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CSB Centrum voor Sociaal Beleid Herman Deleeck
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CSG Centre for Urban History
University of Antwerp

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University of Antwerp

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Corinne Boter[a] **& Oscar Gelderblom**[b]

[a] Utrecht University
[b] University of Antwerp

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Abstract

In the late 1960s the Netherlands saw the rise of retail banks offering savings, loans, and payment services to the population at large. This was a remarkable change since many decades had passed between the initial establishment of these banks and their widespread use by private households. There is no satisfactory explanation for this financial turn because research has focused almost exclusively on the supply of financial services. We use domestic accounts, budget surveys, fiscal records, and other primary sources to document continuity and change in household demand for these services. Our reconstruction of the financial behavior of households in the Netherlands shows that it was the growth of payments to and from the government that made it necessary for households to open a bank account. They continued to withdraw large amounts of cash, however, which forced banks to maintain large branch networks with extended opening hours. To cover their costs the banks started cross-selling personal loans, mortgages and other financial products to households, thus completing the transition to a national system of retail banking.

Key words: retail banking, household finance; twentieth century, The Netherlands.

JEL Codes: D14; G21; G28; G51; N24

Corresponding author: Oscar Gelderblom (Oscar.Gelderblom@uantwerpen.be)

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Explaining the Financial Turn in the Netherlands: A Household Perspective

Abstract

In the late 1960s the Netherlands saw the rise of retail banks offering savings, loans, and payment services to the population at large. This was a remarkable change since many decades had passed between the initial establishment of these banks and their widespread use by private households. There is no satisfactory explanation for this financial turn because research has focused almost exclusively on the supply of financial services. We use domestic accounts, budget surveys, fiscal records, and other primary sources to document continuity and change in household demand for these services. Our reconstruction of the financial behavior of households in the Netherlands shows that it was the growth of payments to and from the government that made it necessary for households to open a bank account. They continued to withdraw large amounts of cash, however, which forced banks to maintain large branch networks with extended opening hours. To cover their costs the banks started cross-selling personal loans, mortgages and other financial products to households, thus completing the transition to a national system of retail banking.

Key words: Retail Banking, Household Finance, 20th Century, The Netherlands

INTRODUCTION

In the 1960s banks throughout the western world began to offer retail services to the population at large.[1] Households which so far only had a savings account now opened checking accounts to receive their wages and pay their bills.[2] Banks started using computers to process payments automatically and they opened branch offices to provide easy access to their services, including cash withdrawals, personal loans, and financial advice. In the 1970s banks added overdrafts and residential mortgages to their offerings, which made more and more households turn to their bank to borrow money. Apart from the US and the UK, where the poorest households remained

[1] Westerhuis, 'Commercial', p. 127; Bonin, *Identité*, 113-46; Ackrill and Hannah, *Barclays*, pp. 214-8, 255-57. Schneider, *Finanzen*; Frazer and Vittas, *Retail*.
[2] Krueger, 'Introduction'; Husz, 'Golden'; de Blic and Lazarus, *Sociologie*.

unbanked for decades to come, from 1980 onwards retail banks everywhere in the western world offered savings, loans and payment services to everyone.[3]

The rapid rise of retail banking was remarkable since banks and households were reluctant to make the transition. Commercial banks were accustomed to managing the affairs of wealthy clients but they balked at the prospect of serving ordinary wage earners.[4] They also feared that the automation of their payment systems would raise operating costs rather than lowering them.[5] Households were not pushing either, as they were used to living in a cash economy, spending their weekly wages on food, rent, fuel, clothing, transportation, insurance, and other expenses.[6] The hassle of this endless stream of cash payments was alleviated by suppliers coming to the door and shopkeepers accepting the weekly settlement of accounts.[7] Most people did have a savings account but they only used it to put money aside for future expenses.[8] They also borrowed to buy consumer durables but these installment plans were offered by specialized financing companies, not banks. Why then did the three key functions (payments, savings, and loans) which for so long had been organized separately—and differently by more or less affluent households—come together in retail banks in the 1960s?

The banking historiography offers only a partial answer. It shows how banks became interested in household savings as an additional source of funding; how they introduced computer technology to offer salary accounts free of charge; and how they stepped up their marketing budgets to attract new customers. But since this literature is largely based on bank archives, it cannot tell us how households managed their money before the rise of retail banking,

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[3] Bonin, *Banque*; Bonin, *Identité*; Barendregt and Visser, 'Towards'; Effosse, *Crédit*; Ackrill and Hannah, *Barclays*, p. 169; Bátiz-Lazo, *Cash*; Bátiz-Lazo, Maixé-Altés, and Thomes, *Technological*.
[4] Ackrill and Hannah, *Barclays*, pp. 147-8; Belvedersesi-Kochs, 'Moralischen'; Botterill, *Consumer*, pp. 100-1; Krueger, 'Introduction', p. 194; Bonin, *Identité*, pp. 91-110. Cf. also Frost, *Wünsche*; Bonin, *Identité*.
[5] Bátiz-Lazo, *Cash*, p. 10; de Graaf, *Voor handel*, p. 355; Bátiz-Lazo, Maixé-Altés, and Thomes, *Technological*.
[6] Krueger, 'Introduction'.
[7] O'Connell, *Credit*; Laferté et al., 'Crédit'; Laferté and O'Connell, 'Socialized'; Svetiev, Dermineur, and Kolanisi, 'Financialization'; Logemann, 'Americanization', pp. 536, 540-41, 546.
[8] van Put (Ed.), *Belgische*; Gueslin, 'Banks'; Dankers, Linden, and Vos, *Spaarbanken*; Carnevali, *Europe's advantage*, pp. 70-7; Lehmann-Hasemeyer and Streb, 'Social security'.

nor why they made the transition. In this respect, development economists studying bank use in the world today have more to offer. They measure the percentage share of households with an account at a financial institution but they also look at alternative ways to organize payments, savings, and loans. Their cross-country comparisons point to several drivers of account penetration that also appear in the work of bank historians: rising wages, new technology and female empowerment. In addition, they highlight a factor that rarely figures in the history of retail banking: increased social transfers between households and the government.

To find out how each of these factors influenced the rise of retail banking in the 1960s, we study the financial behavior of households in the Netherlands. We use the country's rich banking historiography to document changes in the supply of financial services between 1920 and 1980. But we also use budget surveys, fiscal records, and domestic accounts to analyze how households organized their savings, loans, and payments—including money transfers to and from the government. As a very first step we calculate the percentage share of the adult population that used a bank for their savings, payments, or loans (Figure 1).

[Figure 1 about here]

As Figure 1 shows, the use of savings banks increased steadily from the late 19th century onwards, interrupted only by the Great Depression and World War II. By 1960 virtually every adult had a savings account. Their use of other bank services progressed much more slowly. Checking accounts, available from 1920 onwards, were only used by a very small fraction of the population until 1965 but then, within a decade, spread to the population at large. Bank loans—defined here as commercial loans from financing companies and banks proper—were used by less than five per cent of the adult population in 1965, a share that rose to almost twenty per cent in 1980.

In what follows we will show that until the 1960s most Dutch households did not need a checking account because they lived in a cash economy. This changed not because banks or households pushed for it, but because of the rapid growth of payments to and from the government. Until the Second World War the government itself took responsibility for all payments to and from households. Then, under German occupation, it delegated the withholding of taxes and social premiums to employers who subsequently paid most of their workers a cash wage. In the 1950s the introduction of new welfare arrangements stimulated cash payments from the state to households executed by the country's postal and giro system. As the growth of social transfers and taxes continued in the 1960s the pressure on both employers and the postal system became so high, that the government allowed commercial banks, savings banks, and rural cooperatives to offer salary accounts similar to the ones already employed in the national giro system. Then, for a short period of time, it looked as if the financial system would function as a public utility for savings, bank transfers, and cash withdrawals. But soon enough this combination of services proved so expensive that government allowed the banks and post offices to add a broad range of loans to their offerings in order to cover their operating costs.

The paper proceeds as follows. Section I reviews the literature on retail banking to identify which factors are known to contribute to the increased use of bank services by private households. Sections II through IV investigate when Dutch households first turned to a bank for their savings, payments, or loans, and whether or not this ended their use of alternative forms of finance. Section V documents the different ways in which the government organized payments to and from households up to and including the moment it allowed commercial banks, rural cooperatives, and savings banks to establish a second, national platform for bank payments besides the already existing postal giro system. Section VI describes the changes in the financial behavior of Dutch households once they had opened a checking account. Conclusions follow.

I. EXPLAINING THE FINANCIAL TURN

The financial turn of the 1960s was the second of three waves of financial deepening in the western world. The first increase in financial service provision occurred between 1880 and 1920 with the establishment of cooperative banks for farmers and small and medium enterprises.[9] In this period many households also began to use banks, but only for savings, not payments or loans.[10] The second wave of financial deepening occurred in the late sixties of the twentieth century when commercial banks, cooperative banks, and savings banks broke out of their respective market segments and started offering payment services to the population at large. In the 1970s the new retail banks set up branches everywhere to offer customers a broad range of payment services, savings, and loans.[11] In the late 1980s a third wave of financial deepening got underway. This financialization created an even stronger entanglement of households with the financial sector, through insurance offerings, an increasingly diverse supply of loans, and investment services tailored to private financial demands.[12]

The purpose of this paper is to explain the second wave of financial deepening – the introduction of mainframe computers to automatize the transfer of money between bank accounts, and the subsequent opening of checking accounts by the population at large.

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[9] Guinnane, 'Delegated'; Houtman-De Smedt, 'Banking system'; Jonker, 'Spoilt'; Jonker, 'Geld- en bankwezen'; Colvin, 'Organizational'; Colvin, 'Religion'; Peeters, 'Small'; de Vicq, 'Exploring'; Peeters, 'Getting'; Colvin and McLaughlin, 'Raiffeisenism'.

[10] Carnevali, *Europe's advantage*; Proettel, 'Darlehensvergabe'; Dankers, Linden, and Vos, *Spaarbanken*; van Put (Ed.), *Belgische*; Lehmann-Hasemeyer and Streb, 'Social security'; Lehmann-Hasemeyer and Wahl, 'German bank–growth'; Carnevali, *Europe's advantage*, p. 70-7; Schuster, Jaremski, and Perlman, 'Empirical', p. 667-96; Américi, 'Preparing'; Benson, 'Working-class'; Cantaluppi et al., *Social aims*, pp. 133-54.

[11] Grossman, *Unsettled*; Cassis, 'Financial'; Schneider, *Finanzen*; Krueger, 'Introduction'. For France: Bonin, *Identité*; Bonin, *Banque*. Feiertag, 'Bancarisation'; van der Valk, 'Household finance'; Ackrill and Hannah, *Barclays*; Batiz-Lazo and Martínez-Rodríguez, 'Gender'.

[12] Martin, *Financialization*; Langley, *Everyday*; Goetzmann, *Money*; Epstein, *Financialization*; Lazarus, *Politiques*; Aalbers, 'Financialization'.

Technological change as such was nothing new but banks were weary of the practical implications. Since the late 19th century the banking sector had already gone through several rounds of mechanization and every time they found themselves with costly investments up front and a growing number of staff once the new machines were in place.[13] And yet, in the mid-1960s, one commercial bank after the other made the transition. Banking historians attribute this rapid change to competitive pressure: even if the prime movers incurred very high costs, they might also increase their market share and use the extra turnover to defray cost.[14]

But again the costs were much higher than expected. People had nothing against banks - most households kept one or several savings booklets - but their financial habits were simply different, especially in terms of payments. Households lived in a cash economy, which constituted an elaborate system of weekly wage payments, cash transactions on people's doorstep and in shops, plus the periodic settlement of bills with retailers, landlords, and myriad other suppliers of goods and services.[15] Even with a checking account households preferred to pay cash for their groceries, clothes, and myriad other daily expenses. Exactly how strong this preference was, became clear once employers started paying wages into their workers' bank account: people immediately withdrew part of that money to continue their cash payments.[16] This forced banks to hire more staff for their branch offices and set longer opening hours. They also introduced checks and credit cards to limit cash payments, and they installed automated teller machines for cash withdrawals– a far cry from the cost-saving operation that computerization ought to have been.[17]

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[13] Campbell-Kelly, 'Data'; Bonin, 'Accounting'; Bátiz-Lazo and Wardley, 'Banking'; Quinn and Roberds, 'Evolution', pp. 19-21.
[14] Ackrill and Hannah, *Barclays*, pp. 355-7; Cassis, 'Financial'; Dankers, Linden, and Vos, *Spaarbanken*.
[15] Bátiz-Lazo, Haigh, and Stearns, 'Future'; Taylor, *Working class*. Laferté et al., 'Crédit'; O'Connell, *Credit*; Laferté and O'Connell, 'Socialized'; McFall, *Devisingta*, pp. 62-91. The notion of a cashless society first emerged in the late 1950s: Bátiz-Lazo, Haigh, and Stearns, 'Future'; Taylor, *Working class*
[16] DNB Report for the year 1968: 89; 1969, 68-70, 132-133.
[17] Bátiz-Lazo, *Cash*; Barnes and Newton, 'Women'.

So why then did banks and households make the transition to retail banking in the 1960s? One obvious explanation would be the growth of wages during the economic boom of the 1950s and 1960s. As the disposable income of many households grew, and the share of that income spent on life necessities declined, the demand for a safe place to put money that was not immediately needed, grew. A further impetus to increased bank use in the post-war period was the ending of the legal incapacity of married women. Once women, regardless of their marital status, gained full control over their wealth, earnings and expenditure, it made sense for them to open a bank account in their own name. Recent research on retail banks in Sweden, France, Spain, and the UK shows them actively recruiting new customers among women.[18] On the other hand, in most countries female labour market participation increased only slowly, and there is also evidence for legal work-arounds that ensured that women could use banks even before the law was changed.[19]

Another possible explanation for the sudden increase in bank use in the 1960s, especially in continental Europe, would be the growing demand for bank credit. In the US commercial banks started offering personal loans to broader shifts of society in the 1930s, aided by a new system of public loan guarantees.[20] In Europe commercial banks entered the market for personal loans in the late 1950s, and by the end of the 1970s lending to private households had become an integral part of the business model of most retail banks.[21] But the timing is off. In most countries the number of personal loans remained very small throughout the 1960s as banks only offered them to clients with very high, regular incomes. This is not to say that households did not borrow; they were quite used to buying consumer durables on credit. The typical contract was the hire-purchase agreement, where the customer paid for furniture, household appliances,

[18] Effosse, 'Financial empowerment'; Husz, 'Golden'; Batiz-Lazo and Martínez-Rodríguez, 'Gender'; Feiertag, 'Bancarisation'.
[19] Effosse, 'Financial empowerment', pp. 119-30.
[20] Hyman, *Debtor*; Vanatta, 'Charge'.
[21] Leyendekkers, *Afbetalings- en geldkrediet*, pp. 22, 40, 52, 73, 83-7, 96, 113, 123; Effosse, 'Pour'; Effosse, *Crédit*, pp. 231-3; Botterill, *Consumer*, pp. 100-1.

or a car in several installments and only became the owner after the final payment.[22] In continental Europe these installment plans spread only slowly before the Second World but from the 1950s onwards many countries saw a rapid expansion of consumer loans. However, these loans were not offered by banks but by shopkeepers, department stores, and specialized financing companies.[23] It was only in the 1970s and 1980s that the new retail banks bought up these financing companies, along with specialized mortgage lenders, to offer an even broader range of products to their newly won customers.[24]

So the question remains why in the 1960s all of a sudden a vast number of households, well-served by a variety of other financial institutions to organize their payments, loans, and savings, opened a bank account? We think the answer can be found in the work of development economists who study the financial behavior of households in the world today. Their cross-country comparisons show that the percentage share of households with an account with a financial institutions is higher when incomes are higher, when women are treated more equally, and when new technology, i.e. the introduction of smart phones, allows people to open a bank account at very low cost.[25] But their work also points to a factor that is seldom considered by financial historians: the growth of money transfers between households and the government.[26] Governments do not only supply or regulate financial services, they also use the financial system to make and receive payments.[27] In countries where more people receive social benefits, or pay taxes and social premiums, the percentage share of households with a bank account is

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[22] Scott, 'Twilight'; O'Connell, *Credit*; Laferté et al., 'Crédit'; Effosse, *Crédit*; Logemann, 'Americanization', pp. 536-46; Olney, 'Buy now'; Calder, *Financing*; Lauer, *Creditworthy*; Hyman, *Debtor*; Friedman, *Birth*.

[23] Leyendekkers, *Afbetalings- en geldkrediet*; Rona-Tas and Guseva, 'Consumer'; Logemann, 'Americanization'; Pais, 'Pof'; Huls, *Consumentenkrediet*. For a contemporary, eyewitness account of shopkeepers' credit operations in the US, see Caplovitz, *Poor*.

[24] Erturk and Solari, 'Banks', pp. 375-85; Schotsman, *Postbank*, pp. 191-4; Revell, *Costs*, pp. 51-2, 163-6, 173-74, 183-86, 202-3, 207, 221, 247, 258, 268-69, 290, 295-98.

[25] Demirgüç-Kunt and Klapper, 'Measuring'; Demirgüç-Kunt et al., 'Global findex database 2014'; Demirgüç-Kunt, Klapper, and Singer, 'Financial inclusion'.

[26] Financial historians have linked the increased use of bank accounts to the transition from cash wages to monthly salaries paid into bank accounts: Krueger, 'Introduction'; de Blic and Lazarus, *Sociologie*; Effosse, 'Cheque'; Feiertag, 'Bancarisation'. Only Husz, 'Wage earners' casually refers to banks organizing social transfers in Sweden.

[27] On the role of the government as regulator of the financial system: Calomaris and Haber, *Fragile*; Beck, Demirgüç-Kunt, and Honohan, *Finance*, pp. 143-88.

higher.[28] Now, since the rise of retail banking in the 1960s coincided with the rapid expansion of the welfare state, it is worth exploring to what extent increased social transfers pushed banks, households, and governments towards a new financial system centered on retail banks.[29]

II. THE CASH ECONOMY

In the first half of the twentieth century the vast majority of workers in the Netherlands received weekly cash wages with which they paid for their groceries, rent, fuel, and clothing.[30] There were a few exceptions, for instance private wealth owners who earned income from investments and who received annual payments of interest and dividend through a commercial bank.[31] They also paid for their household expenses in cash, however, as did the civil servants and private sector employees who received their salaries (or pensions) in a giro account (cf. infra).[32] The numbers were small, however, with only fifteen per cent of the adult population having a bank or giro account in 1960. Besides that there were farmers and shopkeepers with a current account at their local cooperative or SME bank but this was for business purposes, not household expenditure.[33]

The importance of cash payments can be shown to good effect with the domestic accounts collected through the *Kasboekje van Nederland* crowd sourcing project. For the year

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[28] Aggarwal and Klapper, 'Designing'; Fungáčová and Weill, 'Understanding'; Kostov, Arun, and Annim, 'Access'; Allen et al., 'Foundations'; Zins and Weill, 'Determinants'; Demirgüç-Kunt, Klapper, and Singer, 'Financial inclusion'.

[29] In this paper we explore the causal connection between government payments and the sudden rise of retail banking in the 1960s. For substitution effects between social benefits and financial services, see Prasad, *Land*; Offer, 'Market'; Rona-Tas and Guseva, 'Consumer'; Comelli, 'Impact'; and Lehmann-Hasemeyer and Streb, 'Social security'.

[30] van Engelen, *Blauw bloed*, p. 38; Pollmann, *Kleine baas*, pp. 107-8; Boter, 'Payment patterns'.

[31] van Berckel, *Maatschappelijke*; van der Werf, *Bond*, pp. 90-2; Gelderblom et al., 'Exploring'.

[32] Gelderblom et al., 'Exploring'.

[33] On farmers: Jonker, 'Welbegrepen'; Colvin, *Religion*, pp. 129-38; Hendrikx and Gelderblom, 'Accounting'. On retailers: Colvin, 'Organizational'; Peeters, 'Getting'.

1951, we analyzed all the listed expenses of 57 households, with a total of 40,000 transactions. In most of these households the husband was the sole wage earner with a white-collar occupation. Figure 2 shows the absolute number of expenses recorded by each individual, plotted against the median extent of those expenses. Every dot represents the expenses of one individual. It is clear that there was a negative relationship between the value and the number of transactions. Most authors spent money very often, at least once or twice per day, but the median value of these expenses was very low. In case the median value was higher, the absolute number of expenses was low. Among the authors of the latter were more men who were in charge of the larger, fixed expenses.

[Figure 2 about here]

Since the lion's share of these household expenses consisted of very small amounts, it comes as no surprise that both households and their suppliers tried to reduce the burden of these continuous payments. The single most important arrangement was the weekly settlement of bills with the grocer, the baker and the milkman, as well as the landlord, the coalman, and the electricity company. Social historians typically stress the importance of buying on tick for poor households as a means to manage their low and irregular incomes, and it was, but deferred payments were actually common across the entire population.[34] For instance, a sample of death duty forms of 2,325 wealth owners who died in 1921 reveals that fifty per cent of them had unpaid bills for goods and services.[35] The first national budget survey conducted in 1936-1937 found that three quarters of all households used deferred payments.[36]

[34] de Regt, *Arbeidersgezinnen*, pp. 149-53; Wals, *Makers*; Deneweth, Gelderblom, and Jonker, 'Microfinance'; Pollmann, *Kleine baas*, pp. 107-8; van der Maas, 'Beschaving'. Cf. also Wilzen-Bruins, *Kopen*.

[35] Gelderblom et al., 'Exploring', p. 899

[36] CBS, *Huishoudrekeningen deel I*, pp. 38-97; Gelderblom and van der Valk, 'Coping'.

The suppliers of goods and services carried part of the administrative burden of this system of deferred payments. For their own convenience, as much as that of the households they served, shopkeepers used *winkelboekjes* (shop booklets) to take orders and settle bills.[37] Landlords signed off on the weekly or monthly rent in *huurboekjes* (rent booklets).[38] Insurance agents went door to door to collect the weekly or monthly premiums on health-, life-, and funeral insurances.[39] The greater burden, however, fell on the women paying these bills either on their doorstep or the shops they visited. At a time when most married women in the Netherlands were full-time homemakers, money management was yet another (unpaid) task they performed.[40] And it became an even more demanding one after the Second World War as higher wages strengthened the ideal—or rather, the moral code—of women staying at home, but also raised the budget they controlled.[41]

Cash prevailed but some households nevertheless had a checking account on the side. In our sample of 57 families from 1951 there were 22 who used a giro account to pay taxes, public utilities, subscriptions, and other recurrent expenses.[42] One example is that of a senior clerk at the National Postal Services who lived in Amsterdam with his family. He had a checking account with the *Gemeentegiro*, and between 1937 and 1967 he scrupulously recorded, month after month, all the cash and giro payments he and his wife made (Figure 3). In the first ten years of his recordings up to 80 per cent of these expenses were paid in cash. Then followed a steep decline to only 40 per cent cash payments in 1954, which would suggest

[37] van Bergen, *Goede leven*, pp. 42-4; de Jager, *Arm*, pp. 44, 135-6; Gezins-Begrotings-Instituut, *Week*, p. 12. Cf. also Kasboekje van Nederland, Nrs. 44.1, 49.2, 99.1-2; 197.1A, 282.2, 292.1-4, 315.1, 344.1, 359.4, 362.1, 366.2, 366.4, 438.2-13, 1074.4-6, 1119.2-4, 1130.4.
[38] van Bergen, *Goede leven*; Bakker Schut, *Volkshuisvesting*, p. 89; de Regt, 'Woningopzichteressen', pp. 420-3; Teijmant, 'Huisjesmelkers'
[39] Widdershoven, *Het dilemma*; Moerman, *Gif*; van Bergen, *Gouden*, p. 138; van Bergen, *Goede leven*, pp. 54-6.
[40] 'Geld, het vijfde wiel aan de huwelijkswagen', *Margriet* (14) (1970) 136-142 (NA 2.19.062.01, 69); Boter, 'Payment patterns'; Jansen, *Omwenteling;* Kloek, *Vrouw des huizes*, p. 199. Cf also: Carnegie and Walker, 'Household accounting'.
[41] Stokvis, ''Huisvrouwelijke' arbeid'.
[42] The actual share of households in our sample with a checking account was probably higher, as some of the surviving accounts only contain the daily expenses of housewives, not the financial dealings of their husbands.

giro payments became more important after the Second World War. But that was not what happened. The clerk retired in 1949; his pension was paid to the giro account but immediately converted into cash; every month he visited the *Gemeentegiro* to withdraw 90 to 125 guilders to pay for household expenses.

[Figure 3 about here]

Government statistics on the occupational background of 440,000 wealth tax payers in 1955 – the richest fifteen per cent of the population—show that giro accounts were held by salaried employees, civil servants, and pensioners, not by otherwise well-to-do laborers, farmers, or other small business owners.[43] Ten years later, in 1964, the Postal Cheque and Giro Services commissioned a survey among 508 households asking about their payments. No less than 97 per cent of all their bills (68,000) were settled in cash. Fourteen per cent of these households had a giro account, with two thirds of them receiving their salary in the account. They paid for food, clothing, and other household items in cash, however, using their checking account primarily for payments to the government (34 per cent of all transactions in that category), mortgage lenders and landlords (22 per cent), public utilities (19 per cent), and doctors (57 per cent).[44] In other words, on the eve of the financial turn, the vast majority of households in the Netherlands used cash only, and even the ones with a checking account used it only sparingly.

[43] CBS, *Inkomensverdeling 1954*, pp. 30-9. CBS, *Inkomensverdeling*, pp. 136-41.
[44] van der Marel, 'Betalingsgewoonten'.

III. SAVINGS BOOKLETS

How different was the use of savings banks. Already in the nineteenth century there was a very strong philanthropic savings movement. By 1880 there were 300 local savings banks. Their clientele had remained relatively small, however, with only 750 savers on average.[45] The total number of account holders amounted to less than ten per cent of the adult population. This was partially the result of the very low wages that kept most households from saving even small sums of money, but it was also due to the limited opening hours of the philanthropic banks, the rules they set for deposits and withdrawals, and the large social distance between the bank directors and their clients.[46]

In 1881 the government stepped in and created a postal savings bank (RPS) operating through the country's 1,000 post offices. The bank accepted deposits and withdrawals of even the smallest amounts at every day of the week, thus tailoring their service to the cash economy in which most households lived.[47] It was an instant success. Within a decade there were more than 300,000 savings booklets in circulation, and in 1902 the postal savings bank passed the one million mark. By then rural cooperatives had also begun to offer savings services and by 1920 everybody in the Netherlands lived within less than a half-hour bike ride from at least one savings bank.[48] The share of adults population with a savings booklet rose from 14 per cent in 1890 to 46 per cent in 1930, and 68 per cent in 1950. By 1965 virtually everybody had a savings account (Cf. Figure 1). The total amount of savings rose from 60 million guilders in 1890 to 1.3 billion guilders in 1930, 4 billion guilders in 1950, and 17.8 billion guilders in 1965.[49]

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[45] Dankers, Linden, and Vos, *Spaarbanken*.
[46] Deneweth, Gelderblom, and Jonker, 'Microfinance'.
[47] Deneweth, Gelderblom, and Jonker, 'Microfinance'.
[48] Colvin, *Religion*; Gelderblom et al., 'Exploring'.
[49] Data for 1890: CBS, *Jaarcijfers voor Nederland*, p. 68 (1985). Data for 1930: CBS, *Jaarcijfers voor Nederland*, p. 155 (1939); Weststrate et al., *Gedenkboek*, pp. 354-9, 74-76; Haastert and Huysmans, *Veertig*, p. 117. For 1950: CBS, *Jaarcijfers voor Nederland*, p. 208 (1953-1954); CBS, *Jaarcijfers voor Nederland*, p. 209 (1955-1956). Data for 1970: CBS, *Maandstatistiek*, p. 422 (1973).

Saving through repeated small deposits with the possibility to withdraw money at any time fit seamlessly with the recurrent deficits and surpluses that characterized the cash economy.[50] It also matched the creation of 'special monies', that is small amounts of money kept in separate cash boxes to pay for birthdays presents, holidays, or any other pre-determined purpose.[51] Having a savings account did not stop people from such earmarking; it rather offered an additional means to reserve money for future expenses.[52] The acceptance of very small sums also characterized the system of school savings (*schoolsparen*) and the principle also applied to the cash boxes café owners kept for their patrons.[53] For all intents and purposes saving banks were a single purpose institution. They did offer people the opportunity to pay taxes through the account but the procedure was cumbersome and it was used only sparingly.[54]

The very specific function of the savings banks can be shown to good effect with the execution of the national money purge after the Second World War.[55] To rid the country of improperly acquired wealth and to realign the money supply with the actual size of the economy, all banknotes of 100 guilders were taken out of circulation in July 1945, by having people hand them in at one of the commercial banks or rural cooperatives. In September 1945, all bank notes with smaller denominations had to be handed in too, either at the same banks or at one of the savings banks. Since having an account was indispensable not to lose money, a total of 1.4 million new savings booklets were issued.[56] Every citizen received ten new guilders

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[50] Cf. for households depositing and withdrawing money from their savings account in response to cash surpluses and deficits, KvN, Inv. Nrs 1007.5c-7c (1896-1905); 1185.1 (1907-1910); 1137.1-7 (1948-1952); 318.2 (1954), 142.5 (1960); 114.3 (1968), 114.7 (1972).

[51] Cf. Zelizer, *The social meaning*, for the earmarking of money for special purposes by households in the US between 1870 and 1930. The *Kasboekje van Nederland* project reveals many instances of childrens' piggy banks ('spaarpot') and specific types of cash boxes ('kastje', 'busje'), as well as references to money earmarked for birthdays (1087.12; 114.9; 133.24) and holidays (427.9; 1185.1; 1186.1). One household kept the money received in return for used cans and bottles in a separate box (318.6) and we found two instances of specific types of copper and silver coins put aside, possibly for church collections or card games (KvN, Inv. Nrs 108.25, 114.9).

[52] See for example KvN Inv.nrs. 1023.1 (1944-1945), 108.2 (1951), 427.9 (1951), 95.4-95.16 (1948-1987).

[53] On school savings: Dankers, Linden, and Vos, *Spaarbanken*, 113-5, 176-90; Barendregt and Overman, *Ondernemend*, pp. 78-9, 186. Cf. also on savings in cafés in Belgium: Witte and de Preter, *Samen*, p. 252; Buyst, Goossens, and van Molle, *CERA*, p. 25.

[54] Barendregt and Overman, *Ondernemend*, p. 132; van den Berge, *Giroverkeer*, pp. 141-50.

[55] Lieftinck, *The post-war financial rehabilitation of the Netherlands*; Barendregt, 'Money purge'.

[56] See Appendix A.

in cash to get through the first week but any other money they had was locked up in their savings account. But then, when the government unblocked a first contingent of savings in 1946, households withdrew no less than 786 million guilders in cash from their savings account – an average of 300 guilders per family, and one sixth of total national savings – a clear sign of their persistent preference for cash.

Savings banks offered a single service but they did so for everyone: people with and without jobs, white collar workers and blue collar workers, adults and children.[57] This diversity was clearly reflected in the actual size of savings balances (Table 1). Up to World War II, the balance of the majority of the accounts was less than 10 guilders, both at the RPS and the general savings banks. After the war, the number of accounts with small balances remained considerable, and by 1965, 100 guilders was still the maximum balance for 60 per cent of the savers at the RPS, equivalent to a weekly wage of an unskilled laborer. Even so, there was a clear increase in the size of savings balances. The relative share of RPS accounts with more than 1,000 guilders rose from five per cent in the 1920s to 16 per cent in the mid-1960s. In the general savings banks this share increased from 12 to 24 per cent in the same period. Since the banks only paid interest up to a certain amount— for the Postal Savings Bank 1,200 guilders until 1931 and 2,500 guilders thereafter – the more affluent opened savings accounts with multiple banks.[58]

[Table 1 about here]

The steady growth of household savings in the 1950s eventually caught the eye of the commercial banks. Before 1956 they had ignored ordinary households as potential customers, but as the economy expanded, and the demand for loans from Dutch businesses soared, private

[57] CBS, *Statistiek der spaar- en leenbanken*, pp. 8, 20 (1951).
[58] Cf. Appendix A.

savings became an attractive additional source of funding. Hence the commercial banks started offering deposit accounts at 3 or 3.5 per cent interest—just above the rates offered by the major savings banks.[59] The express purpose of the new product was to retain people's savings for a longer period of time and match the maturity of loans extended to businesses. The terms and conditions were flexible enough to allow households to withdraw their money in case they needed it but the small mutations typical for savings booklets were to be avoided.[60] The new deposits turned out to be a genuine gap in the market: an attractive store of wealth for people who did not want to put all their money in real estate, yet shied away from direct investment in stocks and bonds.[61] By 1965 commercial banks controlled 11.5 per cent of Dutch household savings (Figure 4).

[Figure 4 about here]

IV. BANK LOANS

In theory, the widespread use of savings banks is an ideal breeding ground for retail banking. After all, turning small sums into large ones, and short-term deposits into long-term loans is one of the key functions banks perform. Thus, it comes as no surprise that already in the mid-nineteenth century dozens of Dutch savings banks established *help banks* to transform some of the savings they collected into small loans to retailers and artisans.[62] By 1920 there were help banks in 40 percent of the municipalities with 20,000 inhabitants or more, plus several others

59 'Stegeman, 'Plaats'; Barendregt and Visser, 'Towards' Barendregt and Overman, *Ondernemend*, p 188; Vos and Westerhuis, *Kredietwaardigheid*.
60 de Graaf, *Voor handel*, p. 355; Wurfbain, 'Recente ontwikkelingen'.
61 van Berckel, *Maatschappelijke*, pp. 143-50; Slot, *Iedereen kapitalist*; van der Valk, *Household finance*, pp. 14-7.
62 Deneweth, Gelderblom, and Jonker, 'Microfinance'; de Vicq and van Bochove, 'Lending'.

in smaller communities.[63] The scale of their operations was small, however. Even the biggest help banks only granted a few hundred loans per year, all of them for business purposes.[64] The same was true for the more than 1,200 rural cooperatives in the countryside. They collected savings from the population at large but they lent money to farmers only.[65] By 1939 the coops had 185,000 loans outstanding, two thirds in the form of advances on future revenue, one third in current accounts.[66] The Postal Savings Bank was not even allowed to lend to the general public: the money in its custody was invested in public bonds and other safe assets.[67]

This does not mean that Dutch households never borrowed. Especially for families with low and irregular incomes the deferment of payment to local shopkeepers was not always a matter of convenience—it was dire necessity.[68] In the cities, poor households also turned to public and private pawnshops, which accepted clothes, jewelry, and other personal items as collateral for small, short-term loans. In 1890 there were 43 pawn banks extending 2.5 million loans for a total of seven million guilders.[69] This easy conversion of personal belongings into cash became less important in the first half of the twentieth century as the number of people earning very low wages steadily declined.[70] In 1941 there were only 24 pawn banks left. They still granted 665,000 loans per year but the Dutch population had doubled in size since 1890, which meant that the banks' operations were only one eighth of the size they had been half a century earlier.[71]

Meanwhile rising wages stimulated household demand for clothes, furniture and other household items. Most people paid for these goods in cash but new credit schemes did emerge,

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[63] de Vicq, Gelderblom, and Jonker, "Dutch banking database, 1880-1940," (2021).
[64] de Vicq and van Bochove, 'Lending'; van Bochove and de Vicq, 'Opkomst'.
[65] Jonker, 'Welbegrepen'; Colvin, Henderson, and Turner, 'Origins'.
[66] Huysmans, 'Landbouwcrediet', p. 382; Weststrate et al., *Gedenkboek*, p. 351; Coöperatieve Centrale Boerenleenbank Eindhoven, *Verslag 1949*, 48-9.
[67] Barendregt and Overman, *Ondernemend*, pp. 122-6.
[68] Maas and van Leeuwen, 'Over dienstboden'; Pollmann, *Kleine baas*; Gelderblom and van der Valk, 'Coping'.
[69] Maassen, *Commercieel*; Deneweth, Gelderblom, and Jonker, 'Microfinance'.
[70] Schenk and van Poppel, 'Social class'; Moatsos, 'Long run'; Gelderblom and van der Valk, 'Coping'.
[71] CBS, *Statistical yearbook*, pp. 94-5 (1990); CBS, *Jaarcijfers voor Nederland*, p. 331 (1943-6).

all closely aligned with the cash economy. Stamp traders (*betaalzegelkassen, spaarzegelkassen*) were the most successful among the new intermediaries. Their customers either borrowed money upfront and repaid by buying stamps, or they saved small sums of money for which they received stamps, which could then be spent in the affiliated stores. There were also doorstep traders who offered subscriptions and installment plans for a variety of consumer goods.[72] In the poorest neighborhoods of the big cities they were trailed by *weekvrouwen*: female lenders who offered cash loans at very high interest rates to families that were about to miss an installment.[73] For households with larger deficits yet another group of commercial money lenders offered lump-sums loans of 100 guilders or more, also with hefty interest rates and sometimes the obligation to sign an insurance policy to secure the loan.[74]

These practices fueled public concerns about abusive lending and when the Great Depression hit, the government stepped in to protect borrowers.[75] The *Geldschieterswet* of 1932 sanctioned a public alternative for commercial lending in the form of municipal banks which offered emergency loans to households in financial distress.[76] The terms of these *volksbanken* (popular banks) were set to complement the smaller, short-term loans of the pawn banks. The government clearly understood that loans could help households in financial distress, but at the end of the day very few of them did. In the period between 1932 and 1937 when unemployed rose to almost twenty per cent, there was a marked increase of deferred payments to shopkeepers but few households ran up very large debts.[77] In 1941, the first year for which we

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[72] van Dam, *NVVK*; Everts, *Gids*, p. 284.
[73] "Weekbladen", in *Nieuwe Rotterdamsche Courant*, 30 August 1924, p. 10; "de praktijken der leenvrouwen", *Haagsche courant*, 9 June 1934. The oldest reference to the *weekvrouwen* in Amsterdam in 1903 described them as unmarried women, often former seamstresses, who sold clothes and other personal items on people's doorstep: Jonathan, *Handel*. See also the warnings against the *weekvrouwen* by the Amsterdam writer Israël Querido, *De Jordaan* (1925), p. 71; Idem, *Mijn zwerftochten* (1931), pp. 105-106, and by one of the country's first budget advisors, Polak-Kiek, *Financieel beheer*, pp. 32-4. She repeated her warning in a publication after the Second World War: Polak-Kiek, *Uitkomen*, pp. 123-7.
[74] *Voorwaarts: sociaal-democratisch dagblad*, 7 maart 1928; *Arnhemsche Courant*, 19 and 20 March 1928; Nederlandsche Middenstandsbank N.V., *Gezinskrediet*.
[75] Fruin, *Moderniseering*; van Dam, *NVVK*.
[76] Fruin, 'Volkscrediet', pp. 201, 205; Rees van den Ende, 'Bedrijf'; Nederlandsche Maatschappij voor Nijverheid en Handel, *Het afbetalingsstelsel*, p. 26.
[77] Gelderblom and van der Valk, 'Coping'.

have detailed information about the loans extended by the country's twelve *volksbanken*, their combined portfolio comprised only 17,000 loans for a total of 1.8 million guilders.[78]

Alongside this popular credit existed another type of consumer credit, the hire-purchase, aimed at households with higher, more regular incomes.[79] The typical contract included a down payment followed by several installments with a duration of three to twelve months, depending on their size. The creditor had the right to claim the purchased consumer goods until the total loan had been paid off. These installment plans were offered by manufacturers and department stores but also by stamp traders and other financing companies, which took over the burden of risks from retailers and concluded contracts directly with their customers. In 1939 there were 415,000 sales on credit for a total of 30.7 million guilders.[80] This equaled one contract per year for every fifteen inhabitants. This was a small market, also internationally: households in the US and Germany bought 12.5 and 14 per cent of their consumer durables on credit in 1939, against only 5.9 per cent in the Netherlands.[81]

The Dutch market for consumer loans remained small over the next twenty-five years (Figure 5). From 1941 onwards CBS produced annual reports including both popular credit and consumer credit. These data show that people stopped borrowing during the Second World War as the supply of goods dried up and broad shifts of the population were able to save larger sums of money. The number of loans per capita rose again after 1945, but it did not quite reach the pre-war level and in 1953 it started to slip again.

[Figure 5 about here]

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[78] See. Appendix A.
[79] *Wet op het Afbetalingsbedrijf* (1936), cited in Polak-Kiek, *Gezinsbudget*, p. 16; Huls, *Consumentenkrediet*, pp. 69-71.
[80]CBS, *Jaarcijfers voor Nederland*, p. 331 (1943-1946).
[81] Fruin, 'Volkscrediet', p. 509.

The data suggest a rapid growth of loans from financing companies in 1965 but this was simply because in that year CBS added personal loans to its annual report. Already in 1958 *Twentsche Bank*, then the second largest commercial bank in the Netherlands, had begun to offer personal loans to private households.[82] With these loans the bank targeted a new clientele of salaried employees with an annual income between 5,000 and 10,000 guilders. They could borrow between 500 and 4,000 guilders for up to two years, including interest, without any restrictions on what the money could be spent on. All a prospective borrower needed was a proof of income.[83] The *Twentsche Bank's* offices were not equipped for this type of business, however, and the actual handling of the loans was left to a financing company with the necessary resources to determine creditworthiness and set loan terms and conditions.[84]

After the initial move of *Twentsche Bank*, other commercial banks in the Netherlands quickly followed suit in what was in fact a general development across western Europe in the late 1950s.[85] In the US personal loans had already taken off in 1931 when the central government instituted a guarantee scheme for banks offering personal loans to private households.[86] At the time, the Dutch government had done the exact opposite with its *Geldschieterswet* but a new law on installment credit in 1956 set more lenient rules which allowed the commercial banks and their subsidiaries to enter the market. However, out of fear of an overheated economy, the Central Bank capped the annual growth of personal loans at 12 per cent per year until 1965.[87] While CBS did not report the initial expansion of personal loans between 1958 and 1965, it did include the portfolios of the financing companies from that date

[82] van der Werf, *Banken*.
[83] Leyendekkers, *Afbetalings- en geldkrediet*, pp. 22-3
[84] *Algemeen Handelsblad*, 17 October 1958.
[85] Leyendekkers, *Afbetalings- en geldkrediet*; Effosse, *Crédit*.
[86] Hyman, *Debtor*.
[87] DNB *Report for the year* 1960: 95, 197; 1961: 175; 1964: 41; 1966: 42; Cf. also Nederlandsche Middenstandsbank N.V., *Verslag 1961*, pp. 20-1.

onwards. This was now the single most important type of consumer credit, but it still amounted to only three loans per 100 people.[88]

Other sources confirm the limited use of credit, at least in the first years after the Second World War. Budget councilors invariably stressed the importance of a balanced budget. They warned against the dangers of buying on credit and recommended insurance as the best way to cushion financial shocks.[89] Among the 57 households in our sample of domestic accounts from 1951 there were 30 without any kind of loan recorded. Those who did borrow used a variety of lending channels. Advanced wages were the most common form (12 households), followed by informal loans among relatives (11), consumer credit (8), mortgages (4), bank loans (3), plus loans whose exact nature could not be determined (12). Still, the total value of the loans received by these households in 1951 amounted to only 1.7 per cent of their total expenses in that year. The same picture emerges from a budget survey among 250 families of blue and white collar workers in 1952: they carefully balanced their budget, spending whatever income they earned and not a penny more.[90]

To be sure, the early 1950s were a period of recovery and wage moderation but even as wages began to rise after 1954 households retained their preference for saving over borrowing. The first complete overview of the indebtedness of Dutch households dates from 1960 when CBS conducted a financial survey among 3,500 households.[91] Figure 3 reports the total amount of money saved and borrowed in that year for four income groups, each constituting about a quarter of the households included in the investigation. These data show that across the entire distribution, mandatory savings for pensions were the most important destination of surpluses,

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[88] CBS, *Statistical yearbook*, p. 228 (1971); CBS, *Jaarcijfers voor Nederland (1967-1968)*; DNB Report for the year 1966, p 203.

[89] Wilzen-Bruins, *Kopen*; Polak-Kiek, *Gezinsbudget*. The *Nederlandsch gezinsboek*, reprinted eight times in the 1930s and 1940s, had two chapters on insurance but none on credit.

[90] CBS, *Huishoudrekeningen 1952*, pp. 5, 20.

[91] A survey held among 919 account holders of the Postal Savings bank in 1960 found that only 75 households (8.2 per cent) had bought goods on credit, with two thirds (48) using instalment loans and one third (27) money loans. See: Pais, *Consumer credit*, pp. 28-33.

between 1.5 and 3 times as big as insurance premiums and ordinary savings combined. The CBS figures also show that households saved more than they borrowed. If we add up the extra income from loans for the four income groups in Figure 6, the total demand for credit from households amounted to 517 million guilders in 1960, which was about a third of their voluntary and mandatory savings in that year (1.6 billion).

[Figure 6 about here]

In terms of cash flow the installment loans came third in every income group, far behind mortgages and 'other loans'. The survey does not provide additional information on the latter category so we cannot tell exactly what type of loans these were. At 333 million guilders, the total value of mortgage loans received by Dutch households would seem very high, but if we assume an average housing price of 20,000 guilders with a mortgage of half that value, this would come down to 10,000 new mortgage loans, or less than one mortgage per hundred households. So the residential mortgage market was small and most banks stayed away from it. Rural cooperatives did offer mortgages but these were for business purposes and demand was limited.[92] One survey conducted among small farmers in eleven villages in 1950 found that half of the sampled population did not use credit at all, and that only 30 per cent of a total of 1,863 mortgages loans were extended by banks, against almost two thirds by private individuals and relatives.[93]

In brief, throughout the 1950s and 1960s Dutch households preferred saving over borrowing and they paid cash for most goods and services. Commercial banks offered personal loans to some clients but they stayed away from consumer credit which was controlled by a separate group of specialized intermediaries. In addition to that the government provided

[92] van der Schaar, *Groei*, p. 315.
[93] Maris, 'Enkele', p. 84.

emergency loans to households with financial difficulties. This division of labour persisted for several decades and it was flexible enough to meet the increased demand for personal loans and more remunerative savings products when wages started to rise in the second half of the 1950s. So why did it change? Why did millions of households whose financial dealings were fully aligned with the country's cash economy all of a sudden open bank accounts in the second half of the 1960s?

V. PAYMENTS TO AND FROM THE GOVERNMENT

The key to understanding the rise of retail banking lies in the organization of money transfers between households and the government. Initially the government took it upon itself to create a public giro system for these payments, with Amsterdam as the first mover in 1917.[94] Since 1895 the city's expenses had tripled and so had the number of people working for the city.[95] The municipality decided to establish a *Gemeentegiro* to organize its payments, including the salaries of its civil servants.[96] At the time several other local and provincial authorities contemplated a similar move, and it was at that point that the central government decided to add giro transfers to the bundle of financial services already available at local post offices.[97]

The *Postcheque and Girodienst* (PCGD) was far bigger than Amsterdam's local girobank, as it was grafted on the national network of 350 main post offices. Even so, the service was off to a very difficult start, as it attempted but failed to implement a semi-automatic transfer

[94] As early as 1904 a state committee proposed the creation of a national giro bank but the country's business elite preferred to use cashiers and payment facilities offered by the central bank: Kymmell, *Geschiedenis*; Vissering, *Oude*. Small business owners used money orders and mail receipts offered by the post offices: Janzen, *Middenstandsbankwezen* p. 120-121. The number of postal money orders processed rose from 3 million in 1890 to 25.5 million in 1920: CBS, *Jaarcijfers voor Nederland*, pp. 261-2 (1920).
[95] Bureau van Statistiek der Gemeente Amsterdam, 'Aantal ambtenaren', p. 36; Bureau van Statistiek der Gemeente Amsterdam, *Jaarboek 1896*, p. 24; Bureau van Statistiek der Gemeente Amsterdam, *Jaarboek 1917*, p. 161.
[96] Lelieveldt, 'Stad'; Barendregt and Overman, *Ondernemend*, pp. 137-8.
[97] Barendregt and Overman, *Ondernemend*, pp. 90-5.

system. The machines were malfunctioning, the staff insufficiently trained, and the management incompetent, and PCGD had to close its doors for an entire year.[98] When it reopened in 1924, it returned to the manual instead of mechanical processing of payments. From then on the number of account holders steadily grew to 640,000 in 1955 with an additional 100,000 account holders at Amsterdam's *Gemeentegiro*.[99] These accounts were mostly held by salaried employees, civil servants and pensioners (Cf. supra).

Tax collection was a second stimulus for the development of public payment services. In 1915 the government introduced a national income tax which required millions of people every year to make a direct payment to the state.[100] Collecting the income tax was an operational challenge.[101] Between 1915 and 1930 the total number of tax payers increased from 540,000 to almost 1.9 million.[102] In the cities they could pay at the local tax office, while in the countryside there were travelling tax inspectors who combined various administrative tasks with the collection of taxes.[103] Once a year this system was put under considerable pressure as workers came forward to pay their tax bill. The largest offices had separate cash registers that were capable of handling large numbers of payments in a short period of time, but in many of the smaller offices all other work came to a standstill as people queued to pay their income tax.[104]

Some of the pressure was removed by payments through the Postal Cheque and Giro Services but these numbers were small.[105] The same was true for the general savings banks and

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[98] Barendregt and Overman, *Ondernemend*, pp. 95-114. Cf. also Bonin, 'Accounting', pp. 262-3 for simultaneous efforts of Dutch commercial banks to mechanize their system of bank transfers.
[99] Appendix A. Between 1920 and 1940 the annual number of postal money orders processed fell from 25.5 million to 10.3 million: CBS, *Jaarcijfers voor Nederland*, pp. 219-20 (1943-1946).
[100] Smit, *Omwille*, p. 268.
[101] Verwey-Jonker, *Lage inkomens*, pp. 12-3.
[102] Bonger, *Vermogen*, p. 40; CBS, *Statistiek der inkomens*, p. 3. Since many private wealth owners already had a bank account, the collection of the wealth tax did not create any practical problems: Gelderblom et al., 'Exploring'.
[103] In addition to the state's tax offices, several municipal governments established their own local deposit and collection services (*stortingsdienst,,ophaaldienst*) for tax collection: Leppink, *Gemeentefinanciën*, pp. 263-4.
[104] "Belastingbetaling op de postkantoren", *De Tijd:godsdienstig-staatkundig dagblad*, 03-05-1928, p. 5; *Handelingen Tweede Kamer*, 28ste vergadering, 3 december 1929
[105] Teijen, *25 jaar*, p. 19.

the rural coops, which allowed accountholders to transfer money from their savings booklet to the tax office. Their administrative procedure was such a hassle that the facility was used only sparingly.[106] In 1926 a committee was formed to find a better solution and it proposed the collection of the income tax through the post offices.[107] These had long opening hours and their staff was used to handling money orders and postal receipts.[108] In Parliament delegates from the countryside objected because they feared their constituents would have to travel to pay their dues, but they were reassured that in rural communities the existing infrastructure of tax offices and traveling inspectors would remain in place.[109] Hence in 1931 a first group of 178 urban post offices started processing the annual income tax payments.[110]

This was as far as direct payments between the central government and private households went in the 1930s. Social premiums for the national disability insurance scheme were paid directly by employers to the government.[111] Health insurance funds employed local agents going door to door to collect the weekly or monthly subscriptions.[112] The premiums for unemployment insurance were included in the contributions workers made to their trade unions. When sudden, massive unemployment exhausted these mutual schemes in 1931 the central government stepped in with lump sum payments to the trade unions. After that municipal governments took over with cash payments to the long-term unemployed in their towns and villages.[113]

Under German occupation the central government engaged employers to streamline the payment of social premiums, benefits, and taxes. More extensive schemes for health insurance

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[106] van den Berge, *Giroverkeer*, pp. 141-50. Bosch, (Karakter 106-107); J. Burgerhout, "Handelsbanken breiden hun werkterrein steeds verder uit", *Algemeen Handelsblad*, 20 May 1961..
[107] *Handelingen Tweede Kamer*, 28ste vergadering, 3 december 1929.
[108] Barendregt and Overman, *Ondernemend*, p. 122.
[109] *Handelingen Tweede Kamer*, 28ste vergadering, 3 december 1929.
[110] "Reorganisatie van den belastingdienst", *Het Vaderland. Staat- en Letterkundig Nieuwsblad*, 7 november 1930; van den Berge, *Giroverkeer*, pp. 81, 166; Bosch, *Karakter*, pp. 106-7, 24.
[111] Nijhof, 'Pensions', pp. 274-5.
[112] Widdershoven, *Het dilemma*, pp. 112, 133, 146, 154, 183, 202, 220, 237.
[113] Nijhof and Schrage, 'Bondslokaal'; Berger, *Armenzorg*, p. 129.

and child benefits had already been made before the war and they were now implemented.[114] The result was a system where employers deducted taxes and premiums from the wages and remitted them to the government. Households still paid half the health insurance premium to agents who came to their door, and for domestic servants and casual workers without permanent employment a system was introduced with income tax booklets signed off by their employers who remitted the money due to the state.[115] The government also introduced child support booklets which with families could go to the post office to collect this three-monthly allowance.[116]

In the 1940s and 1950s the country had three main hubs for payments to and from the government. First, there were the 1,000 post offices where taxes and benefits were paid in cash.[117] Then there were the employers who deducted taxes and premiums from their workers' wages and then remitted them to the government through their own bank accounts. And third there was a steadily growing group of white collar workers who received their salaries in a checking account, net of the taxes and premiums withheld by their employers. Each of these three 'counters' came under pressure. The new system of state pensions (AOW), introduced in 1957, in one fell swoop added 230,000 recipients to the 470,000 retired workers who already received some form of pension. To avoid large crowds at the post offices every pensioner was assigned a precise day and time to collect their monthly benefits.[118]

Meanwhile the withholding of social premiums and other deductions increased the amount of time employers spent on the preparation and disbursement of the weekly wage

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[114] Widdershoven, *Het dilemma*, pp. 50-1; Nijhof, 'Pensions', p. 293.
[115] On wage tax booklets (*loonbelastingboekjes*): *Besluit*, pp. 142-143; Employers also used an elaborate stamp system as part of the Disability Insurance Act (*Invaliditeitswet*): Nijhof, 'Pensions', pp. 274-5.
[116] On child support booklets (*kinderbijslagboekjes*): Centraal Beheer "Kinderbijslagwet" (1940); Hoogenboom and Boot, *Kinderbijslagverzekering*, pp. 50-53;
[117] In the two years following the national money purge of 1945 households also used their savings accounts to pay taxes: CBS, Statistiek der Spaarbanken 1947, p. 6; 1948, p. 5.
[118] "In januari gaat het geld rollen. Ruim 700.000 Nederlanders wachten op hun bodempensioen", *Trouw*, 20-12-1956.

packages.[119] Some of the biggest companies bought machines to make the necessary calculations but for small and medium firms such investments were impossible. They either continued manually or outsourced the increasingly complex wage administration to specialized firms.[120] To lessen the administrative burden, employers also switched to the monthly payment of salaries to higher earning white collar workers [121] Even so, the total amount of cash paid to workers continued to grow, and the same was true for the social security system. After a major reorganization in 1952 most of its operations were administered by a small number of administration offices (*Gemeenschappelijk Administratiekantoor*) which also invested in the mechanization of its administration, but this did not end the cumbersome system of cash disbursements.[122] Payments of pensions and salaries through the Postal Cheque and Giro Services brought some relief but PCGD was running up against its own limits. Their number of staff in front and back offices continued to grow, and by 1955 the giro system was about to break. To release the pressure PCGD put a temporary stop on the acceptance of new account holders until their second processing center in Arnhem was up and running.[123]

In 1955, the Dutch government was only at the beginning of a huge increase in the number and size of its annual payments to and from households. Between 1958 and 1967 the number of supported widows, orphans, and disabled persons doubled from 259,000 to 578,000. In 1967 the state pension AOW was paid to one million people—every month.[124] Compensation for workplace accidents remained stable at 270,000 per year, but allowances for temporary illness rose from 1.5 million to 2.3 million between 1958 and 1967.[125] These numbers tell only

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[119] van der Elst, 'Afschaffing'; van Oost, 'Administratieve'; Knaapen, 'Van weekloon naar maandloon', p. 146; de Koning, *Girale*, pp. 89, 93; Willemsen (ed.), *50 jaar*, p. 51; Mok, *Door de bank*, p. 7; de Beer, 'Gebruik'; van Bergen, *Gouden*, p. 136.
[120] de Wit, *Shaping*, p. 99; Reenalda, 'Loonadministratie'; 'Loonadministratie bedrijfsleven: binnenkort centrale berekening. Centrum voor Elektronische Administratie i.o.', *Algemeen Handelsbank*, 20 april 1960, p. 14; van Oost, 'Huisvrouwen', p. 275.
[121] Cf. Gezins-Begrotings-Instituut, *Week.*
[122] van Damme, *Werkloosheidsregelingen*, pp. 52-3.
[123] "Giro werkt hard om achterstand in te lopen", *Het Parool,* 06-01-1955.
[124] Nijhof, 'Pensions', pp. 293-4.
[125] CBS, *Statistisch zakboek 1969*, pp. 214-23; CBS, *Statistisch zakboek 1978*, pp. 317-28.

half of the story for the amounts involved also increased very rapidly. Figure 7 reports the annual growth of income tax revenues, social premiums, and social benefits between 1950 and 1970. In the 1950s the total amounts paid and received more than doubled, while over the next decade they increased more than fivefold. The limited growth of the total number of civil servants and teachers in the same period suggests that it was indeed the growth of social transfers, not the expansion of the public sector as such, that put the payment system under increasing pressure.

[Figure 7 about here]

The most obvious solution to the payment problems was the further expansion of the Postal Cheque and Giro Services. [126] The Postal Services had accumulated extensive financial reserves in the first ten years after the war, which could now be invested in new mechanical devices, office buildings, and computer technology. Since PCGD operated through the same office network as the Postal Savings Bank, it had a large group of potential new customers close by. After several years of trial and error PCGD announced in 1962 that the first 50,000 accounts were now being processed by computers. [127] Three years later any organization that wanted to could submit its magnetic tapes with payment orders.[128] By then PCGD already had 1.25 million account holders, all with access to a free, fully functional automated payment system.[129]

At this point the commercial banks, rural cooperatives, and the general savings banks realized they had to take action. If they wanted to use the now rapidly rising wages of workers

[126] The Dutch government never forced citizens to have a checking account. The law merely stipulated that bank transfers were as good as cash transactions and therefore could be used for any kind of payment: *Burgerlijk Wetboek*, Article 6:114 ('betaling op rekening is bevrijdend'). A more binding regime was in place in Belgium, where child benefits were only paid by cheque or bank account: *Algemene Kinderbijslagwet*, art 68.
[127] Molenaar, 'Hoofdlijnen'; de Wit, 'Facetten'; Barendregt and Visser, 'Towards'.
[128] van Engelen, *Blauw bloed*, p. 262.
[129] de Wit, 'Facetten', pp. 247-8, 253; van Engelen, *Blauw bloed*, p. 263; Niesten, 'Betalingsverkeer'.

as an additional source of funding for their lending operations, they had to offer payment facilities similar to those of the PCGD.[130] So the commercial banks and rural cooperatives decided in 1965 to introduce salary accounts. The general savings banks started lobbying for permission to turn their savings accounts into salary accounts; the national SME bank entered the retail market; and commercial banks demanded equal fiscal treatment of savings banks and general banks.[131] In 1967 the banks opened their own automated clearing house (*Bankgirocentrale*) for bank transfers and in doing so created a second national payment platform available to all households, businesses and the government.[132]

Dutch employers responded immediately. In 1970 three quarters of all companies with more than 100 employees were already paying their wages into checking accounts.[133] Households were less keen. An extensive publicity campaign, organized by the banks and the government, pointed out the benefits of receiving a monthly salary in one's checking account. The banks also offered sweeteners in the form of interest of up to 3.5 per cent paid on the balances of people's salary accounts.[134] This financial advantage, combined with the employers' preference to pay wages through the banks, led to a very fast penetration of bank accounts. In 1970, PCGD had 2.2 million account holders and the other banks combined 3.2 million. Five years later there were eight million accounts for ten million people, and by 1980 the percentage share of the population with a checking account stood at 93 per cent.[135]

[130] Cf. for a contemporary account of the considerations of the parties involved: Nederlands Instituut voor Efficiency, *Girale*.
[131] "Fanatiek gevecht", *Het Vrije Volk: Democratisch-Socialistisch Dagblad*". Rotterdam, 1967/10/0; R. Manschot, "De landbouwkredietbanken in het Nederlandse bankwezen" *Algemeen Handelsblad*, 13 February 1962.
[132] Fase, *Tussen*, pp. 348-53, 365, 434, 635-6; Barendregt and Visser, 'Towards'; van Zanden and Uittenbogaard, 'Expansie'; Dankers, Linden, and Vos, *Spaarbanken*, pp. 337-8; van Engelen, *Blauw bloed*, p. 263.
[133] van der Werf, *Bond*, p. 219; 'Groei van AMRO-bank in trager tempo', *De Tijd: Dagblad voor Nederland*, 26 februari 1971, p. 11; Cf. also Dankers, Linden, and Vos, *Spaarbanken*, p. 337.
[134] DNB Report for the year 1970, p. 142. "Banken bieden 3½ pct. over giro-tegoeden". *Het Parool*. Amsterdam, 1967/09/06, 17.; "Amro-bank opent geldwinkel in V&D". *Algemeen Handelsblad*, 1967/09/08, p. 15. ; "Gierend over de giro. Bankwezen introduceert „betaalcheque" , *Algemeen Handelsblad*". 1967/04/0, p. 13.
[135] Cf. Appendix B.

VI. BANK USE IN THE 1970S

Now the question is to what extent the opening of a checking account changed the financial behavior of households. Upon receiving their wages, many people immediately went to the bank or post office to withdraw cash.[136] For some this signified genuine distrust but for most the withdrawals were simply necessary because retailers still expected their customers to pay in cash.[137] The persistent use of coins and bank notes among households with a checking account is immediately apparent in the domestic accounts of 56 Dutch households in 1971 (Figure 8). The pattern of their payments is similar to that in 1951, with an inverse relationship between the total number of their transactions and their mean value. Payments were small but numerous in accounts with household expenses, while the booklets with fixed charges had fewer but larger entries, with only a weekly or monthly booking of 'household money'.

[Figure 8 about here]

The persistent use of cash alongside bank transfers is reflected in the development of the national money supply. Between 1964 and 1974 the percentage share of bank balances in the total amount of money in circulation rose from 54 per cent to 67 per cent – a clear sign that a substantial part of all payments was being redirected through the banking system.[138] But since the total number of households was also growing, and their disposable income rising, the absolute amount of banknotes and coins in circulation grew as well, from 7.2 billion guilders

[136] 'Salarisbetaling via bank of giro', De Philips Koerier, 21 januari 1967, cited in de Koning, *Girale*, p. 94.
[137] Niesten, 'Betalingsverkeer', pp. 101, 103, 115; "Vervaging". *De Volkskrant*, 6 September 1967, p. 2. On the social distance to the bank, felt by many people, see the information brochure: Gezins-Begrotings-Instituut, *Gezin*, p. 4.
[138] DNB Jaarverslag 1970, p. 16; 1974, p. 22. Cf. also Jonker, 'Geld- en bankwezen', pp. 66-7; Barendregt and Overman, *Ondernemend*, pp. 236-8.

in 1966 to 12.8 billion guilders in 1974.[139] On a very practical level this meant that banks and post offices had to handle more, rather than less cash to serve their newly won clientele.

To reduce the pressure of cash withdrawals banks began by publishing brochures informing new accountholders that there was no need to stash large amounts of cash at home.[140] They also introduced bank cards which, in combination with checks, could be used to pay shopkeepers.[141] But households still demanded large amounts of cash for daily use, and with automated teller machines still in their infancy, the banks had no choice but to operate extensive branch networks with wide opening hours and large numbers of staff.[142] This raised operating costs to such levels that in 1973, when most people had a salary account, the banks stopped paying interest on their balances.[143] Households accepted it without grumbling because the financial system still resembled a public utility, with two competing networks of bank branches and post offices offering savings accounts, giro services, and cash withdrawals at little or no cost.

But the banks' cost problem persisted and this led one after the other to offer additional, for the bank more remunerative services.[144] This cross-selling included personal loans, consumer credit, overdraft facilities on checking accounts, and residential mortgages.[145] There

[139] DNB Report for the year 1970, p. 16; 1974, p. 22. The average amount of cash per capita (adults, 15 years and over) rose from 503 guilders in 1954 to 834 guilders in 1964, and 1,290 guilders in 1974. Cf. also: "Top geldomloop van 13 miljard", De Volkskrant, 03-07-1974.
[140] Gezins-Begrotings-Instituut, *Als het salaris*; Gezins-Begrotings-Instituut, *Gezin*.
[141] As of 1970 the government no longer paid state pensions (AOW) in cash. Pensioners had to accept either a bank or giro transfer or a check: 'AOW per giro', *De tijd: dagblad voor Nederland*, 28 februari 1969, p. 3; 'Geen vaste betaaldag meer voor AOW', *Algemeen Handelsblad*, 28 februari 1969, p. 1.
[142] Cf. for instance the annual reports of the Nederlandse Middenstandsbank, tracking the extension of their branch network: NMB Jaarverslagen 1968, p. 21; 1969, p. 21; 1970, p. 24; 1971, p. 26. Sluyterman et al., *Coöperatieve alternatief*, pp. 243-4; Dankers, Linden, and Vos, *Spaarbanken*, pp. 338-41.
[143] "Bankdiensten karig beloond". De Volkskrant, 10 March 1972. For the difficulties Dutch banks had managing their operating costs, see: Jonker, 'Grösse'.
[144] Barendregt and Overman, *Ondernemend*, pp. 293-4; van der Werf, *Bond*, pp. 219-26; Dankers, Linden, and Vos, *Spaarbanken*, pp. 334-5; Sluyterman et al., *Coöperatieve alternatief*, pp. 235-43; de Vries, Vroom, and de Graaf, *Wereldwijd*, pp. 348-50.
[145] According to the Central Bureau of Statistics the value of consumer loans outstanding with the commercial banks and the rural cooperatives grew from 171.8 million guilders in 1967 to 403.1 million guilders in 1972, and then, within the next five years, increased sixfold to 2.75 billion guilders in 1977: CBS Statistical Yearbook 1971, p 228; 1974, p. 227; 1977, p. 239.

was a ready market for these short-, medium-, and long-term loans among households whose income had risen far above subsistence level. But the banks' offering of these new products was only possible because the government changed the rules for private lending. The state's attitude had already shifted in the 1950s with more lenient terms for installment credit and personal loans but in 1972 Parliament passed the *Consumer Credit Act*, which gave full freedom to households and financial service providers to contract for loans.[146] The government also raised the subsidies it paid to people buying their first home and it allowed home owners to deduct the interest on their mortgage from their taxable income.[147] In 1973 the supervisory board of the Postal Savings Bank authorized mortgage lending to its account holders, which then led commercial banks to enter the market for residential mortgages.[148]

[Figure 9 about here]

The effect of the new regulatory regime on the financial behavior of Dutch households was unmistakable. Figure 9 compares the annual increase of their savings with the four major banks with the total value of new residential mortgages contracted with them.[149] Until the beginning of the 1970s the total value of new residential mortgages was more or less on a par with the annual increase of the total amount of savings. But from 1974 onwards residential mortgages grew much faster, reaching a peak in 1978 when the value of new mortgages exceeded that of

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[146] Jonker, Milo, and Vannerom, 'Hapless'. Cf. also Huls, *Consumentenkrediet*; Pais, *Consumer credit*.
[147] The deductability of mortgage interest was a very old fiscal instrument, first introduced in 1893. At the time the net benefit was relatively small as tax rates were low, but rising wages and higher tax rates in the 1960s and 1970s turned it into a major financial advantage for home owners.
[148] van der Schaar, *Groei*; Barendregt and Overman, *Ondernemend*, pp. 190-1. Cf. van Engelen, *Blauw bloed*, p. 263; Schotsman, *Postbank*, p. 220.
[149] The mortgage data is incomplete for the years before 1974, simply because the Central Bureau of Statistics only started reporting the value of new residential mortgages in 1976. To put the rapid growth of the mortgage market between 1974 and 1978 in perspective, the Bureau decided in 1978 to project the time series backward with point measures for 1965 and 1970.

new savings by a factor of three.[150] And these were only the mortgages—there were also hundreds of thousands households with installment plans, personal loans, and overdrafts.[151] The end result was that by 1980 almost two million people – one fifth of the adult population – owed money to a bank, either directly or through one of their subsidiaries (Figure 1).

CONCLUSION

In the late 1960s the Netherlands saw the rise of retail banks offering savings, loans, and payment services to the population at large. This was a remarkable change since many decades had passed between the initial establishment of these banks and their widespread use by private households. Our reconstruction of the historical pathway towards retail banking in the Netherlands shows that the use of banks for three key functions—savings, payments, and loans—became commonplace at different moments in time. Savings came first in direct response to the growth of disposable income. In 1960 virtually everybody had a savings booklet. Checking accounts came second in the 1960s when banks started competing with post offices to offer households automated payment services. By the middle of the 1970s every household had a bank account, even if they continued to pay cash for everyday expenses. Bank loans came last, not as a driver of change but rather a consequence of bank penetration, as banks were confronted with the very high costs of what was now a dual system of cash payments and bank transfers.

Our reconstruction of the financial behavior of households in the Netherlands shows that it was the growth of payments to and from the government that made it necessary for

[150] On the effect of the banks' entry into the mortgage market on independent mortgage banks: Koelewijn, *Achtergronden*; van der Valk, *Household finance*, pp. 71-4, 77-80.
[151] van Riel and de Vries, 'Dynamiek'.

households to open a bank account. The expansion of the welfare state coincided with the development of new payment technologies and this led the Dutch government to not just expand its own system of automated giro payments but also allow banks to offer similar services. It was a sensible move given that the country's savings banks and rural cooperatives already had national branch networks, while commercial banks had started building a new customer base among more affluent households. However, these new, private providers of checking accounts underestimated the costs involved in the development and maintenance of their payment services. This pushed them to offer an ever wider range of services to households, even though many of these households only needed a bank account to receive their wages, pay fixed charges, and withdraw cash for everyday expenses. It is therefore quite telling that in recent years European governments have been contemplating the introduction of free, digital bank accounts for everybody in acknowledgement of the fact that people may do without commercial banks but that having a checking account is indispensable for the proper functioning of a society with regular and extensive payments between the state and most, if not all of its citizens.[152]

[152] https://www.ecb.europa.eu/paym/digital_euro/html/index.en.html#pubs, accessed 25 September 2023.

Uncategorized References

Aalbers, M. B., 'Financialization', in D. Richardson, N. Castree, M. F. Goodchild, A. L. Kobayashi and R. Marston, eds., *The international encyclopedia of geography: People, the earth, environment, and technology* (Oxford, 2019).

Ackrill, M. and Hannah, L., *Barclays: The business of banking, 1690-1996* (Cambridge, 2001).

Aggarwal, S. and Klapper, L., 'Designing government policies to expand financial inclusion: Evidence from around the world', *The Journal of Finance* 56 (2013), pp. 1029-51.

Allen, F., Demirgüç-Kunt, A., Klapper, L. and Peria, M. S. M., 'The foundations of financial inclusion: Understanding ownership and use of formal accounts', *Journal of Financial Intermediation* 27 (2016), pp. 1-3.

Américi, L., 'Preparing the people for capitalism: Relations with depositors in a French savings bank during the 1820s', *Financial History Review* 9 (2002), pp. 5-19.

Bakker Schut, P., *De volkshuisvesting te 's-Gravenhage, 1914-1939 : Vijf en twintig jaar overheidsbemoeiing met de volkshuisvesting* (Alphen aan de Rijn, 1939).

Barendregt, J., 'The Dutch money purge. The monetary consequences of German occupation and their redress after liberation, 1940–1952' (unpub. Ph.D. thesis, Vrije Universiteit Amsterdam, 1993).

Barendregt, J. and Overman, R., *Ondernemend in financieel nut: Sparen en betalen bij de Rijkspostspaarbank, de Postcheque- en Girodienst en de Postbank, 1881-1989* (Amsterdam, 2020).

Barendregt, J. and Visser, H., 'Towards a new maturity, 1940-1990', in M. 't Hart, J. Jonker and J. L. van Zanden, eds., *A financial history of the Netherlands* (Cambridge, 1997), pp. 152-94.

Barnes, V. and Newton, L., 'Women, uniforms and brand identity in Barclays bank', *Business History* 64 (2022), pp. 801-30.

Bátiz-Lazo, B., *Cash and dash: How ATMs and computers changed banking* (Oxford, 2018).

Bátiz-Lazo, B., Haigh, T. and Stearns, D., 'How the future shaped the past: The case of the cashless society', *Enterprise & Society* 15 (2014), pp. 103-31.

Bátiz-Lazo, B., Maixé-Altés, J. C. and Thomes, P., *Technological innovation in retail finance: International historical perspectives* (London; New York, 2010).

Batiz-Lazo, B. and Martínez-Rodríguez, S., 'Gender and the financialization of Spanish retail banking, 1949-1970' (2022).

Bátiz-Lazo, B. and Wardley, P., 'Banking on change: Information systems and technologies in UK high street banking, 1919–1969', *Financial History Review* 14 (2007), pp. 177-205.

Beck, T., Demirgüç-Kunt, A. and Honohan, P., *Finance for all? Policies and pitfalls in expanding access* (Washington, DC, 2008).

de Beer, H., 'Het gebruik van computers in Nederland en het begin van de automatisering (1950-1960)' (2008) https://heerdebeer.org/History/ComputerPioneers/Computergebruik_in_Nederland_en_het_begin_van_de_automatisering.html (accessed on 19 March, 2020).

Belvedersesi-Kochs, R., 'Von der «Moralischen Anstalt» zum Vertriebsorientierten Finanzdienstleister: Der Unternehmenskulturelle Wandel des Deutschen Sparkassenund Giroverbands im Spiegel seiner Marketingstrategie', *Zeitschrift für Unternehmensgeschichte* 53 (2008), pp. 192-215.

Benson, J., 'Working-class consumption, saving, and investment in England and Wales, 1851-1911', *Journal of Design History* 9 (1996), pp. 87-99.

van Berckel, J. J. L., *De maatschappelijke en economische betekenis van de spreiding van effectenbezit* (Deventer, 1969).

van Bergen, A., *Gouden jaren: Hoe ons dagelijks leven in een halve eeuw onvoorstelbaar is veranderd* (Amsterdam; Antwerp, 2014).

———, *Het goede leven: Hoe Nederland in een halve eeuw steeds welvarender werd* (Amsterdam, 2018).

Berger, J., *Van armenzorg tot werklozenzorg* (Amsterdam, 1936).

Besluit op de loonbelasting 1940, (Zwolle, 1947).

de Blic, D. and Lazarus, J., *Sociologie de l'argent* (Paris, 2007).

van Bochove, C. and de Vicq, A., 'Opkomst en neergang van de Nijmeegse Hulpbank', *Ex Tempore* 41 (2022), pp. 138-57.

Bonger, W. A., *Vermogen en inkomen in Nederland gedurende den oorlogstijd (1913-1920). Een statistische studie* (Amsterdam, 1923).

Bonin, H., *La banque et les banquiers en France du moyen âge à nos jours* (Paris, 1992).

———, 'The development of accounting machines in French banks from the 1920s to the 1960s', *Accounting, Business & Financial History* 14 (2004), pp. 257-76.

———, *Banque et identité commerciale: La société générale (1864-2014)*, 2016).

Bosch, J. F. H., *Het karakter van het spaarcontract en het spaarbankboekje* (The Hague, 1941).

Boter, C., 'Male and female payment patterns ca. 1950: Some examples from the cashbook of the Netherlands project', *Jaarboek voor Munt- en Penningkunde* 106 (2019), pp. 185-204.

Botterill, J., *Consumer culture and personal finance: Money goes to market* (Basingstoke, 2010).

Bureau van Statistiek der Gemeente Amsterdam, *Statistisch jaarboek der gemeente Amsterdam, 2e jaargang, 1896* (Amsterdam, 1898).

———, *Statistisch jaarboek der gemeente Amsterdam, 1917* (Amsterdam, 1919).

———, 'Aantal ambtenaren der gemeente en hun salarissen in de laatste 25 jaar (1891-1916)', *Statistische Mededeelingen van het Bureau van Statistiek der Gemeente Amsterdam* 56 (1920).

Buyst, E., Goossens, M. and van Molle, L., *CERA 1892-1998. De kracht van coöperatieve solidariteit* (Antwerpen, 2022).

Calder, L., *Financing the American dream: A cultural history of consumer credit* (Princeton, 1999).

Calomaris, C. W. and Haber, S. H., *Fragile by design: The political origins of banking crises and scarce credit* (Princeton, 2014).

Campbell-Kelly, M., 'Data processing and technological change: The post office savings bank, 1861-1930', *Technology & Culture* 39 (1998), pp. 1-32.

Cantaluppi, A., Colchester, C., Costabile, L., Hofman, C., Schenk, C. and Weber, M. (eds.), *Social aims of finance. Rediscovering varieties of credit in financial archives* (Frankfurt-am-Main, 2020).

Caplovitz, D., *The poor pay more: Consumer practices of low-income families* (New York, 1967).

Carnegie, G. and Walker, S., 'Household accounting in Australia: A microhistorical study', *Accounting, Auditing & Accountability Journal* 20 (2007), pp. 210-36.

Carnevali, F., *Europe's advantage: Banks and small firms in Britain, France, Germany, and Italy since 1918* (Oxford, 2005).

Cassis, Y., 'Financial history and history', in Y. Cassis, R. S. Grossman and C. R. Schenk, eds., *The Oxford handbook of banking and financial history* (Oxford, 2016).

CBS, *Statistiek der spaar- en leenbanken in Nederland* (The Hague, 1895-1922).

———, *Jaarcijfers voor Nederland* (The Hague, 1923-1970).

———, *Statistiek der inkomens en vermogens in Nederland, 1930/1931* (The Hague, 1932).

———, *Huishoudrekeningen van 598 gezinnen uit verschillende deelen van Nederland over de perioden 29 juni 1935 tot en met 26 juni 1936 en 28 sept. 1935 tot en met 25 sept. 1936, deel I* (The Hague, 1937).

———, *Huishoudrekeningen 1952. Uitgaven- en verbruiksrekeningen van gezinnen van geschoolde handarbeiders en gezinnnen van middelbare employe's en ambtenaren* (Utrecht, 1954).
———, *Inkomensverdeling 1954 en vermogensverdeling 1955* (Zeist, 1959).
———, *Inkomensverdeling 1959 en vermogensverdeling 1960* (Zeist, 1963).
———, *Spaaronderzoek 1960* (Zeist, 1963).
———, *De ontwikkeling van onderwijs in Nederland* (The Hague, 1966).
———, *Maandstatistiek van het financiewezen* (The Hague, 1968-1981).
———, *Statistisch zakboek* (The Hague, 1969).
———, *The statistical yearbook of the Netherlands* (The Hague, 1971-present).
———, *Statistisch zakboek* (The Hague, 1978).
Colvin, C. L., 'Religion, competition and liability: Dutch cooperative banking in crisis, 1919-1927' (unpub. Ph.D. thesis, London School of Economics and Political Sciences, 2011).
———, 'Organizational determinants of bank resilience. Explaining the performance of SME banks in the Dutch financial crisis of the 1920s', *Business History Review* 92 (2018), pp. 661-90.
Colvin, C. L., Henderson, S. and Turner, J. D., 'The origins of the (cooperative) species: Raiffeisen banking in the Netherlands, 1898-1909', *European Review of Economic History* 24 (2020), pp. 749-82.
Colvin, C. L. and McLaughlin, E., 'Raiffeisenism abroad: Why did German cooperative banking fail in Ireland but prosper in the Netherlands?', *Economic History Review* 67 (2014), pp. 492-516.
Comelli, M., 'The impact of welfare on household debt', *Sociological Spectrum* 41 (2021), pp. 154-76.
Coöperatieve Centrale Boerenleenbank Eindhoven, *Verslag over het eenenvijftigste boekjaar 1949* (Eindhoven, 1949).
van Dam, B., *NVVK: 75 jaar toonaangevend en springlevend* (Amsterdam, 2007).
van Damme, L. J., *Werkloosheidsregelingen in Nederland. Een parlementaire geschiedenis* (Amsterdam, 2021).
Dankers, J., Linden, A. A. M. v. d. and Vos, J., *Spaarbanken in Nederland: Ideeën en organisatie, 1817-1990* (Amsterdam, 2001).
Demirgüç-Kunt, A. and Klapper, L., 'Measuring financial inclusion: The global findex database', World Bank Policy Research Working Paper No. 6025 (2012).
Demirgüç-Kunt, A., Klapper, L. and Singer, D., 'Financial inclusion and inclusive growth: A review of recent empirical evidence', World Bank Policy Research Working Paper, No. 8040 (2017).
Demirgüç-Kunt, A., Klapper, L., Singer, D. and van Oudheusden, P., 'The global findex database 2014: Measuring financial inclusion around the world', World Bank Policy Research Working Paper 7255 (2015).
van den Berge, L. G., *Giroverkeer in Nederland* (The Hague, 1939).
Deneweth, H., Gelderblom, O. and Jonker, J., 'Microfinance and the decline of poverty: Evidence from the nineteenth-century Netherlands', *Journal of Economic Development* 39 (2014), pp. 79-110.
Dutch Ministery of Finance, *Miljoenennota* (The Hague, 1951, 1952, 1955, 1959, 1963, 1967, 1971).
Effosse, S., 'Pour ou contre le crédit à la consommation? Développement et réglementation du crédit à la consommation en France dans les années 1950 et 1960', *Entreprises et Histoire* 2 (2010), pp. 68-79.
———, *Le crédit à la consommation en France, 1947-1965: De la stigmatisation à la réglementation* (Paris, 2014).

———, 'El cheque en francia: El lento ascenso de un medio de pago de masas (1918–1975)', *Revista de Historia de la Economía y de la Empresa* 11 (2017), pp. 77-96.
———, 'Financial empowerment for married women in France', *Quaderni Storici* 166 (2021), pp. 117-41.
van der Elst, 'Afschaffing van de loonbetaling per week bij de gemeente ’s Gravenhage', *Financieel Overheidsbeheer. Tijdschrift gewijd aan de financiën van de overheid, haar bedrijven en diensten* 29 (1954), p. 58.
van Engelen, W., *Blauw bloed: Opkomst en ondergang van de Postbank* (Amsterdam, 2009).
Epstein, G., *Financialization and the world economy* (Cheltenham; Northampton, MA, 2005).
Erturk, I. and Solari, S., 'Banks as continuous reinvention', *New Political Economy* 12 (2007), pp. 369-88.
Everts, J., *Gids voor maatschappelijk hulpbetoon in Nederland: In opdracht van de Nederlandsche vereeniging voor armenzorg en weldadigheid ter gelegenheid van haar 25 jarig jubileum* (Zeist, 1933).
Fase, M. M. G., *Tussen behoud en vernieuwing, geschiedenis van de Nederlandsche bank 1948-1973* (The Hague, 2000).
Feiertag, O., 'La bancarisation de la société française dans les années 1968', in A. Aglan, ed., *Les français et l’argent* (Rennes, 2011).
———, 'La bancarisation de la société française dans les années 1968', in Y. Marec, A. Aglan and O. Feiertag, eds., *Les français et l’argent, XIXE-XXIE siècle* (Rennes, 2019).
Frazer, P. and Vittas, D., *The retail banking revolution: An international perspective*, 1982).
Friedman, W. A., *Birth of a salesman: The transformation of selling in America* (Cambridge, MA, 2004).
Frost, R., *Wünsche werden Wirklichkeit, die Deutsche Bank und ihr Privatkundengeschäft* (München, 2009).
Fruin, T. A., *Moderniseering van het volkscredietwezen* (Leiden, 1939).
———, 'Het volkscrediet in de laatste vijf jaren', *De Economist* 92 (1943), pp. 489-517.
Fungáčová, Z. and Weill, L., 'Understanding financial inclusion in China', *China Economic Review* 34 (2015).
Gelderblom, O., Jonker, J., Peeters, R. and de Vicq, A., 'Exploring modern bank penetration: Evidence from early twentieth-century Netherlands', *Economic History Review* 76 (2023), pp. 892-916.
Gelderblom, O. and van der Valk, T., 'Coping with financial fragility: Dutch households in the Great Depression', unpublised work.
Gezins-Begrotings-Instituut, *Van de week naar de maand*, 1960).
———, *Het gezin en de girale salarisbetaling*, 1970).
———, *Als het salaris anders binnenkomt*, 1971).
Goetzmann, W., *Money changes everything: How finance made civilization possible* (Princeton, 2017).
de Graaf, T., *Voor handel en maatschappij: Geschiedenis van de Nederlandsche Handel-Maatschappij, 1824-1964* (Amsterdam, 2012).
Grossman, R. S., *Unsettled account: The evolution of banking in the industrialized world since 1800* (Princeton, 2010).
Gueslin, A., 'Banks and state in France from the 1880s to the 1930s: The impossible advance of the banks', in Y. Cassis, ed., *Finance and financiers in European history 1880–1960* (Cambridge, 1992).
Guinnane, T. W., 'Delegated monitors, large and small: Germany’s banking system, 1800–1914', *Journal Of Economic Literature* 40 (2002), pp. 73-124.
Haastert, H. and Huysmans, G. W. M., *Veertig jaren landbouwcrediet onder leiding der coöperatieve centrale boerenleenbank te Eindhoven 1898-1938* (Eindhoven, 1939).

Hendrikx, D. and Gelderblom, O., 'Accounting for agricultural development? The case of the Netherlands, 1840-1940', *Agricultural History Review* 70 (2022), pp. 23-48.

Hoogenboom, L. H. and Boot, F. C. A. M., *De kinderbijslagverzekering. Handboek voor de studie en toepassing van de kinderbijslagverzekeringswet* (Maastricht, 1949).

Houtman-De Smedt, H., 'The banking system in Belgium through the centuries', in M. Pohl, ed., *Handbook of the history of European banks* (Aldershot, 1994), pp. 47-94.

Huls, N. J. H., *Consumentenkrediet: Sociaal-juridische beschouwingen, in het bijzonder met betrekking tot huurkoop van roerend goed* (Deventer, 1981).

Husz, O., 'From wage earners to financial consumers. Cheque account salaries in Sweden in the 1950s and 1960s', *Critique Internationale* 69 (2015), pp. 99-118.

———, 'Golden everyday. Housewifery consumerism and domestication of banks in 1960s Sweden', *Le Mouvement Social* 205 (2015), pp. 41-63.

Huysmans, G. W. M., 'Het landbouwcrediet in Nederland', *De Economist* 90 (1941), pp. 369-401.

Hyman, L., *Debtor nation: The history of America in red ink* (Princeton, 2011).

de Jager, J. L., *Arm en rijk kunnen bij mij hun inkopen doen. De geschiedenis van Albert Heijn en koninklijke ahold* (Zaandam, 1995).

Jansen, S., *De omwenteling of de eeuw van de vrouw* (Amsterdam, 2022).

Janzen, H. J. M., *Het middenstandsbankwezen in Nederland* ('s-Hertogenbosch, 1923).

Jonathan, *De handel in vrouwen en meisjes, en het middel ter bestrijding* (Amsterdam, 1903).

Jonker, J., 'Grösse um Jeden Preis, der Aufstieg und der Vorhersehbare Fall von ABN AMRO 1960- 2006', in H. Wixforth, ed., *Geld und kapital, jahrbuch der gesellschaft für mitteleuropäische banken- und sparkassengeschichte* (Stuttgart, pp. 175-98.

———, 'Welbegrepen eigenbelang. Ontstaan en werkwijze van boerenleen¬banken in Noord-Brabant, 1900-1920'', *Jaarboek voor de Geschiedenis van Bedrijf en Techniek* 5 (1988).

———, 'Spoilt for choice? Banking concentration and the structure of the Dutch banking market, 1900-1940', in Y. Cassis, G. D. Feldman and U. Olsson, eds., *The evolution of financial institutions*, 1995), pp. 187-208.

———, 'Geld-en bankwezen, 1815-1990', in R. van der Bie and P. Dehing, eds., *Nationaal goed: Feiten en cijfers over onze samenleving (ca.) 1800-1999* (Voorburg, 1999).

Jonker, J., Milo, M. and Vannerom, J., 'From hapless victims of desire to responsibly choosing citizens: The emancipation of consumers in Low Countries' consumer credit regulation', *BMGN - Low Countries Historical Review* 132 (2017), pp. 115-38.

Kloek, E., *Vrouw des huizes. Een cultuurgeschiedenis van de Hollandse huisvrouw* (Amsterdam, 2009).

Knaapen, A. L. M., 'Van weekloon naar maandloon: Verlichting van de loonadministratie', *Gids voor Personeelsbeleid, Arbeidsvraagstukken, Sociale Verzekering* 39 (1960), pp. 146-8.

Koelewijn, J., *De achtergronden van het verdwijnen van de zelfstandige hypotheekbanken in de jaren tachtig* (Amsterdam, 1987).

de Koning, F., *De girale betaling van loon en salaris als rationaliseringsmaatregel* (The Hague, 1967).

Kostov, P., Arun, T. and Annim, S., 'Access to financial services: The case of the 'mzansi' account in south Africa', *Review of Development Finance* 5 (2015), pp. 34-42.

Krueger, M., 'The introduction of cashless wage payments and the spread of branch banking in post-war Germany', *Financial History Review* 24 (2017), pp. 185-207.

Kymmell, J., *Geschiedenis van de algemene banken in Nederland 1860-1914, 2 vols.* (Amsterdam, 1992).

Laferté, G., Avanza, M., Fontaine, M. and Penissat, É., 'Le crédit direct des commerçants aux consommateurs: Persistance et dépassement dans le textile à lens (1920–1970)', *Genéses* 79 (2010), pp. 26-47.
Laferté, G. and O'Connell, S. P., 'Socialized credit and the working class family economy: A comparative history of France and Britain, 1900-2000', *Business and Economic History On-line* 13 (2015), pp. 1-20.
Langley, P., *The everyday life of global finance* (Oxford, 2008).
Lauer, J., *Creditworthy: A history of consumer surveillance and financial identity in America* (New York, 2017).
Lazarus, J., *Les politiques de l'argent* (Montparnasse, 2022).
Lehmann-Hasemeyer, S. and Streb, J., 'Does social security crowd out private savings? The case of bismarck's system of social insurance', *European Review of Economic History* 22 (2018), pp. 298-321.
Lehmann-Hasemeyer, S. and Wahl, F., 'The German bank–growth nexus revisited: Savings banks and economic growth in Prussia', *Economic History Review* 74 (2021), pp. 204-22.
Lelieveldt, S., 'Een stad vol blauwe girobussen: Gemeentegiro was een revolutie in het betalingsverkeer', *Ons Amsterdam* 3 (2017), pp. 8-13.
Leppink, J. H., *De gemeentefinanciën* (Alphen aan de Rijn, 1949).
Leyendekkers, O., *Het afbetalings- en geldkrediet met vaste aflossingen* (The Hague, 1961).
Lieftinck, P., *The post-war financial rehabilitation of the Netherlands* (The Hague, 1973).
Logemann, J., 'Americanization through credit? Consumer credit in Germany, 1860s–1960s', *Business History Review* 85 (2011), pp. 529-50.
Maas, I. and van Leeuwen, M. H. D., 'Over dienstboden, landarbeidsters en andere werkende vrouwen: Beroepen van jonge vrouwen en hun moeders in de huwelijksakten van de Zeeuwse burgerlijke stand', *Zeeland* 15 (2006), pp. 44-59.
van der Maas, J. A., 'Over beschaving en bedeling: De gemeentelijke armenzorg in Amsterdam tussen beschaven en bureaucratiseren van 1870 tot 1940' (unpub. Ph.D. thesis, Utrecht University, 2021).
Maassen, H. A. J., *Tussen commercieel en sociaal krediet: De ontwikkeling van de bank van lening in Nederland van lombard tot gemeentelijke kredietbank 1260-1940* (Hilversum, 1994).
van der Marel, J. H., 'Betalingsgewoonten in Nederland', *ESB Berichten* 50 (1965), pp. 799-801.
Maris, A., 'Enkele aspecten van het kleine-boerenvraagstuk op de zandgronden' (unpub. Ph.D. thesis, Wageningen University, 1951).
Martin, R., *Financialization of daily life* (Philadelphia, 2002).
McFall, L., *Devising consumption cultural economies of insurance, credit and spending* (London, 2014).
Moatsos, M., 'Long run trails of poverty, 1925–2010', *Empirical Economics* 61 (2021), pp. 2797-825.
Moerman, I. W. L., *Gif als goede gave: Maria Catharina van der Linden-Swanenburg/Goeie mie (1839-1915)* (Leiden, 2001).
Mok, M. R., *Door de bank genomen, bank en klant - verantwoordelijkbeid en aansprakelijkheid - een arensverkenning* (Amsterdam, 2005).
Molenaar, W., 'Hoofdlijnen uit de geschiedenis van de postcheque en girodienst', in H. Reinoud, J. A. Hommel, G. F. J. A. Groen, A. Keyser, J. M. van Oorschot and J. P. Matthijse, eds., *Een halve eeuw postcheque- en girodienst. Geschiedenis, plaats in het betalingsverkeer, werking en exploitatie, automatisering in technisch, sociaal en organisatorisch opzicht van de postgiro* (Utrecht; Antwerp, 1968), pp. 25-79.

Nederlands Instituut voor Efficiency, *De girale betaling van loon en salaris als rationaliseringsmaatregel*, 1967).
Nederlandsch gezinsboek, (Amsterdam, 1949).
Nederlandsche Maatschappij voor Nijverheid en Handel, *Het afbetalingsstelsel. Rapport der commissie ingesteld door de Nederlandsche Maatschappij voor Nijverheid en Handel* (Haarlem, 1931).
Nederlandsche Middenstandsbank N.V., *Verslag van de Nederlandsche middenstandsbank n.V. Gevestigd te Amsterdam over het vier en dertigste boekjaar 1961* (Amsterdam, 1961).
———, *Gezinskrediet; jubileumuitgave bij het 40-jarig bestaan van de n.V. Nationale volksbank; met artikelen van c. F. Scheffer, w. Schoonderbeek en th. J. M. Rees van den ende* (Amsterdam, 1967).
Niesten, L. J., 'Het betalingsverkeer en de postcheque- en girodienst', in H. Reinoud, J. A. Hommel, G. F. J. A. Groen, A. Keyser, J. M. van Oorschot and J. P. Matthijse, eds., *Een halve eeuw postcheque- en girodienst. Geschiedenis, plaats in het betalingsverkeer, werking en exploitatie, automatisering in technisch, sociaal en organisatorisch opzicht van de postgiro* (Utrecht; Antwerp, 1968).
Nijhof, E., 'Pensions and providence: Dutch employers and the creation of funded pension schemes', *Enterprise & Society* 10 (2009), pp. 265-303.
Nijhof, E. and Schrage, P., 'Van bondslokaal tot steunloket: de vakbeweging als sociaal vangnet tijdens de economische crisis in Nederland (1929-1935)', *Amsterdams Sociologisch Tijdschrift* 11 (1984), pp. 260-85.
O'Connell, S. P., *Credit and community: Working-class debt in the UK since 1880* (Oxford, 2009).
Offer, A., 'The market turn: From social democracy to market liberalism', *Economic History Review* 70 (2017), pp. 1051-71.
Olney, M. L., 'Buy now, pay later: Advertising, credit, and consumer durables in the 1920s', (1991).
van Oost, E., 'Administratieve automatisering', in A. A. A. de la Bruhèze, H. W. Lintsen, A. Rip and J. W. Schot, eds., *Techniek in Nederland in de twintigste eeuw: 1. Techniek in ontwikkeling, waterstaat, kantoor en informatietechnologie* (Zutphen, 1998), pp. 305-27.
van Oost, J. W., 'Huisvrouwen en loonadministratie', *Economisch-Statistische Berichten* 51 (1966).
Pais, A., 'Op de pof', *De Economist* 117 (1969), pp. 1-23.
———, *Consumer credit in the Netherlands: Its incidence in the nineteen sixties* (Rotterdam, 1975).
Peeters, R., 'Small firms, politics, and credit in the Netherlands: 1900-1980' (unpub. Ph.D. thesis, Utrecht University, 2021).
———, 'Getting a foot in the door: Small-firm credit and interest group politics in the Netherlands, 1900–1927', *Enterprise & Society* 23 (2022), pp. 408-44.
Polak-Kiek, J., *Financieel beheer in de huishouding* (Purmerend, 1932).
———, *Het gezinsbudget* (The Hague, 1936).
———, *Ik moet uitkomen: Besparing van tijd, geld en energie in de huishouding* (Amsterdam, 1948).
Pollmann, T., *Liever kleine baas dan grote knecht: de Nederlandse middenstand 1920-1970* (Amsterdam, 2016).
Prasad, M., *The land of too much: American abundance and the paradox of poverty* (Cambridge, MA, 2012).

Proettel, T., 'Die Darlehensvergabe der oberamtssparkasse kirchheim unter teck 1907 bis 19131: Eine sparkasse als regionale finanzierungsquelle für gewerbe und infrastruktur', *Zeitschrift für Unternehmensgeschichte* 58 (2013), pp. 3-27.

van Put (Ed.), A., *De Belgische spaarbanken: Geschiedenis, recht, economische funktie en instellingen* (Tielt, 1986).

Quinn, S. and Roberds, W., 'The evolution of the check as a means of payment: A historical survey', *Economic Review* 93 (2008), pp. 1-28.

Reenalda, C., 'Loonadministratie met gebruikmaking van elektronische apparatuur', *Tijdschrift voor Efficiency en Documentatie* 27 (1957), pp. 299-304.

Rees van den Ende, J. M., 'Het bedrijf der commercieele geldschietbanken', *De Economist* 93 (1944), pp. 201-27.

de Regt, A., 'Woningopzichteressen: Een mislukt professionaliseringsproces', *Amsterdams Sociologisch Tijdschrift* 6 (1979), pp. 418-48.

———, *Arbeidersgezinnen en beschavingsarbeid: Ontwikkelingen in Nederland, 1870-1940: Een historisch-sociologische studie* (Meppel, 1984).

Revell, J. R. S., *Costs and margins in banking* (Paris, 1980).

van Riel, A. and de Vries, C. G., 'De dynamiek van naoorlogse private schuldgroei in Nederland', *TSEG-The Low Countries Journal of Social and Economic History* 20 (2023).

Rona-Tas, A. and Guseva, A., 'Consumer credit in comparative perspective', *Annual Review of Sociology* 44 (2018), pp. 55-75.

van der Schaar, J., *Groei en bloei van het Nederlandse volkshuisvestingsbeleid* (Delft, 1987).

Schenk, N. and van Poppel, F., 'Social class, social mobility and mortality in the Netherlands, 1850–2004', *Explorations in Economic History* 48 (2011), pp. 401-17.

Schneider, F., *Die Finanzen des Privaten Haushalts: Festschrift für Walter Kaminsky* (Frankfurt am Main, 1969).

Schotsman, C. J., *De Postbank: Ontstaan en ontplooiing* (The Hague, 1990).

Schuster, S., Jaremski, S. and Perlman, E. R., 'An empirical history of the US postal savings system', *Social Science History* 44 (2020), pp. 667-96.

Scott, P., 'The twilight world of interwar hire purchase', *Past & Present* 177 (2002), pp. 195-225.

Slot, B. M. J., *Iedereen kapitalist: De ontwikkeling van het beleggingsfonds in Nederland gedurende de 20ste eeuw* (Amsterdam, 2004).

Sluyterman, K., Dankers, J., van der Linden, J. and van Zanden, J. L., *Het coöperatieve alternatief. Honderd jaar rabobank 1898-1998* (The Hague, 1998).

Smit, C., *Omwille der billijkheid: de strijd over de invoering van de inkomstenbelasting in Nederland* (Amsterdam, 2002).

Stegeman, H. J. W., 'Plaats en functie van de Rijkspostspaarbank in ons nationale bestel' (1960) http://resolver.kb.nl/resolve?urn=KBNRC01:000036470:mpeg21:p013 (accessed on 14 February 2020.

Stokvis, P., ''Huisvrouwelijke' arbeid: Technologie en tijdsbesparing sinds het interbellum', *Amsterdams Sociologisch Tijdschrift* 28 (2001), pp. 350-76.

Svetiev, Y., Dermineur, E. and Kolanisi, U., 'Financialization and sustainable credit: Lessons from non-intermediated transactions?', *Journal of Consumer Policy* 45 (2022), pp. 1-26.

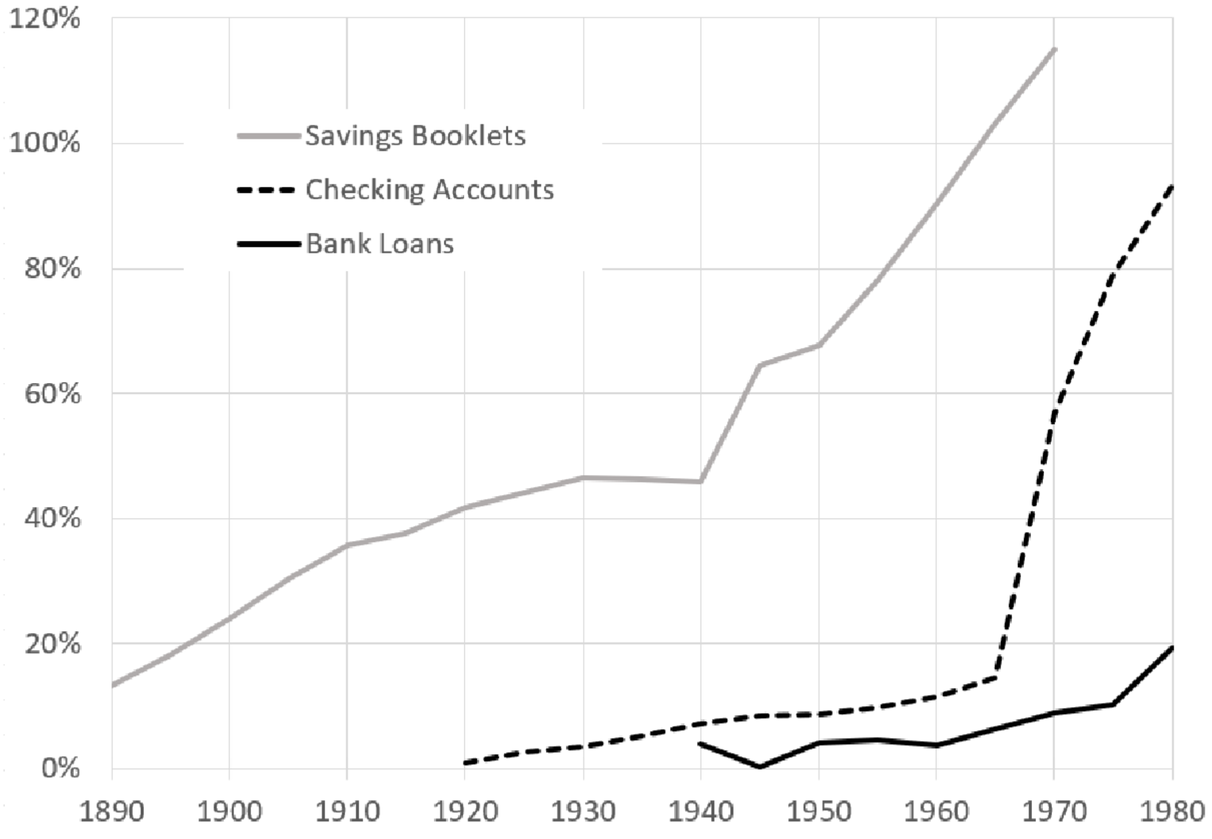
Taylor, A., *Working class credit and community since 1918* (Basingstoke, 2002).

Teijen, A. J. H., *25 jaar postcheque- en girodienst, 16 jan. 1918-1943* (The Hague, 1943).

Teijmant, I., '"Huisjesmelkers": Een portret van de particuliere huiseigenaar rond 1900', *Amsterdams Sociologisch Tijdschrift* 19 (1993), pp. 110-49.

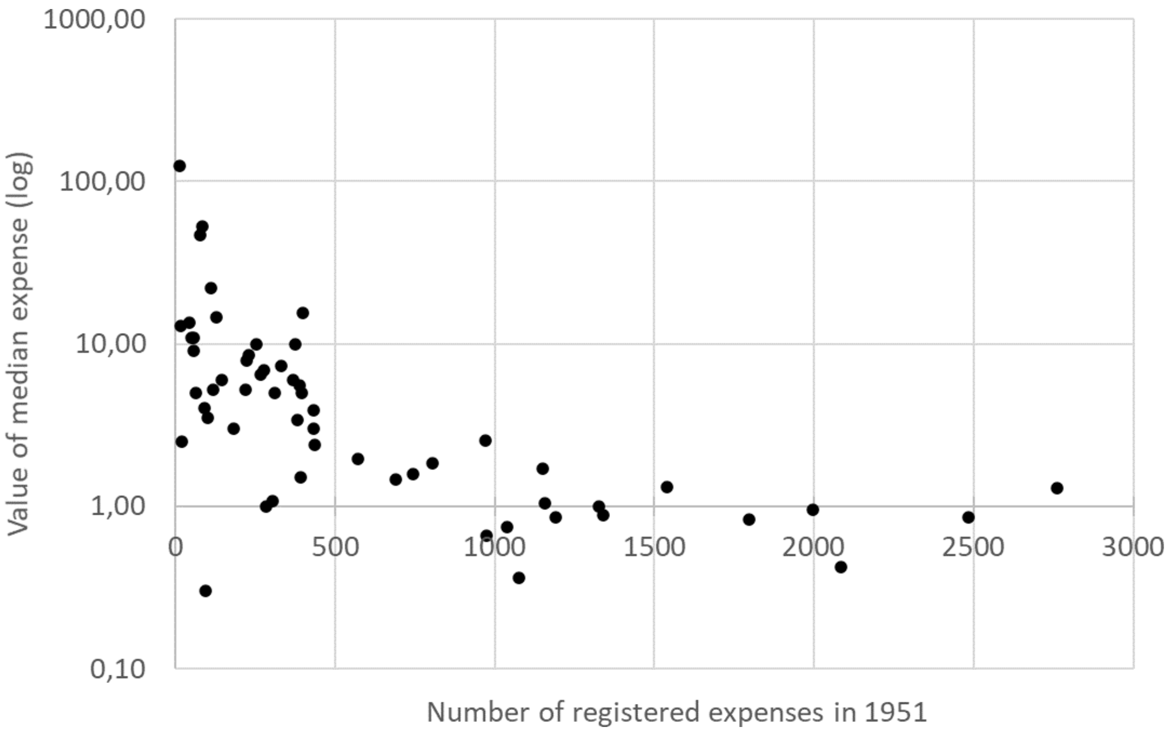
van der Valk, T., 'Household finance in France and the Netherlands 1960-2000: An evolutionary approach' (unpub. Ph.D. thesis, Utrecht University, 2019).
Vanatta, S. H., 'Charge account banking: A study of financial innovation in the 1950s', *Enterprise & Society* 19 (2018), pp. 352-90.
Verwey-Jonker, H., *Lage inkomens. Een statistisch onderzoek naar de verdeling vder inkomens beneden de belastinggrens in de gemeente Eindhoven* (Assen, 1942).
de Vicq, A., 'Exploring the dynamics of small and local financial institutions the case of the Netherlands, c.1860-1940' (unpub. Ph.D. thesis, Utrecht University, 2022).
de Vicq, A. and van Bochove, C., 'Lending a hand: The case of Dutch help banks, 1860s-1960s', *European Review of Economic History* 00 (2023), pp. 1-30.
de Vicq, A., Gelderblom, O. and Jonker, J., 'Dutch banking database, 1880-1940', in, 2021).
Vissering, G., *Het oude en moderne giroverkeer* (Amsterdam, 1908).
Vos, J. and Westerhuis, G., *Kredietwaardigheid verzilverd: Bng bank 1914-2014* (Den Haag, 2014).
de Vries, J., Vroom, W. and de Graaf, T. e., *Wereldwijd bankieren* (Amsterdam, 1999).
Wals, H., *Makers en stakers: Amsterdamse bouwvakarbeiders en hun bestaansstrategieën in het eerste kwart van de twintigste eeuw* (Amsterdam, 2001).
van der Werf, D. C. J., *De bond, de banken en de beurzen* (Tilburg, 1988).
———, *Banken, bankiers en hun fusies. Het ontstaan van de algemene bank Nederland en de Amsterdam-Rotterdam bank, een studie in fusiegedrag over de periode 1950-1964* (Amsterdam, 1999).
Westerhuis, G., 'Commercial banking', in Y. Cassis, C. Schenk and R. S. Grossman, eds., *The Oxford handbook of banking and financial history* (Oxford, 2018).
Weststrate, C., Visser, T. J., Weber, P. A. and van Assenbergh, H. W., *Gedenkboek uitgegeven ter gelegenheid van het vijftigjarig bestaan der coöperatieve centrale Raiffeisen-Bank te Utrecht, 1898-1948* (Utrecht, 1948).
Widdershoven, B. E. M., *Het dilemma van solidariteit. De Nederlandse onderlinge ziekenfondsen, 1890-1941* (Amsterdam, 2005).
Willemsen (ed.), P., *50 jaar herkennen: Philips semiconductors Nijmegen, 1953-2003* (Nijmegen, 2003).
Wilzen-Bruins, E. J., *Kopen op afbetaling* (Rotterdam, 1957).
de Wit, D., 'Facetten van een automatiseringsbeleid, de postcheque- en girodienst', *Jaarboek voor de Geschiedenis van Bedrijf en Techniek* 6 (1989), pp. 234-56.
———, *The shaping of automation. A historical analysis of the interaction between technology and organization, 1950–1985* (Hilversum, 1994).
Witte, E. and de Preter, R., *Samen sparen - de geschiedenis van de spaarbank CODEP en haar voorlopers* (Leuven, 1989).
Wurfbain, J. C., 'Recente ontwikkelingen in het Nederlandse bankwezen' (1969) http://resolver.kb.nl/resolve?urn=KBNRC01:000035493:mpeg21:p017 (accessed on 9 February, 2020).
van Zanden, J. L. and Uittenbogaard, R., 'Expansie, internationalisering en concentratie, 1950-1990', in J. de Vries, W. Vroom and T. de Graaf, eds., *Wereldwijd bankieren. ABN AMRO 1824-1999* (Amsterdam, 1999).
Zelizer, V. A. R., *The social meaning of money* (Princeton, 1994).
Zins, A. and Weill, L., 'The determinants of financial inclusion in Africa', *Review of Development Finance* 6 (2016), pp. 46-57.

Figure 1. The Share of the Adult Population (15+) of the Netherlands Using Savings Booklets, Checking Accounts, and Bank Loans, 1890-1980.



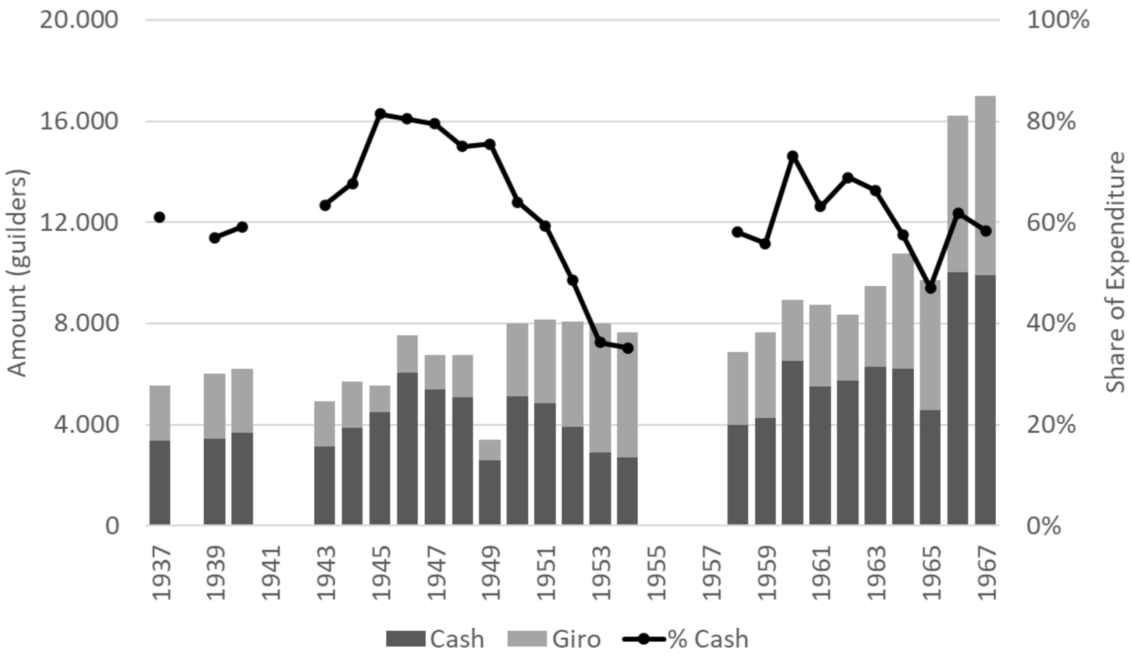
Sources: See Appendix A.

Figure 2. The total number and median value of transactions recorded in the domestic accounts of 57 Dutch households in 1951.



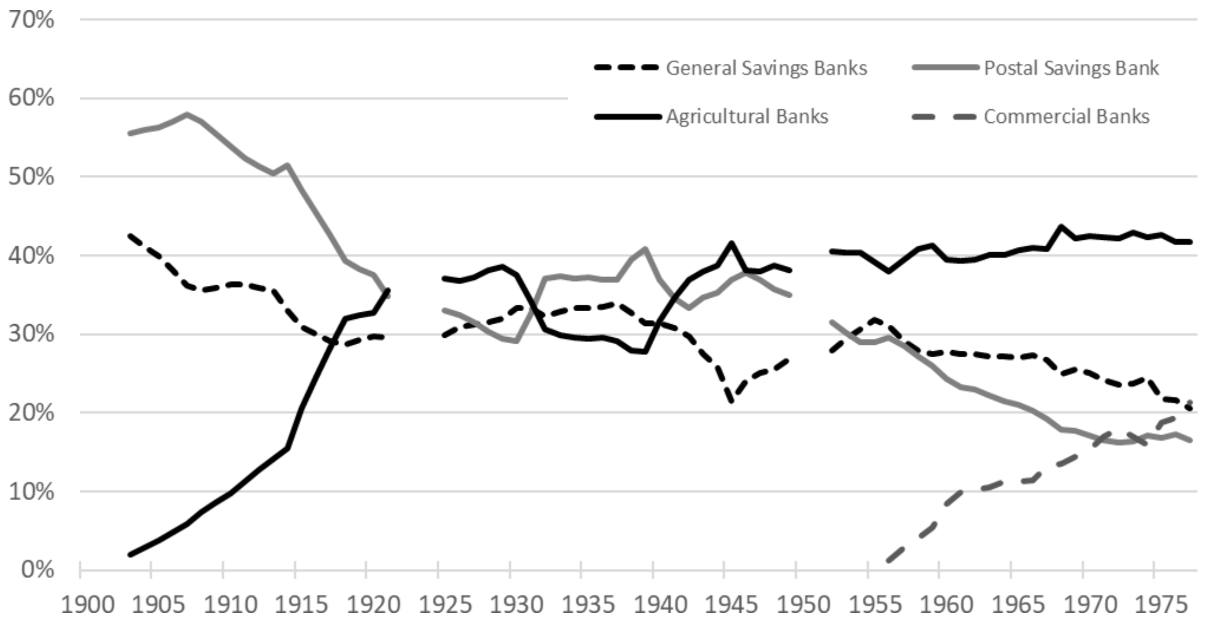
Source: Appendix B.

Figure 3. Annual Cash Payments and Giro Transfers of Household #1114, 1937-1969.



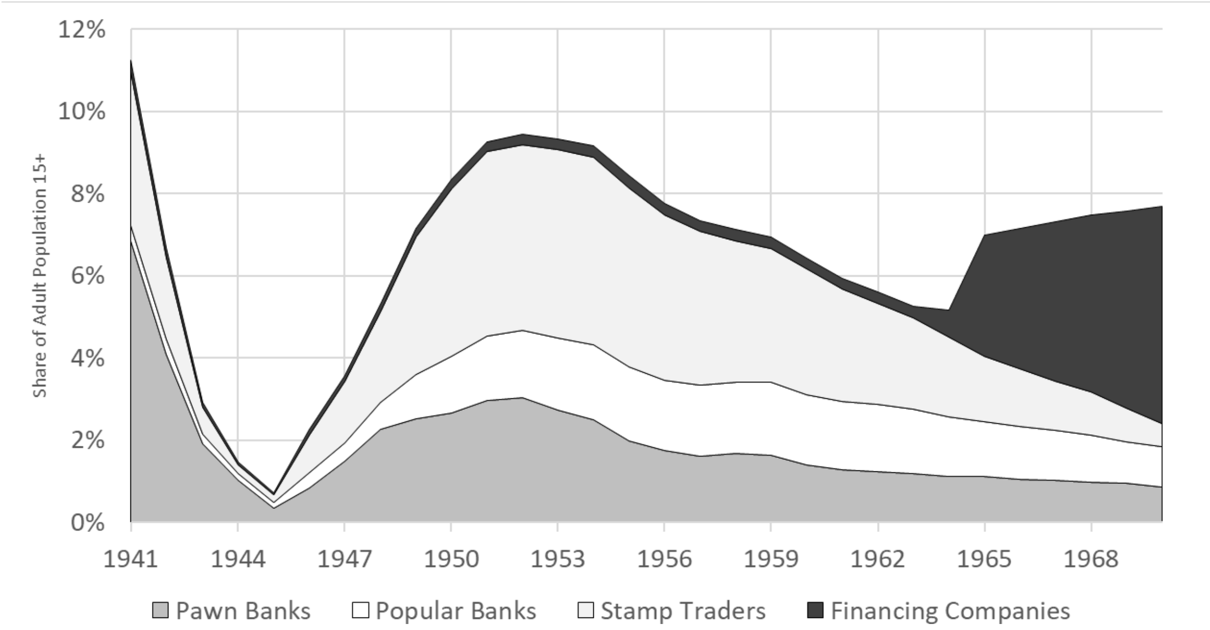
Source: Kasboekje van Nederland, Inv. Nr. 1114 (Cf. Appendix B)

Figure 4. The Share of Four Bank Platforms in The Market for Savings in the Netherlands, 1900-1977



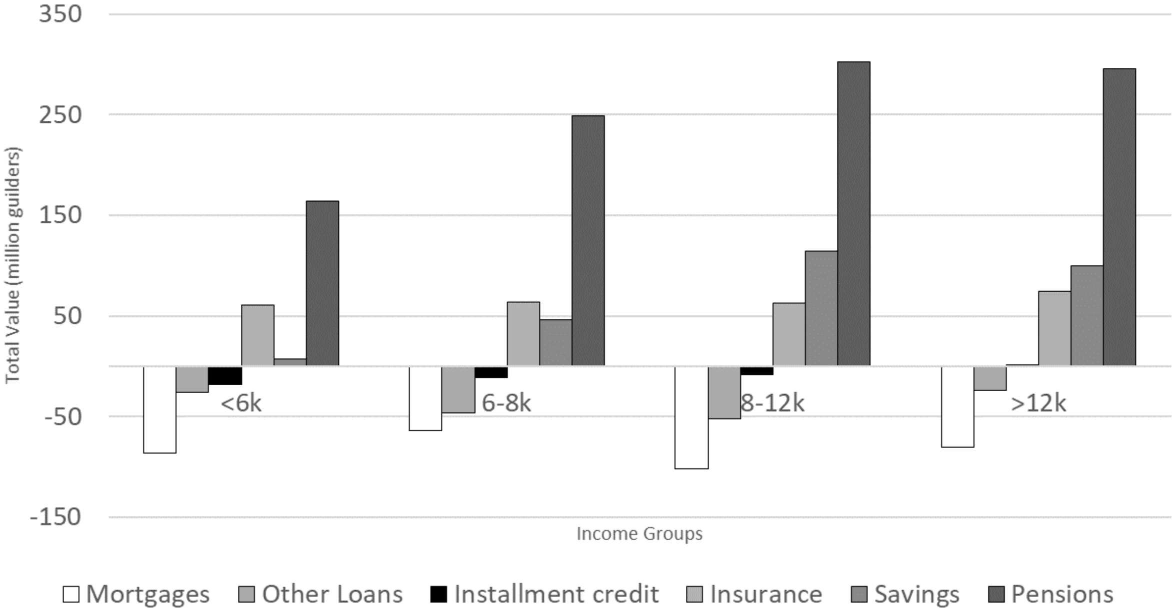
Source: see Appendix A

Figure 5. Number of Loans Extended by Pawn Banks, Popular Banks, Stamp Traders, and Financing Companies as a Percentage Share of the Dutch Population Aged 15 and over, 1941-1969.



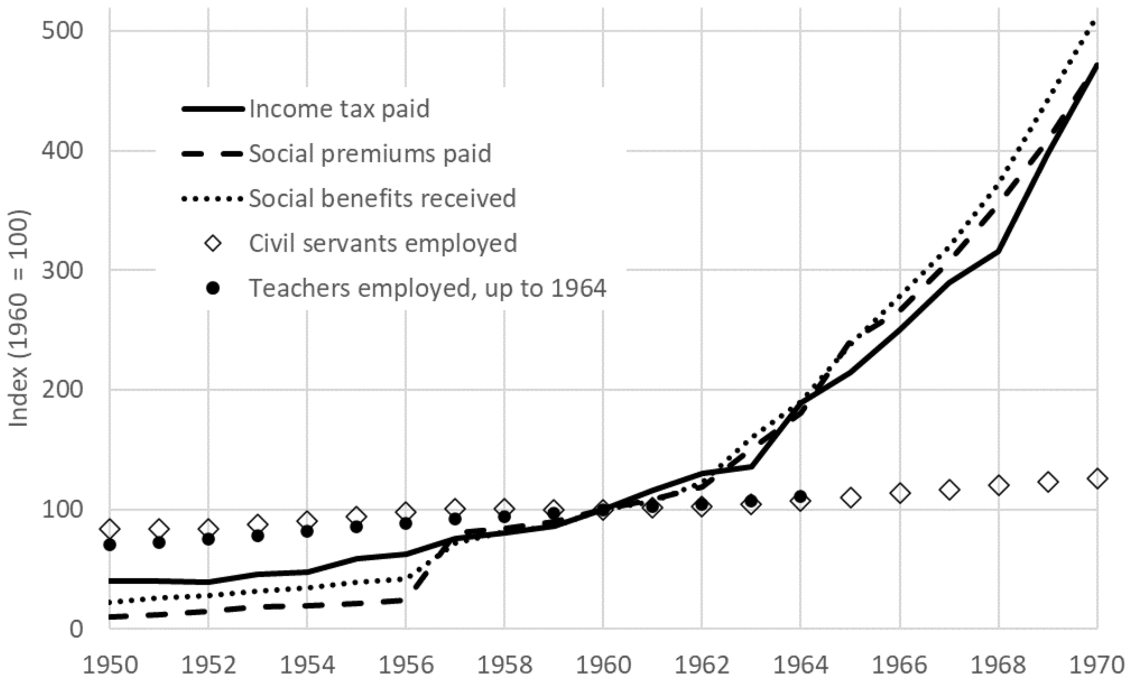
Source: See Appendix A.

Figure 6. The Estimated Annual Value of Savings and Loans of Dutch Households in 1960.



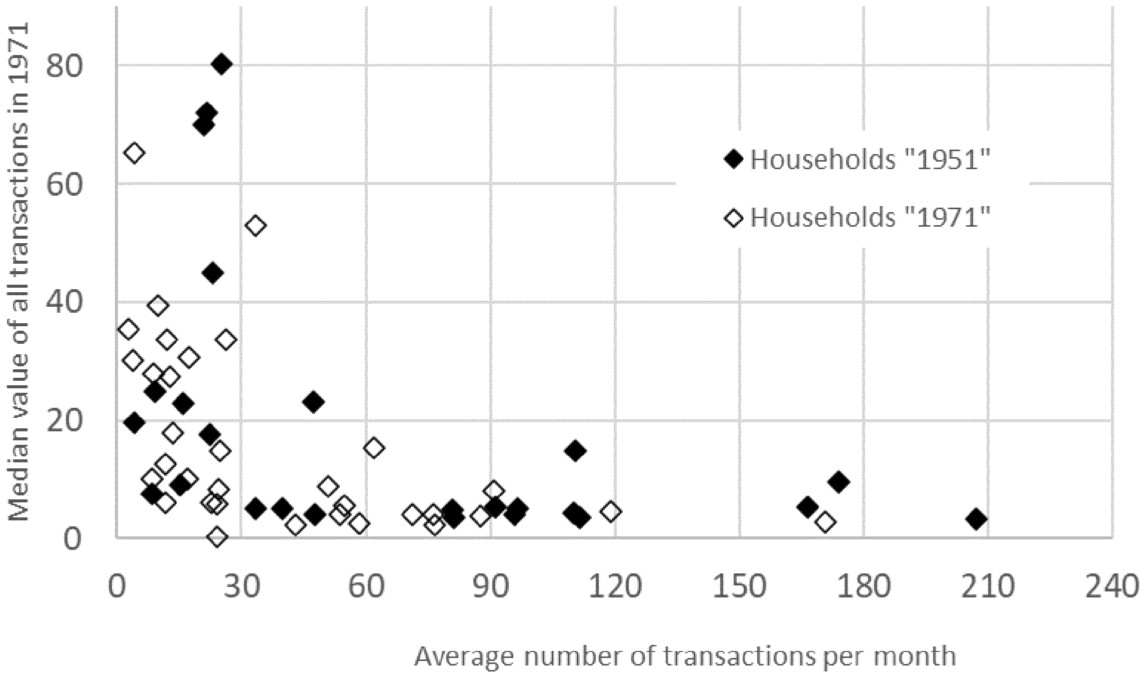
Source: CBS *Spaaronderzoek* 1960, Table 2a.

Figure 7. The value of social benefits received and income taxes and social premiums paid by Dutch households, compared to the number of civil servants and teachers employed by the government, 1950-1970 (1960 = 100)



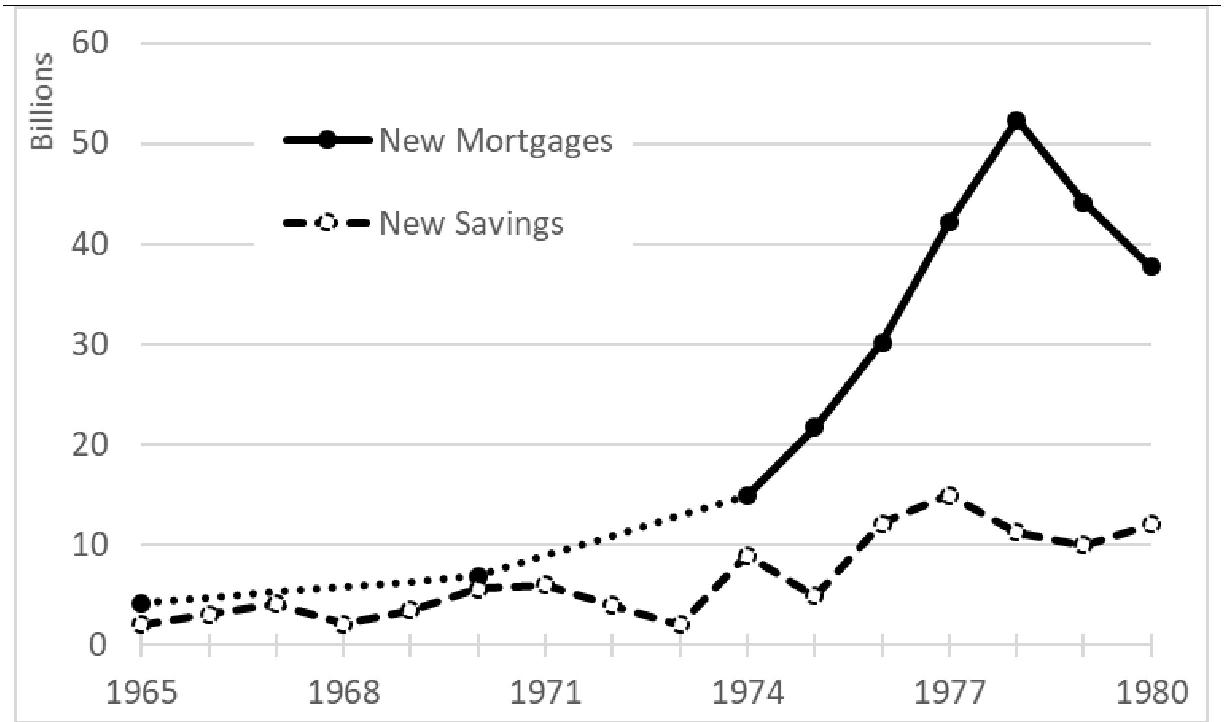
Sources: Civil servants: Dutch Ministry of Finance, *Miljoenenota* 1951, 1952, 1955, 1959, 1963, 1967, 1971; Teachers: CBS, *De ontwikkeling van het onderwijs in Nederland* (1966), pp. 56, 68, 90, 91, 109, 122, 164; Social premiums and benefits: CBS, https://opendata.cbs.nl/statline/#/CBS/nl/dataset/03763/table?dl=633ED; Income tax: CBS, *Jaarcijfers* 1951-1952, 1959-1960, 1963-1964, 1967-1968, and CBS, *Statistical Yearbook* 1971.

Figure 8. The Average Number of Monthly Transactions and the Median Value of All Transactions Recorded in 1971 in the Domestic Accounts of 56 Dutch Households.



Source: Appendix B.

Figure 9. The Value of New Mortgages on Residential Properties Granted by Four Dutch Banks, and the Annual Increase of their Household Savings Balances, 1965-1980.



Source: Jaarcijfers CBS; mortgage debt calculated on the basis of van der Valk, 'Household finance'.

Table 1. The Savings Balances in the General Savings Banks and the Rijkspostspaarbank, 1920-1965.

Year	**< 10 guilders**		**10 - 100 guilders**		**> 1,000 guilders**	
	RPS	*General*	*RPS*	*General*	*RPS*	*General*
1920	47.8%		24.6%		3.2%	
1930	44.6%	35.9%	23.6%	23.4%	5.2%	12.0%
1940	48.8%	47.5%	22.5%	22.3%	9.8%	9.6%
1950	31.2%	37.0%	25.9%	24.1%	17.8%	14.7%
1965	33.0%	22.0%	26.0%	23.0%	16.0%	24.0%

Sources: CBS, *Jaarcijfers van Nederland* 1930: 134; *Statistiek van Nederland - Spaar- en Leenbanken* 1930-1931: 10; 1933-1934: 10; 1936-1937: 12; 1937-1938: 12; *Statistiek der Spaarbanken*, 1939: 13; 1940:15; 1942:7; 1943-1946: 16; 1948: 17; 1950: 19; 1952: 15; *Besparingen bij handelsbanken en spaarbanken* 1965, p. 20; *Statistiek van de spaargelden* 1967-1968: 22; 1969-1970: 26.

Appendix A. HisFindex for The Netherlands 1890-1980

Researchers of the World Bank have captured the world-wide penetration of inclusive financial institutions in *Global Findex*, which measures the extent to which people in different countries use banks or other financial service providers – including semi-formal institutions and social networks – to organize payments, savings, and loans.[1] The table below reports the measurement of four indicators for The Netherlands in Global Findex 2011, 2014, and 2017. The first indicator, 'financial institution account' measures the percentage of people who have an account with a bank or any other institution offering financial services. The second and third indicator are flow variables that measure the percentage share of people who in the past twelve months used a financial institution to save or borrow, respectively.

Table A1. Selected Global Findex Indicators for The Netherlands in 2011, 2014, and 2017

Global Findex Indicator	Poorest 40% (15+)			Richest 60% (15+)			Total Population (15+)		
	2011	*2014*	*2017*	*2011*	*2014*	*2017*	*2011*	*2014*	*2017*
1. Financial Institution Account	99.5%	99.0%	99.8%	98.1%	99.5%	99.5%	98.7%	99.3%	99.6%
2. Saved at Financial Institution	49.2%	50.2%	51.4%	63.5%	64.8%	64.7%	57.8%	59.0%	59.3%
3. Borrowed from Financial Institution	15.7%	10.0%	10.7%	10.5%	14.3%	13.1%	12.6%	12.6%	16.4%

Source: Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar, and Jake Hess. 2018. *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution.* World Bank: Washington, DC.

We propose a similar functional approach to analyze how Dutch households organized their finances between 1890 and 1980, albeit based on different data. Global Findex is calculated on the basis of tri-annual surveys with more than 50 questions about the various informal and formal ways in which households have paid, borrowed, and saved over the past 12 months. Historians obviously cannot carry out such surveys, but the historical data for The Netherlands is well-suited to measure the extent to which Dutch households used banks to save, borrow, and pay at different points in time in the twentieth century.

This Appendix describes our estimations of three closely related historical indicators for financial sector use in The Netherlands for payments, savings, and loans: the number of people with a checking account, a savings account, or money borrowed from a bank. In most cases this reconstruction consists of point estimates at ten years' intervals for the population aged 15 and over. For all our indicators we use as the denominator the population figures (adults 15 years and over) of Statistics Netherlands.[2]

1. Savings Accounts

From 1895 onwards Statistics Netherlands (CBS) reported every year the number of savings booklets in circulation, the total value of annual deposits and withdrawals, and the end-of-year balance of the networks' savings accounts. To estimate the percentage share of the population of 15 years and over with a savings account

[1] Demirgüç-Kunt and Klapper, 'Measuring'; Demirgüç-Kunt et al., 'Global findex database 2014'; Demirgüç-Kunt, Klapper, and Singer, 'Financial inclusion'. Per capita measurement of bank use is also a common approach in the historiography on savings banks, e.g. Gueslin, 'Banks'; Dankers, Linden, and Vos, Spaarbanken.
[2] Data on the total population of the Netherlands before 1950 is from CBS, "Population from 1899", stable URL: https://opendata.cbs.nl/statline/portal.html?_la=en&_catalog=CBS&tableId=37556eng&_theme=1053, accessed 7 July 2021. To derive the percentage share of the population of 15 years and older we used De Jong and Veenstra (2020) and, for the period from 1950 onwards, CBS, "Bevolking; geslacht, leeftijd en burgerlijke staat": https://opendata.cbs.nl/statline/#/CBS/nl/dataset/7461BEV/table?ts=1614927111157&fromstatweb=true, accessed 7 July 2021.

we have to make two adjustments to the total number of booklets in circulations.[3] First, a considerable number of savings booklets was issued to children. CBS reported that between 1900 and 1911 22 per cent of the savings booklets of the postal savings bank, and 26 per cent of those of the general savings banks were in children's names.[4] In 1950 the postal savings bank reported that children still made up 25.5 per cent of the account holders of the postal savings bank.[5] We estimate that at every point in time children under the age of 15 made up 25 per cent of the accountholders in each bank, and we adjust the total number of savings booklets outstanding accordingly.

A second adjustments concerns people with more than one savings booklet. For instance, among the people who died in 1921 with an estimated wealth of at least 1,000 guilders, there were 28.3 per cent with a savings account, and within that group 18.8 per cent had 2, 3, 4, and in one case even five savings booklets.[6] Surely, some of these booklets will have belonged to underaged children but with 70 per cent of the decedents aged 60 or over, most of their children will have savings booklets in their own name. The more likely explanation is that people spread their money over multiple booklets in response to the upper limit savings banks set on interest payments. At 1,160 guilders the average value of the individual savings booklets in the 1921 sample was indeed close to the 1,200 guilders maximum applied by RPS until 1931.[7]

We use the size distribution of savings balances in the general savings banks and postal savings bank to estimate the percentage share of account holders with multiple booklets. For instance, in 1920 only 3.2 per cent of the RPS savings booklets had balances of 1,000 guilders or more.[8] In 1940, when the maximum amount paying interest stood at 2,500 guilders, the share of RPS booklets worth 2,000 guilders or more was 2.5 per cent.[9] This percentage had doubled to five per cent in 1950.[10] For that same year an internal RPS survey found that its 3,877,000 savings booklets were held by 3,717,000 unique customers, that is the number of clients was 95.9 per cent of the number of booklets.[11] Fifteen years later one out six RPS accounts were worth 1,000 guilders or more.[12] Based on these data we estimate a downward adjustment of RPS accounts of 2.5 per cent until 1940 and five per cent from 1950 onwards.

Bigger balances occurred more frequently among those who saved with one of the general savings banks. For 1930, for instance, CBS reported that twelve per cent of the savings booklets of the general banks held 1,000 guilders or more, a percentage that rose to 14.7 per cent in 1950, 24 per cent in 1965, and 39 per cent in 1969.[13] Based on these numbers we estimate a downward adjustment of general savings bank accounts of five per cent until 1940 and ten per cent from 1950 onwards. We apply the same coefficient to the rural cooperatives for which

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[3] A possible third adjustment for savings booklets that were full is not needed. In that case the balance outstanding was transferred to a new booklet, and the old booklet was destroyed. Adjustments for booklets that wereno longer used, is not necessary either. In the 1950s RPS had a policy to liquidate the often tiny balances after 30 years of inactivity. In 1958 this amounted to 36,000 guilders in 6,300 booklets, less than 0.1 per cent of the total number of booklets outstanding: "Plaats en functie van de Rijkspostspaarbank in ons nationale bestel" *Algemeen Handelsblad*, 19 januari 1960, p. 13.

[4] *Statistiek der Spaar en leenbanken in Nederland* 1901, p.175; 1902, p.175; 1903, p.140; 1904, p.137; 1905, p.140; 1906, p.140; 1907-1908, p.142; 1909/10, p. 146; 1911/12, p. 144.

[5] The RPS data are cited in *Statistiek der Spaarbanken* 1951, p. 20.

[6] Gelderblom et al., "Replication data for exploring modern bank penetration: Evidence from the early 20th-century Netherlands," ed. V2 Social Sciences and Digital Humanities Archive – SODHA (2022). Among 1,711 decedents with a net wealth of 1000 guilders or more there were 392 wealth owners with one booklet, 67 with two, seventeen with three, six with four, and one with five booklets.

[7] Barendregt and Overman, *Ondernemend*, pp. 75, 84. Cf. also: CBS, *Spaar- en leenbanken over het jaar 1930-1931*.

[8] CBS, *Jaarcijfers voor Nederland*, p. 134 (1930).

[9] CBS, *Statistiek der spaar- en leenbanken*, p. 15 (1940).

[10] CBS, *Statistiek der spaar- en leenbanken*, p. 19 (1950).

[11] The RPS data are cited in CBS, *Statistiek der spaar- en leenbanken*, p. 8 (1951).

[12] CBS, *Besparingen* 1965, p. 20.

[13] CBS, *Jaarcijfers van Nederland 1930*, p. 134; CBS, *Statistiek der Spaarbanken over het jaar 1950*, p. 19; CBS, *Besparingen bij handelsbanken en spaarbanken* 1965, p. 20; CBS, *Spaargelden* 1969-1970, p. 26.

we have no further data. Together with the adjustment for the savings booklets of children we can now estimate the percentage share of the population with a savings account in Table A2 below.

The ratio calculated for 1970—116 per cent—implies that by then the actual number of people with two or more savings booklets was higher than we estimated. This is consistent with what we know about the growing competition between banks after 1955 to attract customers with savings premiums and high interest rates. Unfortunately there is no household level data on the use of savings banks from this period. The *National Savings Survey* of 1960 reported the total amount of money different types of households put in their savings accounts (or withdrew from them) but not the share of these households with or without a savings booklet (*Spaaronderzoek* 1963). We can compare our estimates with data from the wealth tax returns of 1954 and 1959, also published by Statistics Netherlands. These data show that in 1954 46.2 per cent of those who paid the wealth tax had a savings booklet, against 55.2 per cent in 1959.[14] These numbers are considerably lower than our estimates for 1950 (68 per cent) and 1960 (90 per cent), but the wealth tax returns reflect the financial behavior of the richest 10 per cent of the population, for whom a savings booklet was one of many possible instruments to save money.[15]

Table A2. The Percentage Share of the Dutch Population (15+) with a savings booklet between 1890 and 1970.[16]

Year	Population 15+	General Savings	Postal Savings	Rural Coops	Total Booklets	Total Adjusted	Share of 15+ Population
1890	*3,076,240*	301,928	281,870		583,798	459,992	13%
1895	*3,262,370*	346,116	499,963		846,079	664,364	18%
1900	3,448,500	359,690	829,131	1,760	1,190,581	931,737	24%
1905	3,706,250	399,304	1,184,316	24,738	1,608,358	1,257,079	30%
1910	3,989,750	451,747	1,510,033	71,030	2,032,810	1,588,497	36%
1915	3,989,750	512,060	1,690,149	141,336	2,343,545	1,832,582	38%
1920	4,680,250	619,807	1,908,305	266,342	2,794,454	2,187,856	42%
1925	4,346,500	n.a.	n.a.	n.a.	n.a.	n.a.	*44%*[a]
1930	5,554,000	1,045,577	2,144,026	500,579	3,690,182	2,898,545	47%
1935	6,047,250	1,215,287	2,266,427	529,321	4,011,035	3,152,167	46%
1940	6,435,250	1,333,564	2,332,480	560,392	4,226,436	3,322,837	46%
1945	6,761,500	1,789,778	3,239,777	1,201,107	6,230,662	4,903,535	65%
1950	7,098,121	2,291,000	3,877,000	1,230,000	7,398,000	6,094,450	68%
1955	7,488,448	2,901,000	4,608,000	1,477,000	8,986,000	7,407,700	78%
1960	7,992,147	3,652,000	5,200,000	2,268,000	11,120,000	9,192,000	90%
1965	8,746,934	4,561,000	5,678,000	3,637,000	13,876,000	11,510,700	103%
1970	9,406,179	5,400,000	5,637,000	5,600,000	16,637,000	13,859,600	115%

Sources: see footnotes.

It is important to add that our measure for the use of savings accounts between 1890 and 1970 only includes the three major networks of savings banks. There were other banks offering savings accounts. For instance, the country's main SME bank, *Nederlandsche Middenstandsbank*, founded in 1927, set up a separate savings bank for

[14] CBS, *Inkomensverdeling 1954 en vermogensverdeling 1955*, p. 30; CBS, *Inkomensverdeling*, pp. 103-15.
[15] In 1960 and 1964 CBS asked households about the various types of savings instruments they used. Among those in the first wealth class (i.e. directors, free professions, SME owners) 38 and 35 per cent, respectively, named savings bank as the most important means to save in 1960 and 1964. In the third wealth class (i.e. clerks, skilled workers) this was 60 per cent in both years. Cf. Nederlandse Stichting voor Statistiek, *Onderzoek naar de spaarintenties en toegepaste spaarvormen in 1963/64* ('s-Gravenhage 1964), cited in: van Berckel, *Maatschappelijke*, pp. 144-50.
[16] Population 1950-2020: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/7461BEV/table?ts=1614927111157&fromstatweb=true. For 1900-1950 CBS only provides a breakdown for those younger than 20. To arrive at estimates for the population under 15 we take 75 per cent of this youngest age group: https://opendata.cbs.nl/statline/#/CBS/en/dataset/37556eng/table?ts=1571314321808. For 1890 and 1895 we estimate the adult population from the total population on the basis of the age distribution in 1900.

that purpose. The total amount of savings deposited with this bank was very small, however: just under 7 million guilders at the end of 1928, and 122 million gulders in 1958.[17] If we assume the average size of NMB's individual savings balances was similar to that of the general savings banks (391 guilders in 1928 and 676 guilders in 1958), the total number of savings accounts with the NMB bank would be 20,000 in 1928 and slightly over 180,000 thirty years later This would add 0.5 and 1.6 per cent, respectively, to the total number of booklets in circulation.

Our tabulations do not include the deposit accounts of the commercial banks either. Until the mid-1950s these banks had completely ignored ordinary households as potential customers, but as the economy continued to grow, and the demand for loans from Dutch businesses soared, private savings became an attractive additional source of funding.[18] Hence the commercial banks, one after the other, started offering deposit accounts at 3 or 3.5 per cent interest. Within a decade their market share rose from zero to 11.5 per cent of all household savings.[19] We have not include these accounts in our Hisfindex measurement, since they entailed a shift in bank use—not an increase in the already quasi complete penetration of savings banks.

2. Checking Accounts

The single most important provider of payment services in The Netherlands before 1960 was the Postcheque and Girodienst (*Postal Cheque and Giro Services, PCGD*) established in 1918 and operating through the nationwide network of more than 1,200 post offices. Statistics Netherlands reported the number of accounts held with PCGD in its *Jaarcijfers voor Nederland*.[20] One year before the establishment of PCGD the city of Amsterdam had created its own local giro service, the *Girokantoor der Gemeente Amsterdam*. The *Gemeentegiro*, as it was commonly referred to, remained an independent supplier of payment services until it merged with PCGD in 1979. We use newspaper reports and studies by Lelieveldt, Barendregt and Overman to estimate the number of accountholders between 1920 and 1979. The estimates (in italics) for 1925, 1935, 1945, and 1950 are interpolations.[21] Commercial banks, rural cooperatives and savings banks entered the market for payments after creating their joint center for the automatic processing of bank transfers, the *Bankgirocentrale*, in 1967. From then on all their customers could open a checking account. The total number of checking accounts of these banks is reported by Peekel and Veluwenkamp (1984).

Table A3. The Percentage Share of the Dutch Population (15+) with a checking account between 1920 and 1980.

Year	Population 15+	PCGD	Gemeente-giro (A'dam)	Savings Banks	Rural Coops	Commercial banks[d]	Total Accounts	Share of 15+ Population
1920	4,680,250	32,582	10,000				42,582	1%
1925	4,346,500	113,224	*20,000*				133,224	3%
1930	5,554,000	167,517	34,521[a]				197,517	4%
1935	6,047,250	266,390	*50,000*				316,390	5%
1940	6,435,250	391,861	70,000				461,861	7%
1945	6,761,500	494,932	*80,000*				574,932	9%

[17] Nederlandsche Middenstandbank N.V., Verslag over het 1e boekjaar, 14 November 1927 – 31 december 1928, p. 17; *Verslag over het twee en dertigste boekjaar* (1959), p. 31.
[18] Wurfbain, 'Recente ontwikkelingen'; de Graaf, *Handel*, p. 355.
[19] De Nederlandsche Bank N.V., *Report for the Year 1956*: 87; *1960*: 95; *1961*: 175; *1966*: 203; CBS *Maandstatistiek 1971 (April)*: 260; *1973 (April)*: 331.
[20] For the benchmark years 1920 to 1960 we use CBS, *Jaarcijfers voor Nederland* 1921, p. 248; 1931, p. 285; 1940, p. 217; 1951-1952, p. 189; 1963-1964, p. 230. For 1970 and 1980: Peekel and Veluwenkamp, *Betalingsverkeer*, p. 14.
[21] For 1920 and 1939: Lelieveldt, 'Gemeentegiro'. In February 1929 *Algemeen Handelsblad* reported that Amsterdam's Girokantoor had 34,521 private account holders. "Girokantoor der gemeente Amsterdam."*Algemeen Handelsblad*, 20-02-1929, p. 11; Lelieveldt provides no information for 1950 but he sets the number of accounts in 1956 at 100,000. Interpolating between 1939 and 1956 yields an estimated 89,412 accounts in 1950. The number of accounts in 1959 reported in: "Amsterdamse wisselmarkt", *Leeuwarder Courant: Hoofdblad van Friesland*, 12-01-1960. Data for 1970 from Barendregt and Overman, *Ondernemend*, p. 330.

1950	7,098,121	533,463	*90,000*				623,463	9%
1955	7,488,448	640,112	100,000				740,112	10%
1960	7,992,147	787,846	128,300[b]				916,146	11%
1965	8,746,934	1,079,000	*196,650*				1,275,650	15%
1970	9,406,179	2,225,000	265,000[c]	386,000	1,343,000[c]	1,140,000[c]	5,359,000	57%
1975	7,992,147	3,582,000		668,000	2,055,000	1,562,000	7,971,889	79%
1980	8,746,934	4,379,000		955,000	2,745,000	1,907,000	10,161,000	93%

Sources: See footnotes. a) 1929; b) 1959; c) 1971; d) including salary accounts of savings banks in 1971 and 1980

It is important to note that the rural cooperatives and the commercial banks (including the *Nederlandsche Middenstandsbank*) already offered current accounts to their clients before 1967. These accounts were essentially open credit lines but the banks did allow clients to allow clients to transfer money to other accounts. However, most current accounts were held by business owners and since the banks did not set up processing centers like the *PCGD* and *Gemeentegiro* we have not included the current accounts of the coops in our count of checking accounts.

3. Bank Loans

To estimate the percentage share of Dutch households borrowing from financial institutions we have to consider a broad range of lenders, starting with four groups suppliers of consumer loans. From 1941 onwards *Statistics Netherlands* published annual overviews of the number and value of loans extended by popular banks (*volkskredietbanken*), pawn banks (*banken van lening*, *pandhuizen*) stamp traders (*betaalzegelkassen*), financing companies (*financieringsmaatschappijen*, geldschietersbanken).[22] Popular banks were founded in the 1930s in response to malpractices among private lenders. The new municipal *volkskredietbanken* extended small, personal loans to households, mostly for emergency expenses.[23] They operated besides the much older public and private pawn banks that offered loans with clothes and household items as collateral.[24] CBS also reported on different types of consumers loans extended by commercial lenders. Between 1941 and 1960 these were stamp traders (*betaalzegelkassen*) and so-called ‘private loan banks’ (*particuliere geldschietbanken*); from 1961 onwards *Statistics Netherland* also reported the number and value of loans extended by financing companies.[25]

In the first half of the twentieth century rural credit cooperatives also offered loans to private clients through so-called ‘voorschotboekjes’ (advance booklets) and current accounts. However, these loans were for the exploitation of farms, and even though household expenses were seldom fully separated from the farm accounts, the loans were rarely used to finance consumption.[26] The same was true for the credit operations of commercial banks and SME banks in Dutch cities: they accepted overdrafts on current accounts and they also lent money to private individuals but, again, these loans typically were for business purposes. This began to change in 1958 when commercial banks started experimenting with personal loans. Initially, *Statistics Netherlands* did not report these loans but the Central Bank and national newspapers did pick up on the trend and started reported the number and value of these personal loans from 1959 onwards. Total numbers were small, however, with only 51,000 new personal loans in 1951.[27]

It was not until the second half of the 1960s that rural cooperatives, the postal savings bank (RPS) and the general savings banks entered the market for consumer loans. In 1967 Statistics Netherlands began to report the number of consumer loans extended by commercial banks per year and per quarter year, and in 1970 it added consumer lending by savings banks and rural credit cooperatives, per year and per month. In 1970 Statistics Netherlands also

[22] CBS, *Jaarcijfers voor Nederland* (1943-1966); CBS, *Statistical yearbook* (from 1971 onwards).
[23] van Dam, *NVVK*.
[24] Maassen, *Commercieel*.
[25] CBS, *Jaarcijfers van Nederland* 1963-1964, p. 251; 1965-1966, p. 259; *Statistical Yearbook* 1971, p. 228; 1974, p. 227 1976, p. 239; 1977, p. 239; *Jaarcijfers van Nederland*, 1965-1966, p. 259; *Maandstatistiek* 1968 (January), p. 12, 206; 1972 (April); 1973 (April).
[26] The total number of ‘voorschotboekjes’ in the *Boerenleenbanken* was 19,000 in 1950 and 82,000 in 1960: Coöperatieve Centrale Boerenleenbank Eindhoven, *Verslag 1960*, p. 87.
[27] De Nederlandsche Bank, *Annual Report* 1960, p. 95; 1961, p. 175; 1966, 203; "Persoonlijke leningen zowel in aantal als in omvang in twee jaar meer dan verdubbeld." *Algemeen Handelsblad*, 10 November 1962.

started reported the annual number of newly registered residential mortgages, separate from mortgages for business purposes.[28] Statistics Netherlands then complemented this more extensive data with summary reports on several earlier years, plus, from 1977 onwards, the number of overdrafts outstanding on salary accounts, again with retrospective data from 1975 onwards.[29] In 1977 the recording of the total number of new consumer loans stopped. Instead, Statistics Netherlands reported the total number of loans outstanding.

Table A4 summarizes the data reported by Statistics Netherlands: the annual number of consumer loans extended by popular banks, pawn banks, stamp traders and financing companies for every year between 1941 and 1970; the number of newly registered residential mortgages in 1965, 1970, 1975, and 1980. Then, for 1965 and 1970, the number of new personal loans extended by retail banks; for 1975 the number of new personal loans extended by retail banks and the total number of overdrafts on salary accounts; and, finally, for 1980, for all loans except residential mortgages, the total number of loans *outstanding*.

Table A4. The Number of Loans Extended by Pawn Banks, Popular Banks, Stamp Traders, Financing Companies, and Retail Banks, plus Residential Mortgages.

Year	Population 15+	Popular Banks	Pawn Banks	Stamp Traders	Financing Companies	Retail Banks	Residential Mortgages	# Loans Extended	HisFindex
1941	6,519,500	24,510	446,709	243,940	18,335			733,494	11.3%
1942	6,584,500	23,866	269,367	131,189	15,662			440,084	6.7%
1943	6,628,500	15,293	127,613	42,589	8,246			193,741	2.9%
1944	6,693,250	9,427	69,485	14,967	4,920			98,799	1.5%
1945	6,761,500	9,658	23,342	12,445	2,967			48,412	0.7%
1946	6,901,500	25,177	58,034	63,753	9,062			156,026	2.3%
1947	7,004,750	31,233	103,919	105,288	10,484			250,924	3.6%
1948	7,122,500	46,711	161,744	156,591	13,252			378,298	5.3%
1949	7,220,500	77,643	181,825	241,399	15,424			516,291	7.2%
1950	7,098,121	98,034	188,343	288,955	17,097			592,429	8.3%
1951	7,201,090	113,586	213,398	321,935	17,812			666,731	9.3%
1952	7,277,004	119,467	220,773	328,305	18,275			686,820	9.4%
1953	7,334,948	128,487	200,212	336,033	19,847			684,579	9.3%
1954	7,406,000	134,427	185,948	337,342	21,563			679,280	9.2%
1955	7,488,448	134,470	148,730	326,437	22,465			632,102	8.4%
1956	7,582,251	129,281	132,280	306,084	21,406			589,051	7.8%
1957	7,666,150	131,637	123,633	287,282	20,438			562,990	7.3%
1958	7,758,398	134,984	130,044	267,052	21,065			553,145	7.1%
1959	7,884,379	139,720	128,328	257,631	21,151			546,830	6.9%
1960	7,992,147	136,349	112,478	243,880	20,837	30,118		543,662	6.8%
1961	8,091,001	133,650	103,881	221,188	22,001			480,720	5.9%
1962	8,276,914	133,811	103,071	203,384	23,585			463,851	5.6%
1963	8,451,942	131,700	101,000	188,000	24,100			444,800	5.3%
1964	8,597,340	124,200	96,000	168,000	55,200			443,400	5.2%
1965	8,746,934	115,800	98,000	140,000	258,400	51,000	116,000	779,200	8.9%
1966	8,890,276	113,700	93,400	124,500	304,420				
1967	9,030,378	109,100	92,900	109,000	350,440				
1968	9,145,585	104,900	89,000	96,000	393,960				
1969	9,270,341	93,700	88,000	75,000	445,480				
1970	9,406,179	91,500	81,000	54,000	497,000	141,000	142,000	1,006,500	10.7%
…									
1975	10,112,453	75,000	90,000		376,700	401,000	258,000	1,200,700	11.9%
…									
1980	10,901,275	*101,000*			*863,000*	*1,008,000*	*230,000*	*2,202,000*	*20.2%*[a]

[28] CBS, *Statistical Yearbook* 1971, p. 228; 1974, p. 227; 1976, p. 239; 1977, p. 239; CBS, *Maandstatisiek van het Financiewezen* 1972 (April), 1975 (April); 1977 (April); 1978 (March), p. 168; 1978 (April), p. 228; 1979 (March); 1980 (March); 1981 (April).

[29] Maandstatistiek Financiewezen 1977 (April); 1979 (March), 1980 (March), 1981 (April).

Sources: See text; 1980: popular banks include pawn bank; 1975 and 1980: financing companies include stamp traders; (a) HisFindex 1980 calculated on the basis of loans outstanding plus new residential mortgages.

References

Barendregt, J. and Overman, R., *Ondernemend in financieel nut: Sparen en betalen bij de rijkspostspaarbank, de postcheque- en girodienst en de Postbank, 1881-1989* (Amsterdam, 2020).

van Berckel, J. J. L., *De maatschappelijke en economische betekenis van de spreiding van effectenbezit* (Deventer, 1969).

CBS, *Statistiek der spaar- en leenbanken in Nederland* (The Hague, 1895-1922).

———, *Jaarcijfers voor Nederland* (The Hague, 1923-1970).

———, *Statistiek van Nederland. Spaar- en leenbanken over het jaar 1930-1931* (The Hague, 1931).

———, *Inkomensverdeling 1954 en vermogensverdeling 1955* (Zeist, 1959).

———, *Inkomensverdeling 1959 en vermogensverdeling 1960* (Zeist, 1963).

———, *Besparingen bij handelsbanken en spaarbanken* (The Hague, 1965).

———, *Maandstatistiek van het financiewezen* (The Hague, 1968-1981).

———, *Statistiek van de spaargelden* (The Hague, 1970).

———, *The statistical yearbook of the Netherlands* (The Hague, 1971-present).

Coöperatieve Centrale Boerenleenbank Eindhoven, *Verslag over het twee-en-zestigste boekjaar 1960*, 1960).

van Dam, B., *NVVK: 75 jaar toonaangevend en springlevend* (Amsterdam, 2007).

Demirgüç-Kunt, A. and Klapper, L., 'Measuring financial inclusion: The global findex database', in, *World Bank Policy Research Working Paper* 2012).

Demirgüç-Kunt, A., Klapper, L. and Singer, D., 'Financial inclusion and inclusive growth: A review of recent empirical evidence', in, *World Bank Policy Research Working Paper*, 2017).

Demirgüç-Kunt, A., Klapper, L., Singer, D. and van Oudheusden, P., 'The global findex database 2014: Measuring financial inclusion around the world', in, *World Bank Policy Research Working Paper* 2015).

Gelderblom, O., Jonker, J., Peeters, R. and de Vicq, A., 'Replication data for exploring modern bank penetration: Evidence from the early 20th-century Netherlands', in V. Social Sciences and Digital Humanities Archive – SODHA ed., 2022).

de Graaf, T., *Voor handel en maatschappij: Geschiedenis van de Nederlandsche handel-maatschappij, 1824-1964* (Amsterdam, 2012).

Gueslin, A., 'Banks and state in France from the 1880s to the 1930s: The impossible advance of the banks', in Y. Cassis, ed., *Finance and financiers in European history 1880–1960* (Cambridge, 1992).

Lelieveldt, S., 'Gemeentegiro was een revolutie in het betalingsverkeer', *Ons Amsterdam* 69 (2017), pp. 8-13.

Maassen, H. A. J., *Tussen commercieel en sociaal krediet: De ontwikkeling van de bank van lening in Nederland van lombard tot gemeentelijke kredietbank 1260-1940* (Hilversum, 1994).

Peekel, R. and Veluwenkamp, J. W., *Het girale betalingsverkeer in Nederland* (Deventer, 1984).

Wurfbain, J. C., 'Recente ontwikkelingen in het Nederlandse bankwezen' (1969) http://resolver.kb.nl/resolve?urn=KBNRC01:000035493:mpeg21:p017 (accessed on 9 February, 2020).

Appendix B. *Kasboekje van Nederland*

In 2017 Utrecht's financial history group initiated the citizen science project *Kasboekje van Nederland*, asking people to share with us their domestic accounts (*kasboekjes*). The use of such financial ego documents for the study of financial behavior of households in the nineteenth and twentieth centuries was pioneered by S.P. Walker who analyzed accounting practices among the English bourgeoisie in the mid-nineteenth century, American farmers in the Great Depression, and Australian households in the 19th and 20th centuries.[1] In the Netherlands, scholars working on the history of ideas, housewives, and small business owners have perused some domestic accounts but never engaged in a more systematic analysis.[2] One obvious reason is the limited survival of these private documents in public archives.[3]

We suspected that were many domestic accounts available in private archives because these documents are typically filed with other personal memento's, i.e. photos, letters, and diaries, as a tangible memory of one's parents or grandparents and thus of one's own history as well. For scholars these accounts are of great value because they reveal the way in which households' financial management has changed through time. To gain access to private family archives, in 2016 we started to work together with one of the Dutch national TV broadcasters and together we created a tv-series. In six episodes various life-cycle events – such as marrying and buying a house – were addressed from a financial history perspective. Every week, some 270,000 people watched the show. Their average age was 62, indicating that the series especially spoke to people who had started their own households sometime in the 1970s, with parents or grandparents who had done so in the 1950s or 1930s, respectively. Furthermore, we created an online platform on which we shared our findings and published short articles about changing financial behavior of the Dutch during the twentieth century.[4] In response to these initiatives, close to 400 families sent us useful source material, which resulted in an extensive collection of twentieth-century account books.

These private documents are a valuable addition to the household budget surveys conducted by the Dutch national bureau of statistics and its predecessors.[5] These official budget studies do contain information on savings, loans, and insurance but they aggregate individual transactions to monthly or annual totals. Consequently, from these sources it is impossible to understand people's day-to-day financial activities. Private accounts, however, give information on individual transactions, showing us for example how often people spent money and the extent of these transactions. This information is of paramount importance for enhancing our understanding of households' demand for financial service and hence why the financial system developed the way it did.[6]

Keeping domestic accounts was a general practice. A survey among more than 50,000 housewives from 1956 revealed that at the time than one-third of them kept domestic accounts.[7] At the same time, however, domestic accounting was something for households with incomes well above subsistence levels. In 1909 Estella Schönberg's *Practisch Huishoudboek* gave accounting advice on the basis of an annual budget of 1,500 guilders.[8] At the time three quarters of the Dutch workforce earned less than 800 guilders per year.[9] A manual from 1932 offered a range of example budgets for annual incomes from 1,500 to 6,000 guilders, and in 1936 a primary school method offered children an example of the accounts their parents might keep on the basis of a weekly wage of 35 guilders, that is 1,800 guilders per year.[10] The writers of these manuals only referred to the financial behavior of working class households to stress the rudimentary nature of their money management, with the husband simply providing his

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1 English bourgeoisie: Walker and Llewellyn, 'Accounting at home'; Walker, 'How to secure your husband's esteem: Accounting and private patriarchy in the British middle class household during the nineteenth century'. American farmers: Walker, 'Accounting in rural'. Australian households: Carnegie and Walker, 'Household accounting in Australia'; Carnegie and Walker, 'Household accounting'.

2 Netherlands: Maas, '*Letts* calculate: Moral accounting in the Victorian period'; Kloek, *Vrouw des huizes*; Pollmann, *Kleine baas*.

3 There are some exceptions: the International Institute for Social History (IISH) and the Meertens Institute both own an impressive collection of private household budgets. The Dutch National Institute for Family Finance Information (*Nederlands Instituut voor Budgetvoorlichting*: NIBUD), founded in 1979, regularly receives cashbooks from people who wonder whether these have any historical value.

4 See our website www.kasboekjevannederland.nl.

5 Gelderblom and van der Valk, 'Coping'.

6 Boter, 'Payment patterns'.

7 Stokvis, ''Huisvrouwelijke' arbeid'

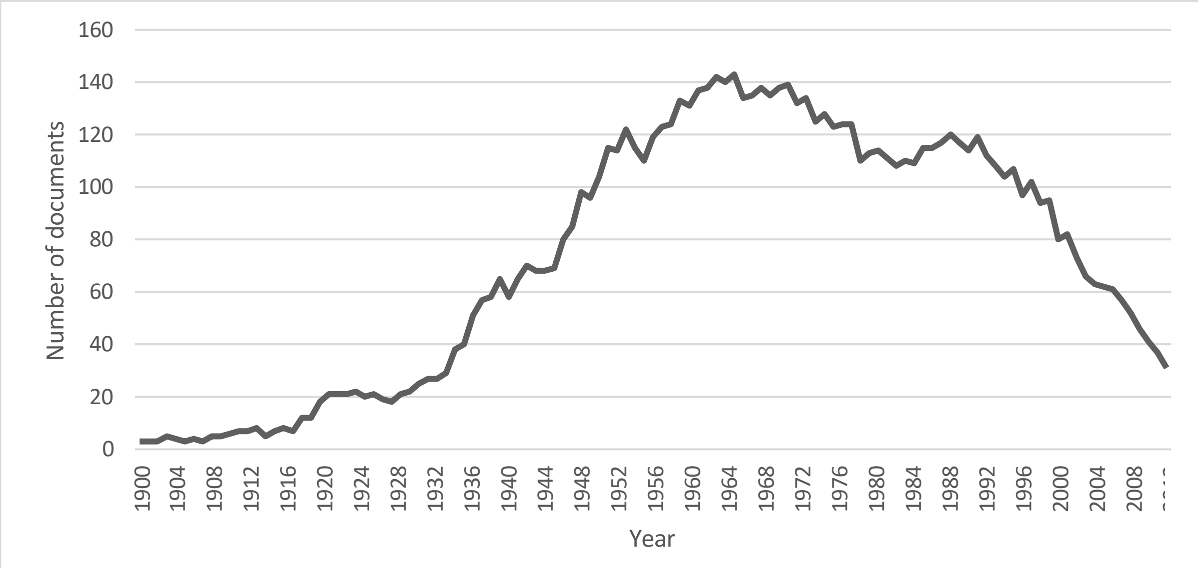
8 Schönberg, *Practisch huishoudboek*

9 Sub-commissie uit de Commissie voor de Economische Politiek, 'Inkomens'.

10 Polak-Kiek, *Financieel beheer*; van de Kouwe, *Briefsteller*.

wife a weekly cash allowance.[11] Other contemporary observers signaled the limited financial knowledge of factory girls.[12]

Figure A1. Number of documents per year collected in the *Kasboekje van Nederland* project.



Source: Kasboekje van Nederland Archives

Figure A1 reports the total number of domestic accounts at our disposal for each year between 1900 and 2012. For the current paper we have entered all of the listed financial transactions from a sample of our collection of account books for the years 1951 and 1971: Kasboekje van Nederland, Donor numbers 67; 86; 93; 95; 108; 110; 120; 127; 133; 142; 153; 166; 183; 184; 195; 204; 215; 222; 246; 254; 256; 259; 261; 264; 276; 277; 287; 290; 291; 303; 311; 318; 320; 333; 370; 371; 380; 392; 408; 427; 430; 438; 467; 469; 471; 478; 479; 1001; 1003; 1006; 1015; 1024; 1028; 1032; 1034; 1037; 1042; 1043; 1052; 1053; 1058; 1059; 1060; 1063; 1073; 1078; 1084; 1087; 1093; 1100; 1105; 1106; 1109; 1112; 1114; 1117; 1127; 1131; 1133; 1136; 1137; 1141; 1142; 1147; 1154; 1162; 1166; 1174; 1175; 1177; 1179; 1182; 1183; 1185; 1186; 1189; 1190.

Our most important criterium for selecting the cashbooks was that financial transactions were listed down consistently and systematically. We have classified every transaction into one of three categories: expenses, income, or accounting. Expenses are transactions in which the author *spent* money on something, income is when the author *received* money (principally salary payments), accounting includes all transactions that take place within the household – such as the payment of pocket money or saving deposits or withdrawals – and notations of balance of income and expenses. We subdivided each of these three main categories in more specific sub-categories, e.g., 'food' ,'housing' 'savings' or 'loans' to facilitate further analyses. We also corresponded with the families sharing their accounts to obtain information on the occupation and gender of the original authors.

In the processing of the 1951 and 1971 data we encountered two practical problems. First, the amount of the transaction was sometimes either not readable or blank. We excluded these transactions from our analysis because they could skew our calculations. Luckily, the number of unreadable or blank transactions was negligible and excluding them will therefore not have affected our results. Second, some account books did not cover the entire year. Since expenses varied across the year, notably because of different spending patterns over the summer and during the holiday season, we have excluded these partial accounts from our analysis. Furthermore, we could not always determine how goods and services were actually paid. Some accounts are described as 'kasboeken' or 'giroboeken'; others make specific mention of the use of cash, bank, or giro. The use of a bank- or giro account to pay fixed charges is made explicit in numbers 110, 222, 256, 259, 303, 1001, 1060, and 1078.

With regard to the 1951 data it is worth noting that five households kept multiple accounts, with the husband and wife administering different parts of the household budget: Nrs. 86, 108, 184, 318, 320, and 1183. Each of these

[11] van der Hoeven-Kampers, *Huishouden*, p. 22.

[12] Nederlandsche Hervormde Vereeniging voor Geestelijke Volksgezondheid, *Voorbereiding*.

accounts are reported separately in Figure 2. Five accounts in 1971 only contained pocket money expenses: Nrs. 1024, 1041, 1058, 1073, and 1186. The number and median value of these transactions is very low.

References

Boter, C., 'Male and female payment patterns ca. 1950: Some examples from the cashbook of the Netherlands project', *Jaarboek voor Munt- en Penningkunde* 106 (2019), pp. 185-204.

Carnegie, G. D. and Walker, S. P., 'Household accounting in Australia: A microhistorical study', *Accounting, Auditing & Accountability Journal* 20 (2007), pp. 210-36.

Carnegie, G. D. and Walker, S. P., 'Household accounting in Australia: Prescription and practice from the 1820s to the 1960s', *Accounting Auditing & Accountability Journal* 20 (2007), pp. 41-73.

Gelderblom, O. and van der Valk, T., 'Coping with financial fragility: Dutch households in the Great Depression', in, 2022).

van der Hoeven-Kampers, J. P. C., *Ik kan huishouden. Geïllustreerd handboek voor degenen die een huishouding billijk, practisch en goed willen besturen* (Leiden, 1921).

Kloek, E., *Vrouw des huizes. Een cultuurgeschiedenis van de Hollandse huisvrouw* (Amsterdam, 2009).

van de Kouwe, C., *Nu 't leven in! Briefsteller voor de 6de en 7de klas der lagere school, kopscholen en cursussen voor vervolgonderwijs* (Groningen, 1936).

Maas, H., '*Letts* calculate: Moral accounting in the Victorian period', *History of Political Economy* 48 (2016), pp. 16-43.

Nederlandsche Hervormde Vereeniging voor Geestelijke Volksgezondheid, *Geschriften van de Nederlandsche hervormde vereeniging voor geestelijke volksgezondheid. Deel 4. De voorbereiding van het meisje voor de gezinstaak* (Utrecht, 1937).

Polak-Kiek, J., *Financieel beheer in de huishouding* (Purmerend, 1932).

Pollmann, T., *Liever kleine baas dan grote knecht: de Nederlandse middenstand 1920-1970* (Amsterdam, 2016).

Schönberg, E., *Estella schönberg's practisch huishoudboek: Met toelichtingen, raadgevingen en begrootingssysteem voor 52 weken* (Rotterdam, 1909).

Stokvis, P., ''Huisvrouwelijke' arbeid: Technologie en tijdsbesparing sinds het interbellum', *Amsterdams sociologisch tijdschrift* 28 (2001), pp. 350-76.

Sub-commissie uit de Commissie voor de Economische Politiek, 'Inkomens en vermogens in Nederland', *Verslagen en mededeelingen van de afdeeling handel en nijverheid van het departement van arbeid, handel en nijverheid* 29 (1929), pp. 8-10.

Walker, S. P., 'How to secure your husband's esteem: Accounting and private patriarchy in the British middle class household during the nineteenth century', *Accounting, Organizations and Society* 23 (1998), pp. 485-514.

Walker, S. P., 'Accounting and rural rehabilitation in New Deal America', *Accounting, Organizations and Society* 39 (2014), pp. 208-35.

Walker, S. P. and Llewellyn, S., 'Accounting at home: Some interdisciplinary perspectives', *Accounting, Auditing & Accountability Journal* 13 (2000), pp. 425-49.