conditional on the cheque ... being honoured. If it is not honoured, the condition is not satisfied and the liability [on the debt] remains”²⁸⁰ albeit as an alternative to the drawer’s liability on the cheque itself.

8. Final Observations

Stripped to its bare bones and broadly defined, the cheque is in essence an unconditional order to pay a specific sum of money on demand, addressed to a bank or another type of depository of funds (“drawee”), issued by a debtor- payer (“drawer”) to his creditor (“payee”), authorizing the latter to collect payment from the drawee to his (payee’s) own use. It confers on the payee rights towards the drawee-banker and/or the drawer. The evolution of the payee’s remedies upon the dishonour of the cheque was the subject matter of this study.

²⁷⁶ *Salman v. Barkyng* (1422), Y.B. 1 Hen. VI, reprinted in (1933), 50 Selden Soc. 114 at 115 *per* Babington J. Note the medieval terminology: “contract” is not “promise” but the benefit conferred on the defendant under a transaction, such as money lent or goods sold to him. “Obligation” is the specialty contract under seal. See CHS Fifoot, *History and Sources of the Common Law: Tort and Contract* (London: Stevens & Sons, 1949) at 225.

²⁷⁷ *Harris v. De Bervoir* (1624), Cro. Jac. 687, 79 E.R. 596.

²⁷⁸ 2 Ld. Raym. 928 at 930, 92 E.R. 120 at 121 (K.B.).

²⁷⁹ L.R. 10 Ex. 153 (Ex. Ch) at 163.

²⁸⁰ See *Re Charge Card Services Ltd.*, above note 252.

Having emerged in Ptolemaic Egypt during the first half of the 1st century BCE, the cheque nevertheless appears to have been eclipsed already in Greco-Roman Egypt even before the Middle Ages. Subsequently, a nascent cheque system operated in the early Middle Ages in Islamic lands. The cheque resurfaced in Continental Europe only as late as in the late Middle Ages. Later, in the 17th century CE, the cheque spread its roots and grew to generate a 'cheque system' in England from where it expanded worldwide.

The present study purported to demonstrate the evolution of legal doctrine governing the cheque throughout different eras and various locations. However, interrelation and interaction are different matters, so that my study has some limitations. Particularly, how much and if at all Islamic and Jewish laws affected developments in Continental Europe and in England during the late Middle Ages and thereafter, remains a matter of speculation. As well, linguistic limitations have precluded me from going further into the late Medieval cheque system both in Italy and the Netherlands. Further research is needed on this aspect.

In a nutshell, under Roman law, both *cessio* and *assignatio* are premised on the effect of the delegation order to make the drawee liable to the payee-creditor. Even *cessio* as a non-recourse assignment allowed the payee-creditor/assignee recourse against the payer-debtor/assignor for the existence of debt owed by the drawee to the payer-debtor/assignor. As such it went a long way to serve as a doctrinal underpinning for the cheque transaction. In allowing the payee-creditor recourse against the payer-debtor upon any default by the drawee the *assignatio* appears to be even more attractive as a legal basis for the cheque.

Unlike Roman law, Jewish and Islamic laws did not allow the assignment of debts to evolve out of the mandate for collection. To bypass that obstacle, they developed more refined legal doctrines governing issues pertaining to the liability on a cheque transaction. Talmudic law discussed such doctrines in the context of a presence-of-all-three declaration in situations where drawee either owed or did not owe money to a payer-debtor/drawer. Islamic law introduced the *hawale* as both a payment instrument and a legal doctrine that governs it.

It seems to me that the present study puts an end to any speculation on the emergence of the cheque as a sub-category of the bill of exchange.

Rather, the cheque has its own history, both as a payment method and a subject of legal rules. Cheques originated as payment orders as part of the evolution of deposit banking. The law that governed liability on them may be traced to pre-modern legal systems. At the same time, as of the late Middle Ages, the cheque evolved side by side with the transformation of the

bill of exchange both into (i) an instrument for the inland remittance of funds entitling the payee to recover thereon from the drawer with whom he has not dealt and (ii) an instrument transferable by negotiation, that is, endorsement (where it is payable to a named payee) and delivery. This generated unavoidable convergence between the laws governing these two instruments so that pragmatically it became convenient to treat the cheque as a type of a bill of exchange.

This however ought not to obscure the original roots, functions and hence surviving distinct features of the cheque.

Practically, this means that the further evolution of distinct cheque features designed to accommodate adaptation to new commercial developments ought not to be precluded.

BITCOINS, A NEW FRONTIER OF MONEY?

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Innovations bring forth potential revolutions in a variety of fields, including the legal one. The advent of the Internet posed a threat to the traditional legal framework, challenging the sustainability of the established legal institutes and regulations worldwide. Nonetheless, after an initial phase of 'legal inertia', legal systems resorted to regulate the innovations of the digital era through the existing legal instruments.

Over the past years, the virtual world has given rise to a new conceptualization of money and currency exchanges, fostered by the ongoing progress in the field of Information Communication and Technology (ICT). Cash payments seem to be obsolete, supplanted by mobile payment systems, electronic money and the flourishing category of virtual currencies and cryptocurrencies, whose most debated example is represented by Bitcoin.

Presently, another regulatory challenge lies ahead: identifying the proper legal framework – if any - applicable to cryptocurrencies.

So, the essay aims at analyzing the main features characterizing these innovative 'currencies', the risks inherent in their architecture as well as the benefits they offer, with a specific focus on the case of Bitcoins.

Table of content:

1. Introduction
2. E-Money And virtual currencies
3. Bitcoins
- 3.1. May Bitcoin Actually Compete With Fiat Currencies Or 'Conventional' Payment Systems?
4. How To Effectively Handle Digital Currencies, And, Above All, Bitcoins?
5. Cryptocurrencies' Pros And Cons
6. Conclusions

1. Introduction

Right now a various forms of virtual currencies are being exchanged all over the world; the European Banking Authority in 2014 estimated that more than 200 virtual currencies schemes were in circulation and that it was reasonable to expect that many more would be developed¹.

To properly regulate this phenomenon it is necessary to thoroughly understand it. This essay aims to provide a possible starting point.

Notwithstanding all the buzz surrounding Bitcoins, it cannot be overlooked that they only account for a tiny minority of transactions taking place every day which may help to explain why so far so little attention has been paid to them by the institutional operators².

The following analysis seeks, therefore, to shed some light on how the germ of the new means of payment may be incorporated into the current legal systems by investigating the latest developments in the domain of digital payment systems, addressing specifically Bitcoins, their architecture as well as the potential advantages and disadvantages. The analysis pauses then on the challenges currently faced by the legal domain in dealing with such innovations, taking into account the contingent developments³.

2. E-Money And virtual currencies

In economic literature, scholars traditionally attributed three characteristics to money: they hold it is a store of value, a unit of account

¹The peculiarity of these new forms of virtual currencies is that unlike their predecessors they can be exchanged for traditional currencies which the previous ones could not. See, for instance, World of Warcraft Gold, frequent flyer miles, Facebook Credits or Linden Dollars, E-gold or Liberty Reserve). «Originally, the desire for these currencies arose because members of a virtual community, such as a video game, were looking for a convenient way to reward the users, as well as to enable other financial transactions with the users». See EBA/Op/2014/08 4 July 2014 EBA Opinion on ‘virtual currencies’ available at <https://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-08+Opinion+on+Virtual+Currencies.pdf>, 8

² This is due also to the «uncertain reliability of the data sources. However, even if interpreted very generously, the number of Bitcoin transactions, which accounts for the vast majority of VC transactions, has never exceeded 100 000 per day across the globe, compared to approximately 295 million conventional payment and terminal transactions (i.e. credit transfers, direct debits, e-money transfers, cheques, etc.) per day in Europe alone». Id.

³ PLASSARAS, *Regulating Digital Currencies: Bringing Bitcoin within the Reach of the IMF*, 14 *Chi. J. Int'l L.*, 2013, 377.

and a medium of exchange; and, apparently, at first glance, cryptocurrencies seem to meet such criteria though, as we will see here in after, this is not necessarily true⁴.

And the legal analysis of the concept of money does not offer much help because, nowadays, the notion of money is much more linked to economy, and in particular, to the monetary policies adopted by governments, rather than to the law, which consequently complicates the task of providing a clear-cut definition or outline of it⁵. It follows that even though money is something we are familiar with, its inner character remains almost unknown.

In light of these difficulties, currently economic and legal scholars focus mainly on the functions of money rather than on its inner character⁶.

Historically, before the introduction of credit money, it was held that monetary units were as material as their corresponding monetary pieces; this is still the case today⁷, though the advent of credit money has added a further

⁴ SWARTZ, *Bursting the Bitcoin Bubble: The Case To Regulate Digital Currency as a Security or Commodity*, 17 *TUL. J. TECH. & INTELL. PROP.*, 2014, 329-330. In particular, they can be considered a store of value, even a volatile one, they can be used a unit of account even though a not so intuitive one, and, finally, a medium of exchange but only in regard to those who accept them (they can be accurately divided digitally in any size and they avoid the fees charged by credit card companies). These kind of 'currencies' are characterized by having no legal tender status, they have decentralised scheme, convertible but non-redeemable.

⁵ The complexity of this concept is apparent also in the very definitions of 'money' provided for by encyclopedias, such as for instance, that of the *Encyclopaedia Britannica*, according to which money is «a commodity accepted by general consent as a medium of economic exchange. It is the medium in which prices and values are expressed; as currency, it circulates anonymously from person to person and country to country, thus facilitating trade, and it is the principal measure of wealth». Moreover, «[t]he basic function of money is to enable buying to be separated from selling, thus permitting trade to take place without the so-called double coincidence of barter. » This represents the «'medium of exchange' function of money». However, the «[s]eparation of the act of sale from the act of purchase requires the existence of something that will be generally accepted in payment. But there must also be something that can serve as a temporary store of purchasing power, in which the seller holds the proceeds in the interim between the sale and the subsequent purchase or from which the buyer can extract the general purchasing power with which to pay for what is bought. This is called the 'asset' function of money». Finally, it is noteworthy that «[a]nything can serve as money that habit or social convention and successful experience endow with the quality of general acceptability». The full definition and description of the entry is available at <http://www.britannica.com/EBchecked/topic/389170/money>.

⁶ BRECCIA, *Le Obbligazioni*, in IUDICA & P. ZATTI (EDS.), *Trattato di Diritto Privato*, Milan, 1991, 266.

⁷ Every methods of payment equivalent to cash (namely, dematerialized payments whereby no delivery of money actually occurs, e.g. bank transfers) must always be convertible into a tangible sum of money.

facet to the preceding conceptualization of money. Nowadays, in fact, the latter has a twofold nature: it is an abstract unit of measurement and, at the same time, a means of payment if redeemed in the corresponding amount of ‘monetary pieces’ (paper money or coins)⁸.

Due to the broad impact of these latest innovations on the traditional credit systems and the significant transformations stemming from their implementation in many Countries⁹, in 2009 the EU resorted to an *ad hoc* regulation of such subject matters. The E-Money Directive (2009/110/EC)¹⁰, «on the taking up, pursuit of and prudential supervision of the business of electronic money institutions», was adopted, in fact, «in response to the emergence of new pre-paid electronic payment products and was intended to create a clear legal framework designed to strengthen the internal market while ensuring an adequate level of prudential supervision»¹¹. Hence, the Directive aimed at «lay[ing] down the rules for the pursuit of the activity of issuing electronic money»¹², underlining in so doing the need for a distinct regulation of e-money transactions so that they would not pose a threat to traditional credit patterns.

However, the 2009 E-Money Directive was not the EU’s first attempt to bridle the phenomenon of electronic payment systems.

A first definition of ‘electronic money instrument’ was already included in the EU Commission Recommendation of 30 July 1997, defining it as any «reloadable payment instrument other than a remote access payment instrument, whether a stored-value card or a computer memory, on which

⁸ For an overview of Bitcoin and the regulatory issues stemming from it, see GRINBERG, *Bitcoin: An Innovative Alternative Digital Currency*, 4 *Hastings Sci. & Tech. L.J.*, 2012, 159.

⁹ A clear proof of the globalized character of Bitcoin is the fact that, curiously, this phenomenon is regulated by a legislation which is rarely in the limelight of international research. As a matter of fact, under Kenya’s E-money regulation, e-money is defined as «a monetary value as represented by a claim on its issuer, that is (a) Electronically, including magnetically stored; (b) Issued against receipt of currency of Kenya and; (c) Accepted as a means of payment by persons other than the issuer» (cf. E-money regulation clause 4, Kenya). According to this definition, under Kenyan law, bitcoins obtained by purchasing them via fiat currencies would fall under the definition of e-money. For a thorough analysis of the Kenyan legal framework that is applied to e-money, m-payment systems, like M-PESA, and might be also applied to Bitcoins, see SIRILA, *The Pleasures and Perils of New Money in Old Pockets: M-PESA and Bitcoin in Kenya*, Harvard Law School, April 2014.

¹⁰ The 2009 Directive amended Directives 2005/60/EC and 2006/48/EC and repealed Directive 2000/46/EC.

¹¹ E-Money Directive (2009/110/EC), available at <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32009L0110> (Last visited 15 July, 2014).

¹² *Id.*

value units are stored electronically, enabling its holder to effect transactions of the kind specified in Article 1 (1)»¹³.

The 2009 Directive provides, however, a more thorough definition of e-money which reads:

*electronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions as defined in point 5 of Article 4 of Directive 2007/64/EC, and which is accepted by a natural or legal person other than the electronic money issuer*¹⁴.

A few significant points emerge from the abovementioned definition.

In the first place, the individual receiving e-money holds a claim on the issuer and electronic money can be issued only upon receipt of the equal amount of funds. It follows that e-money is the outcome of a conversion process of other forms of money (e.g. fiat money, credit money), which is attained by storing the corresponding value on an electronic device.

Moreover, the Directive sets the e-money shall be accepted as method of payment by «natural or legal person[s] other than the electronic money issuer», drawing in so doing a distinction between debit cards and electronic money, for the former can be employed only to purchase items or supply services provided for by the issuer.

¹³ See 97/489/EC, Commission Recommendation of 30 July 1997 concerning transactions by electronic payment instruments and in particular the relationship between issuer and holder (Text with EEA relevance), available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31997H0489:EN:HTML>.

¹⁴ Cf. <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32009L0110>. According to Perugini and Maioli, Bitcoins fall outside the purview of the Directive since they do not fit the definition of e-money provided for therein due to their decentralized nature, and, furthermore, they add that only in case of an expressly equation of Bitcoins with e-money, the former may be subjected to said regulation. Cf. PERUGINI & MAIOLI, *Bitcoin tra Moneta Virtuale e Commodity Finanziaria*, available at SSRN: <http://ssrn.com/abstract=2526207>. On the same vein, the EBA in its opinion after the definition of virtual currencies as «a digital representation of value that is neither issued by a central bank or public authority nor necessarily attached to a fiat currency, but is used by natural or legal persons as a means of exchange and can be transferred, stored or traded electronically» maintains that « [A]lthough some of the features resemble activities or products that are already within the remit of the EU E-Money Directive, these products are not intended to be included here, as e-money is a digital representation of fiat currency, which virtual currencies are not». EBA opinion, 7.

It is evident, so, that e-money and credit money cannot be equated, for, above all, the latter requires the existence of a bank account through which money transfers can be accomplished, while e-money does not, provided that it arises from the immediate conversion of monetary funds.

Moreover, even if the employ of e-money is contractually bound to be connected with an account, it is different from any other traditional instruments of payments, such as bank transfers or credit cards, for these rely on the direct intervention and support of credit institutions¹⁵.

In case of payments with electronic money the transfer of funds is not accomplished through the mediation of a bank, which, on the contrary, merely guarantees, initially, that funds are convertible, and, subsequently, that e-money can be reimbursed.

So, once e-money is issued, it could autonomously circulate, without requiring any intermediary, among an indefinite number of users and, above all, in an anonymous manner; hence, electronic money, rather than being likened to credit money, can be better compared to paper money, or, at least, be considered its electronic counterpart¹⁶.

Issues arising from the general notion of e-money are pushed even further in case of one of the latest innovation of said domain, *i.e.* Bitcoin¹⁷.

¹⁵ In particular, under Italian law, mediation in case of payments is required by law. Cf. art. 12 of decree law of 6 December 2011, n. 201, converted into law on 22 December 2011, law n. 214 and art. 15 of decree law of 18 October 2012, n. 179, on electronic payments, mandating that both public and the private creditors are required to accept payments made through different instruments other than the fiat money. See ONZA, *La « Trasparenza » Dei « Servizi Di Pagamento » In Italia (Un Itinerario Conoscitivo)*, Banca Borsa Tit. Cred., 2013, 577. Another issue which has been raised in relation to e-money concerns the doctrine of the transparency of methods of payment, which is not always applied in its entirety in case of e-money payments. The transparency issue is addressed (alongside other topics pertaining to EU law) by SANTORO, *I Servizi Di Pagamento*, Ianus, n.6, 2012; see also, VARDI, *The Integration Of European Financial Markets: The Regulation Of Monetary Obligations*, UT Austin Studies in Foreign and Transnational Law, Routledge, 2010.

¹⁶ OLIVIERI, *Appunti Sulla Moneta Elettronica Brevi Note In Margine Alla Direttiva 2000/46/CE Riguardante Gli Istituti Di Moneta Elettronica*, Banca Borsa Tit. Cred., 2001, 809.

¹⁷ Bitcoins have been debated not only from the viewpoint of the legal and financial issues they raise, but also from a specific economic-mathematic perspective; in this regard, see the paper authored by Saito, SAITO, *Bitcoin: A Search-Theoretic Approach*, available at SSRN: available at: <http://ssrn.com/abstract=2405013>.

3. Bitcoins

Bitcoins represent the ultimate and successful outcome of a number of (failed) attempts, starting from the 1990s, to create an online decentralized 'currency'.

Bitcoin has been described by the ICT experts as a «masterpiece of technology», in other words, a work of genius whose beauty lies in its architecture¹⁸ and whose peculiarity consists in being a purely market-based cryptocurrency¹⁹.

In 2009, Satoshi Nakamoto (a pseudonymous hacker(s)) provided the algorithm and the concept of Bitcoin²⁰ and concretely implemented the project by establishing a network of computers running a special software that enabled each machine (called 'miner') to solve specific algorithms and be consequently awarded Bitcoins²¹.

This first aspect evidently draws a distinction between Bitcoin and conventional commodity-backed currencies: as a cryptocurrency, Bitcoin is not backed by any commodity or asset and therefore cannot be redeemed for goods or services²². Furthermore, Bitcoins are not denominated in an existing currency, the price of each Bitcoin is uniformly determined by the market price, and there is no fixed exchange rate between them and conventional currencies²³.

In practice, Bitcoin is a private digital 'resource' that can be traded online via the established peer-to-peer network. It is noteworthy that, even though

¹⁸ DOGUET, *The Nature of the Form: Legal and Regulatory Issues Surrounding the Bitcoin Digital Currency System*, *Louisiana Law Review*, 2013.

¹⁹ IWAMURA, KITAMURA & MATSUMOTO, *Is Bitcoin the Only Cryptocurrency in the Town? Economics of Cryptocurrency and Friedrich A. Hayek*, February 28, 2014.

²⁰ For a detailed description of the system's design, see the original paper of Nakamoto, NAKAMOTO, *Bitcoin: A Peer-to-Peer Electronic Cash System*, 2009, available at <http://www.bitcoin.org/bitcoin.pdf>.

²¹ FARMER JR., *Speculative Tech: The Bitcoin Legal Quagmire & the Need for Legal Innovation*, 9 *J. Bus. & Tech. L.*, 2014, 85. Available at <http://digitalcommons.law.umaryland.edu/jbtl/vol9/iss1/6>. Specifically, each computer runs the program named 'Bitcoin miner', and once it is connected to the Bitcoin network, «the computer uses its processing power to compute the Bitcoin encryption function and Bitcoins are awarded to the computer that deciphers the puzzle and constructs the proper block. Miners are then incentivized to contribute CPU power in exchange for their own Bitcoins». WALLACE, *The Rise and Fall of Bitcoin*, *Wired Magazine* (Nov. 23, 2011), available at www.wired.com/magazine/2011/11/mf_bitcoin/.

²² DE FILIPPI, *Bitcoin: A Regulatory Nightmare To A Libertarian Dream*, *Internet Policy Review*, 2014, 3(2).

²³ BOLLEN, *The Legal Status Of Online Currencies, Are Bitcoins The Future?*, 2013.

Bitcoins are digital, «every individual bitcoin is unique and can only be held by one entity at any given time».²⁴ Besides, the amount of available Bitcoins is finite, that is that only 21 million are planned to be produced²⁵.

Once a Bitcoin has been mined or purchased, it becomes «similar to a computer file that can be visualized as a coin on a desktop»²⁶ (within a virtual wallet) and transferred as easily as e-mails via the Internet. Security protocols embedded in the online Bitcoin network provide users with the necessary protection against (many types of) fraud, while ensuring the system's proper functioning.

Moreover, the peer-to-peer network serves a twofold purpose: mining Bitcoins and recording Bitcoin transactions.

Hence, the entire network keeps tracks of all transactions, including those that occur between individuals and those which instead take place through market exchanges²⁷, as if it were a huge public ledger²⁸.

So far so good.

Yet, all fuss about Bitcoin is 'justified' by a noteworthy peculiarity of the system: it was expressly designed to function without any interference or control by a third party (be it either a bank or a credit card company) or a

²⁴ DOHERTY, *Bitcoin and Bankruptcy - Understanding the Newest Potential Commodity*, 33-7 *ABIJ* 38, 2014.

²⁵ *Id.* The automatically limited number of Bitcoins is directly generated by the system itself: at the beginning miners received 50 Bitcoins for every proper block, but «as the computational problems become more difficult and the number of transactions increases, the payouts are cut in half. » VELDE, *Bitcoin: A Primer*, The Federal Reserve Bank of Chicago, Number 317, (2013), at 2, available at http://www.chicagofed.org/digital_assets/publications/chicago_fed_letter/2013/cfldecember2013_317.pdf. Blocks are added at a rate of six times per hour and every 210,000 blocks the payout is cut in half and this results precisely “in a pre-determined Bitcoin limit of twenty one million». VELDE, *Bitcoin: A Primer*.

²⁶ WALLACE, *The Rise and Fall of Bitcoin*.

²⁷ Bitcoins can be mined or acquired from another user by «using exchanges to purchase them with traditional currencies, or to be connected directly with an individual for trading». WALLACE, *The Rise and Fall of Bitcoin*. On the basis of such exchanges speculation enters the Bitcoin market, since they provide «a trading platform for futures and options contracts specifically on Bitcoins, or based in Bitcoins». *Futures Market*, ICBIT BITCOIN EXCHANGE, <https://icbit.se/futures> (last visited Nov. 16, 2012), in FARMER JR., *Speculative Tech*.

²⁸ Each Bitcoin is essentially “a chain of digital signatures which, when decoded, provide the entire transactional history of the bitcoin.” The members of the network who verify new transactions (called miners) are rewarded for their service with additional Bitcoins. MIDDLEBROOK & HUGHES, *Regulating Cryptocurrencies In The United States: Current Issues And Future Directions*, 40 *Wm. Mitchell L. Rev.*, 2014, 813.

central issuing authority, which could manipulate the system²⁹; in light of this, we may hazard a comparison: «currency [. . .] is exactly like religion. It's based entirely on faith»³⁰.

Given the architecture of the Bitcoin system, individuals engage in transactions with each other directly, without any intermediary and, in some cases, even anonymously³¹, without third party's oversight³².

As a matter of fact, all 'cryptocurrencies', like Bitcoin, may «have the potential to challenge government supervision of monetary policy by the disruption of current payment systems and the avoidance of existing regulatory schemes»³³. Furthermore, since such 'currencies' offer the possibility to do transactions anonymously, they could be employed not only for licit privacy reasons, but also to accomplish unlawful (and even despicable) activities, such as tax evasion, money laundering, terrorism, child pornography, human trafficking, and so on³⁴. Besides, some argue that

²⁹ Even though no authority has control over the network, «the sheer size of the network of miners helps to prevent unauthorized manipulation or implantation of data in the system». Along with this security and the «ability of exchanges to pinpoint and correct abnormalities in Bitcoin trading», the bitcoin network appears to be safer than other traditional systems. YIN, *Which Bitcoin Exchange Can You Trust?*, PCMAG (June 20, 2011.), <http://www.pcmag.com/article2/0,2817,2387279,00.asp>, in FARMER JR., *Speculative Tech*.

³⁰ YEOMANS, *The Quest for a Global E-Currency*, CNN (Sept. 28, 1999), http://articles.cnn.com/1999-09-28/tech/9909_28_global.e.currency.idg_1_credit-card-debit-global-internet-project/3 (quoting Jack Weatherford, author of *The History Of Money*). This statement is especially true in relation to Bitcoin, for this digital 'currency' is not asset-backed neither is it issued by any government or financial institution. DOGUET, *The Nature of the Form*.

³¹ Bitcoin is defined as an anonymous method of payment, because parties are identified only by a 'bitcoin address'. DOGUET, *The Nature of the Form*.

³² *Id.*, and PLASSARAS, *Regulating Digital Currencies: Bringing Bitcoin within the Reach of the IMF*.

³³ MIDDLEBROOK & HUGHES, *Regulating Cryptocurrencies*.

³⁴ Specifically, the anonymity connected to virtual currencies facilitate a number of various crimes, making the systems of such currencies, profitable marketplaces for: assassins, attacks on businesses, children exploitation (including pornography), corporate espionage, counterfeit currencies, drugs, fake IDs and passports, investment and financial frauds, sexual exploitation, stolen credit cards and credit card numbers, and weapons. (Cf. TRAUTMAN, *Virtual Currencies Bitcoin & What Now After Liberty Reserve, Silk Road, and Mt. Gox?*, 20 RICH. J.L. & TECH., 2014, 13, available at <http://jolt.richmond.edu/v20i4/article13.pdf>.) A notable case of misuse of Bitcoins in USA in 2013 was the crackdown on Silk Road. Silk Road was a largely known online marketplace for drugs, erotica, fake IDs, and other illegal goods. In October 2013, the FBI shut down the website and arrested the owner of the website, William Ulbricht; and, according to the reports, by the end of the same month, U.S. government authorities «had seized more than 33.6 million USD worth of bitcoins belonging to Ulbricht».

cryptocurrencies do not grant the necessary protection to consumers, especially in relation to consumers' rights to prompt and full redemption of funds³⁵.

Finally, a further strand of argument should be added.

National governments would never allow a massive storage of value in a 'currency' beyond their control, because this would undermine their exclusive *seignorage* rights arising from the issuance of the legal tender.

It follows that States are having a hard time in deciding how to handle this issue, and, specifically, whether or not they should resort to its (stringent) regulation.

3.1. May Bitcoin Actually Compete With Fiat Currencies Or Other 'Conventional' Payment Systems?

The development of Bitcoin has been primarily fueled by the dissatisfaction with the *status quo*. This cryptocurrency was created, in fact, in response to the economic and financial crisis of the new millennium and, specifically, with the purpose of avoiding the high transaction costs charged by financial institutions. Moreover, Bitcoin's proponents claim that the fast, affordable and decentralized service supplied by this cryptocurrency may succeed in meeting the different needs of people in various areas of the globe which cannot rely on the mainstream banking system³⁶.

By virtue of such, alleged, qualities, it is argued that Bitcoins may compete with traditional products that facilitate e-commerce^{37,38}.

Whereas, a second example of alleged misdeed involving Bitcoins was the asset seizure of Mt. Gox. The latter was one of the largest Bitcoin exchange worldwide, and the U.S. authorities seized its assets in May 2013 on the basis of suspicions that Mt. Gox did not have an appropriate license to engage in money transfer services according to the provisions of the FinCEN guidance document on virtual currencies. Following the asset seizure, in February 2014, Mt. Gox shut down its website and filed for bankruptcy «after losing approximately 750,000 of its customers' bitcoins following a security breach». KIEN-MENG LY, *Coining Bitcoin's "Legal-Bits": Examining The Regulatory Framework For Bitcoin And Virtual Currencies*, 27 *Harv. J. Law & Tec*, 2014, 587. Both cases are described also by Trautman. TRAUTMAN, *Virtual Currencies Bitcoin & What Now*.

³⁵ MIDDLEBROOK & HUGHES, *Regulating Cryptocurrencies*.

³⁶ SIRILA, *The Pleasures and Perils of New Money in Old Pockets*.

³⁷ For an overview of the reasons for the success of electronic payment systems and the dynamics inherent in the domain of e-commerce, see J.- SAHUT, *Internet Payment and Banks*, *International Journal Of Business*, Vol. 13, no. 4, 2008.

So far, though, Bitcoin is not likely to supplant traditional e-commerce products because the major advantage it offers is the potential anonymity, which, however, is not so appealing within the domain of electronic payment systems. There are two main reasons for such lack of attractiveness: on the one hand, individuals prefer to compare the prices of goods and services in a currency they 'understand', such as US dollars, and, on the other hand, they want to be protected against electronic frauds - a kind of protection that Bitcoin's architecture cannot completely ensure. That is precisely for these reasons that the field of electronic payment systems or e-commerce is dominated by PayPal, which, as opposed to other competitors, simply enables users to fund their accounts through their credit cards or bank transfers, while the company itself has made huge investments in anti-fraud systems³⁹.

Nonetheless, it might be affirmed that in a few years people may eventually become familiar with Bitcoins as the latter continue to circulate throughout the globe and, in the meantime, the technological improvements may also increase the safety of the system's structure so that the two aforementioned shortcomings affecting this cryptocurrency may eventually be overcome⁴⁰.

Contrariwise, Bitcoins may actually be competitive in relation to a specific portion of the e-commerce domain, that is, micropayments⁴¹ and virtual markets. As a matter of fact, accomplishing micropayments through traditional electronic payment systems⁴² has very high transaction costs

³⁸ Moreover, some argue that Bitcoins may gain foothold among users of gold-backed currencies for the latter do not trust central banks. Therefore, since Bitcoins are not subject to a central authority and, additionally, are going to be produced only in a limited amount, it is maintained that they may - eventually - constitute an 'alluring' finite set and a scarce good to this group of users. GRINBERG, *Bitcoin: An Innovative Alternative Digital Currency*.

³⁹ *Id.*

⁴⁰ BLUNDELL-WIGNALL, *The Bitcoin Question: Currency versus Trust-less Transfer Technology*, *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 37, OECD Publishing, 2014, 7.

⁴¹ Practically, micropayments are very small electronic payments made to purchase digital goods. So, for instance if one has to pay one US dollar, the impact of the transaction cost in proportion to such a small amount is exorbitant.

⁴² Payment systems have been broadly defined as "the infrastructure (comprised of institutions, instruments, rules, procedures, standards, and technical means) established to effect the transfer of monetary value between parties discharging mutual obligations" (BOSSONE & CIRASINO, *The Oversight Of Payment Systems: A Framework For The Dev. And Gov'n Payment Sys In Emerging Economies*, *Centre De Estudio Monetarios Latinoamericanos & The World bank*, 2001, in SIRILA, *The Pleasures and Perils of New Money in Old Pockets*). This definition is particularly important for it does not imply the

which make such payments impractical, whereas, the use of Bitcoins would help overcome this hurdle thanks to their low transaction cost.

As to virtual worlds (e.g. Second life) and online games, the decentralized nature of Bitcoin may represent a profitable alternative to game-related currencies⁴³ which are instead subject to the discretionary control of the central game authority (which, for instance, may decide to issue new coins and depreciate the value of the game currency)⁴⁴.

4. How To Effectively Handle Digital Currencies, And, Above All, Bitcoins?

The financial and economic breakdown has resulted in a decrease in trust towards the financial institutions on the part of the consumers, and the decentralized nature of the cryptocurrencies, the lack of a provider or issuer that may be held accountable, as well as a central database, both of which are replaced by a community of users which exists ‘merely’ in the cyberspace have worked in their favour.

But, as already mentioned, Bitcoins pose new challenges for regulators if compared to the previous digital means of payment since Bitcoin system evades the traditional patterns of State regulation.

necessary presence of a central bank at the core of any payment system. In fact, non-bank-led payment systems, such as mobile payment systems, have developed especially «because of a need of the rural unbanked costumers to transfer money as well as receive money when banks were unwilling to provide these services at affordable prices» (SIRILA, *The Pleasures and Perils of New Money in Old Pockets*). For instance, Kenya has developed the most successful mobile payment platform, *i.e.* M-PESA, which is regulated by the National Payment System Act of 2011 governing both mobile and other types of electronic payments. Prior to the enactment of the NPSA, M-PESA had to comply with the Financial Action Task Force (FATF) Recommendation, whose primary scope was to fight money-laundering activities. SIRILA, *The Pleasures and Perils of New Money in Old Pockets*.

⁴³ It is worth highlighting that often digital currencies developed by and used in virtual games (for instance, Linden Dollars in Second Life) are convertible into fiat currencies. For an overview of how virtual worlds actually are profitable ventures, see E. CASTRONOVA, *Virtual Worlds A first-Hand Account of Market and Society on the Cyberian Frontier*, (December 2001), CESifo Working Paper Series no. 618. Available at SSRN: <http://ssrn.com/abstract=294828>.

⁴⁴ GRINBERG, *Bitcoin: An Innovative Alternative Digital Currency*.

In light of this, it is worth examining which regulatory alternative would actually be the most efficient in terms of interests of both Bitcoins' users and National governments⁴⁵.

Three potential regimes are therefore investigated: (i) prohibition, (ii) self-regulation and (iii) intermediary regulation⁴⁶.

- (i) Typically, prohibitive measures are adopted only when the harm that may derive from the use of a technology outweighs the social benefits resulting from it.

Hence, in all likelihood, regulators may take prohibitive measures against Bitcoins only if this cryptocurrency were exclusively used for unlawful purposes, and no advantages were widely acknowledged. Besides, Bitcoins may be outlawed if they actually posed a threat to an existing fiat currency, and, in particular, to the *seignorage* income of governments. However, according to the proponents of this alternative system, so far, none of the aforementioned reasons actually exists: Bitcoins are used mainly for legitimate purposes, and the economy created by the system is still too small to compete with national currencies or undermine the international economic stability. Furthermore, the recourse to prohibition commonly leads to inefficiencies from the viewpoint of economics. In the first place, banning Bitcoins would result in ruling out also its inherent benefits; moreover, the prohibition of its use may inhibit the evolution of technology in the domain of e-commerce, and, additionally, enforcing such a prohibition would entail very high costs and turn out to be a legal fiasco because it would restraint the use of the system solely on the part of law-abiding citizens, but not on the part of criminals. It follows that,

⁴⁵ According to the document 'Bitcoins: a first assessment', that was published by Merrill Lynch Bank of America in 2013, the issue of Bitcoins requires a uniform international regulation, which however, on the domestic level, shall not impose too stringent restrictions, which would increase the cost of the transactions and consequently decrease one of the major benefits of the system. Furthermore, the analysis warns against the system's lack of forms of protections on deposits and investors which are typical of the banking system, highlighting, though, that the implementation of such mechanisms would, in all likelihood, raise the transaction costs as well. Cf. MERRILL LYNCH BANK OF AMERICA, *Bitcoin: a first assessment*, 2013, available at <https://ciphrex.com/archive/bofa-bitcoin.pdf>. Cf. PERUGINI & MAIOLI, *Bitcoin tra Moneta Virtuale e Commodity Finanziaria*.

⁴⁶ Cf. DOGUET, *The Nature of the Form*.

presently, the prohibition of Bitcoins would be not only unnecessary, but also harmful⁴⁷.

- (ii) Generally, if a market is faced with the threat of prohibition, it commonly reacts through self-regulation, and this is precisely the ‘regulatory pattern’ presently characterizing the Bitcoin system. Many maintain, in fact, that the relationships among users within the cyber-space shall be governed by «social norms and market mechanisms [...] without the need for state intervention»⁴⁸. Nonetheless, since the Internet has evolved over the decades and has mainly become a medium for commercial exchanges, self-regulation may no longer be the best solution, for inequities are bound to arise. Moreover, as regards Bitcoins, a specific problem lies in the fact that the system’s transactions are virtually irreversible owing to the computer power which secures them. This however may be a double-edged sword, for honest merchants and retailers are safeguarded against fraudulent practices carried out by dishonest buyers, but, at the same time, buyers are not protected against dishonest merchants or retailers. The only means developed by the network to ensure part of said protection to consumers are reputation systems and escrow services. The former enables the defrauded buyer to publicly complain about the merchant on a forum, so that the other community members will no longer trust him. However, this mechanism cannot prevent frauds from occurring, and the potential for anonymity⁴⁹ provided for by the Bitcoin system is likely to exacerbate this problem. As to large-scale criminal activities, the self-regulation attitude of the system has resulted in the development of specific software programs, named ‘autonomous agents’, that permit to prevent such activities by scanning large amount of financial transactions involving the exchange of Bitcoins in search for irregularities. However, such programs are not largely applied by Bitcoin exchanges. Furthermore, the major shortcoming of the system lies in the fact that it cannot tackle small-scale criminal

⁴⁷ *Id.*

⁴⁸ DOGUET, *The Nature of the Form*.

⁴⁹ For an analysis of Bitcoin’s potential users in relation to the anonymity offered by the system, and its potential for abuses, like the case of Silk Road website, see WILSON & YELOWITZ, *Characteristics of Bitcoin Users: An Analysis of Google Search Data*, available at SSRN: <http://ssrn.com/abstract=2518603>.

activities. So, since «Bitcoin software provides no way to punish its users or to stop them from using it criminally, state action will be necessary to prevent such uses.»⁵⁰ Hence, self-regulation has a limited impact which is sustainable only within small groups, therefore, this solution appears to be rather ineffective.

- (iii) In light of the unviability of the two abovementioned proposals, a third solution arises, that is the ‘intermediary regulation’, which in the case of Bitcoin involves all activities surrounding the ‘Bitcoin world’, and, above all, Bitcoin exchanges. As a matter of fact, the most part of the operations involving Bitcoins is accomplished through Bitcoin exchanges, namely entities that facilitate the conversion of the cryptocurrency to and from traditional currencies. It follows that also criminals who want to exploit the Bitcoin system for money-laundering purposes or similar illicit aims should have to rely on these exchanges. As a result, Bitcoin exchanges may constitute the starting point for the implementation of anti-criminal mechanisms, which in turn represent the major concern expressed by legal systems as regards the otherwise almost ‘neutral’ Bitcoin phenomenon. Hence, to reach said objective, States may apply existing regulatory frameworks to the Bitcoin system; for instance, in the case of the USA, the system may be governed by the Act regulating Money Service Businesses, since Bitcoin exchanges may be classed as ‘money transmitters’. If such regulation were applied, Bitcoin exchanges would have to comply with a number of requirements, such as the registration with the FinCEN⁵¹, the compilation of reports or records pertaining to criminal, tax or regulatory investigations, and the implementation of anti-money-laundering programs, along with the need to keep records of customers’ identities.

⁵⁰ DOGUET, *The Nature of the Form*.

⁵¹ The FinCEN (Financial Crimes Enforcement Network) is an Agency of the U.S. Department of Treasury which in 2013 issued guidance concerning the applicability of its regulations to persons administering, exchanging or using virtual currencies so as to clarify which individuals or entities could be regarded as money services businesses (MSBs) for the purposes of the Bank Secrecy Act and would therefore have to comply with FinCEN’s requirements, such as registration, reporting and keeping records of transactions and clients. For an overview of FinCEN regulations, see HUGHES & MIDDLEBROOK, *Virtual Uncertainty: Developments in the Law of Electronic Payments and Financial Services*, 69 *BUS. LAW.*, 2013, 263.

The most evident advantage of the application of a pre-existing legal framework like the one just described is the fact that no additional undertaking is necessary to draw a new and *ad hoc* regulation of Bitcoins, for the existing provisions would achieve the sought-after purpose without any need for amendments.

Nonetheless, since Bitcoins constitute a transnational phenomenon, domestic regulatory frameworks are not suitable to handle all issues of private international law which may arise in relation to Bitcoin transactions⁵².

Indeed, a fourth resolution may be envisaged: the so called ‘legal interoperability’, that is a regulatory mechanism which does not imply the regulation through State direct action. The concept of ‘legal interoperability’ has been defined by Urs Gasser and John G. Palfrey as «the working-together among legal norms, either within a given legal system of a nation state (e.g. Federal and State legislation) or across jurisdictions or Nations»⁵³. Within an increasingly intertwined digital society and economy, policy-makers should make attempts to increase the interoperability of policies and rules, in view of the fact that we are heading towards a multi-level governance system, within which cooperation and interconnection of the various layers are unavoidable elements. This standpoint is shared also by Trautman who affirms that «by optimizing the international governance of virtual currency, this legal interoperability should ‘enable the flow of goods, services, and information across legal systems’»⁵⁴. According to the aforementioned scholars, achieving legal interoperability would bring forth the following three advantages: (i) the reduction of costs associated with cross-jurisdictional business transactions; (ii) the further promotion of innovation, competition, trade and economic growth (at least in the ICT domain); and, (iii) incentives for the worldwide recognition of fundamental values and rights, such as information privacy and freedom of expression⁵⁵.

In short, these authors acknowledge that more and more legal institutes fall outside the scope of States’ regulation, and support therefore the

⁵² *Id.* Anyway, the aforementioned US regulatory approach may be exported also abroad as a viable blueprint.

⁵³ GASSER & PALFREY JR., *Fostering Innovation and Trade in the Global Information Society: The Different Facets and Roles of Interoperability*, *Berkman Ctr. Res. Pub. No. 2012-20*, 8 (December 12, 2012), available at <http://ssrn.com/abstract=2192647>.

⁵⁴ TRAUTMAN, *Virtual Currencies Bitcoin & What Now*.

⁵⁵ GASSER & PALFREY JR., *Fostering Innovation and Trade*.

adoption of a regulatory system which shall be not only stateless but also cut off from the usual borders of single States. In other words, they advocate in favour of a supranational legal framework which may provide, at least, a first regulation of said phenomenon, since in case of vast and significant domains the law (or at least, some branches of it) can do without the support of the State itself⁵⁶.

5. Cryptocurrencies' Pros And Cons

The importance of Bitcoins and the conjoint need to take measures in that regard stems from the acknowledgement that Bitcoins, alongside other cryptocurrencies, are progressively gaining foothold among users thanks to a number of favourable qualities.

We shall therefore sum up both advantages⁵⁷ and disadvantages of cryptocurrencies, and in particular Bitcoins, so as to consider both sides of the coin.

Starting off with the **strengths** of cryptocurrencies:

- (i) the **physical presence** of both the payer and the payee is **not required** in transactions through these digital means. Obviously, this feature is likewise shared by all online payment systems (e.g. electronic fund transfers, Paypal⁵⁸, etc.). Moreover, such

⁵⁶ GAMBARO & SACCO, SISTEMI GIURIDICI COMPARATI, in R. SACCO, TRATTATO DI DIRITTO COMPARATO, 1996, 27.

⁵⁷ According to Kaplanov, « [t]he bitcoin technology ensures that online transactions are: (1) secure; (2) efficient; and (3) free of third party presence—whether that third party is a government, bank, payment network, or clearinghouse» and, furthermore, « [b]y creating a two-party payment system for online transactions, the cost of the transaction is reduced, thereby nearly eliminating the added costs to the consumer». KAPLANOV, *Nerdy Money: Bitcoin, the Private Digital Currency, and the Case Against Its Regulation*, 25 *Loy. Consumer L. Rev.*, 2012, 116.

⁵⁸ As opposed to a traditional system, such as those established through online banks or the one implemented by PayPal, in which «the third party keeps track of all of the transactions on their own servers», the Bitcoin's 'public ledger' – also known as block chain - permits to keep records without the involvement of the third party, and, furthermore, by allowing individuals to engage in transactions without any third party's supervision. NAKAMOTO, *Bitcoin: A Peer-to-Peer Electronic Cash System*. Furthermore, as opposed to the Bitcoin system, common online payments executed through credit cards or services like PayPal entail automatic transaction costs. Specifically, «businesses that accept credit cards are required to pay a fee equivalent to a percentage of the total transaction, or, in some circumstances, a flat fee» (FARMER JR., *Speculative Tech*). Such fees, however, may actually impede the accomplishment of small transactions, whose amount is lower than the fee charged. Bitcoins

transactions can occur at anytime and anywhere⁵⁹; it follows that «Bitcoin network never sleeps, even on holidays»⁶⁰. Linked to this first advantage, there are substantial **economic benefits**: the cost of production, transportation, storage and management of paper money is largely reduced. So, the first concrete strength is an **overall decrease in the cost of transactions** on the part of both individuals and financing institutions, coupled with the possibility to **enhance the efficiency** of the payment system that is faster than the traditional. However these lower transaction costs are a byproduct of the absence of intermediaries which may end up causing problems to consumers who are more vulnerable to fraud and to governments who cannot monitor these transaction to make sure they are not illicit. And any efforts to introduce intermediaries would probably in an increase in the transaction costs⁶¹.

- (ii) Proponents of Bitcoins affirms that these cryptocurrency may help **foster access to basic financial services among the poor**: thanks to their low cost, Bitcoins may assist small businesses which, rather than relying on expensive credit cards, may use this cryptocurrency as payment system or to facilitate micropayments. Furthermore, Bitcoins have been promoted also as an efficient and **cheaper alternative for international money remittances**⁶², as opposed to

permit to avoid such transaction costs, especially in case of micropayments, because the system does not rely on any third party provider which may establish such fees.

⁵⁹ PLASSARAS, *Regulating Digital Currencies: Bringing Bitcoin within the Reach of the IMF*. As explained by Bitcoin.org there is «[n]o need to sign up, swipe your card, type a PIN, or sign anything», hence no need to go personally to the venue of a financial institution or to search for an ATM, and, additionally, you can use the kind of software or service provider you prefer for they are all compatible with the Bitcoin network because all of them use the same open technology.

⁶⁰ Cf. <https://bitcoin.org/en/>.

⁶¹ In its Report, the EBA points out that the average transaction cost for a Bitcoin transaction cost equals to 0.0005 BTC, or 1% of the transaction amount, as opposed to the «2%-4% for traditional online payment systems or an estimated 8%-9% for remittance without involving bank accounts via money transmitters». See EBA Opinion, 16.

⁶² The potential benefits of the use of Bitcoins in relation to remittances is due to the possibility to avoid the fees that are normally charged for transmitting money from industrial to developing Countries and converting the amounts remitted in the local currency, due also to the lack of transparency affecting the system which does not permit migrant workers to choose the most convenient methods of remittance. As stated by the World Bank in its report on remittances, «[r]emittance prices are high for many reasons, including underdeveloped financial infrastructure in some countries, limited competition, regulatory obstacles, lack of

the services commonly used to send money back to homeland, such as Western Union and MoneyGram. Both of them tend to have the monopoly over the system of remittances in Countries where the most part of the population is unbanked (except for the share relying on the informal fund transfer systems, such as *Hawala* in Muslim Countries, or *Hundi* in regions of India)⁶³; nonetheless, their transaction costs are high, therefore, the use of Bitcoin within the system of international remittances could actually be a profitable alternative, if implemented⁶⁴.

- (iii) The third benefit may arise in the form of «**learning spillovers**»⁶⁵. Since digital currencies function by means of computers and software, the transition from a paper-based to a digital currency system would imply an increase in the use of software systems by

access to the banking sector by remittance senders and/or receivers, and difficulties for migrants to obtain the necessary identification documentation to enter the financial mainstream.» Additionally, «the single most important factor leading to high remittance prices is lack of transparency in the market. It is difficult for consumers to compare prices because there are several variables that compose remittance prices». WORLD BANK, *Remittance Market Outlook*, Financial & Private Sector Development, <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTFINANCIALSECTOR/0,,contentMDK:22121552~menuPK:6127416~pagePK:210058~piPK:210062~theSitePK:282885~isCURL:Y,00.html> (last visited Sept. 10, 2014). See also BORRONI, *A Sharia-compliant Payment System Within the Western World*, Ianus, *Review of the Business and Law Department of the University of Siena, Special Issue "Building up an EU-based Payment System"- Workshop, 23-25 October 2014, Siena, 2015*.

⁶³ For an overview of informal fund transfer systems, like *hawala* and *hundi*, see EL QORCHI, MUNZELE MAIMBO, WILSON, *Informal Funds Transfer Systems, An Analysis of the Informal Hawala System*, IMF Occasional Paper No.222, 2003.

⁶⁴ SIRILA, *The Pleasures and Perils of New Money in Old Pockets*. In 2013, Kenya passed the Money Remittance regulation aimed at governing international money transfer by creating a better environment for remittances and enhancing the use of formal delivery channels, as opposed to informal ones which are less transparent and escape State supervision. Under the aforementioned regulation, money remittance is defined as «a service for the transmission of money or any representation of monetary value without any payment accounts being created in the name of the payer or the payee, where (a) funds are received from a payer for the sole purpose of transferring a corresponding amount to a payee or to another payment service operator acting on behalf of the payee; or (b) funds are received on behalf of , and made available to the payee». On the basis of this definition, under Kenyan law, any kind of exchange, and especially the informal (e.g. *hawala*) or anonymous (Bitcoin) ones, which imply the transfer of a 'value', would be subject to this regulation.

⁶⁵ PLASSARAS, *Regulating Digital Currencies: Bringing Bitcoin within the Reach of the IMF*.

common users. «This, in turn, could help improve the skills and knowledge of users regarding personal finance software and finance optimization technologies»⁶⁶. This is regarded as a positive externality, for in a society in which technology has a growing role to play, enhancing users' knowledge of software-based finance may produce long-lasting and significant effects.

- (iv) Then again, the market for cryptocurrencies contributed directly to emergence of entirely novel industry gravitating around the mining, exchange, conversion in fiat currencies and storage of Bitcoins and so to economic growth and to incentives for innovation in the IT and financial sectors.
- (v) Additionally, the **three main functions** that distinguish **traditional currencies** (*i.e.* being a medium of exchange, acting as a unit of account and the measure of value, and being a store of value for prospective expenditures) may be **performed** – and in some cases even more efficiently achieved - **by cryptocurrencies** and virtual currencies as well.
 - (1) As a **medium of exchange**, their essential advantage is to **avoid the costs of transaction imposed on the exchange of currencies thanks to the fact that they are ‘universal’ currencies** inherently «designed to be used transnationally via the Internet»⁶⁷.
 - (2) As **unit of account** and measure of relative worth, given the complexity of Bitcoin's production process, coupled with its scarcity (which will be no longer produced after 2025 when the threshold of 21 million will be definitively met)⁶⁸, Bitcoins shall be regarded as «**intrinsically and intuitively valuable**»⁶⁹.
 - (3) As a store of value, since Bitcoin is not influenced by the policies adopted by governments, its worth depends exclusively on the market; for this reason, the issuers of digital currencies,

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ <https://bitcoin.org/en/faq#economy>.

⁶⁹ PLASSARAS, *Regulating Digital Currencies: Bringing Bitcoin within the Reach of the IMF*. Besides, since digital currencies are not linked to State governments, their legitimacy in the eyes of their users cannot be affected by perceived injustice or wrongdoings carried out by National central banks. This is particularly true in relation to Bitcoin, which lacks a third party authority in charge of issuing and managing it.

like Bitcoin, commit to making their currencies the most stable and reliable as possible, for only in that way, they can succeed in becoming a store of value and concurrently attracting investments⁷⁰.

At this point, let us enumerate the **disadvantages and weaknesses**.

- (i) First of all, we should address the issue of **anonymity** of the Bitcoin system, which is generally regarded as one of its most attractive features. In this regard, it is worth clarifying that there are generally two types of Bitcoin exchanges: (i) one which requires the submission of a valid ID or passport or proof of residence (depending on the registration requirements set by the exchange) so as to register and subsequently obtain a Bitcoin account, and (ii) others which do not set any registration requirements. It is evident that carrying out Bitcoin transactions by relying on the first type of exchanges represents a more traceable method, which is evidently less anonymous. Whereas, purchasing Bitcoins through exchanges which do not require registration permits to safeguard anonymity. However, the achievement of complete anonymity chiefly depends on the «method the customer uses to transfer money to the Bitcoin Exchange for purchase of Bitcoins»⁷¹. Moreover, the Bitcoin network keeps record of the transactions that occur within it by means of block chains: each block chain is a transaction database that is shared by all nodes which participate in the Bitcoin system, therefore, on the basis of the information contained in each block chain it is possible to discover «how much value belonged to each address at any point in history»⁷². Besides, according to a MIT research, the so called ‘reverse tracing’ process permits to map out and find out the origin of all Bitcoin operations by starting from the

⁷⁰ *Id.* Additionally, in relation to Bitcoins, a further advantage lies in the very architecture of system: the operational rules of the peer-to-peer network are transparent, and everyone can, at least in theory, become a ‘miner’, and, consequently, receive incentives for mining (the so called, proof-of-work procedure) and through transaction fees (once the total amount of Bitcoins will be reached, incentives will totally fall on transaction fees). IWAMURA, KITAMURA & MATSUMOTO, *Is Bitcoin the Only Cryptocurrency in the Town*.

⁷¹ SIRILA, *The Pleasures and Perils of New Money in Old Pockets*. For instance, using a payphone to purchase Bitcoins with cash ensures a high level of anonymity.

⁷² BITCOIN WIKI, *What Is A Block Chain*, cf. https://en.bitcoin.it/wiki/Block_chain.

end point of the transaction.⁷³ Although the recourse to such process is rather expensive, it nonetheless demonstrates that the potential anonymity of the system may actually be ‘dismantled’, if so required by security reasons. On the hand, anonymity has also been the main boon and boast which made cryptocurrencies; for example, for what regard the security of personal data, since virtual currency payments do not ask for personal or sensitive data, (that is the normal pattern with credit cards) or passwords⁷⁴.

- (ii) Economists warn about the **uncertainty** surrounding the transactions through digital currencies and their future development. Scholars face difficulties in determining whether and how such currencies will ever be largely accepted by the general public due to the lack of reliable sources of information. Moreover, such uncertainty is enhanced by the fact that investing in a currency which has neither an intrinsic value, nor is it asset-backed, can be rather risky⁷⁵. However, for the time being, Bitcoin has conquered only a tiny share of the global financial system, consequently, its widespread use is unlikely to occur anytime soon. Nonetheless, it might be expected that in the future other cryptocurrencies with a similar - though improved - architecture and security structure may prevail⁷⁶ over Bitcoins, whose main deficiency lies, in fact, in **the lack of an**

⁷³ SIRILA, *The Pleasures and Perils of New Money in Old Pockets*. Problems arising from the geographic location of Bitcoin transactions may be tackled by means of the geolocation technology. Such software has, in fact, the capacity to locate electronic usage within physical geographical spaces, by identifying the subject party’s IP address and, in so doing, it permits to determine what Country, enterprise or individual user such address has been assigned to.

⁷⁴ According to the EBA Opinion, «[I]n this sense, VC units can be considered to be like cash: whoever possesses them also owns them, removing a source of potential identity theft». EBA opinion, 19. This leads also to a limited interference by public authorities.

⁷⁵ In particular, investment risks concerning Bitcoins are linked to the latter’s high price instability, the lack of an authority which may intervene in order to manage both inflation and deflation, as well as the fact that interest rates which may be earned through such cryptocurrency are quite volatile. (IWAMURA, KITAMURA & MATSUMOTO, *Is Bitcoin the Only Cryptocurrency in the Town*). In particular, «the price of a bitcoin is susceptible to massive swings, unlike conventional currency» (DOHERTY, *Bitcoin and Bankruptcy*) which is also confirmed by the figures and charts provided by the website bitcoinaverage.com. According to its price index, on January 16, 2015, the USD market average of a Bitcoin is equivalent to \$ 215,43, and its highest price in 24 hours amounted to \$ 228,61, while, its lowest to \$ 198.08 (cf. <https://bitcoinaverage.com/#USD>).

⁷⁶ TRAUTMAN, *Virtual Currencies Bitcoin & What Now*.

economic rationale, which in the long run is necessary for the sustainability of every economic system⁷⁷.

- (iii) Furthermore, one of the major weaknesses of the Bitcoin system stems from the **lack of regulation and the third party's oversight**: in general, the systems created by digital currencies are devoid of an underlying legal framework, therefore, the transactions executed through them may be «subject to credit, liquidity, and operational risks, as well as risk of fraud»⁷⁸. Moreover, it is well-known that cryptocurrencies represent an attractive means of exchange for criminals. According to the U.S. Secret Service, in fact, virtual currency and cryptocurrency systems are frequently employed to move and hide funds, transmit money derived from illicit activities, like terrorism or money-laundering, due to the following reasons: (a) anonymity for both users and transactions; (b) the quick and confidential transfer of funds from one Country to another; (c) its widespread adoption throughout the global network of criminals; (d) trustworthiness⁷⁹.
- (iv) In addition, concerns have been expressed as to the **vulnerability** of the system, and the need to improve cyber-security so as to avoid any breach or violation of users' accounts. Moreover, the degree of vulnerability of the system is further enhanced by the fact that Bitcoin transactions do not occur at the same time, namely with «an instantaneous debit and credit of the payer and the payee, respectively»⁸⁰. The period of time between the payment and the receipt of such payment depends, in fact, on the mining activity⁸¹. The non-simultaneous occurrence of Bitcoin payments may lead to

⁷⁷ IWAMURA, KITAMURA & MATSUMOTO, *Is Bitcoin the Only Cryptocurrency in the Town*. Additionally, the authors propose the schema for the development of an alternative cryptocurrency whose improved properties would enable it to flourish.

⁷⁸ *Id.*

⁷⁹ TRAUTMAN, *Virtual Currencies Bitcoin & What Now*.

⁸⁰ SIRILA, *The Pleasures and Perils of New Money in Old Pockets*.

⁸¹ Miners use the computational power and software to solve the transactions, and are subsequently rewarded through Bitcoins: the more miners exist within the system, the faster a transaction is decoded. The problem however lies in the fact that mining is expensive, and since the value of Bitcoins is subject to wide price fluctuations, miners may not have enough incentives to mine, and this may slow down the overall system and lead to a loss of confidence in the cryptocurrency. SIRILA, *The Pleasures and Perils of New Money in Old Pockets*.

the so called ‘double spending’⁸²: since such transactions are not completed in real time, fraudulent Bitcoin users may employ the same Bitcoin to purchase two different goods or pay two different people, splitting, in so doing, one Bitcoin transaction into two (which is named ‘fork transaction’)⁸³. Furthermore, Bitcoins, as any other asset in which people invest, are not exempt from loss of confidence, which in turn may lead to a sharp decrease in its demand. Confidence may collapse for a number of reasons: «unexpected changes in the inflation rate imposed by the software developers or others, a government crackdown, the creation of superior competing alternative currencies, or a deflationary spiral[...] [,] because of technical problems: if the anonymity of the system is compromised⁸⁴, if money is lost or stolen, or if hackers or governments are able to prevent any new transactions from settling»⁸⁵.

- (v) Lastly, all digital currencies have to deal with the issue of ‘**network externalities**’. The benefits that may arise from their use depend mostly on the involvement of other people in the network: if a digital

⁸² However, according to Bitcoin’s developer, the system’s inner structure offers a solution to the problem of double-spending (which generally affects all monetary systems and is commonly tackled through the activity of a central authority or mint). In short, a user transfers his Bitcoins (each of which is a chain of digital signatures) to another user «by digitally signing a hash of the previous transaction and the public key of the next owner and adding these to the end of the coin. A payee can verify the signatures to verify the chain of ownership.» Hence, the solution that the Bitcoin system suggests to the double-spending problem consists in relying on «a timestamp procedure on a peer to peer basis»: each block of Bitcoins transactions contains the cryptographic hash of the preceding block enabling therefore anyone to verify whether the previous block has been modified. IWAMURA, KITAMURA & MATSUMOTO, *Is Bitcoin the Only Cryptocurrency in the Town*, and see also NAKAMOTO, *Bitcoin: A Peer-to-Peer Electronic Cash System*.

⁸³ SIRILA, *The Pleasures and Perils of New Money in Old Pockets*. For a thorough analysis of the double spending process, see KROLL ET AL., *The Economics Of Bitcoin Mining, Or Bitcoin In The Presence Of Adversaries*, Princeton University, vol. 8, (2013).

⁸⁴ As a matter of fact, Bitcoin transactions are public even though they are regarded as ‘anonymous’ for the accounts that are identified in these transactions are not directly linked to an individual or an organization. Nonetheless, at times Bitcoin users post their account number online on Bitcoin forums in ways that it might be possible to discover their online identities. Besides, by using statistical techniques and identified accounts the anonymity of the Bitcoin system may be undone. GRINBERG, *Bitcoin: An Innovative Alternative Digital Currency*.

⁸⁵ *Id.*

currency is not accepted by a large number of individuals or merchants, then all the advantages that may derive from it in comparison to paper money are likely to fade away⁸⁶. This is even more true in case of Bitcoin, for its distributed protocols must operate and remain stable in time so as to guarantee the success of the system. And, to achieve such an objective, three types of consensus are required: (i) the consensus about rules, *i.e.* about the criteria determining the validity of transactions, which in turn will be memorialized in the Bitcoin log; (ii) the consensus about which transactions have really occurred so that to determine who owns a coin at any given time; (iii) the consensus about Bitcoins' worth, because if users ascribe a value to Bitcoins, more users would do the same and the Bitcoin economy would continue to spread⁸⁷. However, there exist many threats which may undermine the consensus about Bitcoins, such as deflation, the decrease in the price of Bitcoins due to disincentive to mine them, the hoarding of Bitcoins rather than their use, inner attacks stemming from groups of miners (e.g. 51% attack and Goldfinger attack)⁸⁸ as well as privacy concerns⁸⁹.

In short, the Bitcoin system requires both confidence and legitimacy on the part of its users to flourish as an alternative payment system. But trust and legitimacy may be undermined if undertakings associated with the Bitcoin system are shut down because they have been hacked or found to be in violation of the law⁹⁰.

⁸⁶ *Id.*

⁸⁷ TRAUTMAN, *Virtual Currencies Bitcoin & What Now.*

⁸⁸ For a description of such kind of attacks and their effects, see TRAUTMAN, *Virtual Currencies Bitcoin & What Now.*

⁸⁹ As a matter of fact, researchers have found out that «the current measures adopted by Bitcoin are not enough to protect the privacy of users if Bitcoin were to be used as a digital currency in realistic settings . . . [I]f Bitcoin is used as a digital currency to support the daily transactions of users in a typical university environment, then behavior-based clustering techniques can unveil, to a large extent, the profiles of 40% of Bitcoin users, even if these users try to enhance their privacy by manually creating new addresses.» ANDROULAKI, GKARAME, ROESCHLIN, SCHERER & CAPKUN, *Evaluating User Privacy in Bitcoin*, in AHMAD-REZA SADEGHI (ED.), *Financial Cryptography And Data Security, 17th International Conference, FC 2013, 2013*, available at http://book.itcp.ru/depositary/bitcoin/User_privacy_in_bitcoin.pdf. Cf. TRAUTMAN, *Virtual Currencies Bitcoin & What Now.*

⁹⁰ The EBA in its opinion is far more critical identifying more than seventy risks associated with the use of virtual currencies. Though, this list appears artificially inflated

It follows that the process of legitimization of Bitcoins shall involve a «clean up of the current image associated with criminal activities»⁹¹; this, however, shall be complemented with the endorsement of Bitcoins by large companies (which decide to accept the cryptocurrency as a means of payment) as well as by transnational financial institutions, such as, for instance, the International Monetary Fund, which, as maintained by Plassaras, may «mitigate the impact of Bitcoins on foreign currency markets»⁹². by bringing [Bitcoins] within its reach under the category of ‘separate currencies’⁹³.

since they include some risks which are shared by any means of payment relying on technology or investment products. This opinion divided the risk in five categories risks: to users, to other market participants, to financial integrity, to payment systems in fiat currencies, and to regulators. See for a detailed clarification the EBA opinion, 21 ff.

⁹¹ SIRILA, *The Pleasures and Perils of New Money in Old Pockets*.

⁹² PLASSARAS, *Regulating Digital Currencies: Bringing Bitcoin within the Reach of the IMF*.

⁹³ The global spread of virtual and cryptocurrencies is likely to hit, above all, the International Monetary Fund (IMF). The IMF is a specialized agency of the United Nations that was founded in 1944 and whose primary objective is to coordinate the international monetary policy, especially the foreign currency exchange market, so as to promote international economic cooperation among its Member Countries and to foster the global economic stability (<http://www.imf.org/external/about/overview.htm>). In practice, the IMF sets standards, provides economic policy advice and, in some cases, also financing to its Member States in economic difficulties. Its rules apply only to its Members, and since Bitcoins are not backed by any State government, such cryptocurrency does not have to comply with IMF’s regulations. (PLASSARAS, *Regulating Digital Currencies: Bringing Bitcoin within the Reach of the IMF*). It follows that Bitcoin and similar digital means of payment may pose a threat to the stability policies of the IMF, for they fall outside the organization’s regulatory framework and, as a consequence, the IMF cannot acquire them directly. So, IMF has a very limited power in relation to Bitcoins or any other cryptocurrency, especially in case of speculative attacks against conventional weak (depreciated in value) currencies. Such an attack may further depreciate the value of the currency affected, and in so doing, it would destabilize the whole international foreign currency exchange market. Thus, if the value of Bitcoins continued to increase, turning it into a ‘hard currency’ on international markets, then the possibility to carry out speculative attacks by means of it would increase as well, unless the IMF acts so as to bring Bitcoins under its control and obtain the necessary amount of such cryptocurrency (prior to its price surge) to possibly counter speculative attacks. Nonetheless, the IMF is currently ill-equipped to face any speculative attacks executed through Bitcoins. In order to remedy such deficiency, the institution may rely upon its founding document, *i.e.* the Articles of Agreement, and enlarge the scope of application of certain provisions so as to encompass also digital currencies, or, as an alternative, the Articles of Agreement may be «amended to grant Bitcoin quasi-membership status in the IMF itself». Obviously, such an official recognition on the part of IMF would represent a sheer legitimization of Bitcoins.

In so doing, Bitcoins may not only be legitimized but may also find the strength to 'ensure' their endurance over time, since every virtual currency is based on a mathematically devised protocol and, as such, it «is vulnerable to superior future cryptography advances»⁹⁴. So, Bitcoin's widespread acknowledgment goes also hand in hand with the capacity of the Bitcoin's system to constantly improve itself in order to keep up with the technological developments so as to definitively secure its position over its competitors.

6. Conclusions

The cyber-space and the various activities occurring inside it amount to a diverse world as opposed to the 'real one': namely, a world which is virtual and is not identified by geographic features, and which, as such, may also be classed under different legal institutes and be governed by specific provisions.

By virtue of this understanding, in the past, it has been suggested that online activities ought to be regulated by laws which should not be linked to specific legal or geographical areas, such as for instance the *lex electronica*⁹⁵.

Nonetheless, this proposal has proved to be inherently defective for it implied the necessity to establish a sort of *super partes* international body which would have promulgated said laws – a rather unfeasible solution on the part of National legislations⁹⁶.

In truth, under such circumstances the most common initial reaction is the recourse to prohibitive measures. However, as it emerged also from our analysis, radical prohibition is not considered beneficial. Seeking to halt the

In any case, thus far, IMF has not taken measures in relation to Bitcoins, on the basis of the fact that this electronic means of payment is going to be produced in such a limited amount that cannot destabilize the monetary policies of the organization. Nonetheless, Bitcoins may be regarded as a first alarm bell in view of the possibility that new and more advanced cryptocurrencies might be developed in the next years which may actually undermine IMF' activity.

⁹⁴ TRAUTMAN, *Virtual Currencies Bitcoin & What Now*.

⁹⁵ See in this regard, BARLOW, *A declaration of the Independence of Cyberspace*, available at <http://homes.eff.org/~barlow/Declaration-Final.html>.

⁹⁶ It is clear that the nature of cyberspace creates the need for Countries to negotiate in order to meet their respective aims by finding common grounds and avoiding conflict. This understanding may serve as a precursor for the establishment of an international regulatory framework encompassing permissive, restrictive and hostile States rather than a case-by-case legislation or sector-specific solutions.

Bitcoin phenomenon by outlawing it would, in fact, represent a demanding undertaking given the decentralized, private and potential anonymous nature of Bitcoins coupled with the almost unlimited access to the Internet in the current 2.0 digital era. Moreover, the forbiddance of Bitcoins, and similar cryptocurrencies, even though implemented for rightful reasons, (e.g. anti-money laundering activities), would deprive individuals of the advantages that are inherent in such a system. It is also worth highlighting that cryptocurrencies, and virtual currencies in general, are increasingly gaining ground; so, it might even be expected that the constant ‘dematerialization’ of money currently affecting our economy may eventually lead to the establishment of a ‘cash-less society’⁹⁷, characterized not only by virtual transfers of money but also by the full - though gradual - disappearance of paper money.

In light of this potential outcome, resorting to a fierce opposition to Bitcoins appears to be not only impractical but, as maintained by the proponents of Bitcoin’s legalization, even detrimental to States, which, on the contrary, could benefit from their regulation in terms of revenues (e.g. through taxation⁹⁸) and crackdown on organized crime.

⁹⁷ There are however authors who maintain that even though e-money and in general the world of electronic payment systems were initially enthusiastically embraced as means for a quick passage to a cashless society, this outcome is unlikely to be achieved. For one thing, e-money and virtual or cryptocurrencies amount to a mere additional means of payment used by a small share of market actors, and, on the other hand, even though the current society is characterized by a minimal use of cash, there will always be the need for a common means of exchange that would serve as a unit of account for all such new ‘currencies’ will be denominated in national fiat currencies. See, respectively, PAPADOPOULOS, *Electronic Money and the Possibility of a Cashless Society*, (February 2007). Available at SSRN: <http://ssrn.com/abstract=982781> or <http://dx.doi.org/10.2139/ssrn.982781>, and also KRUEGER, *Towards a Moneyless World?*, *University of Durham, Department of Economics, Working Paper Series No. 9916*, 1999. Available at SSRN: <http://ssrn.com/abstract=1121843> or <http://dx.doi.org/10.2139/ssrn.1121843>.

⁹⁸ In this regard, different interpretations have been given by EU member States as to the possibility to include Bitcoins under the exemptions from VAT laid down in article 135, paragraph 1, letter (e) of the Council directive 2006/112/EC on the common system of value added tax stating that the following transactions shall be exempted, that is «transactions, including negotiation, concerning currency, bank notes and coins used as legal tender, with the exception of collectors’ items, that is to say, gold, silver or other metal coins or bank notes which are not normally used as legal tender or coins of numismatic interest» (cf. <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0112>). In June 2014, the EU Court of Justice received a preliminary ruling (C- 264/14) which was lodged by the Swedish Supreme Administrative Court, raising the issue of the applicability of the art. 135, paragraph 1 of the aforementioned directive to virtual currency exchanges. (<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:62014CN0264>). So far, the Court has not

At the same time, though, careful thought shall be given to the consequences of Bitcoin regulation as well, because if governments and international organizations exceeded in overregulating this domain, the benefits attached to it would definitely disappear⁹⁹.

Perhaps, it might be argued that the adoption of the ‘wait and see attitude’ may be a valid alternative, at least for the moment, notwithstanding the potential economic benefits arising from the regulation of Bitcoins. This option would in fact enable States to observe the evolution of Bitcoins over time before taking the appropriate measures. Actually, it is still too early to predict Bitcoin’s future and we may even witness an unexpected – though not so unusual – development: the Bitcoin system may eventually implode (due to market forces) or be replaced by either more advanced cryptocurrencies or new and still unknown means of payments, and this would make any attempt to regulate the system basically useless¹⁰⁰.

In the end, leaving aside the unproductive effort to categorize and regulate Bitcoins themselves, the law, and in particular legislators, shall in the first place acknowledge the existence of Bitcoins and focus on what surrounds them and how they can make provisions for it, since, for the time being, the issue of digital currencies’ regulation is far from being solved¹⁰¹.

decided the case yet; it is however noteworthy that it is debating the possibility to define Bitcoins as ‘services’.

⁹⁹ PERUGINI & MAIOLI, *Bitcoin tra Moneta Virtuale e Commodity Finanziaria*.

¹⁰⁰ The development of innovations and the relevant products (e.g. Bitcoins, as well as new technologies, games, etc.) may be described by referring to the upside down form of the letter ‘J’. This peculiar curve represents the initial phase of interest and circulation of innovations, which is followed by a surge (after their mainstream acknowledgment) up to the saturation point; thereafter, due to various reasons (such as, drop in interest or consensus, rise of new and more advanced technologies, etc.) the demand for the innovation at issue starts shrinking and continues to decrease unless initiatives are taken so as to bring it back in line with the market’s needs.

¹⁰¹ MIDDLEBROOK & HUGHES, *Regulating Cryptocurrencies*. A growing amount of literature has been published recently on this subject. See, for instance, MARIAN, *A Conceptual Framework for the Regulation of Cryptocurrencies*, 81 *U Chi Rev Dialogue*, 2015, and that by TU & MEREDITH, *Rethinking Virtual Currency Regulation in the Bitcoin Age*, 90 *Wash L Rev*, 2015.

END-TO-END ENCRYPTION IN ON-LINE PAYMENT SYSTEMS: THE INDUSTRY RELUCTANCE AND THE ROLE OF LAWS

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Various security breaches at third-party payment processors show that online payment systems are the primary target for cybercriminals. In general, the security of online payment systems relies on a number of factors, namely technical factors, processing factors, and legal factors. The industry gives its best endeavours to strengthen the technical and processing factors, while the government has been called upon to improve the legal factors. However, a breach of consumer's data and financial losses resulting from such a breach keep occurring. Findings from the forensic audit show that most online payment systems, such as those using credit and debit cards as their instruments, have a weak point leaving the systems vulnerable to hacking. This weak point concerns the so-called financial data in transit that are not fully encrypted. Encryption is indeed employed within the systems, but only on certain networks. Industry's standard reflected by code of conducts only obliges the players to encrypt the financial data transmitted on the public network, and not on their private networks. On top of that, laws and regulations are often in a vacuum to regulate the encryption. Thus, although seen as the strongest method so far to prevent the breach, end-to-end encryption has not entirely been implemented. Why does the industry seem to be reluctant in implementing end-to-end encryption? What do laws rule on this and would it be appropriate for the law to rule such obligation for the sake of consumer protection? This paper tries to shed a light on these issues. To investigate the industry reluctance, this paper discusses security of online payment systems and the nature of the retail payment systems. As for the laws and regulatory frameworks, this paper outlines and focuses on the EU level. Online payment systems using credit or debit cards are used as the main example in this paper as such methods have much more matured compared to the others. However, special attention on the innovative payments such as mobile payments and virtual currencies will be drawn as the security issues of such innovative payments have given rise to regulatory challenges.

Table of Content

1. Introduction
2. What are Online Payment Systems?
3. Security of Online Payment Systems
4. Breaches in Online Payment Systems
5. Improving the Security of Online Payment Systems
 - 5.1 Chip and PIN
 - 5.2 Tokenization
 - 5.3 Quantum Secure-Authentication
 - 5.4 End-to-End Encryption
6. End-to-End Encryption: Why it has not been Implemented

- 6.1 Economic Reasons
- 6.2 The Design of Online Payment Systems
- 6.3 The Nature of Retail Payment Systems
- 7.The Role of Laws
 - 7.1 Payment System Directive
 - 7.1.1 Provision applicable for implementing encryption
 - 7.1.2 Does the framework suffice?
 - 7.1.3 Among the hype of innovative payments
 - 7.2 Proposal of Payment System Directive 2 (PSD 2)
 - 7.3 Other Regulatory Frameworks
 - 7.3.1 Data Protection Directive
 - 7.3.2 Privacy and Electronic Communication Directive
 - 7.3.3 Encryption law
- 8.Conclusion
- References

1. INTRODUCTION

In the last decade various security breaches occurred all over the world, putting consumer personal data in jeopardy. These breaches, in particular those occurring at third-party payment processors, show that online payment systems are the primary target for cybercriminals. Although trend on financial losses from breaches is quite steady, trend on the compromised data from the same breaches is increasing¹. Breaches that occurred at payment processors such as Heartland Payment System and others such as the US Office of Personnel Management, Kaspersky Lab and BlueCross, involved hundreds of millions of data, serve as a wake-up call: online payment systems are vulnerable and need to be secured.

In general, the security of payment systems relies on a number of factors, namely technical factors, processing factors, and legal factors. The industry gives its best endeavours to strengthen the technical and processing factors², while the government has been called upon to improve the legal factors. However, a breach of consumer's data and financial losses resulting from such a breach keep occurring.

Findings from the forensic audit show that most online payment systems, such as those using credit and debit cards as payment instruments, have a weak point leaving the systems vulnerable to hacking³. This weak point exists when financial data are in transit, while not being fully encrypted. In this circumstance encryption is indeed employed within the systems, but only on certain networks. Industry standard reflected by code of conducts and often bylaws only oblige the payment providers to encrypt the financial data transmitted on the public network, and not on their private networks. On top of that, laws and regulations are often in a vacuum to regulate the encryption. Thus, although seen as the strongest method to prevent a breach, end-to-end encryption has not been fully implemented.

This paper tries to shed a light on the following issues:

- Why does the industry seem to be reluctant in implementing end-to-end encryption?
- What is the role of the existing laws to strengthen the security of online payment systems?

¹ Cheney, 2010.

² For example, in card payments the industry has an agreement to apply a technical standard, namely the Payment Card Industry Data Security Standard (PCI DSS).

³ One excellent example is a breach occurring at a third party payment processor in the US, Heartland Payment System that will be discussed further in the later subchapters.

In seeking the answers, this paper will discuss the security and design of online payment systems and the nature of retail payment systems.

It is worth noting that in this paper, online payment systems using credit/debit cards are used as the main example regardless the delivery channel they use, whether they use the Internet (internet payments), mobile device (m-payments), ATM or Point of Sales (POS) terminal (card payments) to initiate payment orders. However, special attention on the innovative payments in particular m-payments and virtual currencies will be drawn as the security issues of such innovative payments have given rise to regulatory challenges. As for the laws and regulatory frameworks, this paper will outline and focus on the EU level. Methodology employed for this paper is legal research with law, technology and economic approaches. In this manners, the relevant EU directives with focus on payment system directive are analysed for any loopholes in light of the business practices.

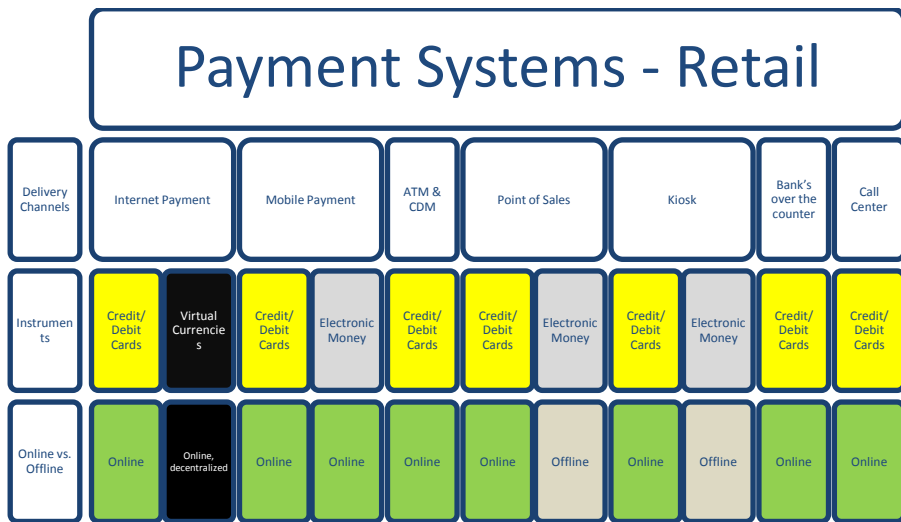
This paper is structured as the following. Section 2 briefly overviews what are online payment systems discussed in this paper, their examples and limitation. It follows by discussions on the security of online payments in Section 3 and breaches occurred in online payments in Section 4. Section 5 elaborates on how to improve the security to prevent such breaches occurred in the future. Analyses are provided in Section 6 and 7, discussing the reasons why end-to-end encryption has not been fully implemented and what is the role of laws, respectively. It ends with conclusion provided in Section 8.

2. WHAT ARE ONLINE PAYMENT SYSTEMS?

There are some confusions when it comes to the definition and scope of online payment systems. Among non-professionals, an online payment system is understood as any system that enables payments to be made through the Internet only. Although not false, this definition is not entirely correct. The professionals in payment systems employ some well-accepted terms such as Gross vs. Net systems, Large-value vs. Retail, as well as Online vs. Offline systems. Among such professionals, an online payment system means any system that requires access to the central server to authenticate a payment order for authorization. Here, access to the central server does not necessarily imply the use of the Internet, but can also be done through a private network. As example of online payment are any transactions made by a consumer using credit or debit cards at a store or

through the Internet, m-payments using an app or telecommunication network to initiate transactions and most of virtual currencies.

By contrast, offline payment systems do not require access to the central server to authenticate the payment order. Thus, transactions processed through offline systems can be, and should be, done locally, usually involving an instrument such as a smart card and a reader device. Settlement to the central database is usually done in bulks by the end of the day or in the next day of the transactions. As an example of offline payment is transactions made using a store-value card (also known as electronic money) for transportation services such as buses or trains and m-payment using Near Field Communication (NFC) technology.

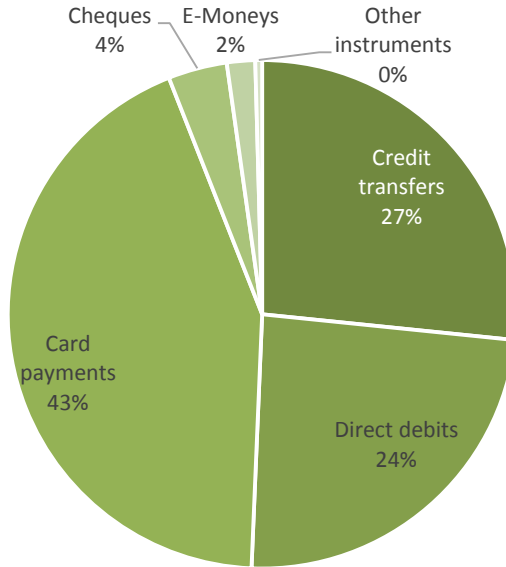


Source: Author.

Figure 1 Retail Payment Systems: Delivery Channels, Instruments and Online vs. Offline

As shown in figure 1, retail payment systems encompass a number of delivery channels such as the Internet, mobile phone, Automated Teller Machine (ATM) & Cash Deposit Machine (CDM), Point of Sales (POS) at merchants or shops, kiosk, bank’s branch and call centre. Regardless the delivery channel a consumer uses, the transaction will require an instrument. Broadly speaking, payment instruments mainly consist of three instruments: paper-based (such as checks), card-based (such as credit/debit cards), and electronic-based (such as e-money and virtual currencies, and later on

crypto-currencies⁴). The focus of this paper is online systems no matter the delivery channels or instruments they use. However, online payments made using credit/debit cards might appear more in the analysis as such systems are the most mature compared to others⁵ (see figure 2⁶). Specific attention on online m-payments and virtual currencies will be drawn as the security issues of such innovative payments have given rise to regulatory challenges.



Source: ECB, *Payment System Statistic*⁷

Figure 2 Percentage of the use of payment instruments in the EU in 2013 based on number of transactions

⁴ There is no doubt that crypto-currencies such as Bitcoin is electronic-based as it is basically a computer file encrypted with a unique logarithm using public and private key for authentication prior a transaction. For detail see for instance European Central Bank, *Virtual Currency Scheme*, 2012. Pay attention on the elaboration of Bitcoin as a case studies, page 21-27.

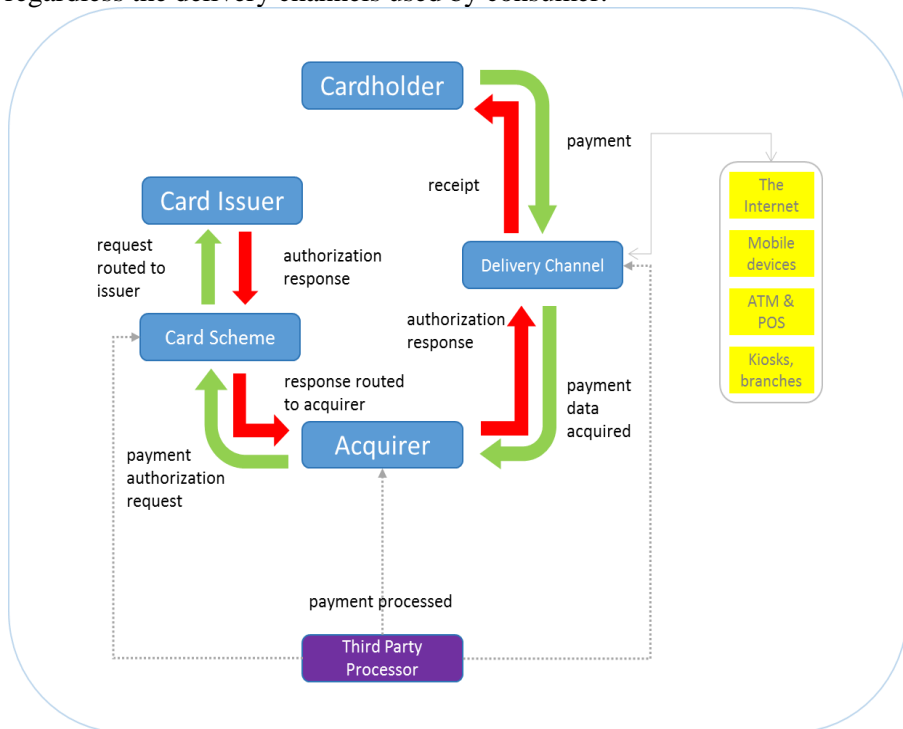
⁵ For an excellent discussion on the significance of card payments, see for instance Borestam and Schmiedel, 2011: 8-9.

⁶ Unfortunately, both m-payments and virtual currencies have not been included in the figure as the existing statistic provided by ECB does not make any distinction to these types of payment systems/instruments.

⁷ www.ecb.europa.eu/stats.

3. SECURITY OF ONLINE PAYMENT SYSTEMS

Before discussing the security of online payment systems, we need to outline how a transaction is processed through online payments. Therefore, a general model of online payment systems needs to be set. Although generated from online transactions made using credit/debit cards, the general model as shown in figure 3 could be applied to all types of online systems regardless the delivery channels used by consumer.



Source: www.theukcardsassociation.org.uk, modified and adjusted⁸.

Figure 3 General Model of Online Payments using Debit/Credit Cards as Instruments

From such a general model, one can draw three important elements in online payment systems that have a direct influence to the security employed: instruments used to initiate payments, delivery channels, and the

⁸ See also basic flow chart in Borestam and Schmiedel, 2011: 10. Pay attention in particular on business model of four-party scheme.

networks. Bearing in mind these three elements, the security employed in online payment systems is as the following.

The first one deals with the security of the payment instruments. As described in subsection 3, cards are the most common instruments used in online payments (see figure 2). Security employed in card instruments is generally as the following. When first time introduced in around 1950s⁹, credit cards used magnetic stripe technology. This technology was still used in most countries until 2008 when the card scheme started introducing smart card technology. In fact, magnetic stripe cards are still used mainly in the US today¹⁰. The case of debit cards is the same, following credit card systems as their predecessor. In the beginning, debit cards also used magnetic stripe technology but then gradually replaced by smart cards.

Security used in magnetic stripe cards is considered as the lowest¹¹. They only have ability to store card data such as card digit number and expiry date used for personalisation. They have no ability to encrypt or decrypt and barely no security at all. When a cardholder swipe his or her magnetic stripe cards, the data stored in the magnetic stripe technology is sent to the terminal for validation and then, assuming the data is valid, to the issuer for authentication. The data processed consists of bare digit numbers that are easy to clone. In this manner, magnetic stripe cards are vulnerable for fraudulent. There were so many cases where skimmed and cloned cards were used by fraudsters.

The second issue is the security of the delivery channels. Some delivery channels are more mature and highly regulated, while some others are new and less- or un-regulated. The first includes ATM and POS terminals owned by banks that highly regulated under financial sector, while the latter includes the Internet and mobile device. Recent research shows that mobile devices are, for instance, vulnerable from *phishing* or *shmishing* (attack via short messages), malware and reckless users (lost and stolen device, public WIFI usage or weak passwords) as such devices are made for telecommunication function and not for conducting payments.

The last issue deals with the security employed for the networks. Until recently, there is neither an explicit law nor a standard agreed by all providers to employ a certain level of security for networks. As for the law, the European Commission introduced a proposal to regulate security of

⁹ Schmalensee and Evans, 2005.

¹⁰ Accounted for approximately 90% of the total cards by the end of 2014.

¹¹ Turban and Brahm, 2000: 282.

network and information¹², whereas for industry standard the most established standard is that of card payment industry¹³. Even within card payments, there was no use of any encryption technology in the beginning. After many cases of frauds (skimming, tampering and breaching) the industry started to inquiry encryption to be employed within the networks.

However, until currently industry standard only emphasizes the use of encryption technology for data at rest and data in transit within public networks. Since the existing requirement for employing encryption technology is still restricted to private network, data in transit through the public networks remains vulnerable to hacking.

4. BREACHES IN ONLINE PAYMENT SYSTEMS

This paper does not aim at providing an exhaustive list of the breaches but highlighting the breaches that relate to online payment systems, regardless the locus of the breaches. Skinner defines a security breach as "*a successful attack on a computer system's security controls in order to penetrate the system to acquire or corrupt information on the system, thus disrupting the confidentiality, integrity, or availability of information on the system*"¹⁴. This definition will serve as fundamental basis in outlining the relevant case of breaches.

The impact of security breaches to firms can be enormous in term of financial losses. The Computer Security Institute reported that in 2005, 639 of 700 respondents surveyed experienced breaches, costing such firms more than USD131 million in total, or in excess of USD 203 thousand per a firm in one single year only¹⁵. In addition, firms suffering the loss of sensitive data have also other financial shortfalls such as customer defections and decline in revenue and stock¹⁶.

This significant financial loss impact also occurred to Heartland Payment System when a hacker interfered its network in late 2008, causing breach of

¹² Proposal for a Directive of the European Parliament and of the Council concerning measures to ensure a high common level of network and information security across the Union, 7 February 2013, COM(2013) 48 final, 2013/0027 (COD).

¹³ The Payment Card Industry Data Security Standard (PCI DSS), available at https://www.pcisecuritystandards.org/security_standards/.

¹⁴ Skinner in Rode, Lilia, 2006: 1604.

¹⁵ Gordon et al., 2005.

¹⁶ IT Policy Compliance Group, 2007: 4.

approximately 100 million debit/credit card data¹⁷. Heartland is the fifth biggest third party processor in the US, processing over USD80 billion and 4.2 billion transactions annually from more than 250,000 clients¹⁸. The breach occurred as an outsider succeeded in interfering Heartland's payment network, after about six months hiding his activities within the corporate network. Heartland's corporate network was first interfered with SQL injection, and then it moves from corporate network to payment processing network by installing sniffer software enabling to capture the payment data¹⁹. Hence, fraudsters breached Heartland by stealing data when they are being processed (in transit) within the private network and not from the database (at rest). After such accident, Heartland carefully reviewed the security employed in its systems and made steps to improve it, including a plan to employ end-to-end encryption.

5. IMPROVING THE SECURITY OF ONLINE PAYMENT SYSTEMS

Improving the security of online payment systems is not an easy task. Depending on the nature, format and design of each system, literature shows that currently there are at least four methods to improve the security of online payment systems. Each method has its own benefit and disadvantage in preventing a breach to occur, and is outlined and reviewed below. However, it is worth noting that these methods are continually evolving. What is considered as the safest method today might be no longer safe tomorrow.

5.1. Chip and PIN

The most well-known technical security to improve the use of debit/credit cards in online payments is the replacement of magnetic stripe cards with smart cards. The previous cards were used for debit/credit card transactions in the beginning up to several years ago. In fact, they are still used for most payments in the USA. By end of 2014, there were already more than 5.4 billion of smart cards used worldwide²⁰. Laymen recognize this smart card technology as Chip and PIN.

¹⁷ Lewis, 2015.

¹⁸ Cheney, 2010: 2.

¹⁹ Cheney, 2010: 3-4.

²⁰ EMVCO, *Worldwide EMV Chip Card Deployment*.

Basically, smart cards employ microprocessor chip to improve the security of magnetic stripe. This microprocessor provides several means of authentication to safely authorize transactions, mostly using cryptographic value. On EMV cards for instance, the security methods employed are cryptography called an Authorization Request Cryptogram (ARQC). Along with the transaction data, this cryptographic is sent to the card issuer for authorization. If the data is approved as valid data, the issuer then generates another cryptographic namely Authorization Response Cryptogram (ARPC). This method helps the card industry reduce transactions using counterfeit cards²¹.

However, smart cards used in online payment systems only eliminate certain frauds such as those resulted from skimming and counterfeiting cards. These frauds are only valid for card-present transactions using magnetic stripe cards. For card-not-present transactions such as the Internet or mobile payments, the use of smart card technology is irrelevant as they do not require a physical instrument rather than a set of personal data to initiate a payment order.

5.2. Tokenization

Security used in tokenization is by generating random numbers to replace the payment data, and then sending such “tokenized” data to the third party processor. In this manner, retailers do not need to save or keep the “naked” payment data into their systems. All the payment data (and consumer data) are maintained and kept safely in the system owned by third party processor. Therefore, if a retailer or its system is tampered, fraudsters will not be able to capture the real data because they are not saved in the system of the retailer. This technology is highly relevant to secure transactions using the Internet payments and app-based mobile payment.

The flaw of this security improvement is that if a breach occurs at the third party processor, such as that happened to the Heartland Payment Systems in 2013, thieves are still enable to harvest all the data and use the compromised data to gain financial benefits. In this case, tokenization has no intended impact. That is why in many occasions tokenization is employed along with encryption.

²¹ EMVCO, 2011: 89.

5.3. Quantum Secure-Authentication

Quantum secure-authentication uses proton of light to authenticate the confidentiality, integrity, and availability of information²². The method is complex, involving so-called physical unclonable function (PUF) as part of authentication process. The problem of this method of authentication is that this method has not been used in a real system. It seems flawless in laboratory but not yet tested in real life. Hence, it needs further research and a series of implementation stages to prove it robust.

5.4. End-to-End Encryption

General concept of end-to-end encryption is to encrypt both data in-transit and data at-rest. Data in-transit concerns the payment data that are being processed through the network, while data at-rest are data that are stored in the system database. Encryption of these data serves as an integral part of the authentication and authorization processes of payment instruction. Once end-to-end encryption employed, the payment data are no longer transmitted among the network participants in clear texts. Hence, the fraudsters who succeed to hack the system will unable to take advantage of the encrypted data. This technology can be employed for all types of online payment systems: internet payments, m-payments and card payments as basically it secures the three elements of online payments: instruments, delivery channels and networks.

However, there are two arguments when it comes to the starting point of encryption in end-to-end encryption²³. The first one argues that by employing end-to-end encryption it means that the data should be encrypted once it has left consumer's devices, right after the consumer has initiated a payment order. On the other hand, the second argument believes that the data should already be encrypted within the device itself. This different arguments of end-to-end encryption's starting point lead to different tools for implementing encryption, the cost embedded, and the perceived security of the systems.

²² Goorden et al., 2014: 421-424.

²³ Cheney, 2010: 9-10.

6. END-TO-END ENCRYPTION: WHY IT HAS NOT BEEN IMPLEMENTED

After carefully reviewing the relevant literature and scrutinizing the design of online payment systems, we argue that there are three main reasons on why end-to-end encryption technology has not been fully implemented. These reasons are economic reasons, the obstacles come from the design of online payment systems, and the difficulties arisen by the nature of retail payment systems.

6.1. Economic Reasons

For retail industry, the costs incurred by using payment instruments are not inexpensive. An empirical study by ECB in 2012 showed that the social costs for using payment instruments amounted to nearly 1% of GDP for EU member states²⁴. While half of these social costs incurred by banks and payment infrastructure entities, 46% of such costs incurred by retailers. The remaining costs were shared between central banks (3%) and cash-in-transit companies (1%). As for the private costs, retailers also incurred the highest cost (at 0.587% of GDP), even compared to those of banks and infrastructures (at 0.493% of GDP)²⁵. This is because retailers were exposed higher external fees to be paid to the payment providers. For instance, in some cases in the US some small retailers are even bound to a 48-month contract with acquirer to set-up POS terminals at their shops²⁶. As for the Internet and app-based m-payments, costs incurred by retailers can be reduced as they do not need to set up terminals. However, NFC-based m-payment still requires to set-up POS terminals or to upgrade the existing terminals to enable m-payment transactions.

Implementing end-to-end end encryption will incur another cost to the retailers, and this cost is also not cheap. It could be a burdensome especially when it comes to small and medium retailers. Although retail industry in the EU includes some of the largest multinational companies, they are only a few. Over 95% of retailers in the EU are small and medium enterprises²⁷. That is why this cost issue might be the main reason why the industry seems to be reluctant.

²⁴ Schmiedel et al., 2012: 6.

²⁵ Schmiedel et al., 2012: 25-26.

²⁶ DeSimone, 2015. See comments from some merchants in the US on this online article.

²⁷ European Commission, 2013: 7.

Taking into account on the different opinion of the starting point of end-to-end encryption previously discussed²⁸, there are two scenarios in calculating the cost for implementing end-to-end encryption. Whichever the scenario, both costs will consist of fee for software and hardware upgrades. The latter includes delivery channel upgrades when applicable (such as POS terminals and ATM). It is worth noting that the following calculations aim at providing an illustration only, on how implementing end-to-end encryption incurs a high cost.

Scenario 1 – encryption starting from the terminals

For scenario 1, cost for implementing end-to-end encryption ‘only’ consists of cost for employing encryption software and cost for upgrading the related hardware such as POS terminal and ATM & CDM. However, these costs cannot be considered as inexpensive. While cost for implementing encryption software may be considered relatively affordable, this is not the case for the cost of upgrading hardware. Hardware such as POS terminal and ATM have to be upgraded to have ability to read and communicate with encryption-enable instruments such as smart cards. After upgraded, this hardware will enable to authenticate whether a payment instrument is genuine or not.

Cost for upgrading the delivery channels can be enormous to be borne solely by one company. Let’s take a look at the case of upgrading POS terminal and ATM. In this case (and in most cases), acquirer is responsible for such cost. However, the acquirer will then pass the cost to its merchants, the retailers. There is no way that a merchant gets all the terminals installed at their stores for free.

To give a real illustration on how much the cost incurred in upgrading terminals, let’s take a look the number of terminals available within the EU countries. By 2013, there were in excess of 9 million POS terminals and more than 434 thousand ATMs available within the EU²⁹. Taking into account that the modest cost for upgrading one POS terminal is in average of USD 300³⁰, and the cost for upgrading one ATMs is approximately USD 1400³¹, the total cost for upgrading both POS terminals and ATMs would be

²⁸ See subsection 6.4.4 paragraph 2.

²⁹ European Central Bank, Payment System Statistics. Available at <http://sdw.ecb.europa.eu/reports.do?node=1000004051>.

³⁰ DeSimone, 2015. See also comments from some merchants, addressing on how much cost incurred to get a smart-card ready terminals fo thei stores.

³¹ Payments Leader, *Will retailers be ready for EMV by Oct 2015?*

USD 2.7 billion and USD 607.6 million respectively. It is worth noting that vast majority of the merchants in the EU are SMEs, accounted for 95%. Such costs will be burdensome to those SMEs. However, it is also worth restating that this calculation is just a raw calculation for an illustration only. To have a real calculation on the cost, it needs to be meticulously investigated.

Scenario 2- encryption from the instruments

For scenario 2, cost incurred for the implementation of end-to-end encryption will be cost for scenario 1 + cost for replacement of cards. All cards that have no ability to encrypt and decrypt need to be replaced with smart cards. If one company considers that cost for scenario 1 is not cheap, cost for card replacement is even more expensive. For illustration, one magnetic stripe costs from USD 0.25 to USD 0.65 only, while cost for one smart card is much more expensive, ranging from USD 1 to USD 20³². Imagine, if there were in excess of 768 million cards³³ in the EU countries in 2003³⁴, it roughly needed at minimum of USD 268 million for the card replacement only.

6.2. The Design of Online Payment Systems

Unlike Systemically Important Payment Systems that process large-value payments and are mostly run by governmental body, most online payment systems are set up and run by private entities and using private networks. Therefore, it is not surprising at all that these entities are looking for profit in order to maintain their sustainability. As profitability is one of their main goals, these entities always meticulously apply cost and benefit calculation in pricing and investment, including when it comes to implementing security technologies. One might see this circumstance as a cause why it looks like that online payment systems slightly put security aside by, for instance, using magnetic stripe cards and unencrypted network for processing sensitive data.

Beside the fact that online payment systems were designed by private entities, consumer perception on security of online payment systems also play a significant role³⁵. The systems will be widely accepted if consumers

³² Turban and Brahm, 2000: 282-283.

³³ Cards with a cash function, based on ECB Payment System Statistics, 2013.

³⁴ ECB, Statistics on payment system instruments.

³⁵ See for instance Kim et al., 2010.

perceive security as sufficient, and *vice versa*. In the extreme condition it would not be an exaggeration to conclude that if industry gets an impression that the consumers perceive the existing security as sufficient, it might make the parties involved in such industry stop improving the security. To some extent, this role is a part of network externalities in payment systems, the wider network usage the better the systems run. Moreover, this role also supports the Schumpeter's theory that "economic logic prevails over the technological innovation". That is why we see sloppy wire hanging over the city rather than stainless cable. In the context of online payment systems, that is why we easily find low-security systems are in existence and even widely used.

Another factor is that rigid security may have an impact on the convenience of the user. In several cases, advance security requires an adept user and reduces the user friendliness. For instance, the use of longer PIN will make the user use more time to memorize it rather than shorter PIN, and the use of tokenization will require the user to follow some further steps tokenizing his or her PIN or personalised data, rather than just one click to initiate a transaction. This factor has a great impact on the design of online payment systems.

6.3. The Nature of Retail Payment Systems

As a part of retail payments systems, online payment systems share the same nature and characteristics of retail payments that may serve as one reason why it is not easy to implement an advance security such as end-to-end encryption. One notable nature is that online payments basically involve small monetary value transactions between consumers to business, or consumers to consumers in case of, for instance, P2P transfers. Payment providers need to focus more on the volume rather than value to get more benefits in providing such payment services. Hence, rapid and mass transactions could serve a key role in designing a potential system. This condition requires the payment providers to be more precaution in allocating resources, securing the profit that will maintain the sustainability of the business. The precautionary includes carefully calculating investment for IT in which security technology is part of it.

Another characteristic is that there are several, if not many, parties involved in online payment systems, from consumer, merchant, issuer of the instrument (if applicable), acquirer of the system to network owner to third party processor. This often leads to coordination problems among the participants of the systems. Problems include resource allocation such as

human resource and cost, as well as technical issues such as interoperability between different systems of participants. Take upgrading POS terminal in implementing end-to-end encryption as an example. Merchants, third party processors and acquirers need to sit down together to discuss the cost incurred and human resource allocation for upgrading process. As the number of retailers can reach hundreds of thousands or even millions in one country (in the EU for instance amounted to 3.6 million³⁶), this negotiation can be very exhausted and time consuming.

7. THE ROLES OF LAWS

The existing law at the EU level that could serve as the legal basis for encryption are mainly the EU Payment System Directive (PSD). Thus, the main focus in this section will be the elaboration of the PSD, covering the existing and the proposed directive. However, some other laws such as Data Protection Directive, Privacy and Electronic Communication Directive and law on encryption will also be briefly discussed as they also contain some provision applicable to system security.

7.1. Payment System Directive

The PSD, which took into force on 1 November 2009, aims at achieving a comprehensive yet modern set of rules for all payment services available in the EU³⁷. It covers all types of cashless payment services, including electronic and online payments, regardless any instruments they use³⁸. By harmonizing the level of regulations, the PSD ensures that among the member states of the EU the electronic payments are *easy, efficient, and secure* to use³⁹.

7.1.1. Provisions applicable for implementing encryption

The most relevant provision within the PSD that could serve as the foundation of the use of encryption to protect the payment data is obligation

³⁶ European Commission, 2013: 7.

³⁷ http://ec.europa.eu/finance/payments/framework/index_en.htm.

³⁸ Payment System Directive, *What It Means for Consumers*.

³⁹ The EU Commission *press release* IP/07/1914, 12 December 2007.

of payment service providers to make sure that the personalised security features of the payment instrument are not accessible to other parties (Article 57)⁴⁰. The key rule of this regulation is that for payment service providers it is an obligation to protect the consumer data against unauthorized access. Under law, obligation has always come with a consequence. If not fulfilled. In this case, the consequence is ruled under Article 60 (1) of the PSD, which is to provide refund immediately to the consumer the amount of the unauthorised payment. In addition, consumers may, under Article 60(2), also request a financial compensation, provided that the contract concluded between the parties enables consumers to do so.

Another relevant provision under the PSD relating to the use of encryption is Article 79⁴¹. This article rules that if necessary to safeguard the prevention and detection of payment fraud, Member States shall permit payment systems and payment service providers to process personal data⁴².

As the role of encryption in payment systems is to protect the data against any frauds, there are two key rules under the PSD relating to the use of encryption. The first is that the law permits the industry to do so, when needed. It is not an obligation or encouragement, but permitted when necessary. Who will decide when it is necessary to employ a more advanced security such as encryption to prevent fraud: payment service provider, consumer, or regulator? Each has different point of view and interest that will lead to different types of regulations. Unfortunately, the PSD does not say much about it. The second key rule is that the PSD leaves it to the national level to enforce such a rule. This way, the PSD may create a different level and depth of regulations among the member states.

7.1.2. Does the existing framework suffice?

Overall, the PSD lays an implicit basic ruling regarding the obligation for payment service providers to implement encryption. This ruling, in form of obligation to take measures protecting the sensitive data, does not suffice to force the industry to implement specific measures such as end-to-end encryption in order to protect the data and prevent any breaches to occur

⁴⁰ There is another obligation imposed to payment service providers, which is to provide evidence relating to payment transactions. However, this obligation has less to do with the use of encryption, and therefore not discussed here.

⁴¹ Chapter 4 of the PSD on Data Protection.

⁴² The processing of data must be in accordance with Directive 95/46/EC on Data Protection.

again. The reason for laying down general ruling is that such ruling emphasizes on the technological neutrality and prevents the rules for being obsolete too fast, especially when a more advance security technology is invented. This actually is not a bad ruling. If accompanied by a more explicit and precise implementing regulation or a standard or code conduct agreed by the industry, this ruling could be an excellent one. However, there is no such clear cut implementing regulations requiring the industry to employ stronger measures to protect consumer data. In addition, industry standard has also loopholes. For card payments for instance, although encryption is encouraged by PCI DSS standard, it only emphasizes on the use of encryption for data in transit within public network, and slightly forgets data in transit within private network. What happened in major breaches such as that of Heartland Payment System is that the hacker stole consumer data while it was being transmitted within Heartland private networks. Hence, in order to protect consumer data at a better level, employing end-to-end encryption is crucial.

Another problem deals with the remedy available for consumer when an authorized transaction occurs. The PSD provides a weak ruling dealing with remedy for consumers for unauthorized transactions that had been made following a data breach at the service providers or third party processors. On the one hand, the PSD provides a general provision that the payment service providers must immediately refund to the consumer the amount of unauthorized transaction (under Article 60(1)). Although theoretically strong, this rule is lacking in power in practical. Consumers will find it difficult seeking redress as the providers will keep telling that by their system the unauthorized transactions have been “authorized” by consumers themselves. The fact is that the hackers have stolen the sensitive data needed for authentication and authorization, so the system will recognize the unauthorized payment order as authorized one. This loophole will always put consumers in a weak position.

On the other hand, the liability framework available for consumers, as provided mainly under Article 56 of the PSD, only applies to unauthorized transactions resulting from lost or stolen instruments. This is to say that this framework applies for “breach”⁴³ occurring from the consumer side (demand) while data & security breach occurs from the payment provider side (supply). Such framework includes zero liability for consumer after

⁴³ Fail to notify of any lost or stolen instruments, keep the instruments safe or involve in frauds or act gross negligence. See Article 56 of the PSD.

notification of any lost or stolen instruments, limited liability up to a maximum of EUR150 if consumer failed to keep the instruments safe, and full liability if consumer involved in fraud or acted gross negligence. As this liability framework focuses only on the demand side of online payments, it is not applicable to address liability for unauthorized transactions following a security/data breach (from supply side). Therefore, consumers of online payment systems suffering from security & data breaches will be left out unprotected.

7.1.3. Among the hype of innovative payments

Lacking of a strong ruling on security of online payment systems is worsened by the rise of new innovative payments. M-payments and virtual currencies, for instance, are types of innovative payments that often set-up by entities that are naturally familiar with security technology. In addition, alike that of many other retail payments, the ecosystem of m-payments and virtual currencies is rather sophisticated. In m-payments, in addition to the regular players of retail payments (such as service providers, retailers and consumers) the ecosystem also involves mobile device manufacturers and app developers and, often, telecommunication providers. While in virtual currencies, the ecosystem often includes start-up companies trying to enter the market for the first time, and in some cases such as in crypto- or peer-to-peer currencies involves crowd or community to authorize a transaction. This expanding ecosystem challenges the existing regulatory framework in the sense that it is difficult to apply the same framework over and over again to different systems.

The issue is even more complex when observing that the adoption of innovative payments is actually slow. One main issue hampering the adoption of m-payments is that the security employed in m-payments and the perceived security by consumers are low. As for the latter, for example, 38% of EU citizens do not trust in security of m-payments and therefore never willing use them.

There is a trade-off between security and accessibility of innovative payments. While a consumer will never use a system that he or she perceives unsecured, rigid security will possibly hamper the accessibility of the payment method as it will be less practical in terms of high cost and less convenience. This circumstance has given rise to regulatory challenges even more, as to how and to what extent authority should regulate m-payments that keep the balance between security and accessibility.

7.2. Proposal of Payment System Directive 2 (PSD 2)

In July 2013, the EU Commission published the Proposal of PSD 2. This new directive is expected to be officially issued and fully implemented by 2016⁴⁴. In such a draft, new players are brought in under the regulatory framework, aiming to encourage a variety of new low cost payment systems including m-payments by providing them with an appropriate regulatory framework⁴⁵. This is to include the so-called third party payment service providers (TPPs), any party providing “*online banking base payment service*”⁴⁶ that currently does not fall under scope of existing regulatory framework. As a consequence, security requirements for payment instruments are strengthened, to include obligations covering operational, security and authentication (under Article 85). Under this proposed regulation, requirement to employ strong authentication is explicitly mentioned.

7.3. Other Regulatory Frameworks

Regulatory frameworks under the PSD and other laws on data protection and privacy and electronic communication regarding the use of encryption are alike. There is no strong provision to oblige industry to implement encryption, although this issue is slightly addressed in the proposed law on network and information security introduced in early 2013.

7.3.1. Data Protection Directive

The EU Directive on Data Protection was set in 1995, aiming at providing regulatory framework for data protection in the EU. It applies to so-called data controllers, the firms which are responsible in determining the purpose (why) and means (how) of the processing of personal data⁴⁷. Under Article 17 of the directive, Member States are required to implement “appropriate technical and organizational measures” in order to protect personal data against unauthorized disclosure. The directive, furthermore, rules that Member States shall also make sure that such measures enable to

⁴⁴ Proposal for PSD 2 (COM (2013) 547 final).

⁴⁵ Proposal for PSD 2 (COM (2013) 547 final): 2.

⁴⁶ See Impact Assessment in the Proposal for PSD 2 (COM (2013) 547 final): 6-7.

⁴⁷ See for instance Sotto et al., 2010.

maintain the security level to cope with the risk embedded by the processing of personal data as well as the nature of the data.

7.3.2. Privacy and Electronic Communication Directive

Although the Directive on Privacy and Electronic Communication basically applies to the electronic communication sector, some rules may also apply to the participants of online payment systems such as of m-payments because some m-payment providers also serve as telecommunication providers. Regulation relating to data security under this directive includes obligation of service providers to make sure that “*personal data can be accessed only by authorised personnel for legally authorised purposes*”. In relation to encryption, there also lays general obligation that service providers must, at their best endeavour, protect data at rest and data in transit against various accidents including unauthorized or unlawful access or disclosure. However, under this legal framework there is no strong consequence affecting companies having consumer data breaches. The only consequence is that, under the EU Regulation 611/2013 on *the measures applicable to the notification of personal data breaches*, which took into effect by 25 August 2013, service providers suffering from data breaches must notify without undue delay any individuals affected by such breaches.

Even more, this obligation to notify can be set aside by service providers if they can prove that appropriate technology has been employed to “render the data unintelligible” to other party. Thus, under Regulation 611/2013 there is a safe harbour for service providers that implement appropriate encryption technology, which is not to notify their consumers affected by personal data breaches, provided that such encryption is able to maintain the data “unintelligible” to third party and the key of the encryption has not been compromised.

7.3.3. Law on encryption

“Law on encryption *per se* applicable within the EU is basically not in existence. However, the discussion on this issue can be dated back in 1990s, when the governmental bodies of some member states such as UK, the Netherlands, France and Spain investigated the misuse of encryption against state interests⁴⁸. The discussion was mostly about restriction for export-

⁴⁸ Koops, 1996 and Koops, 1997.

import of encryption technology, and how to accommodate the state interest when an encryption technology is used by private entities. There were some suggestions to introduce a restriction on the use of encryption by private entities, by law. Although to certain extent this issue is still valid today, the main focus has actually shifted from “to restrict or not to restrict” to how to regulate the usage in proper manners, such as to protect consumer sensitive data and privacy.

8. CONCLUSION

Security breaches in online payment systems have often a significant financial outcome to not only payment providers but also consumers. Reviewing from the design of online payment systems, there is a weakest link within such online systems that leaves the system vulnerable to hacking. This vulnerability concerns the data in transit within private network are not protected. Some fatal data breaches, such as that occurring to Heartland Payment System in the US, stole consumer personal data while it was being processed within corporate payment network by installing malware enabling capturing the payment data. Hence, there is an emerging need for the industry to implement end-to-end encryption to protect not only data at rest but also data in transit within the public and private networks.

However, implementing end-to-end encryption to online payment systems is not an easy task. Online payment industry seems to be reluctant because of three main reasons. Firstly, economic reason, as implementing such security technology is not cheap. Costs incurred include budget for software implementation and hardware upgrades such as POS terminal and ATM, and not to mention human resource and time allocations. In another scenario where the starting point of end-to-end encryption is the payment instrument, the costs incurred include the cost for card replacement this not inexpensive. Secondly, obstacles coming from the design of online payment systems make the implementation of end-to-end encryption even more difficult. As such systems are created and used by private entities seeking mainly for profit, they become more precaution in calculating investment for security technology and in pricing. In addition, consumer perception of security in online payment systems plays a crucial role. If consumers perceived security as sufficient, such system will be widely accepted and used. These two factors may lead to payment providers ceased to improve the existing security.

The last reason is the obstacle arisen by the nature and characteristics of retail payment systems. As part of retail systems, online payment systems share the same nature and characteristics as those of retail systems. Two notable natures are, first, it involves small monetary value transactions, and, second, its ecosystem consists many parties. While the earlier makes the service providers more meticulous on IT investment, the later leads to coordination problems among the participants and interoperability issues among different systems.

Surprisingly, the existing laws and regulatory frameworks applicable within the EU provide basic rules to support the implementation of end-to-end encryption in online payment systems. Such laws and regulatory frameworks include law on payment systems, on data protection, on privacy and electronic communications, and on encryption. However, there are three flaws when it comes to the enforcement of the rules. Firstly, the frameworks do not explicitly mention the importance of encryption, rather than the obligation to employ “appropriate and adequate measures” to protect the personal data. This type of regulation is not necessarily a bad ruling. In fact, it could be an excellent regulation as long as followed by implementing regulation or guideline, or even a standard agreed by the industry. However, the latters have not yet in present. Secondly, the consequence for the payment service providers when they fail to fulfil the obligation has not adequate. The only explicit consequence is that such payment service providers are obliged to notify the affected individuals of any breach, with a safe harbour applicable for those that have already implemented appropriate measures to protect the personal data. Although this exemption could serve as an incentive for the industry to implement end-to-end encryption, merely rely on this incentive is not sufficient. Laws and regulatory frameworks need to explicitly mention such obligation that is followed by consequences with deterrent effect such as penalty. Otherwise, there is no strong will from the industry to improve the security of the systems. If this is the case, at the end the consumers will always the ones becoming the victims, especially in the hype of innovative payments where low security technology often employed.

Lastly, the redress and liability framework for a consumer set-up by the existing regulation is not adequate to address losses from data & security breaches that occur at the service providers (supply side of payment systems). The existing framework is too focus on financial losses from “breach” that occurs on the consumer side (demand side of payment systems) such as payment instruments being lost and stolen. This framework covers zero liability after consumer notifies his or her provider regarding lost and stolen instruments, limited liability if consumer fails to keep the

instruments safe and full liability if consumer involves in frauds or acts gross negligence. Although in the proposed regulation the limited liability for consumer is proposed to reduce from a maximum of EUR150 to EUR50, the liability framework for losses from breaches on the supply side has not been explicitly addressed. Therefore, in order to protect decent consumers of online payment systems, especially nowadays when many new innovative payments with expanding ecosystem and complicated back-end arrangement are available in the market, the existing redress and liability framework needs to be expanded to cover remedy for consumers suffering from data & security breaches.

References

- AL-MA'AITAH, M., and A. SHATAT. "Empirical study in the security of electronic payment systems." *IJCSI International Journal of Computer Science Issues* 8, no. 4 (2011).
- ANDERSEN, MADDS BRYDE, and PETER LANDROCK. "Encryption and interception." *Computer Law & Security Review: The International Journal of Technology Law and Practice* 6, no. 12 (1996): 342-348.
- BISHOP, MATT. *Introduction to computer security*. Boston, MA: Addison-Wesley, 2005.
- BOLT, WILKO. "Retail Payment Systems: Competition, Innovation, and Implications." (2012).
- BOND, MIKE, OMAR CHOUDARY, STEVEN J. MURDOCH, SERGEI SKOROBOGATOV, and RICHARD ANDERSON. "Chip and Skim: cloning EMV cards with the pre-play attack." In *Security and Privacy (SP), 2014 IEEE Symposium on*, pp. 49-64. IEEE, 2014.
- BORESTAM, ANN, and HEIKO SCHMIEDEL. "Interchange fees in card payments." ECB Occasional paper 131 (2011).
- BOVELANDER, ERNST. "Smart Card Security 'How Can We Be So Sure?'" In *State of the Art in Applied Cryptography*, pp. 332-337. Springer Berlin Heidelberg, 1998.
- CAMENISCH, JAN L., JEAN-MARC PIVETEAU, and MARKUS A. STADLER. "Security in Electronic Payment Systems." Institute for Theoretical Computer Science, ETH Zurich. In: *Proceedings of the ESO RISKS 94* (1994).
- CHENEY, JULIA S. "Heartland Payment Systems: lessons learned from a data breach." *FRB of Philadelphia-Payment Cards Center Discussion Paper* 10-1 (2010).
- DE SCHUTTER, BART. "Trends in the fight against computer-related delinquency." In *State of the Art in Applied Cryptography*, pp. 1-17. Springer Berlin Heidelberg, 1998.
- DESIMONE, TOM, Do You Really Need an EMV Chip Card Terminal?, Merchant Maverick, 24 September 2015, available at <http://www.merchantmaverick.com/really-need-emv-chip-card-terminal/>.
- EMVCO, *EMV Integrated Circuit Card Specifications for Payment Systems, Book 2, Security and Key Management*, Version 4.3, November 2011, available at <https://www.emvco.com/specifications.aspx?id=223>.
- EMVCO, *Worldwide EMV Chip Card Deployment* (online), available at http://www.emvco.com/about_emvco.aspx?id=202.
- EUROPEAN CENTRAL BANK, *Virtual Currency Scheme*, 2012.
- EUROPEAN COMMISSION, Directorate-General for Research and Innovation, Final Report from the Expert Group on Retail Sector Innovation, 30 October 2013, available at http://ec.europa.eu/research/innovation-union/pdf/Report_from_EG_on_Retail_Sector_Innovation_A4_FINAL_2.pdf.
- FREEH, LOUIS J. "Impact of encryption on law enforcement and public safety." *Trends in Organized Crime* 3, no. 1 (1997): 91-95.
- GJOMEMO, RIGEL, HAFIZ MALIK, NILESH SUMB, V. N. VENKATAKRISHNAN, and RASHID ANSARI. "Digital Check Forgery Attacks on Client Check Truncation Systems." In *Financial Cryptography and Data Security*, pp. 3-20. Springer Berlin Heidelberg, 2014.
- GOORDEN, SEBASTIANUS A., MARCEL HORSTMANN, ALLARD P. MOSK, BORIS ŠKORIĆ, and PEPIJN WH PINKSE. "Quantum-secure authentication of a physical unclonable key." *Optica* 1, no. 6 (2014): 421-424.
- GORDON, LAWRENCE A., MARTIN P. LOEB, WILLIAM LUCYSHYN, and ROBERT RICHARDSON. "2005 CSI/FBI computer crime and security survey." (2005).

- HUGHES, BARRY, DAVID BOHL, MOHAMMAD IRFAN, ELI MARGOLESE-MALIN, and JOSÉ SOLÓRZANO. "Cyber Benefits and Risks: Quantitatively Understanding and Forecasting the Balance." *Frederick S. Pardee Center for International Futures* (2015).
- IT POLICY COMPLIANCE GROUP. "Core Competencies for Protecting Sensitive Data". *Benchmark Research Report*, October 2007.
- JOHNSON, OMOTUNDE EG. *Payment Systems, Monetary Policy and the Role of the Central Bank*. International monetary fund, 1998.
- KHIAONARONG, TANAI, and JONATHAN LIEBENA. *Banking on innovation: modernization of payment systems*. Springer Science & Business Media, 2009.
- KIM, CHANGSU, WANG TAO, NAMCHUL SHIN, and KI-SOO KIM. "An empirical study of customers' perceptions of security and trust in e-payment systems." *Electronic Commerce Research and Applications* 9, no. 1 (2010): 84-95.
- KOOPS, BERT-JAAP. "A survey of cryptography laws and regulations." *Computer Law and Security Report* 12, no. 6 (1996): 349-355.
- KOOPS, B-J. "Crypto regulation in Europe. Some key trends and issues." *Computer networks and ISDN systems* 29, no. 15 (1997): 1823-1831.
- LAUDON, KENNETH C., and CAROL GUERCIO TRAVER. *E-commerce*. Pearson/Addison Wesley, 2007.
- LEWIS, DAVE. "Heartland Payment Systems Suffers Data Breach". *Forbes*, 31 May 2015. Available at <http://www.forbes.com/sites/davelewis/2015/05/31/heartland-payment-systems-suffers-data-breach/>.
- MOORE, TYLER, and RICHARD CLAYTON. "The Ghosts of Banking Past: Empirical Analysis of Closed Bank Websites." In *Financial Cryptography and Data Security*, pp. 33-48. Springer Berlin Heidelberg, 2014.
- MURDOCH, STEVEN J., SAAR DRIMER, ROSS ANDERSON, and MIKE BOND. "Chip and PIN is Broken." In *Security and Privacy (SP), 2010 IEEE Symposium on*, pp. 433-446. IEEE, 2010.
- MURDOCH, STEVEN J., and ROSS ANDERSON. "Security protocols and evidence: Where many payment systems fail." In *Financial Cryptography and Data Security*, pp. 21-32. Springer Berlin Heidelberg, 2014.
- ONDRUS, JAN, and YVES PIGNEUR. "Near field communication: an assessment for future payment systems." *Information Systems and E-Business Management* 7, no. 3 (2009): 347-361.
- Payments Leader, Will retailers be ready for EMV by Oct 2015?, available at <http://www.paymentsleader.com/will-retailers-be-ready-for-emv-by-oct-2015/>.
- Payment System Directive, *What It Means for Consumers*, available at http://ec.europa.eu/internal_market/payments/docs/framework/psd_consumers/psd_en.pdf.
- Payment System Directive: Commission encourages swift and coherent implementation at national level, *press release IP/07/1914*, 12 December 2007, http://europa.eu/rapid/press-release_IP-07-1914_en.htm?locale=en.
- PERL, HENNING, SASCHA FAHL, and MATTHEW SMITH. "You Won't Be Needing These Any More: On Removing Unused Certificates From Trust Stores." In *Financial Cryptography and Data Security*, pp. 307-315. Springer Berlin Heidelberg, 2014.
- PRENEEL, BART. "Cryptographic primitives for information authentication—State of the art." In *State of the Art in Applied Cryptography*, pp. 49-104. Springer Berlin Heidelberg, 1998.

- PRENEEL, BART, VINCENT RIJMEN, and ANTOON BOSSELAERS. "Recent developments in the design of conventional cryptographic algorithms." In *State of the Art in Applied Cryptography*, pp. 105-130. Springer Berlin Heidelberg, 1998.
- RANKL, WOLFGANG, and WOLFGANG EFFING. *Smart card handbook*. John Wiley & Sons, 2010.
- RODE, LILIA. "Database security breach notification statutes: does placing the responsibility on the true victim increase data security." *Hous. L. Rev.* 43 (2006): 1597.
- SCHMIEDEL, HEIKO, GERGANA L. KOSTOVA, and WIEBE RUTTENBERG. "The social and private costs of retail payment instruments: a European perspective." ECB Occasional paper 137 (2012).
- SCHMALENSEE, RICHARD, and DAVID S. EVANS. "The economics of interchange fees and their regulation: An overview." (2005).
- SCHOENMAKERS, BERRY. "Basic security of the e-cash payment system." *Computer Security and Industrial Cryptography: State of the Art and Evolution*, LNCS series (1997).
- SOTTO, LISA J., BRIDGET C. TREACY, and MELINDA L. MCLELLAN. "Privacy and Data Security Risks in Cloud Computing." *World Communications Regulation Report* 5, no. 2 (2010): 38.
- SULLIVAN, RICHARD J. "Controlling security risk and fraud in payment systems." *Federal Reserve Bank of Kansas City, Economic Review* 99, no. 3 (2014): 47-78.
- TURBAN, EFRAIM, and JOSEPH BRAHM. "Smart card-based electronic card payment systems in the transportation industry." *Journal of Organizational Computing and Electronic Commerce* 10, no. 4 (2000): 281-293.
- VEDDER, KLAUS, and FRANZ WEIKMANN. "Smart cards—Requirements, properties, and applications." In *State of the Art in Applied Cryptography*, 307-331. Springer Berlin Heidelberg, 1998.
- YUNG, MOTI. "Cryptographic protocols: from the abstract to the practical to the actual." In *Financial Cryptography and Data Security*, 1-2. Springer Berlin Heidelberg, 2012.
- ZULHUNDA, SONNY, IDA MADIEHA, and ABDUL GHANI AZMI. "Security Safeguards on e-Payment Systems in Malaysia: Analysis on the Payment Systems Act 2003." *J. Int'l Com. L. & Tech.* 6 (2011).

MONEY AND ITS REGULATION. A CHALLENGE FOR THE 21ST CENTURY

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The innovative processes that have resulted in the conception of digital media of exchange such as Bitcoins, raise a basic question, which is central to understanding the nature of monetary institutions around the world: Why, within our financial systems, did money and the monetary institutions relating to it have evolved as public, legal financial fictions rather than private institutions? The main reason is that, since the emergence of the modern nation-states after the Peace of Westphalia in 1648, monetary stability is considered a public good and currencies are sovereign key symbols for the consecution of that aim.

Following this diktat, which some authors support with basis on natural law, institutions such as seigniorage and modern central banks emerged. However, although these sovereign elements would appear to be firmly established in all major countries, people around the world and in different times have been far from convinced that these public institutions are necessary, or desirable; consequently, in our “digital-intangible” context, the phrase “digital currency” is commonplace, appearing in the speeches and papers beyond those elaborated by the followers of Friedrich Hayek’s ideas; however, under a legal approach, can we affirm that the term “currency” is synonymous with “money”? Could we explain any difference with basis on different legal traditions? Can we regulate these innovations under that premise?

Table of Contents:

1. Introduction
2. Definition
- 2.1. Digital Media of Exchange
- 2.2. “Digital Currencies”. An Abuse of Language
3. Sovereign Intervention and Regulation
4. Integrity and Quality of Money
5. The Traditional Problem of Agency
6. Regulating Through Central Banks
7. Regulating Through A Governance Paradigm
8. Conclusions

1. Introduction

Money has evolved over time. Historically, the “*financialization*” of the world as described by Polanyi-Levitt¹ has put some challenges on traditional regulatory paradigms; particularly, by those associated with different forms of money that individuals periodically structure around free banking models as response to different inducements such as financial crises. This “*financialization*” has been structured around different goods and/or legal fictions, which have evolved according to the oddities of their respective contexts and legal traditions. Naturally, in absence of an act of legislation, the first forms of money were regulated by merchants, (generally by those merchants that practiced long-distance trade and that were, consequently, exposed to a great variety of media of exchange). Thus, these private individuals set the value of the set of commodities used as money, divided money into "special purpose" and "all purpose" money under the anthropological premises of Karl Polanyi² and Viviana Zelizer³, and sanctioned the bad practices relating to its use. However, since the emergence of the modern nation-states after the Peace of Westphalia in 1648, monetary stability is considered a public good and money has been perfected and adapted to the diverse and changing needs of developing trade through government recognition and regulation (Menger 1892; Schlichter 2012; Semenova 2011).

Following the “Westphalian” tradition, financial regulators designed normative structures around rigid laws, but they never expected the rate of innovation that characterizes our financial systems (particularly after the collapse of the Bretton Woods System), and the challenges that it poses on their regulatory paradigms; particularly, through the referred monetary innovations introduced periodically by individuals. Now, after the collapse of Lehman Brothers and the financial crisis related to it, we are witnessing a new wave of financial innovation, and concepts relating to “digital currencies” have risen from obscurity to buzzwords status in just 5 years.

Consequently, the phrase “digital currency” is commonplace, appearing in the speeches and papers elaborated not only by those followers of Friedrich Hayek’s ideas, but also by regulators, media commentators,

¹ POLANYI-LEVITT, *From the Great Transformation to the Great Financialization. On Karl Polanyi and Other Essays*, 2013, New York.

² POLANYI, *The Great Transformation*, 1989, Madrid.

³ ZELIZER, *The Social Meaning of Money: Special Monies*, in the *American Journal of Sociology*, 1989, 95(2), 342-377.

academics and bankers alike, but the lack of a uniform definition adjusted to the spirit of the context has fostered a myriad of interpretations on the nature of these innovations, in occasions, in opposition to the content of most monetary legislations around the world. In some jurisdictions, these innovations have been classed as money, but if we analyse their respective legal definitions of money, we will appreciate that most of these definitions are restricted to the official media of exchange issued by foreign sovereign entities that interact with local currencies. Therefore, despite that the term money can be used to describe these media of exchange in academic contexts, it cannot be used to regulate them with basis on its current legal definition⁴.

2. Definition

Despite the existence of different legal traditions, around the world, currencies have been conceived and defined, under a uniform spirit and through legal transfers, as artificial creatures of the law, and engines of financial innovation, economic growth and global integration. Consequently, private and public institutions around the world such as the French bank Société Générale and the HM Treasury have designed different governance exercises and issued different calls for information introducing different definitions of “currency” for their respective purposes; definitions that were structured around an abuse of language, and as we can see through the different answers to these exercises, there is a lack of mutual intelligibility betwixt the private and the public sectors.

Thus, we can start our analysis on the nature of these innovations in the hierarchy of money with basis on the remnants of an old paradigm: barter. Long time ago, the first trade was conducted via barter by means of which all goods were exchanged directly for all other goods. However it was not a great system; for example, if you wanted to swap your fish for a loaf of bread, but the baker happened to want firewood, you were stuck with the task of traipsing around the market until you could find someone with

⁴ MENGER, *On the Origin of Money*, in the *Economic Journal*, 1892, 2(6), 239-255; SCHLICHTER, *Paper Money Collapse. The Folly of Elastic Money and the Coming Monetary Breakdown*, 2012, New Jersey; SEMENOVA, *The Origins of Money: Evaluating Chartalist and Metallist Theories in the Context of Ancient Greece and Mesopotamia*, Thesis presented in partial fulfilment of the requirement for the degree Doctor of Philosophy, University of Missouri, Kansas City.

firewood who just happened to want fish. Despite its drawbacks societies around the world muddled along with barter exchange for a few hundred thousand years⁵. This problem led to the social invention of money, which gradually was adopted by sovereign entities through regulation.

Consequently, sovereign currencies are a form of sovereign credit in the sense that they are promises to pay a certain amount of a particular commodity with basis on a particular legislation. In theory, if we take a metallic standard as our basic paradigm, a currency may be backed mostly by silver and/or gold, in the sense that the issuer of the currency holds some silver and/or gold in its vaults. Further down the hierarchy, bank deposits are promises to pay currency on demand, so they are twice removed promises to pay the ultimate money, and securities are promises to pay currency over some time horizon in the future, so they are even more attenuated promises to pay⁶.

As we are witnessing in our context, despite the sovereign intervention in the evolution of money, individuals tend to introduce to the system alternative media of exchange that we find at the bottom of the hierarchy in absence of sovereign recognition and/or guarantee. These innovations, as other forms of money, have been created based on some cultural elements; in our particular case, elements relating to the information society and the information technologies that derive from its evolution.

2.1. Digital Media of Exchange

If we analyse the historical evolution of money, we can appreciate its progressive dematerialization. As electronic payments get easier, bills and coins make up only a tiny part of the money in circulation: just 3% in Britain⁷, and through applications such as Swish, in Sweden there is about \$8.8 billion US in circulation, however only about 40 to 60 percent of this value circulates physically⁸. At the end of this dematerialization process, money takes the form of information flows through computer networks either at a bank or at the

⁵ COOPER, *The Origin of Financial Crises. Central Banks, Credit Bubbles, and the Efficient Market Fallacy*, 2008, New York.

⁶ MEHRLING, *The Inherent Hierarchy of Money*, in *Social Fairness and Economics: Economic Essays in the Spirit of Duncan Foley*, 2013, 394-404.

⁷ THE ECONOMIST, *Leaving Dead Presidents in Peace*, in *The Economist*, 2014, 41(8905).

⁸ GIEDROYE, *Swedes turn to Swish as currency*, in *Numismatic News*, 2015, <http://www.numismaticnews.net/article/swedes-turn-to-swish-as-currency>.

central bank⁹. The science of cryptography, which is the science of keeping digital data secure, makes this possible¹⁰. With basis on this, we can define digital media of exchange as unregulated online accounts that measure and record transactions of financial value amongst nodes through the Internet which are designed and controlled by their developers and used by natural or legal persons as means of exchange¹¹. The first ones boomed on the strength of gaming systems, but now these innovations are moving out of virtual gaming systems into the global economy. These media of exchange had begun in the public-interested spirit of open source P2P software and libertarian political philosophy, with references to the work of Friedrich Hayek and the Austrian School of Economics¹².

2.2. “Digital Currencies”. An abuse of language

If we write the word “currency” in the web search engine of our preference, immediately we will find many results relating to “virtual currencies”, “digital coins”, and financial innovations such as Bitcoins, Litecoins, Vens, amongst others. As we can see through these examples, practically all aspects that integrate our modern monetary theory can now be represented, scrutinized, processed, digitized and recorded, circulating amongst the information society in the form of binary digits and algorithms; thus, our context turns the task of distinguishing the Metallist-legal concept of “currency” and the generic “money” under a Chartalist approach. In strict legal terms, we use the term “currency” only to define a sovereign medium of exchange recognized by every Nation through their respective monetary legislations. If we analyse these latter, most of them do not integrate in their content, the innovations that constitute private money and the abuse of language related to it.

However, this abuse of language is not new. If we study contexts relating to this problem such as the nineteenth century of H.D. Macleod (where some

⁹ RADAVANOVIC, *Digital Economy, Digital Money and Digital Banking*, in *Economics and Organization*, 2009, 6(2), 153-160; THE ECONOMIST, *Leaving Dead Presidents in Peace*, in *The Economist*, 2014, 41(8905).

¹⁰ NAKAMOTO, *Bitcoin a Peer-to-Peer Electronic Cash System*, Electronic Document, 2009, <http://bitcoin.org/bitcoin.pdf>; KOK, *Singapore Electronic Legal Tender (SELT). A Proposed Concept*, in OECD *The Future of Money*, 2012, 145-152.

¹¹ EBA, *Opinion on ‘Virtual Currencies’*, 2014, London; ECB, *Virtual Currency Schemes*, 2012, Frankfurt; GANDAL-HALABURDA, *Competition in the Cryptocurrency Market*, in *Bank of Canada Working Papers*, 2014, 33, 1-29.

¹² WALLACE, *The Rise and Fall of Bitcoin*, in *Wired Magazine*, 2011, http://www.wired.com/magazine/2011/11/mf_bitcoin/all/1.

enthusiasts tried to include under the term “currency” instruments such as bills of exchange and deposits)¹³, or our particular context where Matt Clinch¹⁴ of CNBC affirmed erroneously, through the popular interpretation of “currency”, that Bitcoin was considered legal tender under the German legislation¹⁵. Against these misinterpretations, Samuel Jones Loyd, Lord Overstone, stated accurately that these innovations do not constitute a currency because this term contemplates only the precious metals converted into coin under a sovereign act, and the notes that, through a legal fiction denominated incorporation¹⁶, represent a particular amount of the former, constituting the currency of a particular country¹⁷.

Just as Macleod¹⁸ explained, this term has its origin in the foundation of the Common Law. This legal tradition established that the property of money passed along with the honest possession of it in every exchange, and from this institutionalized practice, money was said to be current, and from this exceptional property, the expression arose of the currency of money, and gradually it was a common practice to call the money itself currency. If we work with this original definition, certainly we can use the word “currency” to describe digital media of exchange under the Chartalist theory of money’s origin, considering that, in the academic world, the term money is a generic used to describe private innovations and sovereign currencies alike.

However, there is a difference betwixt the original and the current uses derived from the evolution of law and the legal use of the generic money as we can appreciate it through several pieces of monetary legislation in force around the world such as article 105a (2) of the Treaty establishing the European Community, article 8 of the Monetary Law of the United Mexican States, and Title 31 of the U.S. Code, amongst others¹⁹. As result of this abuse, our legislators are not able to communicate effectively with innovators and users around the world as we can appreciate through official

¹³ MACLEOD, *Theory and Practice of Banking*, 1906, London.

¹⁴ CLINCH, *Bitcoin recognized by Germany as ‘private money’*, CNBC, 2013, <http://cnbc.com/id/100971898>.

¹⁵ CNBC recognized later that this story incorrectly stated that the virtual “currency” was legal tender, confirming the original criteria that defines this innovation only as “private money”.

¹⁶ DAVALOS, *Títulos y operaciones de crédito*, 2005, Mexico City, 85.

¹⁷ MACLEOD, *Theory and Practice of Banking*, 1906, London, 316.

¹⁸ MACLEOD, *Theory and Practice of Banking*, 1906, London, 292.

¹⁹ The spirit of these regulations affirms that the term “money”, under a legal approach, is employed when there is an interaction amongst different currencies issued by different sovereign entities.

documents like the cease and desist letter issued on May 30, 2013 by the California Department of Financial Institutions to the Bitcoin Foundation.

3. Sovereign intervention and regulation

Just as classical languages experts, writers and historians do, Robert Shiller²⁰ notes that the word “finance” derives from the classical Latin word *finis*, which is usually translated as *end* or *completion*; therefore, *finis* evolved into the word *finance* since one aspect of finance is the completion, or repayment of debts. However, it is convenient to recall that *finis*, even in ancient times, was also used to mean “goal”: the goals of households, small businesses, corporations, civic institutions, governments, and of society itself. Regulators, under the *Westphalian* tradition, have created an institutional framework to reach those goals. Therefore, legal models, such as those applied to financial regulation, are designed on rigid norms and definitions, and tend to be part of a gradual process of disconnection betwixt the aims of these norms and the social realities that should be regulated by the former; thus, we can represent this process (See Figure 1) as a straight segmented arrow that started its evolution without alteration indefinitely at the time when the respective law came into force. While the innovative nature of our social reality is represented by a solid line, that gradually separates itself from the spirit of the original norm, a process that increase its separation rate during periods of crisis²¹ (Novoa 1980: 33-34).

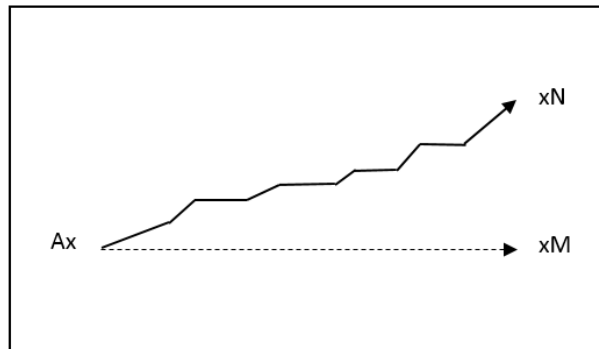


Figure 1

²⁰ SHILLER, *Finance and the Good Society*, 2012, New Jersey, 27.

²¹ NOVOA, *El derecho como obstáculo al cambio social*, 1980, Mexico City, 33-34.

Representation of the process of separation betwixt a rigid legislative anachronism and the social necessities (Novoa 1980: 33). Explanation: Point

A = time when the original law came into force; segmented line A-M = evolution of a rigid law; solid line A-N = evolution of social necessities.

However, digital media of exchange are beginning to produce a bewildering variety of products and services with intrinsic benefits and drawbacks, not all of which would be compatible with each other. A number of such services currently are testing legal, regulatory and ethical boundaries²². Considering this, I am sure that the next Monetary Cambic Explosion will be a digital one, and we will face the necessity to create institutional and legal proposals that could be integral part of a very dynamic interaction betwixt innovation and social change, and legislative reactions, as represented on Figure 2.

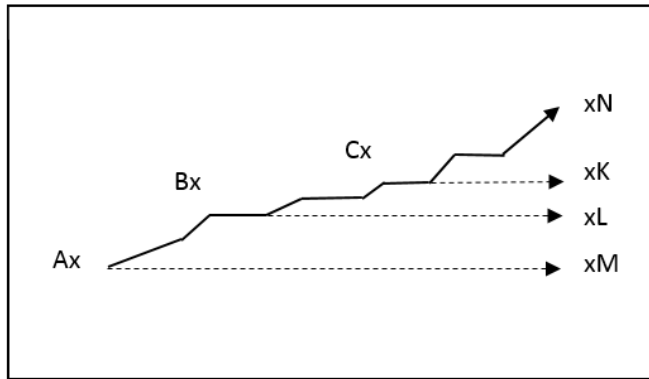


Figure 2

Representation of a law that is modified in different occasions to face several social changes. Explanation: Point A = time when the referred law came into force; Point B = time when the law is modified for the first time; Point C = the second time the referred law is modified; segmented line A-M = evolution of a rigid law; solid line A-N = evolution of social necessities; segmented line B-L = evolution of the first legislative modification; segmented line C-K = evolution of the second legislative modification.

The idea of digital media of exchange has the attractive of being convenient, untraceable, liberated from the oversight of governments and banks, and has been a hot topic since the birth of the Internet. This idea, with

²² OAK, *The Digital Money Game*, 2014, Bristol.

an optimal regulatory and institutional framework, could take advantage of the information-communication technologies to foster the integration of a digital network economy that could enable the integration of a national payments system, and a healthy interaction betwixt the core and the periphery of our Financial World System around a global digital currency.

After all, the sustainable growth of a digital economy will need a new form of money; thus, through a number of innovations in the domain of payment systems, digital media of exchange are developing the infrastructure to reach this social goal, but again, this new kind of money requires sovereign intervention.

Therefore, the next frontier of innovation is the regulatory environment, which affects the different services and providers, and originates from multiple regulators at country, regional and global levels²³; however, regulating the innovation and the use of technology is an inherently difficult task. Society has placed a high value on rapid technological advancement.

Unfortunately, the concomitant development of the law to account for the effects of new technologies frequently occurs very slowly just as we have recognized in documents such as “Virtual Currency Schemes” issued by the European Central Bank²⁴. Consequently, under the same spirit of the Directive 2009/110/EC of the European Parliament and the Council, we have to create flexible, technologically agnostic rules, which in turn will depend critically on clear definitions of “bank” and “currency”. For this purpose, we should first achieve, through uniform definitions, a good understanding of the structure and properties of the existent digital media of exchange. Thus, we could determine whether existing institutions are there for good reason, and how our reforms would interact with these innovations in the short and in the long run, analysing the applicability of the Gresham’s law as result of the gradual dematerialization of money, its impact on the *seignorage* of central banks, and its relevance for monetary legislations around the world in order to study the viability of a reform to empower sovereign entities such as central banks to issue and regulate digital sovereign currencies.

This task sounds relatively easy, but law and economics involve the study of how people, under a rational paradigm, use and allocate finite resources. However, when the analysis goes beyond a particular culture or era, detecting regular relationships becomes more difficult. Changes in technology, institutions and customs alter the circumstances on which

²³ OAK, *The Digital Money Game*, 2014, Bristol.

²⁴ ECB, *Virtual Currency Schemes*, 2012, Frankfurt.

choices are based on, sometimes to such an extent that time honoured truths and rules of thumb no longer apply²⁵.

4. Integrity and quality of money

Concerns about the integrity of money have also seen a fundamental shift since the days of Newton and Talleyrand. While instability and fraud are a concern, the collapse of Lehman Brothers and its effects for the Financial World System has called into question the competence of the central banks that are supposed to manage national currencies²⁶. Hayek²⁷ argues, citing a poor interpretation and application of the Gresham's Law, which does not make sense to assign to the state the monopoly of money creation as individuals could issue media of exchange previously determined and approved by the state so more efficient than the latter. Empirical studies of the periods of free banking in Scotland²⁸ and USA²⁹ seem to confirm this idea. These studies conclude that free banking systems can function reasonably well.

However, regulators are very permissive regarding the establishment of alternatives to traditional intermediaries. Since the collapse of the Bretton Woods system, a financial system has been evolving in the shadows outside the regulatory circle created by the state. In our context where the digital divide is decreasing and where policymakers around the world are working to make the access to Internet a fundamental right, a major concern for our financial regulators shall be the generation of unregulated intermediaries empowered (by omission) to issue excessive quantities of media of exchange that eventually could influence negatively the real economy. In the same way as Friedman³⁰, I consider that this behavior is an important argument against the private issuance of money. In opposition to this

²⁵ WETTERBERG, *Money and Power. From Stockholms Banco 1656 to Sveriges Riksbank Today*, 2009, Stockholm, 11.

²⁶ ALLOWAY, *Virtual Money, From Real Central Bank Mistrust*, in *Financial Times*, <http://ftalphaville.ft.com/blog/2011/06/06/585756/virtual-money-from-real-central-bank-mistrust/>, accessed on June 6, 2011.

²⁷ HAYEK, *Denationalisation of Money, The Argument Refined*, 1978, London, 41.

²⁸ WHITE, *Free Banking in Britain: Theory, Experience and Debate 1800-1845*, 1984, Cambridge.

²⁹ ROLNICK-WEBER, *New Evidence on the Free Banking Era*, in *American Economic Review*, 1983, 73, 1.080-91.

³⁰ FRIEDMAN, *A Program for Monetary Stability*, 1960, New York.

posture, Sargent and Wallace³¹ develop a model in which, in one hand, a banking model based on the *laissez faire* leads to an optimal equilibrium allocation under the premises of Pareto, while, in the other hand, the monopoly of the central banks results in an inefficient disequilibrium. However, this model has four disadvantages: 1) this model is viable only if the state gives its approval and authorization thus providing the media of exchange issued by banks and/or particular with the quality of coins, 2) does not consider financial innovation, 3) is based on the consumer confidence which, after the financial crisis, is virtually nonexistent, 4) most of the issuers of digital media of exchange, are individuals and corporations that works outside the traditional regulatory schemes, within the infamous “shadow banking system.”

Williamson³² developed a model of successive generations model with adverse selection that evidence that a regulated banking is superior to the banking structured around the *laissez faire* model because the State, through its intervention, empowers the agents to have access to enough private information about the quality of the physical capital that they own. In a free banking system, agents can issue private money backed or not by physical capital. However, this latter is susceptible to two types of disequilibria: 1) one that complies with the Gresham’s law where only bad money circulates, and 2) the multi referred fraud, that is, good money and bad money circulate.

In this case, the value of the assets is inversely related to their speed of circulation. However, if private money is regulated or prohibited, we have a unique stationary equilibrium state that dominates, under the premises of Pareto, the others. The reason is that this regulatory scheme destroys the adverse selection problems that characterize the banking systems based on the *laissez faire*.

5. The traditional problem of agency

The orthodox view regarding financial regulation is that financial markets have to be regulated by bureaus that are accountable to legislators. It is believed that there are special features within our Financial World System such as systemic risk in banking and information asymmetries that require

³¹ SARGENT-WALLACE, *The Real Bills Doctrine versus the Quantity Theory. A Reconsideration*, in *The Journal of Political Economy*, 1982, 90, 1212-1236.

³² WILLIAMSON, *Pricing Free Bank Notes, Discussion Paper*, 1992, Philadelphia.

this specialization³³. This explanation views the constitution of specialized regulatory bodies as an inevitable feature of our Financial World System.

Problems are complex; time and other resources scarce; therefore, delegation. Certainly there is some merit in such arguments, but a little analysis suggests that other factors must be important as well³⁴.

One of the problems with this view is that it does not consider the problem of the inducements within the regulatory bodies and amongst legislators. In creating an administrative entity and authorizing it to make decisions within its delegated authority, every Legislature in the world creates for itself a problem of agency; in other words, the regulatory entity may not do what the legislators want it to do; consequently, a conflict may exist betwixt the goals and aspirations of the regulators and preferences of the legislators. With basis on this, we can classify the problems of agency in two main categories: 1) shirking, and 2) slippage³⁵.

Shirking results from a conflict of goals betwixt the regulators and the legislators that, given the great range of contingencies that can occur in regulation, complicates the task of specify the agent's objectives³⁶; thus, regulators and legislators may pursue their own objectives to the detriment of the social *diktat* as result of several factors such as intense political pressure and lobbying. Informational asymmetries betwixt the regulatory entity exacerbate the problem. If the Legislature has incomplete information concerning the activities of the entity and how such activities affect outcomes, then shirking may go partially or entirely unnoticed³⁷. Legislatures around the world can design a great variety of regulatory schemes, and work to ensure their correctly translation into local languages and legislative traditions, but without an appropriate coordination betwixt regulators and legislators they will not meet their respective goals, and the institutions that constitute our Financial World System will return to the bad habits of the past.

Agency slippage will denote institutionally induced problems. These are problems of design and operation. Although every discourse, conversation,

³³ BOOTH, *Financial Regulation-The Need for a Revolution*, in *Economic Affairs*, 2012, October, 2-3.

³⁴ FIORINA, *Group Concentration and the Delegation of Legislative Authority*, paper originally prepared for the Conference on Social Science and Regulatory Policy, 1982, Virginia.

³⁵ MCCUBBINS, *The Legislative Design of Regulatory Structure*, in *American Journal of Political Science*, 1985, 29(4), 721-748.

³⁶ MASCIANDARO- VEGA PANSINI-QUINTYN, *The Economic Crisis: A Story of Supervisory Failure and Ideas for the Way Forward*, in BALLING-LIERMAN-VAN DEN SPIEGEL- AYANDI-LLEWELLYN (eds), *New Paradigms in Banking, Financial Markets and Regulation?*, 2012, 19-40.

³⁷ MCCUBBINS, *The Legislative Design of Regulatory Structure*, in *American Journal of Political Science*, 1985, 29(4), 721-748.

proposal, and academic work emphasizes the necessity of a “universal” regulatory paradigm, in practice we have witnessed many proposals that are structured around a great variety of structures and powers that obey the legal traditions that historically define every Nation. Since Legislatures typically do not respond quickly enough to changing conditions within the information society and since legal systems are inevitable incomplete, ambiguous, and plagued with inconsistencies³⁸, different institutional designs for agency decision making will lead to different outcomes being chosen by regulators³⁹.

Now, if these agency problems are very complex at a national level, try to imagine the execution of any of the current regulatory proposals that look, through delegation, foster and materialize a global regulatory coordination without considering culture and legal traditions. Certainly, we will be working with regulatory schemes characterized by their lack of intelligibility, considering that financial sector regulation and supervision is an area of cooperation amongst nations. Although the institutional forms vary and are evolving, a common trend seems to be assigning this task to the central bank, or for the central bank to play a pivotal role⁴⁰. These measures have a solid logic. If we consider that, since the International Financial Conference at Brussels of 1920, few areas within our Financial World System can claim as long and unanimous a record of agreement on the appropriateness of government intervention and global coordination as central banking. Central banks are institutions designed around national constitutions or constitutional conventions, instruments and practices that represent the materialization of social goals established by every Nation.

Amongst these goals, the main *diktat* established uniformly for every central bank around the globe has remained the same: Stability. Stability has always been the business of central banking⁴¹.

³⁸ LEVINE, *Legal Theories of Financial Development*, in *Oxford Review of Economic Policy*, 2001, 17, 438-501.

³⁹ MCCUBBINS, *The Legislative Design of Regulatory Structure*, in *American Journal of Political Science*, 1985, 29(4), 721-748.

⁴⁰ MASCIANDARO - VEGA PANSINI-QUINTYN, *The Economic Crisis: A Story of Supervisory Failure and Ideas for the Way Forward*, in BALLING-LIERMAN-VAN DEN SPIEGEL- AYANDI-LLEWELLYN (eds), *New Paradigms in Banking, Financial Markets and Regulation?*, 2012, 19-40; TROMP, *Central Bank Cooperation. The Experiences of Emerging and Developing Economies*, speech at CEMLA's 60th Anniversary Commemorative Conference: Central Bank Cooperation at the Beginning of the 21st Century, 2012, Mexico City.

⁴¹ COOPER, *The Origin of Financial Crises. Central Banks, Credit Bubbles, and the Efficient Market Fallacy*, 2008, New York; ORPHANIDES, *New Paradigms in Central Banking?*, in LLEWELLYN-REID (eds), *Future Risks and Fragilities for Financial Stability*, 2012, 13-28.

6. Regulating through central banks

An important lesson of the last international financial crisis is that international cooperation and policy coordination are crucial to maintain financial stability. This objective will require a number of steps that could be implemented through every central bank at global and regional level.

Therefore, instead of creating an agency problem, legislatures around the globe could empower their respective central banks to apply national regulations in force which in turn should be broadened to include all activities that pose economy-wide risks. Consequently, probably, a more interesting idea on this sense could be the insertion of common definitions of “bank” and “currency” in legislative instruments that could integrate not only the issuance of digital media of exchange, but also the potential of new developments structured around these monetary fictions. This new definitions would, gradually, allow us integrate innovations to the “arsenal” of products and services of the current institutions. Furthermore, recognizing the fact that a return to a commodity-based monetary standard is unlikely, we may expect that in the future our Financial World System could work around a “digital standard”. Considering this possible scenario, I believe that the Bank of England has the experience and the institutional framework to regulate the “democratic” projects inspired in the work of Hayek in a context of popular aversion against the financial sector, and take advantage of them taking these projects to the next level through a digital pound. This digital project could represent the first step to materialize the spirit of the “*moneta imaginaria*” proposed by Gasparo Scaruffi in 1582; thus, putting the example to the rest of the world who, gradually, could insert itself into a new global paradigm structured around the premises of Immanuel Wallerstein.

In the area of financial supervision, central banks should focus on detecting developments in the financial sector that might lead to a systemic crisis⁴². However, we face a challenge relating to this matter. Despite the uniformity existent regarding the core principles of central banking, an area in which there is considerable diversity of practice is in relation to the central banks involvement in financial regulation. About 120 central banks are directly involved in the supervision of banks, and sometimes of other financial intermediaries as well, and in the case of some peripheral elements of our Financial World System, these institutions are the regulators of the

⁴² TROMP, *Central Bank Cooperation. The Experiences of Emerging and Developing Economies*, speech at CEMLA’s 60th Anniversary Commemorative Conference: Central Bank Cooperation at the Beginning of the 21st Century, 2012, Mexico City.

entire financial system. However, in around 60 countries central banks are not directly involved⁴³.

So, what can we do? Well, we have to take advantage of the historical bound of central banking to the constitutional mandate regarding financial stability that is common to every member of our Financial World System to uniform strategies at the same time that we can work with the comparative experience that results of the diversity of practices mentioned in precedent lines; thus generating a global regulatory standard implemented through central banks.

With that in mind, the first step to coordinate our global regulatory efforts would be the modification of the legislations that constitute and support the operation of central banks within the Financial World System with the aim to have a common strategy that would be structured around this common institution; hence, legislators could work together through treaties, memoranda of understanding and collaboration agreements that would be the cornerstone for regional and global efforts that could be coordinated through national and regional central banks, these latter constituted in a similar way of the European Central Bank.

What can we expect under this proposal? 1) Coordination amongst common institutions such as central banks, and no amongst regulatory bureaus structured around different legal traditions, would be more efficient, particularly in times of stress; 2) the common mandate of stability and the similarities amongst central banks could help to address issues related to information sharing and regulatory differences; 3) the constitution of regional central banks could represent an important initiative that can help to understand the risk profile provided by regional supervisors and compare them with the supervisory strategies of other countries within the region and with other regions. In addition, they can help to improve the surveillance techniques and get a better understanding of the global exposures that characterize our Financial World System; 4) finally, through different instruments of International Law, we can create and gradually adopt new international standards of banking regulation⁴⁴, and work with new regional and global institutions, minimizing the problems of agency; therefore, the

⁴³ DAVIES-GREEN, *Banking on the Future. The Fall and Rise of Central Banking*, 2010, New Jersey.

⁴⁴ VERGARA, *Global Financial Stability and the Cooperation Among Central Banks: What Have We Learned*, speech at CEMLA's 60th Anniversary Commemorative Conference: Central Bank Cooperation at the Beginning of the 21st Century, 2012, Mexico City.

proposed reform could empower central banks around the world to take the following measures:

- Restrict the issuing of digital money.
- Issue digital money themselves and bound them to a variety of commodities, according to the particular context of every nation according to the premises of Wallerstein.
- Regulate the issuing of digital money and set the rules for the issuers.
- Work in a new definition of “bank” and “currency” that could solve the risk posed by the shadow banking system.

7. Regulating through a governance paradigm

Particularly, the past five decades have seen a destabilization of the traditional governing mechanisms and have been characterized by liberalisation and deregulation under new arrangements of governance.

Consequently, in opposition to the spirit of the proposal mentioned above, people and institutions have been allowed more and more to define and follow their own goals outside traditional regulatory paradigms⁴⁵, despite the fact that some sectors such as banking have always tended to be regulated more than other areas of the economy because of its inherent “dangerous” systemic nature, which has been recognized for long⁴⁶. So, one question is what lies ahead?

A good governance paradigm is needed to secure three essential prerequisites of market economies⁴⁷:

- 1) Security of property rights: In its absence, individuals will lack the inducements to save and invest through these innovations, because they will fear that others, such as in the case of Mt. Gox, will deprive them of the fruits of these activities.

⁴⁵ BERNANKE, *The Effects of the Great Recession on Central Bank Doctrine and Practice*, speech at the Federal Reserve Bank of Boston 56th Economic Conference, 2011, Massachusetts; BALLING-GNARR, *The Development of Financial Markets and Financial Theory*, in BALLING-GNAN (eds), 2013, *50 Years of Money and Finance: Lessons and Challenges*, 157-183.

⁴⁶ BALLING-GNARR, *The Development of Financial Markets and Financial Theory*, in BALLING-GNAN (eds), 2013, *50 Years of Money and Finance: Lessons and Challenges*, 157-183.

⁴⁷ DIXIT, *Governance Institutions and Economic Activity*, in *The American Economic Review*, 2009, 99(1), 5.

2) Enforcement of contracts: Economic transactions promise gains to all voluntary participants, but each party may lose if the other fails to fulfil its promised role in the transaction, but instead acts opportunistically under a free-rider scheme. Fear of such counterparty cheating may prevent people from entering in agreements involving digital media of exchange. Formally, as Dixit affirms, this is a bad equilibrium in a prisoner's dilemma.

3) Collective action: Much private interactions depend on an adequate provision of public goods and the control of public "bads", including not just physical but also institutional and regulatory framework to avoid free-riding.

In our context, public administration and the development of legal frameworks are the subject of several debates betwixt the ordinary citizen and the sovereign institutions. Legislate in the postmodern era means considering ordinary people and the schemes of civil association that foster social manifestations and innovations such as the proliferation of peer-to-peer lending platforms and digital media of exchange. Before, legislative and regulatory acts were designed to face and satisfy massive, rigid and anonym interests, but now our legislators and regulators around the globe are facing challenges that have their origin in the diversity of interests that demand solutions to particular problems.

Current regulatory frameworks lag behind technological developments by some years, and many of them are working with the idea that innovators could be registered as financial institutions with their respective regulatory authorities⁴⁸. Particularly I believe that this point brings a problem of agency to this proposal and, again, works with the developments of a particular context.

8. Conclusions

Historically, the state manages innovations to some degree by coming in to support the private media of exchange through their gradual nationalization. An illustration of this is the Medici banking house, which made its financial mark through the *banchi grossi*⁴⁹ model by dealing

⁴⁸ ECB, *Virtual Currency Schemes*, 2012, Frankfurt, 45.

⁴⁹ In Florence, in the fifteenth century, there were four different credit intermediaries called banks in Italian: *banchi di pegno*, *banchi a minute*, *banchi in mercato*, and *banchi grossi* (De Roover 1946: 24).

merchandise and facilitating money transfers for merchants and traders across renaissance Europe⁵⁰. The system the Medici developed exploited the fact that it was not only extremely cumbersome and dangerous for traders to carry heavy coinage with them to foreign lands, but also incredible expensive to convert such currencies into local equivalents because of foreign money bans or capital controls⁵¹. However, through the Medici system a *prenditore* could deposit his collateral at home, be issued a Medici bill of exchange, then pay for the goods at the destination point via the liquidation of the referred bill at the prevailing local currency rate with basis on gold florin⁵². This, of course, is not different to how digital media of exchange operate: Medici bills became money-like in their own right, bestowing the Medici with the awesome power of *seignorage*. However, the Medici's ability to exploit that power in the modern free banking sense was constrained by usury laws of the day. Thus, much of it was directed at lending to governments⁵³.

Now, we are facing a similar scenario. Private innovators are introducing digital goods to uniform their interactions in a scheme similar to the barter as result of the absence of a sovereign digital medium of exchange. Legally this is a barter paradigm, but theoretically is a transitional form. Unfortunately, for those enthusiasts of the works of Friedrich Hayek that claim that Bitcoins will be the *moneta imaginaria* of the future, current digital media of exchange will be displaced by sovereign digital currencies that gradually will be introduced as result of two main elements: 1) the dematerialization of money fostered by anti-money laundering regulations, and 2) their assimilation and regulation.

On the first point, regulations around the world on anti-money laundering have as tier the dematerialization of economic transactions using

⁵⁰ DE ROOVER, *The Medici Bank Organization and Management*, in *The Journal of Economic History*, 1946, 6(1), 24-52; KAMINSKA, *The Theory of Money Entanglement (Part2)*, in *Financial Times*, 2013, <http://ftalphaville.ft.com/2013/12/19/1728302/the-theory-of-money-entanglement-part-2/>.

⁵¹ COOPER, *The Origin of Financial Crises. Central Banks, Credit Bubbles, and the Efficient Market Fallacy*, 2008, New York; KAMINSKA, *The Theory of Money Entanglement (Part2)*, in *Financial Times*, 2013, <http://ftalphaville.ft.com/2013/12/19/1728302/the-theory-of-money-entanglement-part-2/>.

⁵² DE ROOVER, *The Decline of the Medici Bank*, in *The Journal of Economic History*, 1947, 7(1), 69-82; KAMINSKA, *The Theory of Money Entanglement (Part2)*, in *Financial Times*, 2013, <http://ftalphaville.ft.com/2013/12/19/1728302/the-theory-of-money-entanglement-part-2/>.

⁵³ KAMINSKA, *The Theory of Money Entanglement (Part2)*, in *Financial Times*, 2013, <http://ftalphaville.ft.com/2013/12/19/1728302/the-theory-of-money-entanglement-part-2/>.

a paradigm of delegated supervision as explained by Freixas and Rochet⁵⁴ limiting cash transactions and empowering financial intermediaries to gather sufficient information about their counterparts and inform to the regulators about the vulnerable activities as described by their respective law and international instruments such as the Financial Action Task Force⁵⁵ (FATF) recommendations. Consequently, regulators are looking to foster electronic transactions to ease the monitoring of illegal activities through this scheme. In addition, according to the recommendations of the FATF, states and financial intermediaries should identify and assess the money laundering risks that may arise in relation to (a) the development of new products and new business practices, including new delivery mechanisms, and (b) the use of new or developing technologies for both new and pre-existing products as we have witnessed with the particular case of the website Silk Road⁵⁶.

To ease this task, the state will have to participate in the legislation and regulation of the existent digital media of exchange and in the constitution of sovereign digital currencies. Some states such as the tiny Channel Island of Alderney is launching a project to become the first jurisdiction to mint physical Bitcoins amid a global race to capitalise on the booming digital currency; however, there are other plans related to sovereign intangible currencies such as the Singapore Electronic Legal Tender (SELT) proposed by the Board of Commissioners of Currency of Singapore.

These projects consider that currencies will continue its evolution through the developments of cryptography. The eventual dematerialization from tangible currencies to SELT or others is inevitable; after all, this is not a new process, it began in the early 1990's in Europe in the form of Mondex, Setpurse, and Dammont, but, in that context, people were not ready and these projects were not successful⁵⁷. Now technology is improving rapidly and people are now better educated and certainly we will witness the constitution of digital currencies as result of the fact that the currency issuing authorities benefit from *seignorage*. Under the Austrian School of Economics that is the core of the digital projects such as Bitcoins, the *seignorage* would be lost to private innovators.

⁵⁴ FREIXAS-ROCHET, *Economía Bancaria*, 1997, Madrid.

⁵⁵ The FATF is an inter-governmental body established in 1989 by the Ministers of its Members jurisdictions to set standards and promote effective implementation of legal regulatory and operational measures for combating money laundering.

⁵⁶ An online marketplace that allowed more than a billion dollars of illegal drugs and illicit services to be bought using Bitcoins.

⁵⁷ KOK, *Singapore Electronic Legal Tender (SELT). A Proposed Concept*, in OECD *The Future of Money*, 2012, 145-152.

In addition, we will have to rewrite and work with new principles and definitions, considering that digital currencies could be defined as tangible and/or intangible goods, and the fractions of these latter that are designed around specific aesthetic elements and operational characteristics chosen by a sovereign issuer to circulate as legal tender for all debts, public charges, taxes, and dues in a particular jurisdiction. We will have a great legislative challenge. The law of Oresme, Copernicus and Gresham⁵⁸ will be anachronistic, and the quality of these digital currencies will depend on the “quality” of its issuer, leaving aside its tangible elements used to evaluate this quality under the traditional doctrines.

⁵⁸ The Law of Oresme, Copernicus and Gresham, commonly known as the Gresham’s Law, dictates that when two currencies or units of exchange of unequal value interact at the same time side by side as currency of a particular jurisdiction, the cheaper or poorer will drive the better from circulation.

References

- ALLOWAY, TRACY (2011), *Virtual Money, From Real Central Bank Mistrust*, in *Financial Times*, <http://ftalphaville.ft.com/blog/2011/06/06/585756/virtual-money-from-real-central-bank-mistrust/>, accessed on June 6, 2011.
- BALLING, MORTEN and ERNEST GNARR (2013), *The Development of Financial Markets and Financial Theory. 50 Years of Interaction*, in *50 Years of Money and Finance: Lessons and Challenges*, edited by Morten Balling and Ernest Gnan p.p. 157-183. Larcier, Vienna.
- BERNANKE, BEN (2011), *The Effects of the Great Recession on Central Bank Doctrine and Practice*, speech at the Federal Reserve Bank of Boston 56th Economic Conference, Boston, Massachusetts, October 18.
- BOOTH, PHILLIP (2012), *Financial Regulation-The Need for a Revolution*, in *Economic Affairs* October: 2-3.
- CLINCH, MATT (2013), *Bitcoin recognized by Germany as 'private money'*, in *CNBC*, <http://www.cnn.com/id/100971898>, accessed on May 11, 2014.
- COOPER, GEORGE (2008), *The Origin of Financial Crises. Central Banks, Credit Bubbles, and the Efficient Market Fallacy*, Vintage Books, New York.
- DÁVALOS, L. CARLOS FELIPE (2005), *Títulos y operaciones de crédito (Credit Instruments and Operations)*, Oxford University Press, Mexico City.
- DAVIES, HOWARD and DAVID GREEN (2010), *Banking on the Future. The Fall and Rise of Central Banking*. Princeton University Press, New Jersey.
- DE ROOVER, RAYMOND (1946), *The Medici Bank Organization and Management*, in *The Journal of Economic History* 6 (1): 24-52.
- DE ROOVER, RAYMOND (1947), *The Decline of the Medici Bank*, in *The Journal of Economic History* 7 (1): 69-82.
- DIXIT, AVINASH (2009), *Governance Institutions and Economic Activity*, in *The American Economic Review* 99 (1): 3-24.
- EUROPEAN CENTRAL BANK (2012), *Virtual Currency Schemes*, report of the European Central Bank. Frankfurt.
- EUROPEAN BANKING AUTHORITY (2014), *EBA Opinion on 'Virtual Currencies'*, report of the European Banking Authority. London.
- FIORINA, MORRIS (1982), *Group Concentration and the Delegation of Legislative Authority*, paper originally prepared for the Conference on Social Science and Regulatory Policy, Virginia, January 22-23.
- FREIXAS, XAVIER; JEAN-CHARLES ROCHET (1997), *Economía Bancaria*, Banco Bilbao Vizcaya and Antoni Bosch, Madrid.
- FRIEDMAN, MILTON (1960), *A Program for Monetary Stability*, Fordham University Press, New York.
- GANDAL, NEIL; HANNA HALABURDA (2014), *Competition in the Cryptocurrency Market*, in *Bank of Canada Working Papers* 33: 1-29.
- GIEDROYE, RICHARD (2015), *Swedes turn to Swish as currency*, in *Numismatic News*, <http://www.numismaticnews.net/article/swedes-turn-to-swish-as-currency>, accessed on December 7, 2015.
- HAYEK, FRIEDRICH (1978), *Denationalisation of Money. The Argument Refined*, Institute of Economic Affairs, London.

- KAMINSKA, IZABELLA (2013), *The theory of money entanglement (Part 2)*, in *Financial Times*, <http://ftalphaville.ft.com/2013/12/19/1728302/the-theory-of-money-entanglement-part-2/>, accessed on May 11, 2014.
- KOK, LOW S. (2012), *Singapore Electronic Legal Tender (SELT). A Proposed Concept*, in *The Future of Money*, edited by the Organization for Economic Co-operation and Development, pp. 145-152. OECD Publications. Paris.
- LEVINE, ROSS (2001), *Legal Theories of Financial Development*, in *Oxford Review of Economic Policy* 17: 438-501.
- MACLEOD, HENRY D. (1906), *Theory and Practice of Banking*, Longmans, Green and Co, London.
- MASCIANDARO, DONATO; ROSARIA VEGA-PANSINI and MARC QUINTYN (2012), *The Economic Crisis: A Story of Supervisory Failure and Ideas for the Way Forward*, in *New Paradigms in Banking, Financial Markets and Regulation?*, edited by Morten Balling, Frank Lierman, Freddy Van den Spiegel, Rym Ayadi and David T. Llewellyn, p.p. 19-40. SUERF, Vienna.
- MCCUBBINS, MATHEW (1985), *The Legislative Design of Regulatory Structure*, in *American Journal of Political Science* 29 (4): 721-748.
- MEHRLING, PERRY (2013), *The Inherent Hierarchy of Money*, in *Social fairness and economics: economic essays in the spirit of Duncan Foley*: 394-404.
- MENGER, KARL (1892), *On the Origin of Money*, in *The Economic Journal* 2 (6): 239-255.
- NAKAMOTO, SATOSHI, 2009 *Bitcoin a Peer-to-Peer Electronic Cash System*. Electronic Document, <http://bitcoin.org/bitcoin.pdf>, accessed on October 8, 2013
- NOVOA, EDUARDO (1980), *El derecho como obstáculo al cambio social (The Law as Obstacle to Social Change)*. Siglo XXI Editores, México, D.F.
- OAK, CHARMAINE (2014), *The Digital Money Game*, Shift Thought Ltd, Bristol.
- ORPHANIDES, ATHANASIOS (2012), *New Paradigms in Central Banking?* In *Future Risks and Fragilities for Financial Stability*, edited by David T. Llewellyn and Richard Reid, p.p. 13-28. SUERF, Vienna.
- POLANYI, KARL (1989), *The Great Transformation*. La Piqueta, Madrid.
- POLANYI-LEVITT, KARI (2013), *From the Great Transformation to the Great Financialization. On Karl Polanyi and Other Essays*. Fernwood Publishing and Zed Books, New York.
- RADAVANOVIC, PREDRAG (2009), *Digital Economy, Digital Money and Digital Banking*, in *Economics and Organization* 6(2): 153-160.
- ROLNICK, ARTHUR and WARREN WEBER (1983), *New Evidence on the Free Banking Era*, in *American Economic Review* 73: 1.080-91.
- SARGENT, THOMAS and NEIL WALLACE (1982), *The Real Bills Doctrine versus the Quantity Theory. A Reconsideration*, in *The Journal of Political Economy* 90: 1212-1236.
- SCHLICHTER, DETLEV (2012), *Paper Money Collapse. The Folly of Elastic Money and the Coming Monetary Breakdown*. John Wiley & Sons. New Jersey.
- SEMENOVA, ALA (2007), *The Origins of Money: Evaluating Chartalist and Metallist Theories in the Context of Ancient Greece and Mesopotamia*. Thesis presented in partial fulfillment of the requirement for the degree Doctor of Philosophy. University of Missouri, Kansas City.
- SHILLER, ROBERT (2012), *Finance and the Good Society*. Princeton University Press. New Jersey.

- STALNAKER, STAN (2011), *Bitcoin, Ven and the End of Currency*, in *TechCrunch*, <http://techcrunch.com/2011/05/20/bitcoin-ven-and-the-end-of-currency/>, accessed on October 19, 2011.
- The Economist (2014), *Leaving Dead Presidents in Peace*, in *The Economist* 41 (8905).
- TROMP, EMSLEY (2012), *Central Bank Cooperation. The Experiences of Emerging and Developing Economies*, speech at the CEMLA's 60th Anniversary Commemorative Conference: Central Bank Cooperation at the Beginning of the 21st Century, Mexico City, July 19.
- VERGARA, RODRIGO (2012), *Global Financial Stability and the Cooperation Among Central Banks: What Have We Learned*, speech at the CEMLA's 60th Anniversary Commemorative Conference: Central Bank Cooperation at the Beginning of the 21st Century, Mexico City, July 19.
- WALLACE, BENJAMIN (2011), *The Rise and Fall of Bitcoin*, in *Wired*, http://www.wired.com/magazine/2011/11/mf_bitcoin/all/1, accessed on November 24, 2011.
- WALLERSTEIN, IMMANUEL (1976), *The Modern World-System. Capitalist Agriculture and the European World-Economy in the Sixteenth Century*, Academic Press, New York.
- WETTERBERG, GUNNAR (2009), *Money and Power. From Stockholms Banco 1656 to Sveriges Riksbank today*. Sveriges Riksbank and Atlantis, Stockholm.
- WHITE, LAWRENCE (1984), *Free Banking in Britain: Theory, Experience and Debate 1800-1845*. Cambridge University Press. Cambridge.
- WILLIAMSON, STEPHEN (1992), *Pricing Free Bank Notes. Discussion Paper*. Wharton. Philadelphia.
- ZELIZER, VIVIANA (1989), *The Social Meaning of Money: Special Monies*, in *American Journal of Sociology* 95 (2): 342-377.

THE SYSTEM OF ADR IN PAYMENT SERVICES AND ITS IMPLEMENTATION IN THE ITALIAN LEGAL SYSTEM.

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The paper examines the Italian ADR system for financial and banking disputes. It moves from PSD framework and examines the transposition Decree n. 11/2010 and the regulations of the Bank of Italy. Finally, the paper takes into account PSD2 dispositions.

Table of Contents:

1. The protection of out-of-court users of payment services in the Community framework.
 - 1.1. The claims rules of procedures in the PSD and in the adoption Decree.
2. The support of the Arbitro Bancario Finanziario-ABF (Organization for Banking and Financial Arbitration).
 - 2.1 . Nature and effects of the decisions of the ABF.
 - 2.2. Features of the procedure before the ABF .
3. The ruling of the Constitutional Court no.272/20 12 and the repeal of the provisions of Legislative Decree no.28/2010 regarding mandatory mediation.
4. Final Remarks.

1. The protection of out-of-court users of payment services in the Community framework.

Directive 2007/64/EC, known as PSD, has, among its main objectives (as stated in the Recital n.4), the provision to the payments industry of a modern and consistent legal framework, guaranteeing equal working conditions for all businesses by allowing (users also including non consumers) a choice of services, taking also advantage of the benefits associated with the higher levels of safety and efficiency compared to the (pre) existing standards at national levels. In this context one would need to put the provisions relating to the prudential requirements for access to the market of new providers (payment institutions), the rules setting out the requirements that must be met, in terms concerning information and transparency, in the conditions of contracts and the specific provisions regarding the rights and obligations of the parties. Particularly relevant to the users of these services are the contractual transparency and disclosure requirements, which are set up in ways that vary according to whether or not one is dealing with consumers (which include microenterprises).

Of essential value are, also, the rules aimed at boosting user confidence in the system of payment services, by providing a set of adequate and effective supervisions on the prescribed regulatory framework.

With this in mind, we must consider the rules laid down in Article no. 80 of the PSD, which requires member states to establish procedures allowing users of payment services and other interested parties, including consumer associations, to submit complaints to the competent authorities regarding alleged violations by payment service providers of the provisions of domestic law adopting to the provisions of the PSD.

Paragraph 2 of Art. 80 also provides that, where appropriate, and without prejudice to the right to file a complaint before a court in accordance with national legislation relating to the procedures , the response of the competent authority shall inform the complainant of the existence of extra-judicial appeal procedures provided for pursuant to art. No.83.

The system of protection established by the PSD takes on a particular value , in the first instance because the complaints procedures have reached a full and complete form , compared to other "models" in Community legislation setting up "consumer protection", and also because it is a system designed to introduce a well-articulated protection procedure for complaints and out-of-court appeals, which art. No.80 already identifies as a potential connection and lastly because, compared to the previous and analogous

systems of protection provided by the EU, the PSD gives a central role to the protection of the individual user of payment services.

To start with, one should observe that the Community rules on the subject of "complaints " is, in broad terms, subjective and objective: it extends the possibility of complaints to users, other interested parties as well as to consumer associations, and puts the remedy of the complaint in relation to violations potentially concerning all the provisions in domestic law, enacting the wording of the PSD.

Secondly, the rule sets the procedure to be followed after the complaint, leaving space for the national legislator to determine whether the authority receiving the complaint should or not inform users about the existence of out-of-court redress procedures mentioned in art.83 of the PSD. In any case the right to seek redress from the judicial authority is made safe and, therefore, is a sanctioned right which cannot be forsaken even if a complaint to the administrative authority has already been made.

The PSD does not take a position, nor in relation to the authority delegated to collect the claims, nor on the issue, raised in literature, on whether it should be the same authorities which receive the complaints also to decide the disputes between users and providers of services. The PSD merely stresses the desirability that said authority publicizes the information regarding the existence of out-of-court procedures protecting the rights of users of payment services. This puts on very meaningful value to the success of ADR systems, very often so little known to the potential users of this service,

In implementing Article no.80 of the PSD Directive, the delegated legislator, in art. 39 of Legislative Decree no.11/2010, has reproduced the provisions of Community law, completing them with additional rules, The active legitimacy remains ample: it establishes that any claims, whether by payment service users or their associations or other interested parties, be presented to the Bank of Italy, which is therefore identified as the competent authority . Instead the subject of these complaints is limited, instead, to alleged violations relating only to the rules introduced in Titles II and N of the adoption Decree and not the transposition and implementation of all the provisions of the Community guidelines.

One can propose claims to all the actors who provide payment services, as identified in art. No.1 of Leg. Decree No.11/2010. The decision to recognize the Bank of Italy as the competent authority to ensure compliance with the regulations implementing the PSD, has been taken on the basis that the Delegating Law of July 7th, 2009, no.88 (Community Law 2008) , confers a central role to it in the creation and application of the delegated rules for the supervision of payment institutions and for monitoring of the compliance of

the overall national framework of implementation of the PSD. Specifically, Article no.32, paragraph 1, of the aforementioned Law n.88/2009 identifies the Bank of Italy as the competent authority for issuing regulations implementing Legislative Decree no. No. 11/2010 and, in addition, directly to incorporate the "related implementing measures adopted by the European Commission through committee procedures" (paragraph p). The Bank of Italy must "authorize the start of operations and exert control over the authorized payment institutions, verifying their compliance with the conditions laid down by the PSD for the execution of payment transactions" (paragraph f), and "specify the rules governing the access to payment systems" (paragraph g). Therefore, as the "creator" and guardian of these rules, the legislator has entrusted it with dealing with the related "claims".

For the purpose of setting the frame the "appeals" regulation, of particular interest is the second sentence of Article No.39 of Legislative Decree No.11/2010, where it states that the Bank of Italy "informs" (must inform) the claimant of the existence of alternative dispute resolution systems established pursuant to art. No.12S-bis of the Italian Banking Act. The rule, in any case, echoing the Community framework, does not exclude the possibility of action through the competent judicial authority.

The Bank of Italy has been identified as the body responsible for receiving complaints. Moreover, the Bank of Italy will be entrusted with informing the complainant of the existence of an alternative dispute resolution procedure as laid down in the Italian Banking Act and, thirdly, as originator of the activity of the Arbitro Bancario Finanziario (hereinafter ABF), established by the Bank of Italy in 2009, for the resolution of disputes between financial intermediaries and customers. Therefore, the Bank of Italy, pursuant to art. No.39, does not settle disputes itself, but has channeled the complaints of entitled subjects to the ABF.

Consistent with the provisions of art. No.39 - such provision relating more in general to users and providers of banking and financial services - art. No.35 of the adoption Decree strengthens the connection between the moment in which complaints are forwarded and the time of the actual out-of-court settlement and it provided that the Italian Banking Act is amended as follows: "The Bank of Italy, when it receives a complaint from the customers of those subjects referred to in paragraph 1, must indicate to the complainant the existence of the possibility of applying to systems provided for under this article". These provisions create a dotted line between the claiming phase and the further phase of actually enacting the system of out-of-court settlement of disputes between brokers and clients, provided for in art.No.128-bis of the Italian Banking Act (hereinafter IBA), which extends the provisions, in favor

of users of payment services of art. No.39 of Decree no.11/2010, to all persons covered by Article no.115 of the Italian Banking Act.

The cross reference with art. No.115 has also a new and significant meaning: the regulation, as pointed out in case literature, identifies the scope of operation of the rule for the transparency of contractual terms and conditions, which is set to apply in all banking and financial transactions, whether carried out by banks or other financial intermediaries, and only in part, when called upon, for payment services, for which there is a special rule of transparency in Chapter II-bis, and also in Heading II of the consumer credit contracts.

Payment services may be provided for by a range of actors, who are not only the banks and financial intermediaries mentioned in the IBA, but also, among other things, payment institutions which, in operating payment transactions, are subject to the rules of transparency contained in Title VI of the IBA (notwithstanding the distinction between "common" and "special" rules on transparency) .This shows a strong link between the targets of efficiency of the financial system and the need to strengthen the confidence of the users of banking and financial services, ensuring the protection of the compliance with the transparency rule of banking and financial transactions (in a broader sense, so as also to include payment services). Among the instruments available to reach these targets, a recent banking regulation has provided a system of out-of-court dispute resolution represented by the aforementioned ABF and its related regulation which, in virtue of the reference to art. No.115 and the connection between acting subjects and their activities, should therefore also apply to disputes to which payment institutions are a party.

At the same time, one should note that Article. No. 35, paragraph 2, of Legislative Decree No.11/2010 includes: payment institutions, EU payment institutions and subsidiaries of payment institutions in art. No.1 of the IBA, for definition purposes. The above rule serves to broaden the category of intermediaries regulated by the IBA, to which a special rule is applicable or, when called far, the one provided for other brokers.

1.1. The claims rules of procedures in the PSD and in the adoption Decree

While the rule set by art. No. 39 establishes the connection between the system of complaints and the one of appeals and art. No. 40 of Legislative Decree No.11/2010 deals more specifically with complaints, giving effect to a very important (in way of contents) Community Directive. Section 2 of Chapter 5 of the PSD, dedicated to the procedures of "out-of-court redress ",

deals with the topic in a single article , art.No.83. This rule states that "Member States shall ensure that appropriate and effective procedures are in place for complaints and out-of-court redress, allowing for the resolution of disputes between users and their payment service providers in disputes concerning rights and obligations arising from this Directive; for such procedures it is possible to use existing organizations, when such is the case.

In case of cross-border disputes, Member States shall ensure that those organizations cooperate actively in resolving these disputes".

This rule has a broader obligational content: a) it calls upon states to establish out-of-court procedures for resolving disputes between payment service providers and users of payment services, b) establishes requirements of "adequacy and effectiveness" for the set out procedures, c) states that the out-of-court settlement should be adopted for resolution of disputes concerning rights and obligations pertaining to users of payment services, d) and, last but not least, gives Member States the possibility to use existing ADR organizations.

First of all, Member States shall establish the procedures outlined in letter a) having all requirements referred to in letter. b). This rule must be read in the light of recital no.51, in which "without prejudice" to the right of customers to start a legal action, Member States should ensure that an accessible and cast effective extrajudicial resolution of conflicts between providers and consumers of payment services arising from the rights and obligations mentioned in the PSD be put into place.

Article no.5, par. 2, of the Rome Convention on the law applicable to contractual obligations, ensures that no contractual clause on the applicable law may weaken the protection afforded to consumers by the mandatory rules of the law of the country of this habitual residence.

Recital no. 51, does, indeed, introduce additional elements that should distinctly mark the procedures of out-of-court conflicts, such as its effectiveness and accessibility in terms of costs. It also refers to disputes with consumers. In contrast, the Community legislator, in the provision of art. No.83, adopts a broader diction: appropriate and effective procedures in favor of all users. One rmay also include accessibility in the term "appropriate", that is to say adapted to the customer's status that, in case of consumers, is viewed with greater favor and, therefore, intended to bear lower costs. One should not forget, however, that the PSD is not a "consumers' protection" directive. It pursues a broader goal of establishing a speedy and effective competitive market, allowing adequate protection to all its users.

The form of dispute settlement is not meant to substitute "legal action". A different solution would have posed problems of conflict between national legislation and the EU directive placing itself at odds with the art. No.24 of the Italian Constitution. I would like to note that the PSD is primarily concerned with the implementation of alternative dispute resolution systems and, whereas it does not place specific obligations of participation to services providers, it leaves Member States (if applicable) the possibility of using existing systems.

In line of principle art. No. 32, letter n) of the delegation law limits itself to establishing that the law implementing the PSD would have to "provide for out-of-court procedures for resolving disputes relating to the use of payment services".

The Legislative Decree n. 11/2010 did not transpose the EU directive in a very literal manner and allows the users of payment services to choose between various systems, organizations and procedures of alternative dispute resolution governed by domestic law, maintaining the right to refer the matter to the competent judicial authority. In order to allow users to resolve disputes out of court with providers of payment services, the Decree states that any payment service providers must be participants to systems, organizations or procedures constituted by law or by an act of self-regulation of the category. In particular, banks, electronic cash institutions and payment institutions must necessarily participate to a system of dispute settlement provided for by art. NO.128-bis of the IBA. The identification of the subject of the dispute is entrusted to provisions implementing the Article no.128-bis itself

In case of cross-border disputes, Member States shall ensure that those organizations cooperate actively in resolving them.

2. The support of the Arbitro Bancario Finanziario- ABF (Organization for Banking and Financial Arbitration)

The Explanatory Report to the transposing decree highlights the choice made by the delegated legislator to employ the existing organizations for the purposes of out-of-court resolution of disputes. The Decree transposing the Directive has therefore extended the competence of the ABF to disputes relating to the provision of payment services. Although the provision imposing the obligation on all authorized financial intermediaries providing payment services to be member of ABF, the same obligation does not exist for payment service users, who remain free to adopt other systems of out-of-

court disputes settlement, within the limits of the existing legislation (see below). In addition, the Bank of Italy issued a regulation regarding the system of out-of-court settlement of disputes with customers related to transactions in banking and financial services (Regulations of the Bank of Italy dated 18th June 2009, hereinafter the "Regulations"), which all financial intermediaries are obliged to abide by and, as mentioned before, was already amended on entering into force of the transposition of the PSD.

Having regard to the subjective realm of application of the system, the active subject of the procedure is the customer, that is to say anyone who has or has had a contractual relationship with a financial intermediary concerning the provision of banking and financial services, including payment services, but expressly excluding from these those categories that engage professionally in banking and finance, insurance, social security and payment services. The "customer" in art. No.128-bis, is not meant to mean only the individual consumer but also a business. It seems reasonable to assume that the category of customers entitled to appeal also covers so-called "Occasional customers".

Concerning those to whom the system applies to, said regulations, in the details of the provisions issued by the Bank of Italy, are addressed to all financial intermediaries, which include, as we have said before, the payment institutions.

It is "mandatory for all financial intermediaries" to be participant to the system of art. No.128-bis and is a "condition for the conduct of banking and financial services and the provision of payment services". The financial intermediaries of new constitution and those who wish to start business operations in Italy in banking and financial services, or are offering payment services in Italy, must inform the authorities that they have become member of the ABF, before starting their activity. The Bank of Italy, according to the regulations, "monitors any possible infringement within the scope of its controlling action". These mandatory terms, the breach of which involves the foreclosure of the activity or the imposition of an administrative sanction, emerge from the Bank of Italy regulations themselves. One should connect the control activity of the Bank of Italy, generally referred to financial intermediaries, to the Bank of Italy's central role in creating and applying the rules, delegated to it, regarding the supervision of payment institutions and monitoring the compliance with its rules of the overall national framework implementing the PSD.

In matters regarding the subject of the disputes, the rules in question provide for a time limit. It is possible to refer disputes to the ABF only for those relating to facts occurring or behaviors carried out after 1 January 2009

and which, however, are not time-barred under the general rules of our legal system. The ABF's competence is limited to disputes relating to banking and financial services transactions (including payment services), excluding litigation in relation to investment services that can be subjected to other means of out-of-court protection provided for in our system, such as procedures operated by conciliation organizations as described in Legislative Decree of March 4, 2010 n. 28 (and its related implementing legislation) - i.e. the Conciliatore Bancario finanziario (Banking and Financial Ombudsman) or the Ombudsman-Giurì Bancario (Financial and Banking Jury) , or the Chamber of Conciliation and Arbitration active within Consob (Italian Securities and Exchange Authority), In the context of disputes relating to banking and financial services transactions, these may be addressed ABF in relation to disputes concerning the determination of rights, obligations and actions, regardless of the value of the transactions to which they relate . If, however, the customer's request relates to the payment of a sum of money, ABF's competence is limited to claims of an amount not exceeding € 100,000.

Remain excluded from the competence of the ABF (in addition to issues relating to investment services) also those already submitted to the ruling of a court or arbitration. In addition, ABF cannot act in cases for which an attempt at conciliation is pending and for which the damages claims are not immediate and direct consequence of a fault or violation of the financial intermediary. Also excluded are issues related to material goods or services other than banking and financial services covered by the contract between the client and the financial intermediary or contracts related to it.

Recently, the ABF has clarified that the provisions must be interpreted to mean that their Deciding Panel may also be informed of disputes regarding pre-contract negotiations, including those related to compliance with the rules on transparency (respecting the Supervisory Authority's Instructions dated July 29th, 2009) and regardless of the actual execution of the contract.

The "decision" on the appeal is taken by the Deciding Panel on the basis of documents collected during the investigation and by applying the provisions and regulations of law, as well as those provided for by any code of conduct to which the financial intermediary is part As to the content of the decision, said Panel is not limited to asserting the existence of the violated right, but can also order the intermediary to hold a specific behavior (*dare, facere aut non facere*). This assumption seems to be confirmed by the concept on the basis of which the decision regarding the claim must contain information designed to foster relationships between intermediaries and customers, which means that the Deciding Panel, in addition to declaring the right of the claimant to a sum of money , can also condemn the intermediary

to hold a specific behavior. The decision, together with the related motivations, will be communicated to the parties within 30 days of such decision, and as from that moment, except if otherwise provided, the intermediary will have an additional 30 days to abide by it, without prejudice to the right of both parties to resort to a Judicial Authority, or any other means envisaged by law for the protection of their rights and interests. Within the same period the intermediary must inform the Technical Secretariat of actions taken to abide by the decision of the Deciding Panel.

2.1. Nature and effects of the decisions of the ABF

The first doctrinal reflections on ABF converge on the nature of its conclusive proceedings, noting how it appears devoid of the typical features of a ruling. The Deciding Panel is not invested with the power to settle the dispute between the parties involved directly (the financial intermediary and the client), nor is the decision binding on those same parties producing the primary effect of defining the dispute.

ABF decisions cannot, therefore, produce new rights for the parties involved such that would be liable of protection by the Ordinary Judicial Authority, nor do they produce any corresponding obligations to abide by, with the specific result that, if the intermediary does not comply with the decision of ABF, the client cannot put forth the noncompliance as such, in a court action or arbitration against the intermediary,

In short, the final act of the proceedings before the ABF does not produce any legal effect between the parties, starting from the effects provided for by art. 1372 cc; in fact, although it assumes that there have been distinct acts of will by the parties involved, also evidenced on the one hand with the participation to the system by the intermediary and the other with the claim of the customer, the same final act envisaged in Article no.128-bis is not set as binding on the parties. In fact, it cannot be a "contractual determination" (Article 808 -ter of the Code of Civil Procedure).

The action brought before the ABF, however, does not affect the right of the intermediary to bring the dispute before ordinary courts. In any case, even assuming that judicial proceedings are started, the law provisions allow the customer to opt for the continuation of the proceedings before the ABF. This later provision - intended to prevent the intermediary to avoid decision on the claim by submitting the dispute to judicial court - theoretically allows for the coexistence of two different decisions (one of the ABF, the other of the ordinary judicial authority) in relation to the same dispute, with the risk of finding us in front of two conflicting decisions. However, these

provisions, do not contain any rule that establishes the prevalence of a judicial decision on one issued by ABF. Therefore, on the assumption that these decisions have a different nature and that the independence of the extrajudicial instrument in respect of any other means of protection envisaged by law is sanctioned by the law in art. No. 128-bis of the IBA, the Bank of Italy has stated that, in the event of a decision by ABF against the intermediary, it must abide by the decision, regardless of the outcome of the proceedings it may have initiated before the ordinary courts.

2.2. Features of the procedure before the ABF

At this point the question arises whether the characteristics of these procedures: speediness, low cost of the disputes resolution and effectiveness of the protection that Article. No.128-bis intends to ensure, match the characteristics identified by the PSD for extra-judicial settlement procedures. Article 82 required Member States to provide for procedures that should: 1) be usable by all users of payment services, 2) be appropriate (and affordable), 3) be effective.

On the first point, one can see that European rules and domestic law converge by giving an ample significance to the figure of the "client", In relation to the suitability and accessibility of the ABF system, one should note that the establishment of rules of procedure and the assistance of a Technical Secretariat (a structure of support in investigations and organization) have marked the phases of its activity. On the other hand, emphasis should be put on the costs of the procedure which are extremely cheap for the claimant.

In relation to the characteristic of "effectiveness" of the ABF system it is worth mentioning that in the Preamble to the Regulations, the Bank of Italy focuses on the role that effective systems for defining litigations can play in encouraging compliance with the principles of transparent and fair relationships with customers, in improving public confidence in banking and financial services providers, in providing a useful "a legal and reputational risk supervision for the benefit of the stability of financial intermediaries and the financial system as a whole",

The effectiveness refers to the problem of the real protection of the customer, concerned that the intermediary abides by ABF's decision. The law (art. NO.128-bis of the IBA) does not provide for the imposition of administrative sanctions against failure on behalf of intermediaries to abide by ABF decisions; therefore a resolution of the ICSC has established that the

Bank of Italy may take reputational measures, in cases of manifest violations of ABF decisions, consisting in publicizing the failure to comply.

The reputational penalty is applicable not only in cases of non-compliance with ABF's decisions (which, as mentioned, is treated as an infringement of the provisions relating to the contribution to its costs), but also in cases of non-cooperation to the well-functioning of the procedure (that is to say the non-payment of contributions due and the non-reception by ABF of the required documentation, where this would avoid a ruling on the merits of the dispute). In the mentioned cases, the Technical Secretariat publicizes the fact on the ABF website, on the one of Bank of Italy and, at the expense and care of the intermediary, in two widely circulated national newspapers. The outcome of the appeals are assessed by the Bank of Italy for their relevance related to its supervisory activities, as stated by the Bank itself stating that for the outcome of claims will be used as a source of information so as to highlight any signs of abnormal behavior or particular exposure to legal and reputational risks of intermediaries.

3. The ruling of the Constitutional Court no.272/20 12 and the repeal of the provisions of Legislative Decree no.28/2010 regarding mandatory mediation

The framework set by the national ADR legislation has been further enriched by the Decree of the Ministry of Justice no.180 of 18th October 2010, which has issued "Regulations on the establishment of the criteria and the procedures for the registration and maintaining a registry of mediation organizations and a list of mediation training specialists as well as the approval of the compensations payable to these organizations", The regulation implements Art. No.16 of Legislative Decree dated 4th March 2010 n.28, regarding the regulation of mediation aimed at resolving civil and commercial disputes .

Legislative Decree No. 28/2010 stated that a tentative reconciliation was a mandatory before being able to proceed with judicial actions for matters related, among others, to disputes and litigations in the field of banking contracts (Article 5), in which one can also include contracts for the provision of payment, financial and insurance services.

This mandatory requirement, for judicial procedures starting after March 20th, 2011, could be satisfied by using, alternatively:

- One of the official mediation "organizations", authorized in this activity by an entry in the registry of the Ministry of Justice. Organizations which

can be approached by the customer, not necessarily in the form of a complaint, or by the intermediary and can make suggestions for a settlement, which must be accepted by both parties, making the agreement approvable by the Court and therefore becoming enforceable;

- The ABF, in relation to disputes regarding the establishment of rights, obligations and entitlements arising from banking and financial transactions and services (see above);

- The Chamber of Conciliation and Arbitration created by Consob (the "Chamber"), for disputes relating to the alleged violation of disclosure, fairness and transparency requirements that arise from contracts providing investment services. The Consob Chamber, as well as ABF, may be called upon only by the (non professional) client, subject to having already submitted a complaint to the intermediary. Unlike ABF, the Chamber makes conciliation proposals and does not issue a decision.

We are speaking of remedies for the resolution of bank and financial disputes, which are very different, both in terms of procedure and in terms of legitimacy, from Court actions. The legislator intended to furnish an equivalent only in order to provide users of banking and financial services and also providers, further possibilities to resolve their disputes faster than the time required by ordinary courts. Not surprisingly the Ministry of Justice, at the time of presenting the rules on mandatory mediation announced: "The main goal of the reform of civil mediation has been to reduce the inflow of new cases in the justice system, thus providing citizens with a more simple and fast instrument in terms of cost and time".

The document, which provides an overview of ABF's "Principles and Recommendations" contained in the published collection of the first year of the Deciding Panel's decisions, pointed out that the entry into force of mandatory mediation in civil disputes relating to banking contracts represents a "Further opportunity to find, places and ways provided for by the Law, for a mutually acceptable agreement in the settlement of disputes between intermediaries and customers".

There still exist a number of problems concerning the coordination of the new rules with those existing before the establishment of a system of out-of-court settlement of disputes in the banking and financial field, which cannot be addressed here.

In order to establish a degree of coordination, the Bank of Italy has updated the Regulations issued on the 18th of June 2009, inter alia also addressing the problem of relations with the other mediation or conciliation procedures. Legislative Decree NO.28/20 I O provides for a dispute resolution criteria based the possibility multiple mediation requests based on

the so-called "Precautionary principle ", under which the mediation takes place before the body first seized with the claim. However a possible extension of this principle to the ABF procedure -which can only be activated by the customer , unlike the mediation procedure which can instead also be activated the intermediary would, according to the Bank of Italy, significantly hamper the inalienable right of the customer to request a decision by ABF should the intermediary precede the customer in the request for a decision by ABF,

In view of this, the above Regulations state that, when an attempt at conciliation or mediation is still pending or when the interruption of proceedings before ABF, if the mediation or conciliation are to be attempted at a later time, the provisions providing for the inadmissibility of a request to ABF are restricted to contemplate only those cases in which the settlement procedure has been promoted or agreed upon by the customer, In relation to the mandatory court procedure, as a condition of admissibility for a judicial action , the customer is allowed to renew the claim in cases when over 12 months have elapsed since the prior claim was made to the intermediary in order to make use of ABF then. For the same reasons, the limitation of a maximum period of 6 months, after a mediation or conciliation attempt had failed, was deleted, so as to allow a claim to be addressed to ABF at any time, following the failed mediation or conciliation attempt.

It is well to also remind the reader that the revised version of the Regulations established a Coordination Panel which is vested in issues of particular importance or which have given or may give rise to differing orientations of the individual Panels. The decision on such differences is posted, in the form of an Appeal, by each individual Panel to the examination of the Coordination Panel. Each Panel President, however, has the power to post the Appeal to the Coordination Panel even prior to the Appeal itself being examined by the competent Panel. In addition, one must note, that under Article, No. 27-bis, paragraph 1-e, the legislative decree No1, dated January 24th, 2012, has recognized the possibility of Prefects to report specific problems relating to banking and financial services transactions to the ABF.

4. Final Remarks

In conclusion, despite the evolution and the repeated changes brought to so called "Mandatory mediation ", one can deem as accomplished the fact that our system is guided, instead, by paragraph 1 of article no.40 of the

Legislative Decree No .11/2010, which, for disputes relating to payment services, has established that users of these services can make use of systems, organizations or out-of-court procedures, in brief, a variety of solutions that the legislator and the operators have previously established .

Effective mechanisms for defining litigations are functional, as pointed out by the Bank of Italy, to the principles of transparency and fairness in dealings with customers, They strengthen public confidence in providers of banking and financial services , are useful "in supervising legal and reputational risks for the benefit and stability of banking intermediaries and the financial system as a whole".

What will change after the transposition of PSD2? In my opinion, the Italian ADR mechanism for banking and financial disputes will be almost the same. Indeed, directive 2017/2366 of the 25 November 2015 (OJEU L 337/35 OF 23.12.2015) does not make any material changes to the existing ADR framework (see, article 99 – 103).

References

- RISPOLI, M. (2013), I sistemi dell'ADR nei servizi di pagamento e la sua attuazione nell'ordinamento italiano, *Innovazione e Diritto*, pp. 49-71.
- RISPOLI, M. (2015), Sistemi alternativi di soluzione delle controversie nel settore finanziario. Pluralità di modelli ed effettività della tutela, in G. Mollo (ed), *Atti dei seminari celebrativi per i 40 anni dalla istituzione della Commissione Nazionale per la Società e la Borsa, Quaderni Giuridici della Consob*: Roma, pp. 267-304.
- MANCINI, M., RISPOLI FARINA, M., SANTORO, V., SCIARRONE, A. and TROIANO, O. (eds) (2011), *La nuova disciplina dei servizi di pagamento*, Giappichelli: Torino



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