# Coins, Currencies, and Credit Instruments

Media of Exchange in Economic and Social History<sup>1</sup>

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#### Abstract

How, in historical societies, did people finalise transactions? Over the past few decades many economic and social historians have concerned themselves with this question, following the examples set by Douglass North and Craig Muldrew. Surprisingly, they have almost completely disregarded the most straightforward solution that historical societies had to offer, namely by using coins and currencies. Those scholars assumed, in part, that credit instruments were much more important in day-to-day trade. In this introduction we argue that studies into the unequal socioeconomic distribution of media of exchange – coins, currencies, and credit instruments – reveal mechanisms that are crucial to understanding broader social and economic processes. To this end, we discuss how the five articles in this special issue contribute to the growing literature on this topic.

This special issue is the result of two meetings held at the Dutch Money Museum in 2011. Participants were asked to reflect on the role of coins, currencies, and credit in history.<sup>2</sup> Their starting point was that these media of exchange were unequally distributed in the economy and in society. This

2 We discuss coins, currencies, and credit instruments as media of exchange. Metal coins were used mostly to settle cash transactions. Additionally, objects other than coins served as media of exchange, such as paper money, shells, and tokens. Such phenomena, together with metal coins, are captured by the term currencies (or moneys). Whereas coins and currencies served to finalise a transaction, credit instruments served to postpone finalisation.

<sup>1</sup> This special issue is the result of several contributions to a workshop held on 30 May 2011 at the Dutch Money Museum, as well as of a masterclass on financial history and numismatics given on 25 November 2011, also at the Dutch Money Museum. The authors would like to thank all the participants, as well as two anonymous referees, for their suggestions.

counters the more traditional notion of a development over time from a natural economy to a money economy, or, in the words of Alfons Dopsch, from Naturalwirtschaft to Geldwirtschaft.<sup>3</sup> In contrast the authors of the five articles in this special issue all start from the notion that media of exchange were never equally available to all, nor were they used equally in all transactions.<sup>4</sup> Rather, coins, currencies, and credit instruments were available to specific social groups, and were used in specific transactions, or in transactions with specific counterparties. The contributors to this special issue all explain the problems and opportunities this caused for participants or groups of participants in exchange, the various solutions they came up with, and the implications for economies and societies. In this introduction we discuss the valuable insights these articles present, and, more importantly, we use them to deduce various mechanisms that can hopefully inspire future research. To this end, we also draw on insights from the secondary literature. This article should therefore be read as a position paper that draws the reader's attention to mechanisms in the interplay between media of exchange, economy, and society - mechanisms we believe to be crucial for a good understanding of historical processes.

To further introduce our topic, it is useful first to turn to the twenty-first century. According to reports published in 2010, Sweden is well on its way to becoming a cashless society. That year, bills and coins represented only 3.14 percent of Sweden's economy. Furthermore, the figure for bills and coins had been declining steadily since 2006. Interestingly, the average for the eurozone has increased since 2006, reaching 9.44 percent of the eurozone's GDP in 2010. The same is true for the UK, with a corresponding figure of 3.75 percent in 2010, and the US, reaching 6.76 percent in 2010.<sup>5</sup> Judging from these developments, it might take a while before a true cashless society emerges. News coverage of state-of-the-art payment practices in Sweden demonstrates quite nicely the economic and social impediments to the further development of a cashless society. For some transactions, electronic payment systems are not very useful. Thus, a Swedish vicar explained he had to install a card reader to allow donations by wor-

<sup>3</sup> A. Dopsch, Naturalwirtschaft und Geldwirtschaft in der Weltgeschichte (Vienna 1930).

<sup>4</sup> That individuals chose whether to use coins and currencies, credit, or barter to finalise a transaction has recently been demonstrated by Daniel Vickers in his analysis of the transactions of three individuals in colonial New England (D. Vickers, 'Errors expected: The culture of credit in rural New England, 1750-1800', *The Economic History Review* 63:4 (2010) 1032-1057).

<sup>5</sup> Committee on payment and settlement systems: Statistics on payment, clearing and settlement systems in the CPSS countries. Figures for 2010 (2012), available at http://www.bis.org/publ/ cpss99.pdf, consulted 21 February 2014, 417.

shippers not carrying cash. Transactions requiring a certain discretion are another case in point: Swedish authorities linked the upcoming cashless society to the decline in shadow economic activity. If they are correct in this, it is easy to see that changes to the payment system affect groups in society in different ways: law-abiding citizens profit from decreases in tax evasion, while groups of tax evaders might call for continued use of cash. They might be joined by people active in dubious trades, who are known to prefer cash settlements in large denominations. That resistance to electronic payment is not merely a result of the desire to keep transactions off the radar is illustrated by objections raised by small shop owners, who pay transaction costs to banks when their customers use a credit card, and the elderly inhabitants of rural areas, 'who don't have credit cards or don't know how to use them to withdraw cash'.<sup>6</sup> New developments, such as paying by means of mobile phones using near field communication, are unlikely to make the cashless society more accessible for those having difficulties mastering the technology, or those lacking the financial means to invest in a smartphone.

The Swedish example shows that media of exchange are not equally distributed. Often it is the social context or economic transaction that determines whether a medium of exchange is used, and if so which. This is as true today as it was in historical societies. According to the monetary historian Akinobu Kuroda, coins and currencies were used in a specific economic and social context. As a result, they had a distinct circulation and area of distribution.<sup>7</sup> To put it another way, merchants used other media of exchange than innkeepers, wage earners, or peasants, or used these in a differ-

<sup>6</sup> http://www.huffingtonpost.com/2012/03/17/sweden-eu-cash-cashless-money\_n\_1355510.html, consulted 21 February 2014.

<sup>7</sup> A. Kuroda, 'Concurrent but non-integrable currency circuits: Complementary relationships among monies in modern China and other regions', *Financial History Review* 15 (2008) 17-36. Cf. Jan Lucassen, 'Introduction: wages and currency, 500 BCE - 2000 CE', in Jan Lucassen (ed.), *Wages and currency: Global comparisons from Antiquity to the twentieth century* (Bern 2007) 9-58.

ent way.<sup>8</sup> Although research into the precise demarcations is still underway, it seems safe to state that this has implications that go beyond the study of the use of media of exchange, which is usually carried out by numismatists and financial historians. Media of exchange are not merely supplied by a sovereign or state, and redistributed evenly among participants in exchange; they were in part created by subjects and citizens – particularly in the case of credit instruments, but regularly, too, with coins and currency. And because they were redistributed unequally, media of exchange were tied to specific social groups and economic transactions. All of this affected historical actors in various ways. The most important effects of the unequal distribution of media of exchange can be summarised as follows.

- For some social groups it was more difficult to obtain a specific medium of exchange than for others, or required a specific strategy.<sup>9</sup>
- Due to differences in access to media of exchange, for some social groups transaction costs were larger than for others.<sup>10</sup>
- For some economic transactions specific media of exchange were necessary.<sup>11</sup>

These effects all feature in the contributions to this special issue. In this introduction we discuss how they influenced social and economic processes.

8 Recent research into the social context of currencies includes: J. Welten, *Met klinkende munt betaald. Muntcirculatie in de beide Limburgen 1770-1839* (Utrecht 2010); P. Spufford, *How rarely did medieval merchants use coin?* (Utrecht 2008); J. Lingen and J. Lucassen, 'The "Mansuri" or "Munsooree Paisa" and its use: Combining numismatic and social history of India, c. 1830-1900', *Numismatic Digest* 31 (2007) 187-222; J. Lingen and J. Lucassen, 'Copper circulation in Northern India in 1830', *Numismatic Digest* 34-35 (2011) 148-183; J. Lucassen and J. Lingen, 'Two lacs of Bharatpur and Bindrabund rupees and 15 bags of copper pyce, captured at dig on Christmas' eve 1804', *Journal of the Oriental Numismatic Society* 218 (2014) 24-32; J. Lucassen, 'Deep monetization, commercialization, and proletarianization: Possible links, India 1200-1900', in: S. Bhattacharya (ed.), *Towards a new history of work* (New Delhi 2014) 17-55; and J. Zuijderduijn, 'Zakkenvullers en zakkenrollers. Papieren muntvondsten uit Hoornse en Kamper archieven', *De Beeldenaar* 35 (2011) 109-114.

9 See Lurvink, and van Bochove and Kole in this issue. See P. Spufford, *Power and profit: The merchant in medieval Europe* (London 2002) 95; W. Ryckbosch and E. Decraene, 'Household credit, social relations, and devotion in the early modern economy: A case study of religious confraternities and credit relations in the Southern Netherlands', *Tijdschrift voor sociale en economische geschiedenis* 11:1 (2014) 1-28; C. Muldrew, *The Economy of obligation: The culture of credit and social relations in early modern England* (New York 1998).

<sup>10</sup> See Lurvink in this issue. B.J.P. van Bavel, 'Pachtboek, pachtcontract, legger, pachtrekeningcourant en rekening. Typologie en interpretatie van de laat-middeleeuwse bronnensoorten met betrekking tot de verpachting van grondbezit', in: D.E.H. de Boer, J.W. Marsilje, and J.G. Smit (eds), *Vander rekeninghe. Bijdragen aan het symposium over onderzoek en editieproblematiek van middeleeuws rekeningmateriaal* (The Hague 1998) 99-111, 106-107.

11 See Lucassen, Feenstra, and Teeuwen in this issue.

## 1 Social history

To begin with social history, especially since Craig Muldrew's The Economy of Obligation historians have become aware of the importance of credit relations in historical societies.<sup>12</sup> He pointed to the many transactions made using credit, rather than money, in the early modern economy. Muldrew drew attention to the reputation of households, which created a 'cultural currency': the possibility to exchange using credit rather than coins. Indeed, credit served as a medium of exchange, just like coins and currencies. Also, all three express a debt. Coins and currencies differ in the sense that they can be immediately liquidated by means of spending, unless, that is, a particular coin or currency is not accepted by a counterparty as a medium of exchange because they are not convinced that they, in turn, will be able to liquidate the currency. In this respect, all media of exchange are fiduciary, including gold, silver, and copper coins: this is expressed by the motto 'Non aes sed fides' ['Not money but trust'] to be found on coins struck in Malta between c. 1550 and 1800 (Illustration 1). The recipient of the currency should trust the counterparty not to pay with devalued or clipped coins. The use of currency thus depended on trust within and between various social groups.



Illustration 1. Maltese tari, coined in 1742. Obverse bearing the image of the head of John the Baptist on a plate. Reverse bearing the image of conjoined hands and the inscription NON AES SED FIDES (not copper but trust). Diameter 28 mm. Source: National Numismatic Collection, Central Bank of the Netherlands.

<sup>12</sup> Muldrew, *The economy of obligation*; C.H. Crowston, *Credit, fashion, sex: Economies of regard in Old Regime France* (Durham and London 2013).

But there is more. If coins and currencies are indeed distributed unequally, some social groups might be less able to pay in cash than others. They might have to have recourse to barter, which raises transaction costs (see below), or to credit. Credit is an expression of power. On the one hand it requires creditworthiness on the part of the debtor. To acquire this an individual might have to invest in social capital: creditors will prefer debtors with a good reputation. A good credit history without prior defaults obviously helps, but social standing and membership of a social network does too.<sup>13</sup> On the other hand, credit creates an unequal relationship between debtor and creditor. The debtor has the power to renege on his debt; the creditor has the power to seek compensation, by means of legal recourse, slander, or intimidation.<sup>14</sup> Scholars have paid particular attention to the power of the creditor as well as the loss of property.<sup>16</sup>

In this way the availability of coins and currencies, and the need to engage in credit relations, has an effect on social processes. Several things are important in this respect: first of all an individual's position in the circulation of money: does their social and economic position, and occupation, provide access to cash? Secondly, does he or she have the ability to create savings so that cash is always available, so that they might even extend credit? Thirdly, does the individual live in a time of monetary scarcity? The latter element, which might be predominantly, but not exclusively, linked to the monetary history of the Middle Ages, means that some social groups might have had to adjust in order to be able to participate in exchange.<sup>17</sup> In this respect, we should also point to the differences

13 The latter is discussed in Ryckbosch and Decraene, 'Household credit'.

14 An extensive analysis of the various means of debt recovery is given in B. Sturm, '*wat ich schuldich war'*. *Privatkredit im frühneuzeitlichen Hannover* (*1550-1750*) (Stuttgart 2009) 193-249. Cf. J. Dijkman, *Shaping medieval markets: The organisation of commodity markets in Holland, c. 1200 - c. 1450* (Leiden and Boston 2011) 236-274; Crowston, *Credit.* 

15 Sturm, 'wat ich schuldich war', 192.

<sup>16</sup> Scholars have linked indebtedness directly to the expropriation of the peasantry, although this view has been discredited in the more recent literature, most notably by Sheilagh Ogilvie, Markus Küpker, and Janine Maegraith. See the literature they cite in S. Ogilvie, M. Küpker, and J. Maegraith, 'Household debt in seventeenth-century Württemberg: Evidence from personal inventories', *The Journal of Economic History* 72 (2012) 134-168, 134-135 and *passim*.

<sup>17</sup> According to Jacques Le Goff, 'during the long thirteenth century, the increase in specie made it possible both to spend more and to buy more, while the increase in needs led to a much wider recourse to money' (J. Le Goff, *Money and the middle ages* (Cambridge 2012) 82). It seems likely that a decrease in specie, such as happened in the fifteenth century, forced individuals to supplement one medium of exchange – cash – with another, such as shop credit. This line of reasoning has also been applied to the southern US (see Lurvink in this issue). between towns, where money was available throughout the year, and the countryside, where the supply of money peaked around harvest time. Peter Spufford speaks of 'a great seasonal flow and ebb of coined money, into and out of the countryside'.<sup>18</sup> Access to money was different not only between townsmen and peasants, but also within society: some saw more cash than others,<sup>19</sup> and this affected their social position.

This social component is addressed in several of the contributions to this special issue. Jan Lucassen argues that a society depending on wage labour required small change. Since wage labourers were a mobile workforce, they had only limited creditworthiness: they could not postpone payments for the necessities of life for more than a week, and therefore demanded weekly payments in return. This required the availability of small coins – or 'deep monetisation'. Lucassen proposes a formal definition of 'deep monetisation' and analyses data on coin production from the High Middle Ages to the beginning of WWII. According to this definition he shows that deep monetisation might have started in the southern Low Countries around 1500 or even earlier, while it was certainly a feature of the north in the first few decades of the seventeenth century. The article by Alberto Feenstra also discusses deep monetisation, but on Java, Indonesia, in the eighteenth century. He demonstrates how deep monetisation had been achieved there around 1800. Both Lucassen's and Feenstra's contributions show how the supply of money was driven by demand, and how its study can help resolve questions about crucial social processes in history, such as the rise of wage labour. What can happen in the absence of a good supply of money is demonstrated by Karin Lurvink in her article on payment practices on plantations in Louisiana, in the US, in the nineteenth century. Apart from engaging in sharecropping, which does not require payments, plantation owners responded by using private money – tokens - that could be used in the plantation shop, to pay labourers in advance. Lurvink analyses these non-cash payment systems, and in particular their social implications, addressing issues such as re-enslavement.

#### 2 Economic history

We continue with the implications for economic history. Media of exchange serve to finalise transactions. It is surprising to see that the new

<sup>18</sup> Spufford, Power and profit, 95.

<sup>19</sup> Vickers, 'Errors expected', 1039-1040.

institutional economy school, which uses the concept of transaction costs to explain economic development, has little eye for the availability of cash: even Douglass North, the doyen of this field, seems to regard money as a given.<sup>20</sup> In reality, the supply of money was something medieval princes often struggled to maintain.<sup>21</sup> And even though the supply of money was relatively good in early modern Europe, the large number of coins in circulation, of varying purity and weight, added to transaction costs.<sup>22</sup> Exchange in sub-Saharan Africa and the Americas (and in certain parts of Asia) also posed the challenge of a supply of money. European media of exchange – coins – did not easily replace local currencies: 'primitive moneys' including seashells, textiles, and beaver pelts.<sup>23</sup> Furthermore, even when Europeans introduced coins in trading posts and colonies, these were soon taken out of circulation and ultimately returned to the country of origin.<sup>24</sup>

What were the economic consequences of a lack of uniform media of exchange? To what degree might barter have been a viable alternative? According to Starr, a monetary theorist, media of exchange will be used in the presence of 'desirability of trade, net of transaction costs' and 'absence of double coincidence of wants'.<sup>25</sup> The latter is particularly important: in the absence of currency, the participants in an exchange require double coincidence of wants. An individual has to find a counterparty that can provide the product he or she demands, but who, in turn, also requires the product this individual supplies. It is easy to see that, under these conditions, finding a counterparty becomes difficult. A second, related

22 This situation has been dramatised by the expression 'monetary chaos' (M.S. Polak, *Historio*grafie en economie van de 'muntchaos'. De muntproductie van de Republiek (1606-1795) (Amsterdam 1998). For a more nuanced view see Welten, *Met klinkende munt betaald*.

23 These problems with 'primitive money' were particularly acute in Africa and the Americas. For Africa see R.A. Austen, *African economic history: Internal development and external dependency* (London 1987) 134; J. Hogendorn and M. Johnson, *The Shell money of the slave trade* (Cambridge 1986). For a more general account see P. Einzig, *Primitive money in its ethnological, historical and economic aspects* (London 1949).

24 A. Redish, 'Why was specie scarce in colonial economies? An analysis of the Canadian currency, 1796-1830', *The Journal of Economic History* 44:3 (1984) 713-728, 727-728.

25 R.M. Starr, 'Commodity money equilibrium in a convex trading post economy with transaction costs', *Journal of Mathematical Economics* 44:12 (2008) 1413-1427, 1415.

<sup>20</sup> D.C. North, Institutions, institutional change and economic performance (Cambridge 1990).

<sup>21</sup> R.H. Britnell, *The commercialisation of english society 1000-1500* (Manchester 1996) 181-185; T.J. Sargent and F.R. Velde, *The big problem of small change* (Princeton 2002) 4-7; O. Volckart, "The big problem of the petty coins", and how it could be solved in the late middle ages', Working Paper no. 107/108 London School of Economics (2008), available at http://eprints.lse.ac.uk/22310/ 1/WP107.pdf, retrieved 8 March 2013.

problem concerns knowledge of the relative values of products. Barter requires extensive knowledge of the relative prices of products. Assuming there are only 100 types of product exchanged in an economy, participants in an exchange have to deal with 2,450 'exchange rates' (the price of product A relative to B, A relative to C, etc.). The solution is to express all values in one unit, so that there is need then only for 99 exchange rates.<sup>26</sup> It follows that the production of money was demand-driven: the level of specialisation and the supply of different goods and services (including work done outside the household) in a society determined the demand for media of exchange.

The other alternative to the use of currencies, the extension of credit, also comes at a price. This is known as the fundamental problem of exchange: how to ensure a counterparty will pay at a date in the future. This question is at the heart of the new institutional economy school, which has uncovered a multitude of solutions in historical economies.<sup>27</sup> Some informal solutions came at little expense, but more formal solutions involved transaction costs. How the extension of credit, and barter, compared with the solution par excellence – the use of cash – has received little attention. Conversely, we are largely unaware of what it meant for individuals to be forced to use either credit or barter when they were unable to use coins or currencies. To put it another way, as long as we are unaware of the opportunity costs involved in the use of coins, currencies, or credit, it is difficult to arrive at firm claims about transaction costs.

In the event coins and currencies were used to finalise a transaction, the following transaction costs may be distinguished:

- Cost of determining the value of the coin in terms of weight and fineness. This is the value expressed in gold, silver, and – to a far lesser degree – non-precious metals like copper.
- Cost of determining the exchange rate with other coins and currencies.

27 A. Greif, *Institutions and the path to the modern economy: Lessons from medieval trade* (Cambridge 2006); *idem*, 'The fundamental problem of exchange: A research agenda in historical institutional analysis', *European Review of Economic History* 4 (2000) 251-284, 251-253. The contribution to this special issue by van Bochove and Kole also addresses the question of how to smooth credit relations.

<sup>26</sup> C. van Ewijk and B. Scholtens, *Geld, financiële markten en financiële instellingen* (Groningen 1999) 19. It should be noted that the creation of such an exchange rate can also be established in the absence of physical currency: a fictional currency, such as money of account, suffices for this purpose. It is no wonder then that the 'invention' of moneys of account often, as in Mesopotamia, preceded that of coins.

- Cost of finalising a transaction using these coins and currencies (for instance because this involved counting or required the services of a moneychanger).
- Cost of transportation, storage, and protection.

Precisely because of the costs involving payment with coins and currencies, in the seventeenth and eighteenth centuries the Bank of Amsterdam could add an agio to the value of its 'bank money' – credit its customers held with the bank. Since this bank money was secure from money manipulation, fire and theft, and allowed customers to make inexpensive transfers, bank money was more valuable than cash. In 1645, a deposit of 600 *guldens* in bank money was worth 250 *patagons*, while 600 *guldens* in cash was worth only 240 *patagons*.<sup>28</sup> However, credit, too, involved transaction costs:

- Cost of determining the credit rating of the debtor, or of his title to securities. And at the same time, and from the perspective of the debtor, the cost of determining the likelihood the creditor would immediately take legal action once payments did not come through.
- Cost of determining the risk of inflation or losses due to fluctuating exchange rates.
- Cost of getting witnesses to the transaction.
- Cost of having a debt registered or a contract drawn up.<sup>29</sup>
- Cost of paying interest, instalments, or the principal. In this respect the question arose as to how payments should be made: on the doorstep of the creditor or on the doorstep of the debtor.

We should also point out that no matter whether credit was used, or coins or currencies, the issue of which participant in an exchange bore these costs was highly relevant.

To summarise: we must distinguish various groups among participants in exchange, some with access to coins and currencies, others lacking this

<sup>28</sup> P. Dehing, *Geld in Amsterdam. Wisselbank en wisselkoersen, 1650-1725* (Hilversum, 2012) 108-110;
S. Quinn and B. Roberds, 'Muntslag, centrale bankgeld en de Wisselbank', in: M. van Nieuwkerk (ed.), *De Wisselbank. Van stadsbank tot bank van de wereld* (Arnhem 2009) 92-107, 93, 100.
29 These costs are discussed in C. van Bochove, H. Deneweth, and J. Zuijderduijn, 'Real estate and financial markets in England and the Low Countries, 1300-1800', CGEH Working Paper 42 (2013), available at http://www.cgeh.nl/sites/default/files/WorkingPapers/CGEHwp42\_bochove\_etal.pdf.

access but with access to credit, others forced to become indebted on disadvantageous conditions, and others even preferring, or forced to resort to, barter. Although this is an unusual way to put it, the latter applies even to slavery, where, in exchange for the work performed by his slaves, the slave owner prefers remuneration in kind to payment in currencies, as the slave is forced to accept only board and lodging. All these media of exchange came at social and economic costs, and hence had an effect on social and economic processes. The study of the use of coins, currencies, and credit, as well as the other extreme, the practice of barter, is thus crucial for understanding social and economic history. The latter - barter - was not necessarily backward, provided there was a double coincidence of want. This was the case in the sixteenth century, when between 25 and 50 percent of the tenants of Mariënweerd Abbey preferred to pay their rent in kind. This was advantageous to both tenant and landlord: it avoided the time and cost needed to market the product, and also prevented the merchant from first buying products from a tenant of Mariënweerd and then selling this to the abbey at a profit.<sup>30</sup> For the tenants of Mariënweerd, getting money clearly came at a cost; the same is probably true for many other groups in society. For instance, similar conflicting preferences might occur in wage payments, in particular in agriculture. Here wage labourers prefer payment in kind when food prices rise and in currencies when they decline, whereas their employers would prefer the reverse.

The Louisiana plantation owners discussed by Karin Lurvink faced a similar problem: how were they to finalise transactions in the absence of money? Their answers to this problem, a system best characterised by the term 'barter' (here in the form of sharecropping) and the creation of private money (plantation tokens), are also the solutions countless others came up with throughout history. Sharecropping is found on the Roman latifundia of antiquity, and on the tobacco farms of the Dutch Republic, and many more examples abound. Medieval sovereigns had great difficulty in preventing dukes, counts, and towns from striking their own coin, or, as Volckart has shown for the Holy Roman Empire, surrendered to reality and allowed an infringement upon their regal prerogative by permitting municipal authorities to provide small change.<sup>31</sup> Faced with money

<sup>30</sup> Van Bavel, 'Pachtboek', 106-107.

<sup>31</sup> Volckart, 'The big problem of the petty coins'.

shortages, the directors of the Dutch West India Company in Brazil decided to create their own coins, bearing *inter alia* the image of a parrot.<sup>32</sup> But even early modern England experienced several periods of serious shortages of small change, in which private money was allowed to dominate circulation.<sup>33</sup> During most of the nineteenth century the US provides another case, where counterfeit greenbacks met the need for medium fractions.<sup>34</sup> There were also the numerous private and municipal paper bill issues during the hyperinflation of post-WWI Germany and Austria.

Solutions to a lack of proper media of exchange could thus be initiated by subjects. Christiaan van Bochove and Heleen Kole show how credit could be used as an inexpensive medium of exchange. In Amsterdam, standardised loan forms allowed participants in an exchange to draw up an official contract without having to write a great deal or formulate the proper legal terms. Van Bochove and Kole report standardised loan forms worth as little as 0,35 *guldens* – less than one days' wages for a skilled labourer. Many standardised loan forms already contained a stamp, indicating that the participants had paid the stamp tax on loans, a requirement for using the contract as evidence in a court of law. In Amsterdam a variety of standardised loans were sold at more than 100 locations, and used by people from all layers of society to cope with the fundamental problem of exchange.

Tampering with media of exchange without proper insight into their economic role could have far-reaching consequences, something that becomes clear when we look at an epoch in the monetary history of the Netherlands discussed by Daniëlle Teeuwen. With the introduction of the decimal currency system, in 1816, the authorities also introduced a halfcent coin, which had a lower value than the smallest coin circulating hitherto, the *duit*. Teeuwen suggests that one result was a decline in charitable giving, since the new half-cent coin allowed people to continue to

<sup>32</sup> See the recent study into the production of these obsidional coins in Brazil by the Dutch West India Company: M. Duttine *et al.*, 'The first gold coins struck in Brazil: Myth or reality?', *ArchéoSciences* 33 (2009) 309-312, available at http://archeosciences.revues.org/2383. On obsidional money during the Dutch Revolt see A. Pol and B.J. van der Veen, *Het noodgeld van Leiden. Waarheid en verdichting* (The Hague 2007). And on obsidional money during WWI, see E. van der Kam, 'De introductie van een hulpmunt. De zilverbons uit 1914', *Holland, Historisch Tijdschrift* 42:3 (2010) 257-269.

<sup>33</sup> G. Selgin, *Good money: Birmingham button makers, the Royal Mint, and the beginnings of modern coinage, 1775-1821* (Ann Arbor 2011). For shortness of small change in the Dutch Republic see Lucassen in this issue.

<sup>34</sup> S. Mihm, A nation of counterfeiters: Capitalists, con men, and the making of the United States (Cambridge MA and London 2007).

contribute to door-to-door and church collections, while donating less. On the one hand the availability of small coins allowed a large number in the less affluent social groups to participate in civic society by contributing to charity; on the other they preferred to fulfil this duty at the lowest possible cost.

Coins, currencies, and credit instruments all served as media of exchange. Access to these was generally unequal, dependent on one's socioeconomic position, and, with respect to creditworthiness, investments in 'social capital'. As the following contributions make clear, economic and social historians who concern themselves with everyday life, and the numerous transactions and relations this involved, can benefit greatly from these notions.

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