

# INTRODUCTION\*

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## Medieval Credit Markets

The importance of credit for modern economic growth is an undisputed fact.<sup>1</sup> This claim of economic science is also assumed for premodern societies and has been investigated in the case of pre-industrial Europa but also for large parts of Asia or the Americas.<sup>2</sup> The widespread use of credit in the Middle Ages for different purposes has been emphasised by emerging research on different topics. The growing use of credit was accompanied by a commercialisation of medieval societies and a progressing market involvement.<sup>3</sup> Bruno Kuske was one of the first to reject the view that medieval man was entrenched in church morality and had a limited economic horizon.

He showed that various forms of credit usage for consumptions credits, business loans, and public debt existed as far back as the Middle Ages.<sup>4</sup> The empirical research conducted in the last 100 years has highlighted the richness of credit operations in premodern societies in Europe. Consequently, Peter Schuster, drawing on an older term coined by Delloyd Guth, called the Late Middle Ages “the Age

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- 1 For the premodern world, it is more accurate to talk about a quantitative change in the economic performance than about growth. Cf. Köster 2020, 25.
- 2 Hoffman, Postel-Vinay, and Rosenthal 1999, 69–71; Köhler and Skambraks 2019, 22–23; Van Bavel 2016, 16–17; Zuijderduijn 2009, 1; Lopez 1976.
- 3 Ghosh 2020, 207–213; Ghosh 2017; Van Bavel 2011, 516–521.
- 4 Kuske 1956, 59–50. For a variety of medieval credit instruments, see Gilomen 2010.

of Debt”.<sup>5</sup> Several innovative micro-historical research projects on the financial dealings of medieval and early modern societies broadened our understanding of premodern credit arrangements and practices.<sup>6</sup> The growing interest in this field of economic history led to the emergence of different strands of research, each focusing on different questions and offering new approaches to the topic.<sup>7</sup>

By focusing on a specific phenomenon of medieval and early modern credit markets—small scale credits—the attention of this book is drawn to a topic that is usually not in the centre of historic research, either because of a lack of sources, or because these practices were overshadowed by credit activities of big corporations, princes, kings, or the church. These credit operations were bigger in size, but not in quantity and because of that, the economic dealings of a large part of the historical population involved in petty moneylending and small loans is left out of such considerations. This book adds to the research about small-scale credits and presents original studies on small credit practices in a broad range of European regions (England, France, Germany, Italy, Low Countries, Hanseatic cities) from the Middle Ages to the Early Modern times.

## Recent Studies on Credit Markets

Most prominent has been the question about the relationship between financial and economic development. Several studies suggest a correlation between the level of financial development and economic growth. If credit is available and money circulates easily then economic growth takes off.<sup>8</sup> The question here is, bluntly said, how capital can be reallocated swiftly in a society so that it can be put to economic use.<sup>9</sup> Of utmost importance for the functioning of such an exchange is the institutional framework that organises economic interaction and thus decreases or increases transaction costs. Exchange could be organised in many ways, and allocation via a market was only one possibility amongst many others.<sup>10</sup> Markets as the dominant system of exchange were quite rare in history. But factor markets, especially for capital, were already large in the Late Middle

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5 Schuster 2008. In his article, he provides extensive examples for medieval Europe.

6 Clemens 2008, 9–11.

7 Neu 2019.

8 Cf. Levine 2005, 868; Hoffman, Postel-Vinay, and Rosenthal 2019, 1.

9 This includes cashless forms of credit. Bell, Brookes, and Moore 2017.

10 For a broader debate about the exploration of premodern markets with further references, see Kypka 2021.

Ages in Europe, and in some regions became the dominant system of allocation.<sup>11</sup> Thus, medieval capital markets seem to be the ideal research topic to answer questions about economic growth, but also about the everyday economic practices of medieval and early modern societies.

Studies on credit markets have produced several narratives and models that try to explain the development and functioning of credit markets, each highlighting different explanations for the historical development. As will be shown, several topics such as the emergence of banks or state regulations (i.e. the protection of property rights) are recurring topics of these studies. Other aspects, like informal credits, non-market operations, or small-scale credits played only a minor role in the analyses of credit markets until recently. The following section refers to the most important studies on credit markets.

According to Douglass North and the New Institutional Economy (NIE), the institutional arrangements—or market structures—are, alongside production costs, the chief determinant for any economic exchange to take place or not.<sup>12</sup> Thus, transaction costs, such as costs to overcome asymmetric information between contracting parties, costs for protection or for enforcing contractual obligations, affect the economic growth, the integration of economies, and the emergence of market economies.<sup>13</sup> The market structures are put into effect by private or public interest groups (powerful individuals like monarchs, organisations, etc.) to profit from economic exchange, and they are thus exponents of the political and social structure. This institutional framework—the so-called institutions—can be both formal and informal.<sup>14</sup> Whereas informal institutions include religious taboos, norms, customs, social habits, or moral values, formal institutions, for example contractual obligations or property rights, are enforceable by law.<sup>15</sup> Since formal institutions rely in many cases on legal systems and other long-lasting structures, they often create a certain path dependency.<sup>16</sup>

The emergence of (well-functioning) capital markets are thought to be of special importance for the economic development of Western Europe.<sup>17</sup> One corner-

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11 Wickham 2021, 7; Van Bavel 2016, 12.

12 North 1990.

13 Zijderduijn 2009, 2–5.

14 The New Institutional Economic approach was most prominently applied to the medieval period in Avner Greif's study about Mediterranean commerce and Jaco Zijderduijn's book about medieval capital markets. Greif 2006. Zijderduijn 2009.

15 Hoffman, Postel-Vinay, and Rosenthal 1999, 12.

16 Zijderduijn 2009, 4; Coffman, Lorandini, and Lorenzini, 2018, 2.

17 Hatcher and Bailey 2001, 125; Van Bavel 2016, 14–18. However, the argument of long-lasting economic growth through the implementation of markets is questioned by Van Bavel. Cf. Huang and Kypta 2018, 103.

stone of this institutional framework for capital markets is the setting of secure property rights.<sup>18</sup> The choice of institutions and how free, or “perfect”, these markets were, depended upon specific settings.<sup>19</sup> Therefore, no general meta-narrative about the development of capital markets can be made since every region had a unique development with its own historical setting. For Western Europe, some key financial institutions have been identified that lowered transactions costs and enabled economic growth: the emergence of trade companies, early banking facilities, the stock exchange, and public debt are seen as forerunners of the financial development of the nineteenth century.<sup>20</sup> However, this side of the story about medieval credit markets leaves out the everyday dealings of small households and businesses and small-scale credit activities.<sup>21</sup>

Especially the debate over institutions that linked economic growth to public finance has attracted the attention of many scholars. Political reforms strengthening property rights protection offered widespread opportunities for investments and at the same time brought about depersonalisation and objectivity to the financial market. The creation of a modern financial system, encompassing the consolidation of public debt with a secondary market where government bonds could be traded, marked a watershed in financial history.<sup>22</sup> This way, the emergence of the modern state is connected to the existence of funded public debt.<sup>23</sup> The earliest evidence of such (municipal) financial institutions can be identified in Northern Italy (Florence, Genoa, Venice), the Low Countries, Northern Germany, and England, appearing as early as the twelfth century.<sup>24</sup> Research on funded public debt has been inclined to consider the requirements and needs of both the savers and the investors. Whereas the savers wanted financial instruments that allow them to withdraw their savings and convert them into cash at short-notice and with low costs, investors were concerned with an assured continuity and a constant supply of capital. A lot of focus has been put on the demand side—that is the need of governments, merchants, and business corporations. Less attention has been paid to the supply side of the investors.<sup>25</sup> Once again, the questions here are

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18 Zuijderduijn 2009, 2; Gelderblom and Jonker 2004, 645; De Soto 2000.

19 No historical or present-day market was ever fully open and free. Markets have always been embedded in their political and social environment. Van Bavel 2016, 8–11.

20 Coffman, Lorandini, and Lorenzini, 2018, 3.

21 This includes the dealings outside the market. The co-existence of the market economy and the “material culture” was already described by Braudel. Braudel 1985, 15–19.

22 Gelderblom and Jonker 2004, 642.

23 Stasavage 2011; Munro 2003; Tracy 1985; North and Weingast 1989; Hoffman, Postel-Vinay, and Rosenthal 1999.

24 Denzel 2008, 51–53; Munro 2003, 514; Fryde and Fryde 1963.

25 For this observation, see Gelderblom and Jonker 2004.

centred around people that have financial reserves at hand to invest, leaving out those people that lived from hand to mouth and depended on credit instruments not so much to invest but to bridge a shortage of cash and to survive.

Thus, the mechanisms that help to accumulate capital are of special interest for economic history. Closely connected to the topic of public debt is that of the functioning of a secondary market for rents or annuities. Here, several micro- and macro-historical studies have approached this topic dealing with different questions like the social background of the buyers and sellers of tradeable financial assets like annuities, the factors of determining the level of interest rates, or the question of capital market integration.<sup>26</sup> Closely connected to the organisation of funded public debt is the emergence of tax systems.<sup>27</sup> The interplay of taxation, possibilities of investment, and inequality has shown that it is worth investigating how rich but also poor people dealt with economic difficulties.<sup>28</sup> Low-scale credits have so far only played a minor role in such considerations.

Another benchmark of growing capital markets is the evolving merchant-banking sector. The exploration of the influence of early banking processes for the economic development established banking history as an independent field of study.<sup>29</sup> The emerging of deposit banking and transfer banking (*giro*) further stimulated the circulation of money and mobilisation of savings.<sup>30</sup> Next to international banking, specialised in money-changing and commerce, local banking developed. Soon, bankers extended their activities and also accepted deposits, created banking currencies and paper money, and were also engaged in the trading of financial instruments. This led to an expansion of lending activities, both in the private and the public sector. Standardised financial systems in modern banking allowed people to overcome the bonds of personal relationship and offered new possibilities of moneylending and of trading financial assets on a secondary market.<sup>31</sup> The credit intermediated by formal institutions, such as banks, continued in various forms until the present day and has received a lot of attention.<sup>32</sup>

More recently, economic historians have turned to study smaller and less formal financial institutions that provided access to credit and reallocated capital. Departing point for this was a study by Philipp Hoffman, Gilles Postel-Vinay, and Jean-Laurent Rosenthal of the role of notaries in Paris in 17<sup>th</sup> and 18<sup>th</sup> century

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26 Chilosi, Schulze, and Volckart 2018, 638 (with further references); Boone, Davids, and Janssens 2003.

27 Van Schaik 2015; Ucendo and Limberger 2012, 2; Isenmann 2012, 516–542.

28 Alfani and Di Tullio 2019; Vries 2020.

29 Usher 1934; De Roover 1948; Cameron 1972; Blomquist 1985; Botticini 2000, 165.

30 Van Bavel 2016, 109–110; Spufford 1988, 255–263.

31 Coffman, Lorandini, and Lorenzini 2018, 2.

32 Signori 2021, 31–34.

France. In Paris, notaries facilitated the reallocation of huge sums on the capital market without the use of modern banks.<sup>33</sup> The findings of the study have shown that in pre-industrial France, and probably in other parts of Europe as well, credit activities were not hampered by a lack of formal institutions (i.e. banks) but instead credit flourished and was intermediated through informal credit institutions. This premodern (and pre-banking age) informal credit proved to be effective and to meet the needs of the people.<sup>34</sup> Moneylending through non-institutional channels was widespread and used both by individuals of all social classes as well as by institutions and businesses for various purposes, ranging from trade, business investments, consumptions to everyday necessities (paying rent, debts, etc.). Most of this credit was privately arranged.<sup>35</sup> Although these informal credit institutions differed quite a lot from formal ones, the former ones were not replaced by the later ones. Quite the contrary, both systems were rather complementary and did not compete with each other.

Traditional forms of moneylending did indeed survive until the 19<sup>th</sup> century and played an important role. Unlike formal credit, these informal credit practices depended on trustworthiness, reputation, and social relations between market participants.<sup>36</sup> In the process, informal credit practices were able to solidify both asymmetrical power relationships and reciprocal obligations. The coexistence of different lending practices has been studied in a broad range of European countries, and it is undisputed that the elements of informal credit practices were not abandoned during the financial revolution but continued to play an important role.<sup>37</sup> Very often, small-scale credit practices belonged to this informal sector. These findings widened our understanding of the functioning of medieval and early modern credit markets and show indeed that the exploration of formal institutions must also include the informal ones.

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33 Hoffman, Postel-Vinay, and Rosenthal 1999; Hoffman, Postel-Vinay, and Rosenthal 2000; Hoffman, Postel-Vinay, and Rosenthal 2019.

34 A definition is given by Coffman, Lorandini, and Lorenzini: “*Informal credit in particular refers to transactions that are not intermediated by operators specialized in matching demand and supply, namely professionals whose specialization was other than this, like for instance notaries, scribes, merchants and even religious institutions.*” Coffman, Lorandini, and Lorenzini 2018, 3–4. See also Botticini 2001, 165; Carboni and Muzzarelli 2004; Van Zanden 2012;

35 However, this does not automatically mean that this credit was personal. Clemens 2008, 9–10; Hoffman, Postel-Vinay, and Rosenthal 1999, 71.

36 Muldrew 1998; Schlumbohm 2007; Signori 2014; Shaw 2018; Skambraks et al. 2020. For an anthropologic view of credit and debt practices, see Lipp 2007; Graeber 2011.

37 Coffman, Lorandini, and Lorenzini 2018, 16.

## Change and Transformation of premodern Credit Markets

The “traditional story” about the development of modern credit markets is centred around the question of the emergence of new financial institutions, like modern corporations, the world’s first stock exchange, or the first central banks, and depicts this development as a transition from a society used to personal money-lending to a society economising in an impersonal and capitalistic way.<sup>38</sup> This assumption has two consequences: first, it is often (implicitly) assumed that economic theory is only applicable for the (modern) capitalistic world. Hence, many scholars dealing with the economic history of premodern Europe do not apply an economic methodological approach because it seems not appropriate for medieval and early modern societies (or rather their sources).<sup>39</sup> Second, the “traditional story” narrows down the choice of the subject matter. If modern financial institutions mattered for economic growth then it would be only logical that—according to this assumption—research concerned with this topic should focus on the financial practices that survived the transition from the premodern to the modern world.<sup>40</sup> This view leaves out institutions that no longer exist and has a nearly exclusive focus on the high finance, that is banking, public debt, and merchant corporations. This issue has been tackled by recent research. Several studies of informal credit institutions have widened our knowledge about premodern financial markets and shown that medieval and early modern credit practices were in use until the 19<sup>th</sup> century.<sup>41</sup> Next to new forms of credit, these traditional credit institutions continued to be used and it seems as if different credit institutions often completed one another.

The narrative of a transition from premodern to modern capital markets certainly seems to be challenged. This may be exemplified by the history of early

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38 This observation has been made in the pioneering works of Hoffman, Postel-Vinay, Rosenthal in their various studies about the French credit markets. Hoffman, Postel-Vinay, and Rosenthal 1999, 69–71 (with references) and especially 91–92. Gelderblom, Jonker, and Kool 2016, 1178.

39 That it can be indeed very fruitful to think about the economic logic of medieval societies is shown by Chris Wickham in an article about the Feudal Economy. He challenged the underlying rules of capitalist economics and instead put forward an argument based on the logic of Feudal mode of production. Wickham 2021, especially page 15.

40 Criticism of this approach is older. Concerning Medieval trade, Kathryn Reyerson pointed out that research has been led by a diachronic approach and economic historians “*searched relentlessly*” for precedents of modern economic institutions in the medieval period. Reyerson 2002, 1–4. Also, Wickham 2021, 15; Gelderblom and Jonker 2004.

41 Gelderblom and Jonker 2004; Coffman, Lorandini, and Lorenzini 2018; Hoffman, Postel-Vinay, and Rosenthal 2019; Skambraks 2021.

European banking. De Roover tried to reconstruct the evolution of banking techniques and identified three categories that existed in the Middle Ages. The first one, merchant-banking, evolved into exchange banking; the second one, money-changing, evolved into deposit and transfer banking; and the third one, pawnbroking, “led to nowhere insofar as banking history is concerned since the service that the pawnbroker provided to impecunious borrowers were for the most part taken over by charitable public institutions”.<sup>42</sup> Indeed, from the supply side of credit—that is the perspective of banks—it may look like pawnbroking and petty lending led to nowhere (although the separation of business activities of medieval banking has been challenged by now).<sup>43</sup> But maybe we should start asking new questions: Could we not understand medieval banking techniques better if we looked at the credit practices used by a vast majority of people instead of the way we had been looking at it as a phenomenon of the development of European banking? Instead of focusing solely on the formal banking institutions, it might be interesting to look at nowadays obsolete credit institutions, like informal credit intermediaries like notaries or booksellers that dealt with financial transactions.<sup>44</sup> Besides, we should ask what people needed and which institutions suited their needs best. Finally, an exploration of credit markets must also include the so-called low finance, that is the everyday financial dealings of small households and businesses.<sup>45</sup>

Financial practices did not stay the same over time. Formal and informal credit practices used to exist along each other with new forms of credit emerging and old forms being adapted to the necessities of the people.<sup>46</sup> This change of credit techniques emerging in premodern credit markets was one of the topics of the conference in Heidelberg in 2019 and in the papers of this book. As several studies have shown, the implementation of new credit instruments could have a major impact on the economic behaviour of societies, as in the case of funded public debt financed through financial instruments like annuities, *renten* but also forced loans. At the same time, other forms of financial instruments could cease to exist.<sup>47</sup> Next to the emergence of new practices, the transformation of existing financial institutions is also of great importance. One example for this is the de-

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42 De Roover 1948, 345–357; De Roover 1974; Blomquist 1985, 522.

43 Blomquist 1985; Botticini 2000; Kusman 2021.

44 Cf. Geldberlom, Jonker, and Kool 2016.

45 Several authors argued that in England changes in the private capital market preceded the financial revolution. Van Zanden, Zijderdijn, and de Moor 2012, 3. Cf. Epstein 2000; Clark 2005;

46 Shaw 2018, 624–625.

47 For example, there were some annuities based on mills and tolls in Hamburg, which disappeared during the 14<sup>th</sup> century. Cf. Baum 1976, 92–93.

velopment of a secondary market where financial assets could be traded.<sup>48</sup> However, the emergence or survival of institutions is not necessarily solely linked to the economic efficiency but can be explained by other factors.<sup>49</sup> Researchers like Laurence Fontaine and Jürgen Schlumbohm have shown that the importance of credit arrangements from a social point of view cannot be overemphasised.<sup>50</sup>

The study of change and transformation offers new insights into the functioning of premodern credit markets, without seeing premodern economies as basically primitive or backwards or—the other extreme—imagining them as more or less modern societies, run by “modern” economic rules.

## Small-scale credit

It is a well-known fact that a large part of the credit dealings in premodern societies did not belong to the big commercial loans of merchant corporations, the financing of public debt, or the financial dealings of the ecclesiastical and secular lords. But unlike the credit practices of the economic and social elites, rather little is known about the credit dealings of other population groups.<sup>51</sup> It is therefore not enough to discuss only the formal credit institutions and instruments (i.e. early banking), exploring small-scale credit practices is equally necessary.<sup>52</sup>

The financial behaviour of the relatively poorer men and women, who depict in premodern Europe the major part of the historical population, is of great importance for the economic wellbeing of a society, and of course is of interest for any economic historian. The so-called “working poor” were the main users of these credits and used them to bridge gaps in their cash flow. One has to keep in mind that until the late 19<sup>th</sup> century, between 25 and 50 per cent of the European population lived in “poverty”.<sup>53</sup> Poor households relied on makeshift solutions

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48 Zuijderduijn 2009, 204–206.

49 Ogilvie 2007; Shaw 2018, 625–626.

50 Fontaine and Schlumbohm 2000; Fontaine 2014.

51 Several studies addressed this problem. Cf. Groebner 1993; Schlumbohm 2007, 7–8; Berthe 2008; Dirlmeier, Fouquet, and Andermann 2009, 197–198; Van Zanden, Zuijderduijn, and de Moor 2012, 3; Signori 2014, 8–9; Skambraks et al. 2020; Signori 2021, 30–32.

52 That financial activity was not restricted to merchants and bankers is shown in various studies within the last few years, cf. for example Ogilvie, Kùpker, and Maegraith 2012.

53 The working or labouring poor were those whose daily labour was necessary for their daily support. Cf. Fontaine and Schlumbohm 2000, 1–2; Deneweth, Gelderblom, and Jonker 2014, 80.

that enabled them to survive and to participate in the economy.<sup>54</sup> One of these solutions, which was not only taken up by the poor, was the access to credit.<sup>55</sup> But small-scale credit was often connected to high transactions costs, which must be covered by the interest rates. This could have several reasons like the lack of—or the inability (because of an absence of secured property rights) to use certain objects as—collateral or information asymmetries. If no collateral could be offered to the creditor, he had to assess the ability of his debtor to repay the loan and monitor his payments.<sup>56</sup> Thus, very often, the contribution of small-scale credit belonged to the informal economy, being embedded in social relations or hierarchical networks that circumvented legal regulations.<sup>57</sup>

Now, what is a small-scale credit? A true definition does not exist and there are several approaches to this topic. For one, very often the size of the credit is related to the monthly wage. Some scholars used the quarterly wage of one year of a labourer as the upper limit for a small-scale credit.<sup>58</sup> Indeed, one could argue that in the Middle Ages, wages were only one part of the overall income of a large part of the population, and it is therefore difficult to put the size of the credit in relation to the salary of a labourer.<sup>59</sup> Another suggestion was put forward by Gabriela Signori, who described small-scale credits with five attributes: small size, short runtime, without collateral, no legally binding purpose of use, and repayment through instalments.<sup>60</sup> Whereas none of these attributes was intrinsic to small-scale credits alone, all these factors are important when analysing the wider financial situation in which loans were taken out.<sup>61</sup>

One problem of studying small-scale credits is a lack of sources. Since the debtors could usually not offer a collateral for these credits, they were usually not recorded like other debts—that is in written contracts—or negotiated in court. Instead, the economic and social lower classes often had to resort to informal credit practices, and small-scale credits can be found more often in other sources, like

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54 Fontaine and Schlumbohm 2000; Tomkins and King 2003; Fontaine 2013; Shaw 2018, 624; Skambraks 2021.

55 The importance of access to credits for large parts of the population, but also public bodies, in the Middle Ages was shown by several publications. Cf. for example Fouquet, von Seggern, and Gilomen 2007; Fouquet and Andermann 2016.

56 Van Zanden, Zuijderduijn, and de Moor 2012, 4; Deneweth, Gelderblom, and Jonker 2014, 81.

57 Shaw 2018.

58 Hagen 2018, 48.

59 Cf. Wickham 2021, 11–16.

60 Signori 2021, 32.

61 For example, to calculate the interest rates actually charged in a methodologically correct way, one needs to know the principal of the sum, the size and payment dates of the instalments, and the runtime of the credit. Bell, Brookes, and Moore 2009.

accounts of the voluntary jurisdiction.<sup>62</sup> It is obvious that small-scale credits differed a lot over time and place. A loan taken out by a relative cannot be compared to the pledging of household items to a pawnbroker for cash. Similar to other credits (business or investment credits) of average size, there were many different ways to acquire petty loans. The mentioned characteristics may help to analyse and understand them better, but the transition from one form to another was a smooth one.

What is to be gained by studying small-scale credits? Most importantly, it broadens our understanding of the economic dealings of pre-modern societies. By integrating the credit activities of a large part of the historical population in the picture, it will help us to study the internal logic of medieval societies and economies. The studying of the financial behaviour of poor households in the Middle Ages and the Early Modern period may uncover new insights concerning economic history, and could offer new hints that help understand some of the big questions, i.e. about inequality or economic development and growth. The extent to which studies of past societies allow statements and comparisons with modern societies is controversial.<sup>63</sup> But understanding the logic—not necessarily the economic logic—of past societies may indeed help to understand historic developments better.<sup>64</sup>

## Research studies across Europe

The studies conducted on small-scale credits in this book represent the richness and variety of this economic practice in pre-modern societies. There was a wide use of different forms of moneylending, which is described in the articles of this book: notarial credit, informal moneylending, pawnbroking, the buying and sel-

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62 Signori 2021, 44.

63 Some authors are in favour of comparing the economic problems in past societies and today. This argument was put forward by Hoffman, Postel-Vinay, and Rosenthal. *“To be sure, the culture of early modern Paris was different, as were Old Regime institutions. But the problems in early modern finance often turn out to be the same as in the modern world [...]”* Hoffman, Postel-Vinay, and Rosenthal 1999, 91. A similar approach is put forward by Denewth, Gelderblom, and Jonker 2014. Of different opinion is Signori: *“Wir sollten die Gegensätze als solche belassen und die Komplexität der städtischen Realität im ausgehenden 15. Jahrhundert nicht quellenfernen Geschichtsbildern opfern. Die spätmittelalterliche Stadt ist weder eine Südseeinsel noch eine industrialisierungsbedingte soziale Problemzone.”* Signori 2021, 50.

64 Ovilgie 2007, 659–661.

ling of annuities, commercial loans, loans offered by charitable institutions (Monti di Pietà), and credits offered by merchant bankers. There are several overarching topics in the book. The first one is a spatial analysis of credit relationships, especially between city and countryside. Another one is the focus on the institutional framework of credit practices, including both formal and informal ones (and sometimes even orally conducted credit). Finally, different credit instruments are examined, showing that historical circumstances had a huge impact on the emergence of specific contract forms.

Gilles Postel-Vinay takes a broader perspective in his introduction by describing the possibilities offered by studying credit. He highlighted the economic reasoning behind historical developments and at the same time warns not to generalise certain results from well-studied regions. Instead, he points in a different direction and refers to unexplored topics in the wide research area of pre-modern credits.

In the contribution of Matthew Frank Stevens, the impact of the colonisation of Wales on the credit market is studied. By describing changes of credit practices in Wales after the English conquest (11<sup>th</sup> to 13<sup>th</sup> century), he is able to present a well-documented case of institutional change that had a big impact on the credit market. The implementation of new forms of credit did not only affect the emergence of a money economy but the Welsh princes' lack of access to credit placed them also at a strategic disadvantage when faced by their English aggressors.

In a micro-historical study, Sven Rabeler reconstructed credit relations in the small town of Kaufbeuren in the 15<sup>th</sup> century. He shows the close entanglement between the citizens and clerical institutions within the credit market of the town. His research suggests two things: first, that annuities were not only used for bigger loans, but also for small-scale credit operations. Second, that parish churches could play an important as credit institutions—an observation very often ignored by research.

The paper from myself is devoted to the exploration of small-scale credit in medieval Tirol. By comparing different sources, court protocols, and notary registers, I show that loans with a small principal were usually not recorded by a notary. But in contrast, the majority of unpaid debts brought to court dealt with small sums. This acts as a reminder to avoid an unwanted selection bias of the sources when studying small-scale credits.

A similar conclusion can be drawn from So Nakaya's paper about credit networks between city and countryside in late medieval Lucca. By using a memorandum, a record book from a wealthy landowner, he describes everyday practices of rural credit relationships between city and countryside, and shows the practice of giving out unsecured smaller loans that depended on many social and economic factors.

The effectiveness of using a vast database and methods such as network analysis is apparent in Benjamin Hitz's article about webs of credit and uses of civil justice in 15<sup>th</sup> century Basel. By using two samples of court records, the author is able to draw remarkable conclusions about the spatial distribution and social power relations of the creditors and debtors in late medieval Basel. This method allows for a better understanding of the relationship between creditor and debtor, and proves that people in 15<sup>th</sup> century Basel definitely had an idea who to ask for credit.

Another unknown chapter of pre-modern credit markets is addressed by Marcella Lorenzini. By studying the participation of women on the financial market in early modern Italy, another perspective is put on an economic sector that has long been dominated by men. That this is a worthwhile undertaking is proven by the results, which allow detailed insights into the vivid capital market of Northern Italy, where female participation in small-scale credits was growing—with all associated economic and social effects.

The different financial services offered by Piedmontese moneylenders in the late medieval Low Countries is the focus of David Kusman's chapter. By studying the commercial strategies of the bankers, the author shows their involvement in credit and money supply for a huge part of the population. The so-called usurious loans were usually recovered within several weeks and thus calculation of interest rate should take the actual runtime of the credit into account. The results suggest that interest rates should be considered anew on a weekly basis. A close reading of the sources allows for a more differentiated picture of their dealings.

The role of the contractual form of credits and investments is the topic of Ulf Christian Ewert's contribution about trading networks, credit, and trust in the German Hanse. Departing point is the problem of a scarcity of money and a lack of capital. Both could be circumvented with the institution of "reciprocal trade", a system of credit transfer that unlike the sophisticated financial instruments that emerged in Italy (*commenda*, *societas maris*, etc.) was not part of a venture capital market. The fundamental differences to the Mediterranean credit system are not so much connected to an anti-credit stance of Hanseatic merchants but can be explained by a path-dependency. This exemplifies the problematic of looking eagerly for forerunners of modern economic institutions.

The question of the transformation of credit practices, from a performative ritual to an impersonal exchange, is addressed by Hannah Robb. By looking at the practices and customs of credit in ecclesiastical courts in 15<sup>th</sup> century England, the author shows that oral contracts were still the norm by that time. There was no clear shift from oral to a written economy at that time, which proves that the co-existence of both oral and written agreements was the most effective means of creating a communal knowledge of the economic activities.

Different strategies of survival of the working poor in late medieval and early modern Italy is the topic of Tanja Skambraks' contribution. The services offered by the Monti di Pietà, ranging from pawnbroking to deposit banking, are analysed. The Monti were one of several credit institutions in the city, and were frequented by a large part of the population. By accepting different types of pawns and also allowing investments of smallest sums, the Monti established a niche in the financial environment, and point to the survival strategies of small households and the working poor.

The research presented in these studies shows that small-scale credit cannot be thought apart from other credit activities. It was a ubiquitous phenomenon that was not restricted to the informal economy or the dealings of the poorer economic spheres of the population. Small-scale credits could be granted in the form of annuities, given orally by relatives, or received against a pledge by pawnbrokers or charitable institutions. In many cases it was the very same institutions that intermediated small-scale credits, which were also engaged in other financial transactions. Pre-modern financial institutions made no clear distinctions between borrowing for investment and borrowing for consumption, probably because it belonged to everyday financial business. The economic (and social) impact of this credit is not to be underestimated. It did help to smoothen consumption and bridge shortcomings in cash for the poorer population. Besides, the credit enabled them to hold savings in financial assets and to participate in the market. This reveals important questions concerning the form credit took in different times and places: what financial services did poor households need and how were their needs satisfied. This might point to the connection between growth and finance.<sup>65</sup>

It emerges from the research carried out that small-scale credit practices were more stable than other financial institutions. Whereas high-finance saw an emergence of new institutions, many financial intermediaries concerned with petty moneylending did not become obsolete in the wake of the financial revolutions: clerical institutions, peer-to-peer moneylending, and pawnbroking still played a crucial role in raising capital in the 18<sup>th</sup> and 19<sup>th</sup> century. This might point to the direction that the needs of poorer households did not change too much over time. However, more research on this topic is necessary before this topic can be settled.

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65 Cf. Deneweth, Gelderblom, and Jonker 2014.

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## References

- Alfani G. and Di Tullio M. 2019. *The Lion's Share. Inequality and the Rise of the Fiscal State in Preindustrial Europe* [= Cambridge Studies in Economic History]. Cambridge: Cambridge University Press.
- Baum H.-P. 1976. *Hochkonjunktur und Wirtschaftskrise im spätmittelalterlichen Hamburg. Hamburger Rentengeschäfte 1371–1410* [= Beiträge zur Geschichte Hamburgs. Herausgegeben vom Verein für hamburgische Geschichte, Band 11]. Hamburg: Hans Christians Verlag.
- Bell A., Brooks C., and Moore T. 2009. "Interest in Medieval Accounts: Examples from England, 1272–1340". *History* 94: 411–433.
- Bell A., Brooks C., and Moore T. 2017. "The non use of Money in the Middle Ages." In *Peter Spufford's Money and its Use in Medieval Europe*. [= Twenty-five Years On. Royal Numismatic Society Special Publication 52], edited by N. Mayhew, 137–151. London: Spink.
- Berthe M. (ed.) 2008. *Endettement Paysan et Crédit Rural dans l'Europe médiévale et moderne*. [= Actes des XVII<sup>es</sup> Journées Internationales d'Histoire de l'Abbaye de Flaran, Septembre 1995]. Toulouse: Presses Universitaires du Mirail.
- Boone M., Davids K., and Janssens P. (eds.) 2003. *Urban Public Debts. Urban Government and the Market for Annuities in Western Europe (14<sup>th</sup>–18<sup>th</sup> Centuries)* [= Studies in European Urban History (1100–1800) 3]. Turnhout: Brepols.
- Blomquist T. 1985. "The Early History of European Banking: Merchants, Bankers, and Lombards of thirteenth-century Lucca in the County of Champagne." *The Journal of Economic History* 14: 521–536.
- Botticini M. 2000. "A Tale of "Benevolent" Governments: Private Credit Markets, Public Finance, and the Role of Jewish Lenders in Medieval and Renaissance Italy." *The Journal of Economic History* 60, no. 1: 164–189.
- Braudel F. 1985. *Sozialgeschichte des 14. Bis 18. Jahrhunderts. Der Alltag*. Translated by Siglinde Summerer, Gerda Kurz, Günter Seib. Munich: Kindler Verlag.
- Cameron R. (ed.) 1972. *Banking and Economic Development. Some Lessons of History*. New York: Oxford University Press.

- Carboni M. and Muzzarelli G. M. (eds.) 2014. *Reti di credito: circuiti informali, impropri, nascosti (secoli XIII–XIX)*. Bologna: Il Mulino.
- Chilosi, Schulze, and Volckart 2018. “Benefits of Empire? Capital Market Integration North and South of the Alps, 1350–1800.” *The Journal of Economic History* 78, no. 3: 637–672.
- Clark G. 2005. “The Interest Rate in the Very Long Run: Institutions, Preferences and Modern Growth.” [Internet] London: Centre for Economic Policy Research (published April 2005). Available at: [https://www.researchgate.net/publication/228426504\\_The\\_interest\\_rate\\_in\\_the\\_very\\_long\\_run\\_institutions\\_preferences\\_and\\_modern\\_growth](https://www.researchgate.net/publication/228426504_The_interest_rate_in_the_very_long_run_institutions_preferences_and_modern_growth) [Accessed 28 July 2021].
- Clemens G. 2008. “Einleitung. Die Omnipräsenz von westeuropäischen Kreditbeziehungen im Mittelalter und Neuzeit.” In *Schuldenlast und Schuldenwert. Kreditnetzwerke in der europäischen Geschichte 1300–1900*, edited by G. Clemens, 9–20. Trier: Kliomedia.
- Coffman D., C. Lorandini, and M. Lorenzini 2018. “Introduction. Formal and Informal Credit Across Europe: A Long-Run Perspective.” In *Financing in Europe. Evolution, Coexistence and Complementarity of Lending Practices from the Middle Ages to Modern Times* [= Palgrave Studies in the History of Finance], edited by M. Lorenzini, C. Lorandini, and D. Coffman, 1–18. eBook: Palgrave Macmillan.
- Denewth H., Gelderblom O., and Jonker J. 2014. “Microfinance and the Decline of Poverty: Evidence from the nineteenth-century Netherlands.” *Journal of Economic Development* 39, no. 1: 79–110.
- Denzel M. 2008. *Das System des bargeldlosen Zahlungsverkehrs europäischer Prägung vom Mittelalter bis 1914*. Stuttgart: Steiner, 2008.
- De Roover R. 1948. *Money, Banking and Credit in Medieval Bruges. Italian Merchant-Bankers, Lombards and Money Changers: A Study in the Origins of Banking*. Cambridge, Ma.: Routledge.
- De Roover R. 1974. “New Interpretations on the History of Banking.” In *Business, banking, and economic thought in late medieval and early modern Europe: Selected studies*, edited by R. de Roover and J. Kirshner, 200–238. Chicago: University of Chicago Press.
- De Soto H. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic Books.
- Dirlmeier U., Fouquet G., and Fuhrmann B. 2009. *Europa im Spätmittelalter 1215–1378* [= Oldenbourg. Grundriss der Geschichte 8]. Munich: R. Oldenbourg.
- Epstein S. R. 2000. *Freedom and Growth. The Rise of States and Markets in Europe, 1300–1750*. London: Routledge.

- Fontaine L. and Schlumbohm J. 2000. "Household Strategies for Survival: An Introduction." *International Review of Social History*, 45, no. 8, 1–17.
- Fontaine L. 2013. "Survivre en temps de crise: Une perspective historique." *Revue Projet*, 336–337, 43–50. <https://doi.org/10.3917/pro.336.0043>.
- Fontaine L. 2014. *Le Marché. Histoire et usage d'une conquête sociale*. Paris: Gallimard.
- Foquet G. and Andermann K. (eds.) 2016. *Zins und Gült. Strukturen des ländlichen Kreditwesens in Spätmittelalter und Frühneuzeit* [= Kraichtaler Kolloquien, Bd. 10]. Pfendorf: Bibliotheca Scademica 2016
- Fouquet G., von Seggern H, and Gilomen H.-J. (eds.) 2007. *Städtische Finanzwirtschaft am Übergang vom Mittelalter zur Frühen Neuzeit* [= Kieler Werkstücke, Reihe E, Beiträge zur Sozial- und Wirtschaftsgeschichte 4]. Frankfurt am Main: Peter Lang.
- Fryde E. B. and Fryde M. M. 1963. "Public Credit, with Special Reference to North-Western Europe." In *The Cambridge Economic History of Europe: III: Economic Organization in the Middle Ages*, edited by M. Postan, E. E. Rich, and E. Miller, 430–553. Cambridge: Cambridge University Press.
- Gelderblom O. and Jonker J. 2004. "Completing a Financial Revolution: The Finance of the Dutch East India Trade and the Rise of the Amsterdam Capital Market, 1595–1612." *The Journal of Economic History* 64, no. 3: 641–672.
- Gelderblom O, Jonker, J. and Kool C. 2016. "Direct finance in the Dutch Golden Age." *Economic History Review* 69, no. 4: 1178–1198.
- Ghosh S. 2017. "Rural Commercialisation in Fourteenth-Century Southern Germany: The Evidence from Scheyern Abbey". *Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte* 104, no. 1: 52–77.
- Ghosh S. 2020. "Rural Commercialization in Southern Germany, c. 1200–c. 1500: Sources, Problems, and Potential". *Mediaeval Studies* 82: 207–274.
- Gilomen H.-J. 2010. "Kredit und Innovation im Spätmittelalter." In *Aufbruch im Mittelalter- Innovationen in der Gesellschaft der Vormoderne. Studien zu Ehren von Rain C. Schwinges*, edited by C. Hesse and K. Oschema, 35–68. Ostfildern: Jan Thorbecke Verlag.
- Graeber D. 2011. *Debts. The First 5,000 Years*. New York: Melville House.
- Greif A. 2006. *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade*. Cambridge: Cambridge University Press.
- Groebner V. 1993. *Ökonomie ohne Haus. Zum Wirtschaften armer Leute in Nürnberg am Ende des 15. Jahrhunderts*. [= Veröffentlichungen des Max-Planck-Instituts für Geschichte 108]. Göttingen: Vandenhoeck and Ruprecht.
- Hatcher J. and Bailey M. 2001. *Modelling the Middle Ages. The History and Theory of England's Economic Development*. Oxford: Oxford University Press.

- Hoffman P., G. Postel-Vinay, and J.-L. Rosenthal 1999. "Information and Economic History: How the Credit Market in Old Regime Paris Forces Us to Rethink the Transition to Capitalism." *The American History Review* 104, no. 1: 69–94.
- Hoffman P., G. Postel-Vinay, and J.-L. Rosenthal 2000. *Priceless Markets: The Political Economy of Credit in Paris, 1660–1780*. Chicago: University of Chicago Press.
- Hoffman P., G. Postel-Vinay, and J.-L. Rosenthal 2019. *Dark Matter Credit. The Development of Peer-to-Peer Lending and Banking in France*. Princeton and Oxford: Princeton University Press.
- Huang A. and Kypta U. 2019. "Europe, c. 1300–1600: Commercialisation and the Market Economy." In *Methods in premodern economic history: case studies from the Holy Roman Empire c.1300–c.1600* [= Palgrave Studies in Economic History], edited by U. Kypta, J. Bruch, and T. Skambraks, 101–104. London: Palgrave Macmillan.
- Isenmann E. 2012. *Die deutsche Stadt im Mittelalter 1150–1550: Stadtgestalt, Recht, Verfassung, Stadregiment, Kirche, Gesellschaft, Wirtschaft*. Vienna und Cologne: Böhlau.
- Köhler S. and T. Skambraks 2019. "Commercial Revolution." In *Methods in premodern economic history: case studies from the Holy Roman Empire c.1300–c.1600* [= Palgrave Studies in Economic History], edited by U. Kypta, J. Bruch, and T. Skambraks, 22–24. London: Palgrave Macmillan.
- Köster R. 2020. *Einführung in die Wirtschaftsgeschichte. Theorien, Methoden, Themen*. Paderborn: Ferdinand Schöningh.
- Kuske B. 1956. "Die Entstehung der Kreditwirtschaft und des Kapitalverkehrs." In Bruno Kuske. *Köln, der Rhein und das Reich. Beiträge aus fünf Jahrzehnten wirtschaftsgeschichtlicher Forschung*. Cologne/Graz: Böhlau, 48–137 [published for the first time in Fritz Beckmann, Karl Diehl, Bruno Kuske, Alfred Müller, and Joseph Schumpeter. 1927. *Die Kreditwirtschaft*, vol. 1 [= Kölner Vorträge 1], 1–79. Leipzig: Gloekner].
- Kusman D. 2021. "High Finance, Banking and Small-Scale Moneylending: A new Trinity of Financial Functions for Lombards in the Late-Medieval Low Countries?" In *Change and Transformation of Pre-Modern Credit Markets. The Importance of Small-Scale Credits*, edited by S. Nicolussi-Köhler, 225–260. Heidelberg: Heidelberg University Publishing.
- Kypta U. 2021. "How to Study the Premodern Market: The Concept of Market Exchange." In *Markets and their Actors in the Late Middle Ages*, edited by T. Skambraks, J. Bruch, and U. Kypta, 7–26. Berlin and Boston: De Gruyter.

- Levine R. 2005. "Finance and Growth: Theory, Mechanisms and Evidence." In *Handbook of Economic Growth*, edited by P. Aghion and S. Durlauf, 865–934. Amsterdam: North Holland.
- Lipp C. 2007. "Aspekte der mikrohistorischen und kulturanthropologischen Kreditforschung." In *Soziale Praxis des Kredits. 16.–20. Jahrhundert* [= Veröffentlichungen der Historischen Kommission für Niedersachsen und Bremen 238], edited by J. Schlumbohm, 15–36. Hannover: Hahnsche Buchhandlung Hannover.
- Lopez R. 1976. *The Commercial Revolution of the Middle Ages. 950–1350*, Cambridge: Cambridge University Press.
- Muldrew C. 1998. *The Economy of Obligation. The Culture of Credit and Social Relations in Early Modern England*. Hampshire: Palgrave.
- Munro J. 2003. "The Medieval Origins of the Financial Revolution: Usury, Rentes, and Negotiability." *The International History Review* 25, no. 3: 505–562.
- Neu T. 2019. "Geld gebrauchen. Frühneuzeitliche Finanz-, Kredit- und Geldgeschichte in praxeologischer Perspektive". *Historische Anthropologie* 27, no. 1: 75–103.
- North D. C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- North, D. C. and Weingast, B. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." *Journal of Economic History* 49, no. 4: 803–32.
- Ogilvie S. 2007. "Whatever Is, Is Right? Economic Institutions in Pre-Industrial Europe." *The Economic History Review* 60, no. 4: 649–684.
- Ogilvie S., Küpke M., and Maegraith J. 2012. "Household Debt in Early Modern Germany: Evidence from Personal Inventories." *The Journal of Economic History* 72, no. 1: 134–167.
- Reyerson K. 2002. *The Art of the Deal. Intermediaries of Trade in Medieval Montpellier*. Leiden, Boston, and Cologne: Brill.
- Schlumbohm J. 2007. "Zur Einführung." In *Soziale Praxis des Kredits. 16.–20. Jahrhundert* [= Veröffentlichungen der Historischen Kommission für Niedersachsen und Bremen 238], edited by J. Schlumbohm, 7–14. Hannover: Hahnsche Buchhandlung Hannover.
- Schuster P. 2008. "The Age of Debt? Private Schulden in der spätmittelalterlichen Gesellschaft." In *Schuldenlast und Schuldenwert. Kreditnetzwerke in der europäischen Geschichte 1300–1900*, edited by G. Clemens, 37–52. Trier: Kliomedien.
- Shaw J. E. 2018. "The Informal Economy of Credit in Early Modern Venice." *The Historical Journal* 61, no 3: 623–642.

- Signori G. 2015. "Einleitung." In *Prekäre Ökonomien. Schulden in Spätmittelalter und Früher Neuzeit*, edited by G. Signori, 7–16. Constance and Munich: UVK Verlagsgesellschaft.
- Signori G. 2021. "Kleinkredite im städtischen Wirtschaftsleben des ausgehenden 15. Jahrhunderts." *Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte* 108, no. 1: 30–56.
- Skambraks T. 2021. *Monti di Pietà, franziskanische Wirtschaftsethik und städtische Sozialpolitik in Italien (15. und 16. Jahrhundert)*. Unprinted habilitation thesis. University of Mannheim.
- Skambraks T., Köhler S., Kehnel A., Kümper H., Gussone M., and Schniggen-diller M. 2020. "Kleinkredit und Marktteilhabe in der Vormoderne: Projekt-design." *Mannheim Working Papers in Premodern Economic History* 1: 1–12.
- Spufford P. 1988. *Money and its use in Medieval Europe*. Cambridge: Cambridge University Press.
- Stasavage D. 2011. *States of Credit. Size, Power, and the Development of European Polities*. Princeton and Oxford: Princeton University Press.
- Tomkins A. and King S. (eds.) 2003. *The poor in England 1700–1850: An economy of makeshifts*. Manchester and New York: Manchester University Press.
- Tracy J. D. 1985. *A Financial Revolution in the Habsburg Netherlands. Renten and Renteniers in the County of Holland, 1515–1565*. Berkeley: University of California Press.
- Ucendo J. I. A. and Limberger M. 2012. "Introduction." In *Taxation and Debt in the Early Modern City*, edited by J. I. A. Ucendo and M. Limberger, 1–12. London and New York: Routledge.
- Usher A. P. 1934. "The Origins of Banking: The Primitive Bank of Deposit, 1200–1600." *The Economic History Review* 4, no. 4: 399–428.
- Van Bavel B. 2011 "Markets for Land, Labor, and Capital in Northern Italy and the Low Countries, Twelfth to Seventeenth Centuries." *The Journal of Interdisciplinary History* 41, no. 4: 503–531.
- Van Bavel B. 2016. *The Invisible Hand? How Market Economies Have Emerged and Declined Since AD 500*. Oxford: Oxford University Press.
- Van Schaik R. (ed.) 2015. *Economies, Public Finances, and the Impact of Institutional Changes in Interregional Perspective. The Low Countries and Neighbouring German Territories (14<sup>th</sup>–17<sup>th</sup> Centuries)* [= *Studies in European Urban History (1100–1800)* 36]. Turnhout: Brepols.
- Van Zanden J., Zuijderduijn J., and De Moor T. 2012. "Small Is Beautiful: The Efficiency of Credit Markets in the Late Medieval Holland." *European Review of Economic History* 16: 3–22.

- Vries P. 2020. Review: Alfani, Guido/Matteo Di Tullio, *The Lion's Share. Inequality and the Rise of the Fiscal State in Preindustrial Europe* (Cambridge Studies in Economic History), Cambridge [u.a.] 2019, Cambridge University Press, XII u. 232 S., £ 31,99. *Zeitschrift für Historische Forschung* 47, no. 4: 62–63.
- Wickham C. 2021. “How did the Feudal Economy Work? The Economic Logic of Medieval Societies.” *Past and Present* 251: 3–40.
- Zuijderduijn J. 2009. *Medieval Capital Markets. Markets for Renten, State Formation and Private Investment in Holland (1300–1550)*. Leiden and Boston: Brill.