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# Credit without banks: the Amsterdam water bailiff's ledger of 1856

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Before banks rose to dominate credit markets, ordinary people raised credit themselves or through alternative intermediaries. However, obtaining a comprehensive overview of the size and functioning of the non-bank segments within the credit market has been a great challenge for historians. Notarial deeds are widely available, but typically shed light on the borrowing of relatively well-to-do members of society. Probate inventories and insolvency records do provide insight into the modest loans of ordinary people, but only haphazardly and not for the overall stock of loans. This article exploits an exogenous shock, the Discipline Act introduced in the Netherlands in 1856, which forced lenders to record all unredeemed loans they had provided to a particular group of borrowers: seafarers. The *c*.14,000 loans that were recorded, in combination with several additional sources, provide a unique insight into the overall size, composition and functioning of a particular segment of the non-bank credit market.

Keywords: non-bank credit, loans, seafarers, Amsterdam, nineteenth century

JEL classification: N24, N34, N74, N84

Ι

Credit fulfils an important role in society as it allows people to use future revenues to purchase goods and services in the present. Banks play a major role in bringing together demand and supply on present-day credit markets, but prior to World War II they only served a small, elite clientele. This did not mean, though, that credit markets and financial intermediation for ordinary people were absent or underdeveloped. In the footsteps of Muldrew, for instance, it has now been well established that people could accomplish quite a lot themselves (Muldrew 1998; Finn 2003; Ogilvie, Kükpker and Maegraith 2012; Fontaine 2014; Van Bochove and Kole 2014). Inspired by the work of Hoffman, Postel-Vinay and Rosenthal, it has likewise

C. van Bochove (corresponding author), Department of History, Radboud University Nijmegen, P.O. Box 9103, 6500 HD Nijmegen (Netherlands); email: C.vanBochove@let.ru.nl. D. Verwaaij, Department of History, Radboud University Nijmegen. This article is partially based on the BA thesis of one of the authors. We are grateful to two anonymous referees for helpful comments and suggestions. We would also like to thank Harm Kaal and Marja Goud for their help with getting access to some primary and secondary sources. The usual disclaimer applies. become clear that alternative intermediaries were available when necessary (Hoffman, Postel-Vinay and Rosenthal 2000; Levy 2012; Van Bochove and Van Velzen 2014). However, obtaining a comprehensive overview of the size and functioning of the non-bank segments of the credit market has been a great challenge for historians. They have therefore often turned to notarial archives as these have frequently been preserved fairly completely, but processing notarial deeds is very labour intensive.<sup>1</sup> A further disadvantage of notarial deeds is that they only provide information about new loans granted to relatively well-to-do members of society. Probate inventories and insolvency records, on the other hand, do provide insight into the modest loans of ordinary people, but only haphazardly and not for the overall stock of loans (Willems 2009; Van Bochove and Kole 2014). It consequently remains unclear how large the non-bank credit markets for ordinary people actually were.

This article exploits an exogenous shock, a law introduced in the Netherlands in 1856 (the Discipline Act or *Tuchtwet*), which forced lenders to record all unredeemed loans they had provided to a particular group of borrowers: seafarers.<sup>2</sup> Seafarers were an important group around the globe: they were numerous;<sup>3</sup> they provided a vital contribution to trade and hence the economy; and as wages were only paid after a journey they were always in need of credit. The Discipline Act forbade lenders from collecting the wages of seafarers as redemption payments, as borrowers had until then allowed them to do. The Act also stipulated that all unredeemed loans had to be registered in a government ledger. As unregistered loans would become void, this incentivised lenders to record all unredeemed loans. This article uses the ledger from the city of Amsterdam, which at around this time was one of the three largest ports in Europe (Aerts 2006, p. 28),<sup>4</sup> to provide a unique snapshot of the

<sup>&</sup>lt;sup>1</sup> Hoffman, Postel-Vinay and Rosenthal 2000 could only carry out their groundbreaking work because they were able to rely on registers that summarised their notarial deeds. This did not apply to other parts of Europe, so that comprehensive work there had to rely on sample years. See Gelderblom, Hup and Jonker 2018; Lorenzini 2018.

<sup>&</sup>lt;sup>2</sup> 'Wet van den 7den mei 1856, houdende bepalingen omtrent de huishouding en tucht op de koopvaardijschepen' (*Staatsblad van het Koningrijk der Nederlanden* 32); Amsterdam City Archive, Archief van de Waterschout (entry no. 38) (henceforth ACA, Waterschout), inv. no. 178.

<sup>&</sup>lt;sup>3</sup> Whilst the available sources show that an average of 2,153 ships left the Amsterdam port each year between 1840 and 1856, they do not provide a breakdown of these departures by destination. However, with manning ratios of 6, 20 and 40 on destinations within Europa, Africa and the West Indies, and the East Indies respectively, this most likely meant that 15,000 to 20,000 seafarers departed annually from Amsterdam. This is quite a considerable number given that Amsterdam was home to about 220,000 people at the time. See *Handelingen der Staten-Generaal*, 1841-2, pp. 626, 631; 1842–3, pp. 1585, 1590; 1843–4, pp. 714, 719; 1844–5, pp. 1245, 1250; 1845–6, pp. 691, 696; *Algemeen Handelsblad*, 13 August 1847; *Statistisch Jaarboek der Gemeente Amsterdam* II, p. 152; Van Leeuwen and Oeppen 1993, p. 87; Van Lottum 2007, p. 212.

<sup>&</sup>lt;sup>4</sup> The Amsterdam ledger seems to be the only one that has survived. For the northern provinces (i.e. Friesland, Groningen, Drenthe and Overijssel) this is based on data kindly provided by Dr Jur Leinenga (p.c.). For the western provinces (i.e. Noord-Holland, Zuid-Holland and Zeeland) this is based on the online archival inventories.

overall size and composition of a particular segment of the non-bank credit market.<sup>5</sup> Using address books, seafarers' original IOUs, newspaper advertisements, petitions, minutes of parliamentary meetings and the population register, this article also provides deeper insight into the functioning of this part of the credit market. The combination of all sources, moreover, makes it possible to estimate the total number of new loans provided annually during the period 1839–52.

These sources demonstrate that lenders provided 2,000 to 4,000 new loans each year between 1839 and 1852. In July 1856, at the time that the 443-page ledger was assembled, a total of 13,708 small and medium-sized loans were fully or partially unredeemed. Together they amounted to a sum of around 416,000 guilders, or almost 21,000 monthly wages of a sailor.<sup>6</sup> A substantial part of this was provided by a relatively small group of specialised shopkeepers and boarding-house keepers, the infamous crimps of the sailor-town literature. While their vital role as providers of credit has been recognised in prior literature, little is actually known about their credit operations (Hugill 1967; Bruijn 1977, 1978; Fingard 1978, 1980; Dixon 1984; Muldrew 1998; Finn 2003; Gamber 2007; Van Rossum 2008; Landheer 2013; Fontaine 2014; Van Bochove 2014; Milne 2016; Morris and Cozens 2017; Hell 2017). The literature that focused on the shopping landscape and the products that shopkeepers sold also paid little attention to the credit that shopkeepers provided in the process of selling their goods (Lesger 2013; Furnée and Lesger 2014). Moreover, the literature that focused on consumer credit primarily looked at the innovations introduced during the nineteenth and twentieth centuries (such as instalment credit, check trading and the credit card) rather than on the use of shop credit. Those publications that did focus on shop credit did not have data with a sufficient amount of detail as compared to what is available for mid-nineteenth-century Amsterdam.<sup>7</sup> This article thus contributes not only to the literature on non-bank credit markets, but also to the literature on shopkeepers and boarding-house keepers and their role as a source of credit.

The article proceeds as follows. Section II introduces the credit market for seafarers and the Discipline Act. It also discusses the ledger in which all unredeemed loans were registered. Section III then analyses the unredeemed loans recorded in this ledger. Section IV zooms in on the lenders and Section V focuses on one individual, Cas

<sup>&</sup>lt;sup>5</sup> This article hence also contributes to the literature on Amsterdam's financial market, which primarily focuses on the world of high finance and the credit provided by banks to their small, elite clientele. See, for instance, Jonker 1996.

<sup>&</sup>lt;sup>6</sup> Muster rolls from the years 1836–8 (Van Bochove, Van Lottum and Mourits 2016) and 1841–4, 1852 (ACA, Waterschout, inv. no. 152) demonstrate that during the period prior to the Discipline Act the default wage for a sailor was 20 guilders.

 <sup>&</sup>lt;sup>7</sup> For consumer credit, see Olney 1991; Gelpi and Julien-Labruyère 2000; O'Connell 2009; Albert 2012; Easterly 2008, 2009. For (the continued use of) shop credit, see Johnson 1985; Kent 1994; Olney 1998; Willems 2009; Laferté, Avanza, Fontaine and Penissat 2010; Logemann and Spiekermann 2010; Logemann 2012; Lluch 2016.

Spijker: the most important lender found in the ledger. Section VI extrapolates from Spijker to the overall market and Section VII summarises and concludes.

#### Π

During the two decades prior to 1856 some 1,900 to 2,300 ships departed from the port of Amsterdam each year.<sup>8</sup> Many of the seafarers who sailed on these ships depended on credit to pay for board and lodging, to purchase shipping gear, and to buy goods for personal and household use as well as for private trade. Already during the early modern period seafarers in the Netherlands had discovered that they could use their future wages for obtaining that credit. By allowing the party responsible for the monitoring of their wage payments to withhold specified sums of money and to use these to make redemption payments to their lenders (and to record those on the IOUs), seafarers managed to effectively secure their loans. A municipal official who was present when seafarers were mustered and discharged, the so-called water bailiff (*waterschout*), was responsible for performing this task. The archival sources demonstrate that this official supported a lively credit market for seafarers (Van Bochove, Van Lottum and Mourits 2016; Blakemore 2017).<sup>9</sup>

The Discipline Act changed all this, however, as it prohibited the water bailiff henceforth from serving the interests of borrowers and lenders. The Act was introduced by the Dutch parliament in 1856 to address an issue unrelated to credit markets: the increasing desertion of seafarers on Dutch ships, who were lured away in foreign ports by wages that were driven up by the gold rushes in California and Australia.<sup>10</sup> To give captains and shipping companies more instruments to combat desertion and counteract its costs, lawmakers deemed it necessary to abolish the common practice of making wage payments to lenders (article 21). By no longer making these redemption payments, direct wage payments to seafarers would increase and this would enable captains and shipping companies to recoup a larger part of the costs of hiring more expensive crews abroad. Although the draft Act was intended to cover all loans, major lenders from Amsterdam and Rotterdam - through the common practice of petitioning parliament - as well as members of parliament insisted that changing the law without transitional arrangements would be unreasonable. The Minister of Justice agreed with them and the final Act therefore exempted as yet unredeemed loans. This only applied, however, when lenders registered these loans before a set date in a ledger with the local water bailiff. This not only provided

<sup>&</sup>lt;sup>8</sup> Van Bochove 2014, n. 39; Algemeen Handelsblad, 13 August 1847.

<sup>&</sup>lt;sup>9</sup> During the seventeenth and eighteenth centuries the cashiers of the Dutch East India Company carried out this task for those sailing to Asia. See Van Bochove and Van Velzen 2014.

<sup>&</sup>lt;sup>10</sup> Those who lobbied in favour of the Discipline Act did not intend to take over lending from shop-keepers and boarding-house keepers. Van Bochove 2014 showed, moreover, that even after the introduction of the Discipline Act, lending to seafarers continued to be dominated by these traditional lenders.

a good solution to the antedating of loans, but as unregistered loans became void it also ensured that lenders had good reason to use the ledger (Bik and Roos 1995; Schuman 1995).<sup>11</sup>

The Discipline Act prescribed that lenders had to present their unredeemed IOUs to the water bailiffs during the month of July 1856. In Amsterdam, the water bailiff's office was located in the Schreierstoren in the middle of one of the seafarers' quarters and it was open for registering IOUs six days per week. On one occasion, clerks even worked overtime on a Sunday; presumably because the company of H. Lond, one of the largest lenders in town, had delivered its 1,314 unredeemed IOUs the day before and they did not want to start the new week with such a backlog. For every single IOU the clerks recorded basic information: the date on which it was entered into the ledger, the names of lender and borrower, the date of the (last repayment on the) loan and the unredeemed amount. Thus, the ledger did not contain the original IOUs, did not include information on borrowers' nationalities and destinations, and did not make a distinction between loans on which repayments had and had not been made. The clerks typically entered lenders' IOUs consecutively during a single day, but there existed two exceptions to this. First, a few lenders appeared on more than one day, but the first of their appearances was numerically always most important by far. This suggests that lenders typically managed their accounts well, but that a few IOUs were sometimes misplaced (but recovered just in time to be registered in the ledger). Second, in a few instances the loans recorded by one lender were interspersed with some loans of another lender. This suggests that lenders either presented loans on behalf of others or that they had purchased such loans on the secondary market.<sup>12</sup>

The wide variety of lenders and the large number of loans they presented for registration in the ledger confirm that the incentive to register was indeed strong. The ledger not only contains large lenders, but also many small and medium-sized ones who made the effort to register just one (n = 74) or only a handful of IOUs rather than write them off. The ledger likewise contains active lenders (i.e. 119 persons who presented IOUs 'dated' 1856) as well as inactive ones (i.e. 47 persons with IOUs 'dated' 1851 or earlier). The background of lenders, moreover, was diverse: the ledger not only included shopkeepers and boarding-house keepers (see below), but also three ship's captains, seven shipping companies, an unmarried woman and 31 widows.

<sup>&</sup>lt;sup>11</sup> For the House of Representatives, see *Handelingen der Tweede Kamer*, 1854 (29 November), 1855 (8, 21 May; 16, 18–19 June; 20 September; 3 October; 7 November; 1, 12 December) and 1856 (5, 7, 14–15, 21 February; 3, 5, 7 March; 3, 8, 11–15 April; 19 September). For the Senate, see *Handelingen der Eerste Kamer*, 1856 (29 April; 2, 6 May). 'Wet van den 7den mei 1856, houdende bepalingen omtrent de huishouding en tucht op de koopvaardijschepen' (*Staatsblad van het Koningrijk der Nederlanden* 32); 'Circulaire van den Minister van Justitie van den 3 Isten Mei 1856, no. 120, nopens de rigtige uitvoering der wet, houdende bepalingen omtrent de huishouding en tucht op de koopvaardijschepen' (*Bijvoegsel tot het Staatsblad van het Koningrijk der Nederlanden* 122). See also the brochure (Van Hasselt 1856) and dissertation (Van der Leeuw 1857) that were published about the Discipline Act.

<sup>&</sup>lt;sup>12</sup> For the transfer of an IOU, see ACA, Waterschout, inv. no. 171 (scan 329).

The water bailiff's ledger is thus a rich source, but before proceeding to the analysis it needs to be considered whether lenders withheld credit and pushed for repayments once lawmakers started debating the Discipline Act. There are several reasons for believing this was not the case. Advertisements and reports in newspapers show, for instance, that lenders in Rotterdam and Amsterdam united and protested against the Discipline Act rather late. While parliamentary debate took off in May 1855, these lenders only gathered on 19 February and 3 March 1856 respectively and decided, in line with the centuries-old Dutch tradition of submitting petitions to lawmakers, to petition parliament. It is worth noting that shopkeepers and boardinghouse keepers petitioned many months after the captains (December 1855 to February 1856) as well as the Chambers of Commerce (May and June 1855), who both primarily focused on the Act's articles unrelated to credit.<sup>13</sup> That lenders put the Discipline Act high on their agendas relatively late suggests that they had either been unaware of the ongoing parliamentary debates or that they expected lawmakers to develop a transitional arrangement after being petitioned with reasonable arguments. Regardless of which was the case, lending strategies would not or only very briefly have been adjusted because the Minister of Justice already sympathised with the petitioners in parliament on 15 April.<sup>14</sup> The 1856 ledger thus provides an encompassing overview of the credit market for seafarers as it existed when the Discipline Act became effective.<sup>15</sup>

## Π

During the month of July 1856 a group of 252 lenders presented 13,708 IOUs, amounting to around 416,000 guilders, for registration in the water bailiff's ledger. IOUs that survived in the estates of deceased seafarers, which were settled by the water bailiff, show that these were handwritten contracts as well as pre-printed forms. Large lenders typically relied on forms that also pre-printed their names and smaller lenders used forms to which they added their names by hand.<sup>16</sup> At least

- <sup>13</sup> For the newspapers, see Algemeen Handelsblad, 21 February 1856, 1 March 1856, 3 March 1856 and 5 March 1856; De Tijd, 22 February 1856; Nieuwe Rotterdamsche Courant, 5 March 1856; Utrechtsche Provinciale en Stads-Courant, 5 March 1856. For the petitions, see Dutch National Archive, Archief van de Tweede Kamer der Staten-Generaal, 1815–1945 (entry no. 2.02.22), inv. nos. 1067 (nos. 419, 482), 1068 (no. 29), 1069 (nos. 233–7, 315, 364), 1070 (nos. 479–81, 537) and 1071 (nos. 712, 733, 743).
- <sup>14</sup> Handelingen der Tweede Kamer, 1856 (15 April).
- <sup>15</sup> Even if some had in fact briefly reduced lending, this would merely strengthen the point made here that Amsterdam's market for seafarer loans was substantial.
- <sup>16</sup> ACA, Waterschout, inv. nos. 156–71. The estates also contain pre-printed IOUs from Dordrecht, Middelburg, Purmerend and Rotterdam. This suggests that, whilst port size and the sophistication of local financial markets may have favoured credit markets for seafarers in Amsterdam and Rotterdam, they also developed in the second- and third-rank Dutch ports. See *Handelingen der Staten-Generaal*, 1839–40, pp. 294–5; 1840–1, p. 1195; 1841–2, p. 625; 1842–3, p. 1584; 1843–4, p. 713; 1844–5, p. 1244; 1845–6, p. 690; *Statistisch Jaarboek der Gemeente Amsterdam* II, p.157; Jonker 1996.

one of the large lenders, Cas Spijker, also kept account books and provided receipts for the goods that seafarers purchased.<sup>17</sup> The IOU was pivotal, however, as it had to be presented to the water bailiff to collect wage payments and to record repayments on.

Four characteristics of the IOUs deserve mentioning. First, specifications of the goods and services that were received on credit are usually absent.<sup>18</sup> Though the occupation of the lender is sometimes mentioned on the IOU, it can also be retrieved from additional sources. This way some insight can still be obtained about the goods and services involved (see Section IV). Second, loan repayments were contingent on the ship's safe journey (*behouden reis*) and the interest rate was implicit. Lenders added a premium – 10, 15 and 20 per cent seem to have been common – to the value of the goods and services that they provided.<sup>19</sup> Third, new loans were not always recorded on a new IOU. While Cas Spijker did document his 1839 and 1841 loans to Jonas Aberg on two separate forms, it was not uncommon to add new loans on the reverse of an IOU after an initial repayment. In one such case, a seafarer's wife purchased additional goods on credit – including children's shoes (*kinder schoenen*) – on three occasions while her husband was at sea.<sup>20</sup> Fourth, full or partial repayments were recorded on the IOU and signed for by the lender and water bailiff. The latter also recorded these payments in his account books.<sup>21</sup>

After a seafarer returned to port his wages were used to repay his lenders.<sup>22</sup> When he had earned enough he repaid his lenders in full, but in many cases lenders received a partial payment in proportion to the size of their loans. Unredeemed sums were deferred to a future journey and then took priority over the more recent loans a seafarer might have contracted for that new journey. When subsequent payments were not made or when again they did not suffice, loans eventually ended up in the water

- <sup>18</sup> For exceptions, see ACA, Waterschout, inv. no. 171 (scans 285, 311, 539).
- <sup>19</sup> Van Bochove 2014; ACA, Waterschout, inv.nos. 158 (scans 55, 342, 875), 159 (scans 453, 459, 578, 678, 732), 159 (scan 772), 169 (scans 170, 535, 659, 867, 978) and 171 (scans 310, 539, 708). As actual interest rates depended on seafarers' repayment schedules they thus differed from one seafarer to another. Establishing them systematically is impossible, however, because premiums were infrequently recorded on IOUs and because the IOUs in seafarers' estates were hardly ever repaid in full. See Van Bochove 2014 on interest rates on seafarer loans during the eighteenth century.
- <sup>20</sup> ACA, Waterschout, inv. nos. 159 (scans 549, 550, 555, 556) and 171 (scans 60, 62, 78, 713, 714).
- <sup>21</sup> ACA, Waterschout, inv. nos. 172-7.
- <sup>22</sup> Acting against the safe journey clause in the IOUs, the water bailiff had resorted to also making repayments from unclaimed estates of deceased seafarers. In these instances the lenders usually guaranteed to reimburse these sums in case inheritors presented themselves. The debts of Carl Eriksen are a good example of the practice. During his service Eriksen earned 120 guilders of which he pocketed 65 himself. Adding the proceeds of auctioning his possessions (60.95 guilders) and subtracting a contribution to the benevolent society *Zeemanshoop* (3 guilders), a sum of 112.95 guilders remained for repaying debts totalling 231.57 guilders to his four lenders. In situations like this lenders accepted that this final payment settled the seafarer's debt. ACA, Waterschout, inv.nos. 171 (scans 222–4) and 175 (scan 100). This practice was also common at the Dutch East India Company. See Van Bochove, Milo and Van Velzen 2018.

<sup>&</sup>lt;sup>17</sup> ACA, Waterschout, inv. no. 171 (scans 670, 763).

bailiff's ledger of July 1856. This is, for instance, why prominent lender J. W. van Recken registered a debt of 18.65 guilders that seafarer J. Butter had owed him since May 1840. The water bailiff's account books contain evidence of this: on 11 May 1840 Butter paid half of the 37.30 guilders that he owed Van Recken, leaving 18.65 guilders for later journeys. Additional payments never took place, however, and Van Recken duly registered the unredeemed amount in the 1856 ledger. Scribbles in this ledger sometimes refer to these past partial payments as 'last payment' (*laast voldaan*) and 'remaining' (*rest*).<sup>23</sup> The 1856 ledger thus contains a mix of such old, non-performing loans as well as many recent loans on which repayments had not yet been made.

Except for the heterogeneous names of borrowers, all information in the water bailiff's ledger was entered into a database.<sup>24</sup> While the unredeemed amount was recorded for all but one IOU, the date of the (last repayment on the) loan was included less meticulously. For a large majority of the IOUs (75.7 per cent) the date was complete, but a substantial share of the entries (20.5 per cent) did not contain a day. The phenomenon was driven largely by the IOUs registered by a few prominent lenders. In the case of W. P. Kohl (424 out of 425 IOUs) days were often not recorded on his IOUs that survived in the estates of deceased seafarers. However, H. Lond (1,312 out of 1,314 IOUs), J. W. van Recken (296 out of 302 IOUs) and W. G. Fiege (187 out of 187 IOUs) typically recorded full dates on their IOUs. In these cases the water bailiff's clerks were most likely responsible for not copying the day recorded on the IOUs.<sup>25</sup> For an additional 2.2 per cent of the IOUs the year was available, but not the day and month. Only 1.5 per cent of the IOUs could not be assigned to a specific year, but as the temporal analysis below focuses on the year of the (last repayment on the) loan, this fraction is negligible.

Figure 1 shows the distribution of the years of the (last repayment on the) loans registered in the water bailiff's ledger. The substantial number of recent years was driven by loans made in 1855 and 1856 on which no, or only partial, repayments had been made as well as by first and subsequent repayments on older loans. The distribution's relatively long and decreasing tail also shows, however, that repayments had not recently been made on many other older loans. That numerous (last repayments on) loans were made more than five years before the ledger was put together suggests that a fair share of the new loans provided each year to seafarers (see below) performed poorly. It is important to realise, however, that lenders undoubtedly

<sup>&</sup>lt;sup>23</sup> ACA, Waterschout, inv. nos. 172 (scan 80) and 178 (scans 90, 150).

<sup>&</sup>lt;sup>24</sup> The database will be deposited at DANS (https://easy.dans.knaw.nl).

<sup>&</sup>lt;sup>25</sup> For Kohl, see ACA, Waterschout, inv. nos. 169 (scans 288, 314, 879, 902) and 171 (scans 337, 656, 665, 715). For Lond, see inv. nos. 169 (scans 64, 143, 217, 562, 576, 611, 615, 642, 689, 718, 767, 786, 798, 923, 940) and 171 (scans 20, 55–6, 60, 151, 417, 691). For Van Recken (who also spelled his name as Von Reeken), see inv. nos. 169 (scans 430, 486, 556, 640, 692, 982) and 171 (scans 153, 284, 323, 377, 419, 480, 541, 584, 598). For Fiege, see inv. nos. 169 (scan 379) and 171 (scan 667).

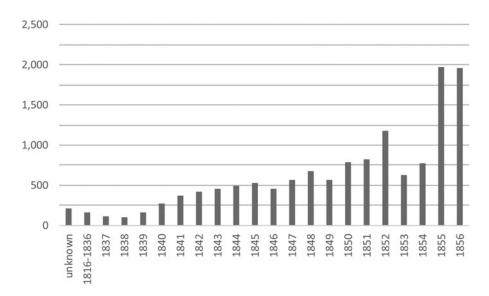


Figure 1. The years of the (last repayment on) loans Source: Database register waterschout.

anticipated on (partial) defaults when choosing their premiums and setting the pricequality ratio of their goods and services.

Figure 2 builds on Figure 1 by showing percentile distributions of the unredeemed amounts. A straightforward interpretation of the data is complicated, as the ledger combined loans on which no repayments had been made with loans that were partially repaid. The 50th and 95th percentiles of each year group are nevertheless helpful for shedding light on the credit market for seafarers. The 95th percentile, for instance, will mainly have consisted of large loans on which no repayments had been made. The fact that the corresponding values for old as well as recent loans did not typically exceed 90 guilders is illustrative. Some loans were of course larger, but usually not by much: only 66 of the unredeemed amounts were for 200 guilders or more and only two of them exceeded 600 guilders (i.e. one for 1,030 guilders and one for 1,800 guilders). These values suggest that while IOUs did not usually exceed 200 guilders, most of them will have been smaller than 90 guilders. The 50th percentile, in turn, gives an impression of the lower bound of the value of new IOUs because loans below the 50th percentile will have consisted disproportionately of partially repaid loans. The modest U-shaped pattern of the 50th percentile is consistent with this as it points to the presence of relatively many fully unredeemed loans among older (because fewer partially repaid loans would still be included) and more recent dates (because full and partial repayments had not yet been made). Figure 2 hence suggests that new seafarer loans most likely ranged between 20 and 90

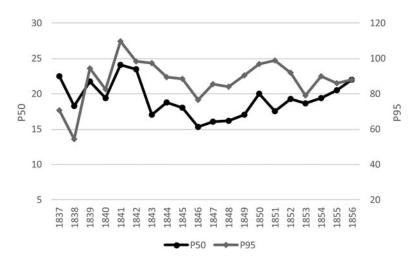


Figure 2. The percentile distribution of the (remaining) loan values by year of the (last repayment on the) loan (in guilders)

Source: Database register waterschout.

guilders.<sup>26</sup> These modest loan sizes notwithstanding, the credit market for seafarers managed to reach a substantial overall size.

## IV

As lenders brought their IOUs to the water bailiff to have them registered in the ledger, their loans were usually recorded in it on one day and in consecutive series. There were a few exceptions to this (see Section II), so that in a number of instances lenders had to be linked in order to derive unique persons. However, because the lenders constituted a relatively confined group and because the type of credit was very specific, the risk of falsely linking lenders was small. After completing the linking procedure, 252 unique lenders remained. This number in itself suggests that a sizeable and diverse group of people commonly lent to seafarers and felt safe to do so.

To shed more light on the background of the most prominent lenders, information was collected from three additional sources. The IOUs available in the estates of deceased seafarers were considered first because these most likely belonged to the lenders actually being scrutinised. The local address book was consulted next as it

<sup>&</sup>lt;sup>26</sup> These values are consistent with the amounts recorded on 246 IOUs of one lender, Cas Spijker, which have survived in the archives and which are discussed in more detail below. Here the 50th, 95th and 99.5th percentiles (cf. the 66 unredeemed amounts discussed in the text) had values of 38.30, 130.19 guilders and 177.77 guilders respectively, while the largest IOU amounted to 205.60 guilders.

was less specific than the IOUs, but still not too general. The address book included many shopkeepers and thus more likely referred to the lenders under review than more general sources would. Since the IOUs considered cover the period 1834–51, the 1850–1 edition of the address book was used. Finally, the 1851–3 population register was checked.<sup>27</sup> Through these sources information was obtained on name, address, occupation, goods and services provided on credit, minimum career period, date of birth and place of origin. Tables 1 and 2 present the results for the largest lenders (i.e. those with a 1 per cent or larger share in the overall unredeemed debt) as well as for groups of lenders who did not meet this criterion.<sup>28</sup>

Table I shows that there existed two groups of lenders: a substantial group whose involvement was infrequent and modest as well as a smaller group whose involvement was frequent and substantial. Some of the latter were no longer alive and others had retired from lending, as witnessed by the share of (last repayments on) loans registered for 1855 and 1856, but others were still very active. The more important lenders not only registered 15.9 times as many unredeemed loans on average (12.1 times without Spijker and Lond), but their unredeemed loans were also 56 per cent larger on average. As a result, this group claimed 24.8 times larger sums of money on average (20.3 times without Spijker and Lond). As the largest lenders (9.9 per cent of the number of lenders) combined for 63.6 per cent and 73.2 per cent of the registered number and value of IOUs respectively, Tables I and 2 give a good insight into the most important players in this credit market.

From Table 2 it becomes clear that the largest lenders had the occupations familiar from the descriptions of sailor-towns: tailors, cobblers, shopkeepers, drink sellers and boarding-house keepers. They were also situated in those parts of town where one would expect to find them: the sailor-town in the eastern part of Amsterdam (i.e. Geldersche Kade, Nieuwmarkt, Zeedijk and Nieuwebrugsteeg) and the shopping district in the western part of Amsterdam (i.e. Nieuwendijk, Kolksteeg and

<sup>28</sup> A 0.5% threshold was rejected because it almost halved the retrievable information and made incorrect matches more likely. Reconstructing the cases of H. Lond, A. Hensmans and Widow C. J. Caspers required information from a fourth source: newspaper advertisements. These showed that Hendrik Lond died in 1833, but that Jan Coenraad Londt married his widow (Wilhelmina Maria Schweeke) and continued the business under the name 'H. Lond'. A marriage announcement revealed that Hensmans was incorrectly included in the digitised population register as 'Hezemans'; mention of his wife, Dorothea Timmers, in an advertisement established this. Announcements of a 25th wedding anniversary and a death showed that C. J. Caspers had been married to Antje van Ammers, who was in fact included in the population register. See *Algemeen Handelsblad*, 22 November 1832, 14 June 1833, 7 February 1835, 23 November 1847 and I April 1850.

<sup>&</sup>lt;sup>27</sup> ACA, Waterschout, inv. nos. 169–71 (only the pre-printed IOUs were analysed); Amsterdam City Archive, Collectie Stadsarchief Amsterdam: Adresboeken (entry no. 30274) (henceforth ACA, Adresboeken), inv. no. 11; Amsterdam City Archive, Archief van het Bevolkingsregister (entry no. 5000) (henceforth ACA, Bevolkingsregister), inv. nos. 258–994 (consulted through https://archief. amsterdam/indexen/bevolkingsregisters\_1851-1853/zoek/index.nl.html). The details of some addresses were completed through *HisGIS Amsterdam*, which was linked to the 1851–3 population register (www.hisgis.nl/hisgis/gewesten/amsterdam/kaart1860/amsterdam1860).

	Lender				Number of IOUs			Value (remaining) of IOUs		
Name	Period	Ν	%ΣΝ	Ν	%ΣΝ	% N in 1855–6	Guilders	% $\Sigma$ Guilders	Average	
C. Spijker	1834–56	Ι	0.4%	1,294	9.4%	1.1%	53,429	12.8%	41.3	
J. R. Sachtleben	1825-56	Ι	0.4%	436	3.2%	40.8%	24,480	5.9%	56.1	
H. Lond	1839–56	Ι	0.4%	1,314	9.6%	38.2%	21,045	5.1%	16.0	
J. H. Timmerman	1841–56	Ι	0.4%	346	2.5%	0.6%	17,024	4.1%	49.2	
C. H. Jansen	1846–56	Ι	0.4%	392	2.9%	41.6%	15,141	3.6%	38.6	
A. Hensmans	1836–56	Ι	0.4%	401	2.9%	11.7%	13,473	3.2%	33.6	
W. P. Kohl	1830–56	Ι	0.4%	425	3.1%	0.5%	13,407	3.2%	31.5	
G. Steenhoff	1835-56	Ι	0.4%	430	3.1%	30.9%	13,292	3.2%	30.9	
J. A. Rijks	1837–56	Ι	0.4%	363	2.6%	39.4%	12,640	3.0%	34.8	
B. J. Kohl	1816-56	Ι	0.4%	300	2.2%	61.7%	11,957	2.9%	39.9	
Widow C. J. Caspers	1840-56	Ι	0.4%	235	1.7%	36.2%	11,608	2.8%	49.4	
G. Pluimker	1836–56	Ι	0.4%	413	3.0%	21.8%	11,118	2.7%	26.9	
J. W. van Recken	1831-53	Ι	0.4%	302	2.2%	0.0%	10,542	2.5%	34.9	
W. G. Fiege	1834-55	Ι	0.4%	187	1.4%	1.1%	8,497	2.0%	45.4	
H. A. Kokenge	1839–56	Ι	0.4%	273	2.0%	53.5%	8,357	2.0%	30.6	
J. H. Sachtleben	1840-56	Ι	0.4%	292	2.1%	41.8%	8,249	2.0%	28.2	
J. Feijs	1840-56	Ι	0.4%	202	1.5%	46.5%	7,830	1.9%	38.8	
O. Christiansen	1832-56	Ι	0.4%	154	1.1%	29.9%	6,445	1.5%	41.8	
N. Feis	1852-56	Ι	0.4%	206	1.5%	75.2%	6,238	1.5%	30.3	
H. C. Petersen	1837–56	Ι	0.4%	116	0.8%	20.7%	5,926	1.4%	51.1	
J. Schrager	1830–56	Ι	0.4%	148	1.1%	40.5%	5,360	1.3%	36.2	
J. H. Klönne	1837–56	Ι	0.4%	159	1.2%	6.9%	5,236	1.3%	32.9	
L. Fopma	1840-56	Ι	0.4%	97	0.7%	37.1%	4,701	1.1%	48.5	
P. C. Pedersen	1844–56	Ι	0.4%	120	0.9%	60.8%	4,199	1.0%	35.0	
A. Dussman	1848-56	I	0.4%	116	0.8%	41.4%	4,172	1.0%	36.0	

Table 1. Descriptive statistics of the lenders

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Overall		252	100.0%	13,708	100.0%
0% < X < 0.25%	1831–56	187	74.2%	1,689	12.3%
$0.25\% \le X < 0.5\%$	1824–56	29	11.5%	2,162	15.8%
0.5% ≤ X < 1.0%	1829–56	ΙI	4.4%	1,136	8.3%
1.0% ≤X	1816-56	25	9.9%	8,721	63.6%

27.1%

37.7%

29.9%

29.6%

Source: Database register waterschout.

34.9

26.6

19.5

23.3

30.3

73.2%

7.3%

10.1%

9.4%

100.0%

304,367

30,241

42,066

39,306

415,980

Name in population register	Place of birth	Age <sup>a</sup>	Address	Occupation
Cas Spijker	Amsterdam	50	Geldersche Kade 48	Shopkeeper (tobacco)
Johan Rudolph	Germany	44	Nieuwmarkt 4	Shopkeeper/tailor
Sachtleben	,	••		1 1
Jan Coenraad Londt	Amsterdam	46	Zeedijk 87	Shopkeeper/merchant
Johan Hinrich Timmerman <sup>b</sup>	Germany	-	Nieuwendijk 163	Tailor
Casparus Hendrikus Jansen	Amsterdam	35	Nieuwendijk 95	Shopkeeper/tailor
Antonius Hensmans	Amsterdam	48	Nieuwmarkt 27	Shopkeeper/tailor
Wilhelm Petrus Kohl	Amsterdam	49	Nieuwendijk 150	Shopkeeper
Gerhard Steenhoff	Amsterdam	28	O.Z. Voorburgwal 137	Tailor
Johannes Arnoldus Rijks	Amsterdam	47	Nieuwendijk 107	Shopkeeper/tailor
Bernardus Johannes Kohl	Amsterdam	46	Zeedijk 116	Shopkeeper (woollens and manufactures)
Antje van Ammers	Amsterdam	61	Wijde Kapelsteeg 3	Boarding-house keeper
Geert Pluimker	Germany	55	Teertuinen 19	Shopkeeper (clothing and manufactures)
J. W. van Recken <sup>c</sup>	Germany	_	Nieuwmarkt 974	Clothing
Willem Georg Fiege	Netherlands	69	Texelsche Kade 10	Shopkeeper/tailor
Hendrik Antoon Kokenge	Germany	47	Nieuwendijk 106	Tailor
Johan Hendrik Sachteleben	Germany	48	Zeedijk 49	Shopkeeper/tailor
Johannes Feijs	Amsterdam	54	Haarlemmerdijk 273	Tailor
Oele Christiaanse	Denmark	39	Geldersche Kade 36	Drink seller
Nicolaas Feis	Netherlands	34	Nieuwebrugsteeg 5	Grocer
Hans Christiaan Petersen	Denmark	43	Warmoesstraat 118	Boarding-house keeper
Jacob Schrager	Germany	53	Wijde Kapelsteeg 5	Boarding-house keeper
Johan Heinrich Klönne	Germany	54	Kolksteeg 26	Tailor
Louw Fopma	Netherlands	45	N. Z. Armsteeg 31	Boarding-house keeper
Pieter Christiaan	Denmark	41	Wijde Kapelsteeg 4	Boarding-house keeper
Petersen	0		<b>TT</b> 1	D 1 1
Albert Duszmann	Germany	33	Kapelsteeg 9	Drink seller

Table 2. Information about the major lenders

Notes to Table 2:

<sup>a</sup> The age of the lenders refers to their age on 30 July 1856, the last day on which loans were recorded in the water bailiff's ledger.

<sup>b</sup> Algemeen Handelsblad, 3 April 1855, shows that J. H. Timmerman was no longer alive when the ledger was compiled.

<sup>c</sup> Van Recken was born on 2 November 1794 in Phiesewarden near Blexen, which his marriage certificate (dated 7 October 1829) listed as his place of origin. He died in October 1843 and his wife continued the 'renowned' store until her death in January 1845. Van Recken's death is corroborated by the fact that on the reverse of his IOUs it is indicated that payments were subsequently received by his widow and heirs. See *Auswanderer aus dem Großherzogtum Oldenburg* (www.auswanderer-oldenburg.de/getperson.php?personID=I767 58&tree=Auswanderer); WieWasWie (www.wiewaswie.nl/nl/detail/35433099); *Algemeen Handelsblad*, 2 November 1843, 17 January 1845, 5 February 1845 and 14 March 1845; ACA, Waterschout, inv. nos. 169–71. Van Recken's address was taken from the 1843–4 address book. See ACA, Adresboeken, inv. no. 7.

Source: Table 1; notes 26 and 27.

N.Z. Armsteeg). Boarding-house keepers occupied a rather modest position among the top lenders. This suggests that they obtained (part of) the two months' wage advance that seafarers received when they mustered.

The tables suggest that in 1856 the largest lenders were typically males born in Amsterdam, who were in their forties or fifties and who had been active as lenders for several decades. The top 25 was completed by lenders with more varied back-grounds. The presence of lenders born elsewhere in the Netherlands as well as those born in Denmark and Germany stands out and is consistent with what is known about migration and the Amsterdam labour market. The occupations that involved providing credit to seafarers were apparently sufficiently open to outsiders to allow them to become substantial lenders quickly (Van Lottum 2007; Hell 2017). Besides lenders of non-Amsterdam origin, the presence of the widow of C. J. Caspers points to the involvement of another interesting group. While the top 25 counted only one widow, the ledger actually contained 30 others (see above). At least one of these, the widow of W. Louwes, used a form that also pre-printed her name. The fact that widows successfully continued to supply loans suggests that they had already been closely involved in the businesses of their husbands when they were still alive.<sup>29</sup>

The size and diversity of the group of lenders raises the question of how they could be assured that seafarers would not run up debts across town beyond their capacity to repay. While the water bailiff's service of making loan repayments from seafarers' wages solved the moral hazard problem, it did not protect lenders against the risks of adverse selection. The fact that the credit market for seafarers had existed for so long, and that so many and diverse lenders participated in it, suggests that a

<sup>&</sup>lt;sup>29</sup> ACA, Waterschout, inv. no. 171 (scan 437).

mechanism existed to mitigate adverse selection. Did long-term relationships between lenders and borrowers perhaps play a role? Or did boarding-house keepers play an intermediary role by, for instance, lodging their compatriots or by only referring their guests to specific shopkeepers (Hell 2017)? Current knowledge about how lenders conducted their businesses is unfortunately still insufficient to answers such questions. Section v therefore takes a first step by reconstructing the daily operations of one major lender for whom several sources were available in addition to the water bailiff's ledger.

## V

Cas Spijker was the most important lender in the water bailiff's ledger: numerically he missed first place by just 21 loans, but financially he ranked first by far (see Table 1). Spijker was born in Amsterdam on 7 February 1806 and, according to the population registers of the period 1851-6, he lived at Geldersche Kade 48 - or 453 according to the new house numbering system introduced in 1853 – with his wife, six to eight children and one maid. The population register listed Spijker as a shopkeeper (winkelier) and based on his lending he must have been operating as such since at least 1833. It is unclear where his shop was located then, but the 1837-8 edition of a local address book situated it at Geldersche Kade 53 (where in the 1836-7 edition another shop was still located). In a January 1843 advertisement in Algemeen Handelsblad Spijker announced the relocation of his shop to Geldersche Kade 48. In this advertisement he also mentioned that he ran a business 'in Tobacco, etc., etc., etc., etc.'. That he indeed sold more than just tobacco is demonstrated by an IOU from 1848 in which a ship's carpenter confirmed that he owed Spijker money for ship's carpenters' tools, tobacco, coffee, soap, cigars and other unspecified goods. Despite this wide variety of goods, the local address books included Spijker as 'shopkeeper and merchant in tobacco' (winkelier en koopman in tabak) or simply as 'in tobacco' (in tabak). Spijker thus seems to have operated a general store for seafarers with a focus on tobacco. Interestingly, Spijker was also responsible for organizing support for unfortunate neighbours as a commissioner of his neighbourhood.<sup>30</sup>

Besides the ledger, the water bailiff's archive contains additional sources that shed light on Spijker's lending. As the water bailiff was responsible for settling the estates of deceased seafarers, his archive holds many of the original IOUs presented by lenders to claim (partial) repayments from the seafarers' estates. This collection contains, among others, 246 IOUs from Spijker.<sup>31</sup> These IOUs cover the period 1833–52

<sup>&</sup>lt;sup>30</sup> Van Wageningen 2002; ACA, Bevolkingsregister, inv. nos. 434 (scan 113) and 436 (scan 198); ACA, Waterschout, inv. nos. 158 (scan 21) and 165 (scan 170); *Gepriviligeerd naamregister der heeren kooplieden*, 1836–7, 46; 1837–8, 107; *Algemeen adres-boek of naamregister van de notabelste inwoners der stad Amsterdam*, 1839–40, 241; 1841–2, 242; 1843–4, 242; 1845–6, 244; 1846–7, 248; 1848–9, 244; 1850–1, 240; *Algemeen Handelsblad*, 23 January 1843, 9 May 1853, 22 February 1855 and 23 October 1855; *De Tijd*, 25 December 1851.

<sup>&</sup>lt;sup>31</sup> ACA, Waterschout, inv. nos. 156–71.

and were all pre-printed.<sup>32</sup> The initial form, in use between 1833 and 1838, was fairly simple. An analysis of the 1838 forms revealed that Spijker then used two types of form: one on which the rank of sailor was pre-printed and one on which the rank was left blank. The use of such dedicated forms suggests that lending must already have been substantial by this time. In the years that followed, Spijker used an even broader set of dedicated forms. Four forms existed to record combinations of rank (sailor or blank) and literacy (with a special clause in case of illiteracy).<sup>33</sup> At some stage a pre-printed field for seafarers' ages was incorporated into the form as well.

Spijker typically recorded the rank, destination and boarding-house keeper of his borrowers. The latter might point to relationships between boarding-house keepers and lenders as a solution to adverse selection problems. However, based solely on Spijker's IOUs, it cannot be established decisively whether these relationships were exclusive and indeed whether they protected lenders sufficiently. Rank and destination, which were recorded together on 243 of the 246 IOUs, are fortunately easier to interpret. Sailors dominated with 195 IOUs and were followed by carpenters (9), sailmakers (9), cooks (7), boatswains (6), boatswains' mates (6), junior sailors (6), medical doctors (2), ship's stewards (2), a cooper and a helmsman.<sup>34</sup> Except for three seafarers who sailed within Europe, these seafarers sailed on the long-distance routes to Batavia, capital of the Dutch East Indies (218), Surinam (11), the Guinea coast (9) and South America (2).<sup>35</sup> The most common combination of rank and destination was the sailor going to Batavia (176). It is not surprising that this particular group dominated the IOUs found in the estates settled by the water bailiff. Because of the long voyage they presumably relied on credit more frequently than seafarers on other routes. In addition to this, crews on this route were large and numbered many sailors. With long voyages and the prevalence of tropical diseases, the absolute number of deceased sailors on this route must have been higher than that on other routes. It is therefore logical that sailors on the route to Batavia dominated the estates of deceased seafarers settled by the water bailiff.

The number of annual observations for most rank-destination combinations is too small to generalise, but the number of sailors going to Batavia is large enough to determine how borrowing within this particular group developed over time. Figure 3 suggests that the median loan of these borrowers increased substantially, but continued to fall within the 20 to 90 guilders range of new loans as found above. As Spijker was born in 1806, the increase points to a process through which he – as a young shopkeeper – established how much he could lend to particular rank-destination

<sup>&</sup>lt;sup>32</sup> On pre-printed IOUs, see Van Bochove and Kole 2014.

<sup>&</sup>lt;sup>33</sup> The IOUs of illiterate seafarers were typically signed by witnesses. See, for instance, ACA, Waterschout, inv. no. 164 (scans 46, 480, 934). The presence of signatures, whether of seafarers or their witnesses, probably prevented lenders from counterfeiting IOUs.

<sup>&</sup>lt;sup>34</sup> The seafarers with the unknown destinations were two sailors and a carpenter.

<sup>&</sup>lt;sup>35</sup> There were no clear trends over time in the share of sailors in ranks and Batavia in destinations.

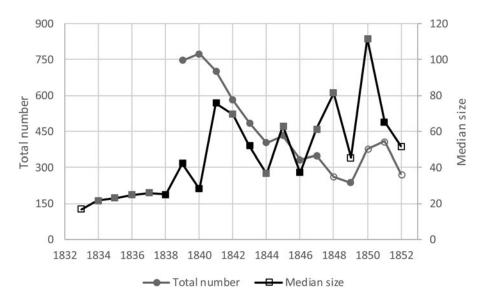


Figure 3. The total number of loans provides by Cas Spijker and the median size of his loans contracted by sailors going to Batavia (in 1839 guilders)

*Note:* For the total number of loans series the grey markers indicate that the highest serial number came from November or December. For the median loan size series the black markers indicate that ten or more observations were available, the grey markers five to nine and the white markers fewer than five.

*Source:* ACA, Waterschout, inv. nos. 158 (scans 94, 143, 181, 235, 255, 276, 305, 319, 363, 365, 381, 399, 418, 453, 617, 623, 656, 769, 796, 845, 853, 865, 907, 952, 964, 980, 1004, 1024, 1033), 159 (scans 9, 48, 115, 140, 160, 195, 224, 240, 302, 321, 354, 391, 461, 500, 549, 555, 623, 647, 653, 655, 684, 689, 730, 781, 798, 835, 858, 860, 889), 160 (scans 15, 24, 35, 86, 134, 143, 169, 265, 296, 315, 366, 376, 433, 481, 504, 538, 558), 161 (scans 20, 32, 41, 111, 124, 158, 173, 235, 255, 279, 318, 397, 413, 415, 456, 484, 506, 523), 164 (scans 44, 46, 56, 110, 116, 137, 149, 151, 182, 234, 247, 260, 278, 295, 313, 333, 399, 416, 480, 486, 511, 529, 549, 594, 615, 642, 664, 702, 776, 841, 875, 894, 913, 934), 165 (scans 112, 170, 180, 215, 225, 242, 256, 314, 332, 335, 391, 399, 492, 507, 559, 574, 582, 609, 627, 656, 693), 166 (scans 8, 109, 140, 169, 200, 269, 288), 167 (scans 33, 74, 106, 115, 131, 158, 182, 207, 230, 306, 341, 384, 391, 402, 428, 472, 486, 563), 168 (scans 91, 126, 150, 165, 177, 189, 229, 239, 381, 411, 461, 474, 521, 583, 626, 628, 634, 653, 684, 723, 798, 840, 875), 169 (scans 9, 47, 72, 99, 147, 176, 194, 209, 239, 255, 316, 364, 371, 391, 425, 439, 470, 515, 528, 537, 558, 582, 604, 697, 704, 740, 785, 834, 921, 948, 959, 984), 170 (scans 19, 127, 211) and 171 (scans 26, 63, 100, 186, 225, 245, 283, 300, 335, 381, 439, 547, 558, 669, 759); 'Value of the guilder' (www.iisg.nl/hpw/calculate.php).

combinations and an expansion of his (lending) business. The latter tallies well with the fact that he started recording serial numbers on each of his IOUs in 1839: an indication that his business administration had indeed grown in the years before and required more careful monitoring.

The 187 serial numbers available for the period 1839–52 can also be exploited to estimate the annual number of loans provided by Spijker. As the highest serial

number often dated from November or December, simple extrapolations were used to derive the total number of annual loans. These extrapolations set the serial number on I January at zero and drew a straight line through the latest combination of date and serial number of each year to derive the number of loans on 31 December of that year.<sup>36</sup> Figure 3 shows that the number of loans provided annually by Spijker fell substantially during the 1840s and this helps explain why he was not among the signatories of the 1856 petition that Amsterdam lenders submitted to parliament (see above). As borrowers were primarily seafarers on Dutch ships and as the number of Dutch ships that annually departed from Amsterdam increased (see Section VI), Spijker may have decided autonomously to reduce his lending or he may have been pushed out of the market by competitors.

Whilst the available sources do not make it possible to expand on the latter, they do contain evidence of the former for they suggest that Spijker had gradually specialised in making cigars instead of selling them to seafarers on credit. This helps explain why he sought cigar makers for his factory through advertisements in 1859 and 1860 and why the address books started referring to him as 'cigar factory owner' (sigarenfabrikant) and 'cigar factory' (sigarenfabriek) rather than merely 'in tobacco'.<sup>37</sup> Spijker's change of business suggests that the profitability of producing cigars was higher than running his shop and selling to seafarers on credit. As the literature does not typically characterise the profits of shopkeepers and small factory owners as excessive, this forces us to rethink the premiums charged to seafarers (see above). In the literature these premiums have long been interpreted as being exploitative and those who charged them were looked upon with suspicion. The case of Spijker suggests, however, that premiums were high not to take advantage of a group of vulnerable borrowers but rather to cover the high costs and risks of lending to seafarers. Such a revision is even required if Spijker was in fact pushed out of the market by his competitors, because that would point to competitive markets and more agency and a better bottom-line for seafarers.<sup>38</sup>

- <sup>36</sup> Linear regressions with the serial number as dependent variable, time as independent variable and an intercept that did not necessarily coincide with I January (cf. the simple extrapolations) were also estimated. They yielded slightly higher results in most years, but much higher results in two years because of the particular distribution of the serial numbers available for those years. For reasons of consistency simple extrapolations were therefore preferred. Figure 3 nevertheless slightly underestimates Spijker's lending because new loans were sometimes recorded on the reverse of existing IOUs (i.e. without using a new serial number). As there is no reason to assume that the proportion of loans recorded with(out) new serial numbers changed over time, Figure 3 still provides a good overview of the development of Spijker's lending.
- <sup>37</sup> Algemeen adresboek der Stad Amsterdam, 1859–60, p. 286; 1866–7, p. 331; 1867–8, p. 333; 1871–2, p. 347; Algemeen Handelsblad, 24 February 1859 and 8 October 1860.
- <sup>38</sup> The Amsterdam lenders, who may of course have been biased, also emphasised this point when they petitioned parliament (see above). See Van Bochove and Van Velzen 2014 for similar conclusions about the premiums charged to employees of the Dutch East India Company.

## VI

Besides shedding light on the business of one specific lender, the Spijker data also make it possible to gauge the overall size and volume of the market for new seafarer loans in Amsterdam during the period 1839–52. The annual numbers of loans in Figure 3 were hence related to Spijker's share in each year class of the loans that were still unredeemed in July 1856. This share dropped in an almost straight line from close to 38 per cent in 1839 to just over 14 per cent in 1844 and then gradually declined further to just under 10 per cent in 1852. As Spijker's share in unredeemed loans must have correlated with his share in newly provided loans, each number of new loans provided by Spijker (as given in Figure 3) was divided by his corresponding share in unredeemed loans to estimate the total number of new loans provided to seafarers by all lenders. To use 1839 as an example, 60 of the 159 (last repayments on) loans registered in the water bailiff's ledger belonged to Spijker, giving him a share of 37.7 per cent for this particular year. As Figure 3 set the number of new loans provided by Spijker in 1839 at 747, the number of new loans provided by all lenders was estimated at 1,980.

The results are presented in Figure 4 and suggest that the non-bank credit market raised 2,000 to 4,000 new loans for seafarers in Amsterdam each year. The reliability of the estimation procedure is verified by two pieces of information: first, the fact that the estimates tally well with the order of magnitude documented for the number of (last repayments on) loans in 1855 (full year) and 1856 (incomplete year) in Figure 1; second, the fact that the increasing number of new loans closely matched the rising number of Dutch ships that departed from the Amsterdam port. The relationship between the two is logical: seafarers on foreign ships did not require credit since they enjoyed board and lodging on their ships while in Amsterdam, but seafarers on Dutch ships were discharged when they returned to Amsterdam and often depended on credit to bridge the period until their next departure. Collecting repayments from the water bailiff was only possible, moreover, when a ship returned to the Netherlands; something that was much more likely to occur with Dutch than with foreign ships.<sup>39</sup>

With the size of a new loan ranging between 20 and 90 guilders (see above), the size of the credit market for seafarers ranged between 40,000 to 360,000 guilders per

<sup>&</sup>lt;sup>39</sup> Only one other lender – whose IOUs overlapped with those of Spijker – often numbered his IOUs, provided a sufficiently large number of loans and had a market share substantial enough to yield reliable outcomes: J. W. van Recken. During the period 1839–41 Van Recken provided well over one hundred loans annually, which suggests an overall number of new loans of 1,187 IOUs in 1839, 1,729 in 1840 and 1,699 in 1841. Although these numbers are lower than those of Spijker, they developed similarly and are of the same order of magnitude. This suggests that the procedure applied to Spijker's IOUs provides useful results. As Van Recken's lending dropped substantially in 1842–3, perhaps because of health issues leading up to his fatal stroke in 1843 (see *Algemeen Handelsblad*, 2 November 1843), estimates of the size of the overall market for these years would be based on shaky foundations and are therefore not included here.



Figure 4. The overall credit market for seafarers (in number of loans) and the number of Dutch ships departing from Amsterdam

*Source: Database register waterschout*; Figure 3; Van Bochove 2014, n. 39; *Algemeen Handelsblad*, 13 August 1847.

annum during the period considered here.<sup>40</sup> These were quite substantial sums, especially if one realises that the credit market for seafarers was just one niche in the non-bank credit market of a town like Amsterdam. It also raises the question of how such sums were raised by the lenders, especially since money was sometimes fixed for several years. Did they finance their loans themselves or did they rely on outside funding of suppliers or other lenders? The sources in the water bailiff's archive do not shed light on this issue, but it would be worthwhile exploring it in future research.

## VII

Before the rise of banks, people organised credit themselves or with the help of alternative intermediaries. Due to a lack of encompassing sources, however, the size and functioning of these non-bank credit markets have been notoriously difficult to

<sup>40</sup> The only useful non-bank credit data to put these figures in perspective are the loans provided by Amsterdam's municipal and licensed pawnshops. Amsterdam City Archive, Archief van de Bank van Leening (entry no. 368), inv. no. 156 shows that during the period 1839–52 these institutions annually combined for 0.96 to 1.19 million loans or 1.24 to 1.56 million guilders. More pawn credit than seafarer credit was thus provided in Amsterdam, but Amsterdam's population was also much larger than the number of seafarers who annually departed from its port (see note 3). As a niche of the non-bank credit market, and especially in monetary terms, the credit market for seafarers was thus relatively substantial.

analyse systematically. Exceptional sources from the archive of Amsterdam's water bailiff allowed this article to overcome this problem. It could hence determine the size of one particular segment of the non-bank credit market: credit received by seafarers in the decades prior to July 1856. Seafarers relied on credit to obtain board and lodging, shipping gear and other goods. They secured loans by allowing the water bailiff to make redemption payments from their future wages. An example discussed in this article even showed that a seafarer's wife could obtain credit, while her husband was away, on the basis of his future wages.

Having access to their future wages enabled seafarers in Amsterdam to take out 2,000 to 4,000 new loans each year during the period 1839–52. These loans were relatively small and did not typically seem to have exceeded 90 guilders. Many of these loans were repaid in full, some were partially written off upon a seafarer's death and others were not, or only partially, repaid. These loans, together with similar loans made before 1839 and after 1852, were registered in the water bailiff's ledger in July 1856 in accordance with the Discipline Act. The ledger registered 13,708 IOUs presented by 252 lenders and representing about 416,000 guilders. The great number of new (1839–52) and (partially) unredeemed IOUs (1856), the substantial sums of money, the large and diverse group of lenders, and the wide use of standardised and pre-printed IOUs suggest that the market for seafarer credit was substantial and well-developed.

Although a core group of shopkeepers and boarding-house keepers dominated lending, lenders from all walks of life felt safe to enter the credit market for seafarers. The water bailiff contributed to this, but relationships between lenders and boardinghouse keepers may also have played a role. Lenders protected themselves for sure by charging double-digit premiums, but this did not imply that profits were excessive. Premiums were relatively high because lenders had to recoup the costs and risks of lending. The example of Cas Spijker suggests that mastering the intricacies of the lending business involved learning: one had to develop an understanding of the sums that one could safely lend to each rank—route combination. The businesses of large lenders like Spijker were complex, based on formal contracts, involved careful recordkeeping and possibly required external funding. This new perspective on these key players in sailor-town suggests that much may be gained by no longer depicting this group negatively as crimps. Approaching them and their businesses more neutrally will undoubtedly improve our understanding of what they were actually doing in a practical and economic sense.

The new insights of this article also raise questions that go beyond the Dutch market for seafarer loans. Did municipal officials like the water bailiff help credit markets in other countries function more smoothly as well? And if the credit market for seafarers was already this big, how much credit did shopkeepers and alternative intermediaries raise in other segments of the non-bank credit market that involved ordinary people and their daily needs? Future research should try to further reconstruct that broad base of the non-bank credit pyramid.

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