Explaining the Financial Turn. The Emergence of an Inclusive Financial System in the Netherlands, 1920-1980

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Abstract
Research by World Bank economists on current world-wide financial development has demonstrated a positive correlation between income and financial inclusion, but also attributes an important role to other factors such as gender, technology, and the government. However, their data only go back to 2011, at which time most western countries were already fully banked. But how did they get there? When and why did people turn to the financial sector to organize their finances? The current paper explores and explains the historical pathway towards financial inclusion for the case of the Netherlands in two steps. First, we reconstruct the penetration of banks during the period 1920-1980 for three key functions: saving, borrowing, and paying. Based on a great variety of supply- as well as demand-side sources, we find that income was certainly important, but that it did not necessarily develop in tandem with financial sector use. Moreover, the use of financial services for saving, borrowing, and paying followed very different trajectories. They all came together in the 1960s, when retail banks started cross selling financial services for all three of these functions. Second, we identify the players responsible for this financial turn. We find that technology, rising income, employers, and shopkeepers played important roles, but that the role of the government has been pivotal in turning around the financial system as it influenced both the demand for and the supply of financial services.

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

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

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1. **Introduction**

One of the most telling differences in financial development in the world today is the extent to which households rely on formal financial institutions to organize their finances. In high-income countries bank use is almost universal, in developing countries often no more than 50 per cent (Beck et al. 2007; Demirgüç-Kunt and Klapper 2012; Beck and Cull 2013). To explain this difference, World Bank economists have begun to document the variety of ways in which households across the globe organize payments, loans, savings, and insurance (Demirgüç-Kunt and Klapper 2012 ; Demirgüç-Kunt et al. 2015; Demirgüç-Kunt et al. 2017). Their functional approach shows that banks are not always the most efficient providers of financial services. Households may choose to make cash payments, use their mobile providers to transfer money, borrow from relatives, and turn to a bank for savings only (Collins et al. 2009; Aggarwal and Klapper 2013; Demirgüç-Kunt 2017). These choices, in turn, depend on a much broader complex of changes, including the introduction of new technologies, rising wages, better education, and the extent to which governments make direct payments to households (Fungáčová and Weill 2015; Kostov et al 2015; Allen et al. 2016; Zins and Weill 2016). It is difficult to establish empirically how important each of these factors is for the development of more inclusive financial systems because detailed data on financial sector use across the globe is available for the past two decades only, when most high-income countries were already fully banked. But how did they get there?

This paper offers a historical analysis of household finance and analyzes how the three basic financial functions of saving, borrowing, and paying developed over time. Only by taking a historical perspective can we understand why and when people in high-income countries chose to turn to retail banks to organize these functions. Prior studies have shown that the 1960s have been a pivotal point in financial history, when commercial banks throughout the western world started to offer their services to households from lower income-brackets too, expanding their former more limited clientele of wealthy elites (Grossman 2010; Calomoris and Haber 2014). Before that date most people never set foot in a bank other than the local pawn bank or, for those with a bit more money to spare, a savings bank (O'Connell 2009; Levy 2012; Lehmann-Hasemeyer and Streb 2018; Schuster et al. 2020). Then, in the 1960s, banks started to offer an increasing variety of services, making it possible for virtually everyone to save, borrow, and pay via the same institution (Krueger 2017; Batiz-Lazo 2018). In other words, while for a very long time the organization of these basic functions had been catered for in different ways for high-, middle-, and low-income households, in the 1960s everything seems to have come together. Our key question is why this happened: what upset the seemingly stable equilibrium that existed for so long before?

We study The Netherlands in the period 1920-1980 because it is exemplary for the historical trajectory of financial systems in the West. At the beginning of the twentieth century, most Dutch households lived in a cash economy and managed their finances through a social network of relatives, neighbors, local shopkeepers, and employers (Deneweth et al. 2014). Their bank use went no further than the local savings bank, provided they had any money to spare (Dankers 2001). The wealthiest households lived in a different financial world. They paid most bills in cash like anybody else, and they also preferred to borrow from relatives and friends, but besides that they used banks for money transfers, loans, and investments (Gelderblom et al. 2022). Indeed, the Dutch had always had one of the most advanced financial systems in the world, and between 1880 and 1920 many new banks were created to serve its thriving business community (Jonker 1991; Kymmel 1992, 29-32; Peeters 2021; De Vicq 2022). But these developments bypassed ordinary households, until in 1965, a radical break with the financial past was set in motion and fifteen years later, virtually all Dutch households had a checking and savings account and the use of banks for credit had become commonplace, whether through overdrafts, personal loans, or mortgages (Barendregt and Visser 1997; Sluyterman et al. 1998; Van der Valk 2019; Barendregt and Overman 2020).

In this paper we carry out a very straightforward yet innovative, empirical exercise. For three key functions – saving, borrowing, and paying – we measure the absolute and relative number of households that used banks to provide these services. We use governments statistics and previously collected data by bank historians but we complement these supply-side sources with a wide array of demand-side sources, among which domestic accounts and budget surveys, to explore the alternative ways in which households saved, borrowed, and made payments. This analysis will confirm that before the 1960s, households employed different strategies and used different services for each of the three basic functions. It will also show that there were big differences between the low-, middle-, and high-income population groups. To explain the rapid rise of retail banking after 1965 we analyze not just the banks' behavior but also that of their customers, employers, shopkeepers, and the government. We conclude that all of them played important roles in realizing the financial turn of the 1960s, but that in the end, the government gave the final push to making The Netherlands fully banked.

This paper is structured as follows. Section 2 discusses our sources and methods. Sections 3, 4, and 5 explore how households managed respectively their savings, loans, and payments up until the 1950s. Subsequently, we describe the rise of retail banking in the 1960s and 1970s in section 6 and we explain this development in Section 7. Section 8 concludes.

2. The Data

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 (Demirgüç-Kunt and Klapper 2012; Demirgüç-Kunt et al. 2015; Demirgüç-Kunt et al. 2017). We propose a similar functional approach to analyze how Dutch households organized their finances since the beginning of the 20th century, 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.

Starting in the early 19th century, the Dutch government published annual reports on the activities of local pawn banks, savings banks, and the so-called help banks that offered small loans to petty business owners (Appendix A). By 1885, these reports had evolved into detailed listings of individual banks with their name, location, founding year, plus the size of their clientele, the total value of savings and/or loans outstanding, and other bank assets and liabilities. In subsequent years, the Central Bureau of Statistics (CBS, founded in 1892) also reported the size distribution of individual savings, and the age, gender, and profession of new accountholders. Their annual statistics closely followed developments in the financial sector, adding the savings booklets of the rural credit cooperatives in 1900 and the payment services of the postal giro bank in 1920. In 1941, CBS began reporting the number and value of new and outstanding loans issued by a broad range of public, semi-public, and private providers of consumer credit – surveys that were repeatedly reorganized in the 1960s and 1970s as banks expanded their services to private households.

The government efforts to monitor the financial behavior of households was not limited to the measurement of bank activities. In the late-nineteenth century, private organizations started to conduct budget surveys among households to map the living conditions of the Dutch working class. The government would soon take over this initiative and during the first half of the twentieth century a considerable number of such surveys were carried out. These investigations were by no means a strictly Dutch phenomenon, but instead they were part of a much broader development of the desire to map the living and working conditions of ordinary households, which had deteriorated as a result of industrialization (A'Hearn et al. 2016). The Dutch government first focused on the large cities, like Amsterdam and The Hague, but in 1936 a nation-wide study was conducted, including almost 600 households from across the country and from various socio-economic backgrounds (Gelderblom and Van der Valk 2022). The survey conductors were principally interested in households' expenditures on life necessities, but they also asked questions about the use of insurance, outstanding debts, and money saved. Between 1946 and 1963, another half a dozen surveys were carried out, some for specific cities or rural communities, others for the country at large, all of them with an emphasis on consumption patterns.

Fiscal data offer a third entry into the financial behavior of households. From 1946 onwards, the CBS published summary data on the households that paid wealth taxes, which covered about ten per cent of all households in the Netherlands. The reports contain information on the share of households with savings accounts, checking accounts, and loans from various occupational groups and income brackets. Before 1946, the government only published summary statistics for the succession tax, and bank balances were subsumed under the general heading 'receivables'. Luckily, for the year 1921 a hand-collected national sample of 2,321 succession tax returns is available, on the basis of which we can measure savings, loans, and payments of the richest 25 per cent of decedents (Gelderblom et al. 2022).

To capture the transition between 1965 and 1980, we consult the specialized literature on the supply of financial services, principally payments (Peekel 1984; Barendregt 1993) and changes in the legal regime of consumer credit (Huls 1981; Pais 1969, 1975; Jonker et al. 2017) and we complement this literature study with an analysis of various primary sources. These include several newspaper articles written by the directors of the retail banks to explain and legitimize the choices they made. We also use brochures from the national office for budget advice informing households about what they were supposed to do themselves, and what they could expect from their employer, their bank, and the government. To examine whether households actually changed their financial behavior, we use a national savings and loans survey from 1960 that asked about their voluntary and mandatory savings as well as the use of various types of loans (Van der Marel 1965). Additionally we use a smaller survey on loans conducted by the postal giro bank in 1965 (Pais 1969) .

Finally, we analyze the domestic accounts of about 100 individual families collected in the crowd sourcing project 'Kasboekje van Nederland' (Appendix B). Although this is a small sample of mostly high-income households with one male breadwinner, the accounts provide a rare insight into households' everyday financial behavior, especially with regard to the different institutions they used to save, borrow, and pay until the 1960s. More specifically we analyze their payments in two individual years –1951 and 1971—to find out how opening a bank account affected their money management.

3. Savings Booklets

In The Netherlands, inclusive finance started in the first half of the nineteenth century with a philanthropic savings movement similar to today's microfinance. Like in many other European countries, local charities opened savings banks to stimulate people to save. By 1880, there were some 300 savings banks in operation but their clientele had remained very small, with less than 1,000 savers on average. This was partially due to limited opening hours, restrictions on the amounts that could be deposited and withdrawn, and the large social distance between the bank directors and their clients (Dankers et al. 2001; Deneweth et al 2014). In 1881, the government stepped in and created a postal savings bank (RPS) operating through the country's 1,000 post offices. With more extensive opening hours and without restrictions on the deposits and withdrawals, this new institution edged much closer to the financial needs of small savers. Within a decade there were more than 300,000 savings booklets in circulation, and in 1902 the 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 (Colvin 2011; Gelderblom et al. 2021).

The uptake was very fast indeed. Between 1890 and 1930, the share of the adult population with a savings booklet rose form 14 per cent to 46 (Figure 1). An important reason for this rapid diffusion was the banks' willingness to accept deposits and withdrawals of even the smallest amounts at every day of the week – a service tailored to the cash economy in which most households lived (Deneweth et al. 2014). The insertion of these transactions into a family's daily finances was easy. It fit seamlessly with the creation of 'special monies', that is small savings in separate cash boxes to pay for birthdays presents, holidays, or any other pre-determined purpose.[1] Having a savings account did not stop people from such earmarking; it rather offered an additional means to reserve money for future expenses.[2] At the same time the savings account offered a practical solution for the management of recurrent deficits and surpluses that came with the weekly payment of most wages and salaries.[3]

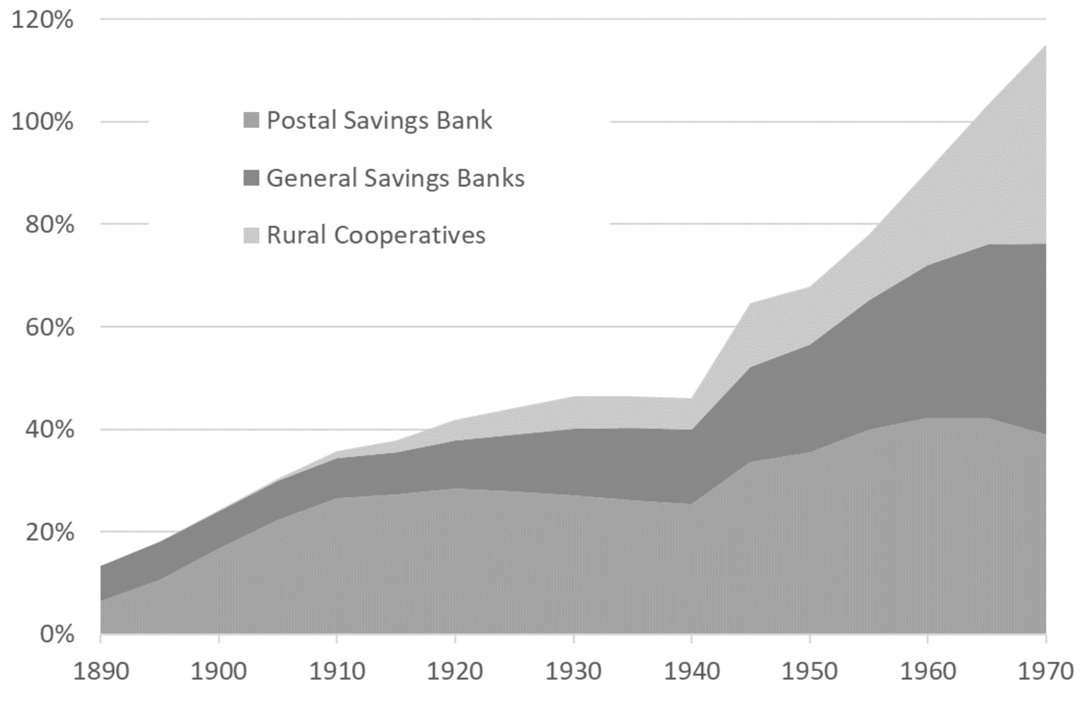
[1] Cf. Zelizer (1994) for the earmarking of money for special purposes by households in the US between 1870 and 1930. The *Kasboekje van Nederland* project reveals many instances of childrens' piggy banks ('spaarpot') and specific types of cash boxes ('kastje', 'busje'), as well as references to money 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).

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

[3] 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).

During the 1930s, the penetration of savings accounts stagnated, but after World War II it picked up again as a result of the purge of the national money supply in 1945 (Lieftinck 1973; Barendregt 1993). In July 1945, all banknotes of *f*100 were taken out of circulation by having people hand them in at one of the commercial banks or rural cooperative. 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.[4] Consequently, by 1950, 68 per cent of the adult Dutch population had a savings account. This growth continued and by 1965, the number of savings account per adult was higher than one.

Figure 1. Savings Booklets as a Percentage Share of the Dutch Population Aged 15 and over, 1890-1970.



Source: See Appendix A.

[4] At the end of 1944 there were 5.1 million saving booklets in circulation; two years later the total number stood at 6.5 million.

Savings accounts were for everyone: working people as well as the unemployed, white collar workers as well as blue collar workers, old as well as young. This diversity in the clientele of savings banks persisted throughout the twentieth century. For instance, in 1950, close to half of the 3.7 million accountholders of the RPS were employed, a quarter were children, one-fifth were married women, and one out of twelve were retired workers and widows (*Statistiek der Spaarbanken* 1951: 8, 20) Also the occupational background and hence the salaries of the savers varied: in 1951, 62 per cent earned less than *f*3,000 per year – the starting salary of a primary school teacher[5] – while seven per cent earned more than *f*6,000.

This diversity was clearly reflected in the actual size of savings balances, reported in Table 1. Up to World War II, the balance of the majority of the accounts was less than *f*10, both at the RPS and the general savings banks.[6] After the war, the number of accounts with small balances remained considerable, and by 1965, *f*100 was still the maximum balance for 60 per cent of the savers at the RPS, equivalent to a weekly wage of an unskilled laborer. The large relative share of accounts with small balances makes sense, seeing that savings banks continued to facilitate deposits and withdrawals of very small sums of money at the time. Even so, there was a clear increase in the size of savings balances. The relative share of RPS accounts with more than *f*1,000 rose from five per cent in the 1920s to sixteen 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 *f*1,200 until 192* and *f*2,500 thereafter – the more affluent opened multiple savings accounts (cf. Appendix A). This is one reason why the number of accounts per person surpassed one in the 1960s; the other being the opening of savings booklets for children (Dankers 2001).

[5] Schoolteacher salary in 1950: 285 guilders per month (KvN Inv Nr 184.3)

[6] daarnaast in 1940 tijdelijk effect van eerste oorlogsjaren: geld van spaarbanken halen, deels om beschadigde eigendommen te vervangen, deels om voorraden aan te leggen, en in 1941 ook een bank run vanwege geruchten dat de Duitse bezetter de tegoeden zou blokkeren. Rust keerde terug in loop van 1942 waarna tegoeden juist begonnen te stijgen omdat mogelijkheid om uitgaven te doen sterk terugliep: CBS Statistiek van Spaargelden: 1940, pp 5-6; 1941, p. 1, 4; 1942, p. 1.

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.

The steady growth of household savings in the 1950s caught the eye of the commercial banks. Before 1955 they had 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. Hence the commercial banks, one after the other, started offering deposit accounts at 3 or 3.5 per cent interest—just above the rates offered by the major savings banks (Stegeman 1960; Vos and Westerhuis 2014). The express purpose of this new product was to retain people's savings for a longer period of time. The terms and conditions were flexible enough to allow households to withdraw their money in case they needed to finance bigger purchases but the small mutations typical for savings booklets were to be avoided (Wurfbain 1969: 5; De Graaf 2012: 355). It 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 (Van Berckel 1969: 143-150; Slot, *Iedereen;* Van der Valk, "Household finance", 14-17). Within ten years the commercial banks controlled 11.5 per cent of Dutch household savings (Appendix A).

4. Borrowing

The three national networks of savings banks that were firmly in place in 1920 could have been used to offer a wider range of banking services to Dutch households. Indeed, already in the mid-nineteenth century several dozen savings banks had created *hulpbanken* for small loans to retailers and artisans (Deneweth 2014). But that is where it stopped. In the bigger cities there were a few private companies who mimicked the business model of the help banks but their portfolios remained small (De Vicq and Van Bochove 2021). The commercial banks stayed away from lending to ordinary households and so did the newly established mortgage banks: they merely served corporate owners of real estate (Glasz 1935; Klein and Vleesenbeek 1981). In the countryside the rural cooperatives were founded with the express purpose to offer savings *and* loans but only farmers used their advances and current accounts to fund their businesses.[7] Now the question is did households simply prefer saving over borrowing or did they obtain credit through other channels?

The key to understanding private borrowing lies in the amount of income people earned (Hofmann et al. 2009). The lowest income-groups lived close to subsistence with regular cash constraints as a result. Their accessibility to credit was limited to shop credit (buying on tick) and rent arrears (deferred payment of their bill). The only form of mediated loans they had access to was the pawning of goods: borrowing small sums of money to overcome immediate cash shortages using possessions, such as clothing, as collateral. In 1850 there were 31 public pawn banks and 69 private pawnshops, together extending 2.2 million loans.[8] Pawning had a bad reputation because of the high interest rates and in the 1860s the Dutch government, just

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[7] In 1939 the rural cooperatives had about 250,000 members, and 185,000 loans outstanding (two thirds advances, one third current accounts. *Centrale Boerenleenbanken Jaarverslag* 1949: 48-49; Huysmans (1941): 382; Weststrate et al. 1948: 351.

[8] In 1850 the Dutch population stood at 3.2 million people, with 43 per cent aged under 20. Nederlands Interdisciplinair Demografisch Instituut. (2003). *Bevolkingsatlas van Nederland. Demografische ontwikkelingen van 1850 tot heden*, 29, 134

like other European governments, implemented strict rules for this way of obtaining credit. As a result, pawn brokers lost interest and municipal banks took over. In 1900 there were 17 municipal pawn banks who gave out 2 million loans with an average value of 4 guilders, the equivalent of a two-day wage of an unskilled laborer.

The expansion of middle-income groups who lived far above subsistence instigated new types of credit. Initially, the middle-class used their extensive financial surplus to consume and save more, but they also used installment credit to purchase consumer goods, such as clothing, furniture, radios, sewing machines and bicycles (Jaarcijfers CBS 1943-1946, p. 331). 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. This direct connection between credit and the purchase of goods took several different forms, with installment plans offered directly by department stores and manufacturers but also with intermediaries that took over the burden of risks from retailers and concluded contracts with customers. In The Netherlands stamp traders (*betaalzegelkassen*) became the most successful of these intermediaries, adapting their installment plans to the cash flows of the households they served. 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 (Van Dam 2007; Everts 1933, p. 284).

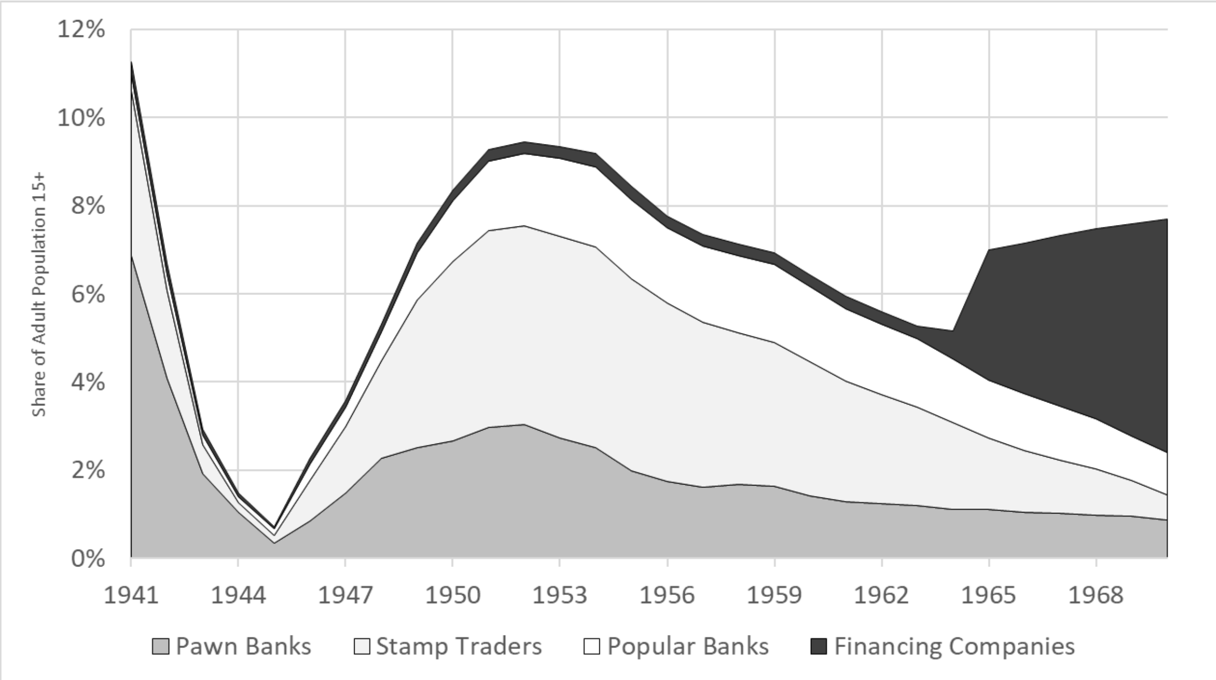
As incomes further increased, more and more households wished to borrow money independent of specific goods. Their preferred lending channel for this purpose, for instance for buying a house or simply as an additional financial safety net, was direct loans from relatives with help of a notary when it concerned high amounts of money (Gelderblom et al. 2022).[9] The established banks stayed away from this type of credit, but during the 1920s, new intermediaries

[9] In 1921 Gelderblom et al. 2022; Gelderblom and Van der Valk 2022.

emerged offering personal loans of several hundred guilders, especially to poorer households with limited or no access to credit in their own social networks. To cover costs and manage default risks they charged high interest rates and obliged their borrowers to sign life insurance policies to secure their loans. This lead to societal protests and when the Great Depression hit, the government intervened in exactly the same way as it had done with the pawnshops in the 19th century: restricting the possibilities of private intermediaries to give out loans (Van Dam 2007). With the *Geldschieterswet* of 1932, it sanctioned a public alternative in the form of municipal banks that offered emergency loans to households in financial distress – effectively confining the money lenders to a very small market segment of creditworthy high income earners (Fruin 1943; Rees van den Ende 1944, 201, 205; *Afbetalingsstelsel* 1931: 26).

From 1941 onwards, the CBS published summary data on the loan portfolios of the public and private intermediaries servicing private households. Their data, summarized in Figure 2, illustrates the tight connection between borrowing and the purchase of goods: the number of loans extended by popular banks and financing companies was but a fraction of those supplied by pawn banks and stamp traders. And even these consumer loans were used only sparingly. During the Second World War even consumer credit almost completely disappeared as the supply of goods dried up and broad shifts of the population were able to save rather than borrow 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 2. 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.



Until the early 1960s, the loans reported by CBS remained firmly tied up with the purchase of consumer goods. The lump sum loans offered by municipal credit banks and other not-for-profit lender made up less than a quarter of all loans, and the portfolios of financing companies remained very small indeed – at least according to the CBS Statistics. But there was one development in Dutch consumer finance which CBS did not report until much later. In 1958, *Twentsche Bank*, the second largest commercial bank in the Netherlands, began to offer personal loans to private households (Van der Werf 2014*).[10] 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

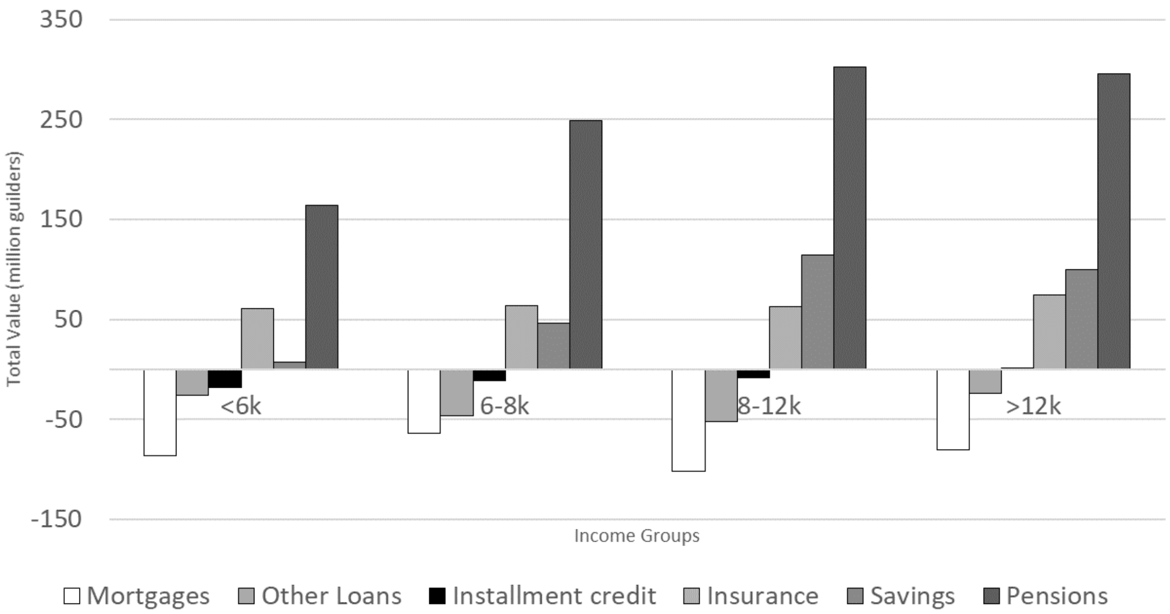
[10] In the United States personal loans had been common since the 1930s – with up to ten per cent of high income earners in major cities using them (Hyman 2011:**). In Europe it was a new business for commercial banks, which started in Britain and Sweden in 1958 and in France and West-Germany in 1959. The first Belgian bank had entered the market for personal loans in 1946 (Leyendekkers 19**: 22, 40, 52, 73, 83, 87, 96, 113, 123)

interest, without any restrictions on what the money could be spent on. All a prospective borrower needed was a proof of income (Leyendekkers 1961: 22-23). 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 (*Algemeen Handelsblad*, 17 October 1958).

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 (Leyendekkers 1961). Only in the US, personal loans had already taken off in 1931 after the central government instituted a guarantee scheme for banks offering personal loans to private households (Hyman 2012). At the time the Dutch government had done the exact opposite with its *Geldschieterswet*, but the rules for personal loans were relaxed in a new law on installment credit in 1956, which allowed the commercial banks and their subsidiaries to enter the market. Out of fear of an overheated economy, the government did cap the annual growth of personal loans at 12 per cent per year until 1965 (DNB *Annual Report* 1960: 95, 197; 1961: 175; 1964: 41; 1966: 42). As for the data reported in Figure 2, CBS probably missed the initial expansion of the personal loans after 1958 but it correctly reported the total number of loans offered by financing companies in 1965. With 260,000 contracts this still only amounted to only three loans per 100 people.

We cannot simply conclude from these data that Dutch households preferred saving over borrowing. Loans contracted privately—with or without a mortgage—remain out of sight in CBS' annual reports. They do appear in a separate CBS survey held among 3,500 households in 1960. 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, 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 simply add up the extra income from loans for the four income groups in Figure 3, the total market for households' loans amounted to 517 million guilders in 1960, about a third of the estimated amounts of savings in that year (1.6 billion).

Figure 3. The Estimated Annual Value of Savings and Loans of Dutch Households in 1960.



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

In terms of cash flow the installment loans came third in every income groups, far behind mortgages and 'other loans'.[11] 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

[11] Pais (1975: 28-33) reports the results of another survey, also from 1960, among 919 account holders of the Postal Savings bank. Asked about their financing of major purchases households could indicate whether they had paid in cash (either from current income or previous savings) or used credit, with a further breakdown of the latter category in instalment credit and money loans. Only 75 households (8.2 per cent) had bought goods on credit in that year, with two thirds (48)using instalment loans, and one third (27) money loans.

assume an 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 one mortgage per hundred households. So the residential mortgage market was small and most banks stayed away from it. The postal savings bank, the general savings banks and the commercial banks only entered the market in the mid-seventies (cf. infra). The rural cooperatives did already offer mortgages in the 1950s but mostly for business purposes and on a very small scale at that. 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.

5. Payments

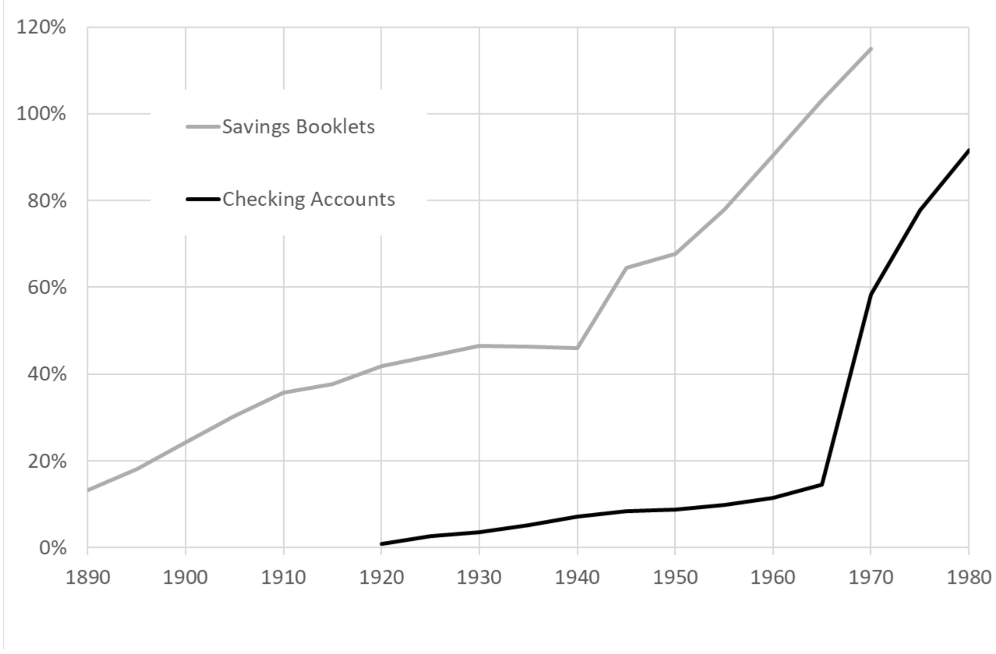
Commercial banks were not only reluctant to get involved in private loans, they also stayed away from offering payment services to households. In 1904, the central government had commissioned a special committee to investigate the possibility of creating a national system of giro payments, but the business community was not interested. Notably in Amsterdam the existing system of cashiers and the facilities for intrabank transfers provided by the National Bank (DNB) functioned well enough (Kymmel 1992). The rural cooperatives and the general savings banks did open central offices to coordinate the transfer of funds between banks but this facility was not intended for individual account holders.[12] The only giro services available to the general public were those of Amsterdam's municipal giro bank (*Gemeentegiro*),

[12] Savings banks did allow accountholders to transfer money from their savings booklet to another account but the procedure was a hassle and account holders primarily used it to pay their taxes (if any): J. Burgerhout, "Handelsbanken breiden hun werkterrein steeds verder uit", *Algemeen Handelsblad*, 20 May 1961, Geraadpleegd op Delpher op 03-03-2021, http://resolver.kb.nl/resolve?urn=KBNRC01:000036214:mpeg21:p003

established in 1917, and the Postal Check and Giro Services (*Postcheque- en Girodienst*. henceforward: PCGD) which started operations one year later (Barendregt and Overman 2020).

PCGD was by far the bigger of the two providers 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 system. The machines were malfunctioning, the staff insufficiently trained, and the management incompetent, and PCGD had to close its doors for an entire year. 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 steadily to 167,000 in 1930 and 391,000 in 1940. And yet, these numbers implied a very limited account penetration, with less than ten per cent of the adult population holding an account in 1940 (Figure 4). This is in sharp contrast with the high share of the population holding a savings account at that point.

Figure 4. Total Number of Checking Accounts as a Percentage Share of the Dutch Population Aged 15, 1920-1980.



Source: Appendix A

Also after World War II, the increase of the relative share of the population holding an account at de PCGD was modest, while the number of savings booklet continued to grow. By 1965, when virtually every adult in the Netherlands had a savings account, the share with a giro account was only 15 per cent. Who were these people? A nationwide investigation by the CBS into wealth tax payers from the 1950s provides the answer. Figure 5 reports the use of bank services for 440,000 wealth tax payers in 1955, which comes down to the top fifteen per cent of the country's wealth distribution.[13] The Figure shows that in most occupational groups, about half held savings accounts, but that giro accounts were only commonly held by salaried employees and civil servants, while only a very small minority of the laborers, farmers, and self-employed used giro. This is consistent with a key finding of the Global Findex researchers, that the use of a bank account is higher among higher income groups. But that is only part of the story.

Figure 5. The share of tax payers with a savings booklet and/or giro account among different occupational groups in The Netherlands in 1955.

Source: CBS 1956.

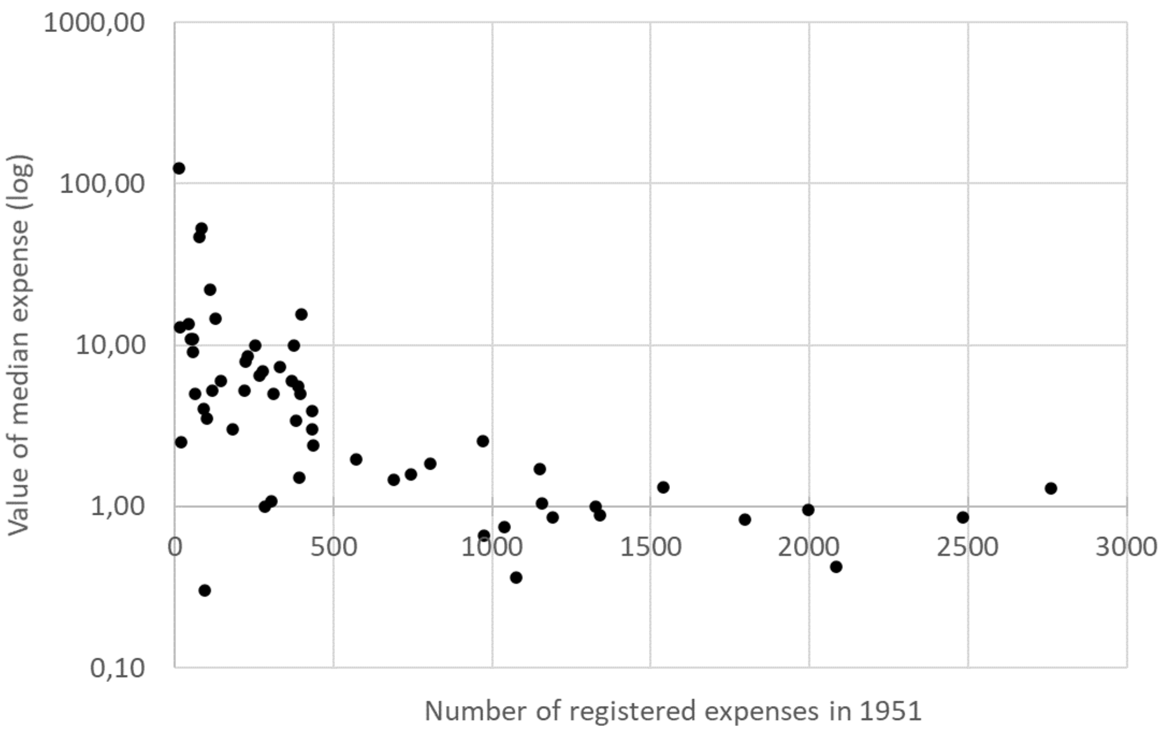
[13] Subject to the tax were those with an annual wage of 5,000 guilders or more, or at least 200 guilders income from wealth (equivalent to 8,333 guilders at the current 2.4 per cent interest rate of the Postal Savings Bank).

The reason why most households could do well without a checking account was that they still lived in a cash economy (Jonker 1999; Pollman 2016; Boter 2019). People received their wage in cash every week or month and most expenses were paid in cash as well: this applied to day-to-day expenses on groceries, but also to the larger expenses on rent and clothing. Insurance premiums were paid in cash to agents who went door by door, and social welfare was also grafted on the cash economy with, for instance, elaborate stamp systems to pay one's social premiums, or child support booklets kept by workers' families to claim and collect their three-monthly allowances (Kappelhof and Kingma 2004; Widdershoven 2005; Deneweth et al. 2014). Exactly how important ready money was for the daily functioning of the Dutch economy became clear in the post-war money purge. Every citizen received ten guilders in cash to substitute for the old money taken out of circulation and 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.

The persistent cash preference of households can be shown to good effect with the private account books collected through the *Kasboekje van Nederland* crowd sourcing project. These account books contain the income and expenditure of a household, but what was listed exactly depended greatly on the author and their financial role within the household. Generally speaking, men were responsible for the larger, fixed expenses, such as rent, and women for the day-to-day smaller expenses, such as groceries (Boter 2019). For the year 1951, we analyzed *all* the listed expenses of 62 different individuals, with a total of 40,000. Most of the authors in our sample, including both men and women, lived in households where the husband was the sole wage earner with a white-collar occupation.

Figure 6 shows the absolute number of expenses recorded by each individual, plotted against the median extent of those expenses. Every dot represents one household. It becomes clear that most authors spent money very often, at least once or twice per day, but that the median value of these expenses was very low. In case the median value was higher, the absolute number of expenses was low. What we can take from this is that the lion's share of household expenses was really small and they were used to do this with cash. Even for households with a giro account, this was part of their every-day reality. In the 1950s most people, even civil servants and salaried employees in the private sector, still received cash wages. This prevalence of cash payments did not necessarily prevent households from having a checking account. At least 22 households in our sample had a giro account to pay taxes, public utilities, subscriptions, and other recurrent expenses. The actual share of households with a checking account may have been higher still, as some of the surviving accounts only contain the daily expenses of housewives, not the financial dealings of their husbands.

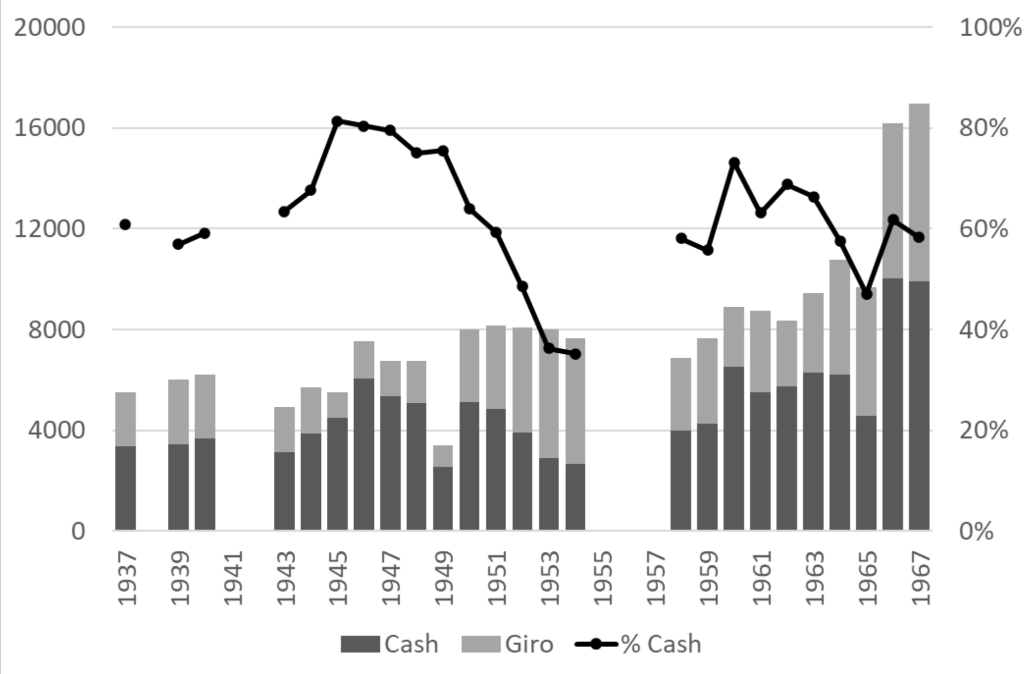
Figure 6. The total number and median value of transactions recorded in the domestic accounts of 5 Dutch households in 1951.*



Source: Appendix B.

A telling example of this dual system of payments 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 7). 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 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; and every month he visited the *Gemeentegiro* to withdraw 90 to 125 guilders to continue the household's payments in cash.

Figure 7. Annual Cash Payments and Giro Transfers of Household #1114, 1937-1969.



Source: Kasboekje van Nederland, Inv. Nr. 1114.

In brief, while the majority of the population did not even have a giro account before 1965, those who did still retained a strong preference for cash payments. Which brings us to our two final questions: how did this change and why?

6. The Rise of Retail Banking

To understand the rise of retail banking we have to return to the post offices. These were not just service points for the customers of PCGD and the postal savings bank, other citizens also went there to pay their taxes, collect their pension or child support, and pay bills to private companies. To handle these payments the number of staff in front and back offices continued to grow, and by 1955 it was clear that the system was about to break. To release the pressure PCGD put a temporary stop on the acceptance of new account holders before opening a second processing center in Arnhem.[14] Shortly afterwards the government introduced a new national pension scheme with monthly payments to over 400,000 households (Nijhof 2009). Regardless of whether these payments were made in cash or through people's checking account, it put even more pressure on the giro system.

At this point computer technology was still in its infancy, so the initial steps towards automated payments were taken with conventional, mechanical devices for the processing of documents (Molenaar 1968; Barendregt and Visser 1997).. But using the extensive financial reserves of the Postal Services PCGD did invest in the newest technology as soon as they became available, and in 1962 it announced that the first 50,000 accounts were now being processed by computers. Three years later every organization who wanted to, could submit magnetic tapes with payment orders (Engelen 2009: 262). In the first ten years of automation the total number of account holders doubled to 1.25 million, all with access to a free, fully functional automated payment system (Engelen 2009: 263; Niesten 1968).

Notwithstanding these changes most Dutch households remained strongly wedded to cash payments. A survey among 508 households commissioned by PCGD in 1964 found that 97 per cent of their payments (68,000) were made in ready money (Van der Marel 1965). Even

[14] "Giro werkt hard om achterstand in te lopen", *Het Parool,* 06-01-1955.

households with a giro account (fourteen per cent of the sample) continued to cash for their food, clothing, and other household items. The survey nevertheless foreshadowed major changes in households' financial behavior. Two thirds of the giro account holders in the sample received their salary in their account, and they regularly used it 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).

Wage payments set in motion a second round of innovation. In the mid-sixties business owners were handling very large amounts of cash to prepare the weekly wage packages and the withholding of social premiums and other deductions from these wages burdened their personnel department. (van der Elst 1947; Knaapen 1960, p. 146; de Beer 2008; De Koning 1967:93). To ease the pressure employers wanted to turn weekly wages into monthly salaries, but paying these much larger amounts in cash made little sense for households.[15] At the time PCGD was still the only organization capable of automated salary payments offering such payment services and the other banks realized that they had to act if they wanted to have access to the workers' wages as an additional source of funding. And thus, in 1965 commercial banks and rural cooperatives introduced salary accounts and two years later they established their own *Bankgirocentrale* for automated bank transfers (Dankers et al. 2001: 337-338; Engelen 2009: 263).

What followed was a period of fierce competition. Savings banks had lobbied for permission to turn their savings accounts into salary accounts, and the national SME bank also entered the retail market.[16] Besides massive advertising the banks opened additional branch offices and dispatched bank buses to those places where they did not have a permanent outlet. The banks also offered sweeteners in the form of interest of up to 3 per cent paid on the balances

[15] For the administrative adaptations of smaller businesses: Cf. (van Oost 1966, p. 275).
[16] "Fanatiek gevecht", *Het Vrije Volk: Democratisch-Socialistisch Dagblad*". Rotterdam, 1967/10/07.

of people's salary accounts.[17] Meanwhile, the employers needed little prodding. In 1970 three quarters of all companies with more than 100 employees were already paying their wages into checking accounts.[18] PCGD now had 2.2 million account holders and the other banks combined 3.2 million. Five years later the total stood at 8 million accounts for an adult population of 10 million people.

Still, having an account did not necessarily mean using it. Initially, upon the payment of their salaries, many people visited their bank or post office to withdraw large amounts of cash.[19] For some it signified genuine distrust in the banks, but the cash withdrawals actually made sense, since most suppliers of goods and services still required cash payments from their customers. (Niesten 1968: 101, 103, 115).[20] The persistent cash preference did complicate matters for banks and post offices, however, as they had to have cash at the ready to service their newly won clientele. So the banks started campaigning that there was no need to stash large amounts of cash at home: it was much safer to leave their money in the bank and use their checking account to make payments.[21] But that did not alter the fact that households simply needed the money, so the banks had no choice to allow them to collect cash at their post office or bank branch.

And so it was not for long that banks stopped paying interest on the salary accounts and started exploring ways to reduce costs and raise revenues. This then marked the final step in the development of retail finance: one after the other, banks started the cross-selling of payment services, savings, and loans. They increased their personal lending to households, entered the

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[17] "Banken bieden 3½ pct. over giro-tegoeden". *Het Parool*. Amsterdam, 1967/09/06, p. 17. Geraadpleegd op Delpher op 09-02-2020, http://resolver.kb.nl/resolve?urn=ABCDDD:010835447:mpeg21:p017; "Amro-bank opent geldwinkel in V&D". *Algemeen Handelsblad*, 1967/09/08, p. 15. Geraadpleegd op Delpher op 09-02-2020, http://resolver.kb.nl/resolve?urn=KBNRC01:000034043:mpeg21:p015

[18] '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.

[19] 'Salarisbetaling via bank of giro', De Philips Koerier, 21 januari 1967, cited in (de Koning 1967, p. 94).

[20] "Vervaging". *De Volkskrant*, 1967/09/06, p. 2. Geraadpleegd op Delpher op 09-02-2020, http://resolver.kb.nl/resolve?urn=ABCDDD:010849316:mpeg21:p002

[21] Cf. the information booklets of the Gezins Begrotings Instituut: *Het gezin en de girale salarisbetaling* (1970) (NA 2.19.062.01, 69); *Als het salaris anders binnenkomt* (1971) 13 (NA 2.19.062.01, 71).

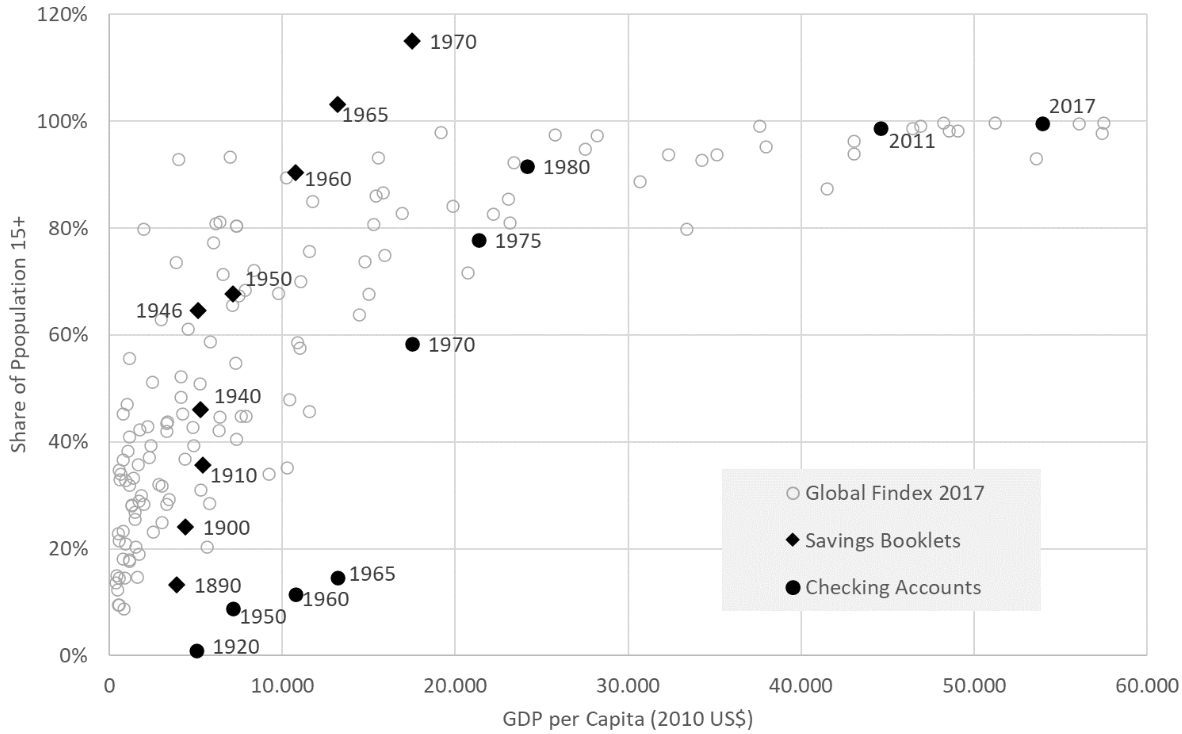
market for residential mortgages and introduced overdrafts as a new source of short term credit. By 1980 almost 2 million people owed money to a bank, either directly or through one of their subsidiaries.

7. The Dynamics of Inclusive Finance

One of the key findings of Global Findex researchers is that in the world today, there is a strong connection between economic development and financial inclusion. In every country with a per capita GDP of 25,000 US dollars or more, between 80 and 100 per cent of the adult population has an account with a financial institution (Figure 9). In poorer countries, the connection is still there but the pattern is much more diffuse with account penetration varying between 20 and 90 per cent. Our research on the long-term changes in the use of financial services for saving, borrowing, and paying speak directly to these results, but also show that rising income was far from the only driver of changes in financial sector use.

We have demonstrated that in The Netherlands, the penetration of savings booklets went hand in hand with economic growth, with a rapid increase between 1890 and 1910, a slowdown during the Interbellum, and further expansion after the Second World War, up to the point that by 1965 virtually every adult in The Netherlands had a savings booklet (Figure 9). The expansion of the number of savings booklets was a direct result of the rise of disposable income from the late-nineteenth century onwards. This did not mean that people were able to save large sums of money – savings banks were successful because they facilitated small deposits, which seamlessly fitted the rhythm of weekly payments of cash wages. However, the diffusion of checking accounts followed a very different trajectory. Up until 1965, there was no expansion of the use of checking accounts despite significant economic growth, but towards the end of the postwar boom, the Dutch moved from 15 to 80 per cent of the adult population with a checking account (Figure 9). Only then households also started to turn to banks to borrow money, first with personal loans, and then, in the 1970s, also for residential mortgages and overdrafts on their checking accounts.

Figure 9. Checking and Savings Account Penetration in The Netherlands (1890-2017) and Financial Institution Account Penetration in the World (2017)



Sources: Global Findex: Demirgüç-Kunt et al. 2018; GDP per capita: Bolt et al. 2018; Appendix A. Not reported are nine countries with a GDP per capita of 64,000 dollars or more: Quatar, Ireland, Cayman Islands, Switzerland, Norway, Isle of Man, Bermuda, Luxembourg, and Monaco

Clearly, financial sector use did not develop in tandem with economic growth for all three financial functions. The way in which households organized savings, borrowing, and paying followed separate trajectories. However, it all came together when retail banks started cross selling and differences in financial sector use between income classes started to vanish. We now come back to the key question of this paper: why did the three financial functions, that for so long had been organized in different ways by different social classes and had developed separately from each other, come together in commercial banks in the 1960s?

A combination of events can explain this financial turn. Employers, especially large companies and government bodies, lobbied for the automatic payments of salaries, which increased rapidly and therefore became more cumbersome to pay in cash. Wage deductions for pensions and other welfare arrangements further complicated the weekly pay packets. Employers could reduce costs by paying per month instead of per week, but these lump sum payments did not fit household cash flows. And then there was the expanding welfare state creating a regular monthly flow of social transfers to an ever larger share of the population. It was in this context that all parties – the government, employers, and households – stood to gain from automated payments. However, up until the 1960s, this was simply too expensive. But then computers entered the stage. Technological development considerably reduced the labor costs that came with automatic payments and now it became possible to extend the system of checking accounts to the population at large.

The common denominator in the changes described above was the government. First, adding savings to the services offered by post offices in 1881 set the standard for savings operations grafted on the country's cash economy. Second, the construction of the welfare state, and the social premiums and taxes that came with it, were an important reason for employers struggling with the weekly cash payment of wages to move to monthly salaries paid into checking accounts. Third, the government moved first in meeting these demands with the expansion of the PCGD giro system and then allowed commercial banks, savings banks, and rural cooperatives to offer checking accounts as well. The ensuing competition for retail customers led these banks to create their own system of automated payments with which they could serve private households.

Then, when the banks discovered they could not break even – as a result of initial investments, attractive interest rates, necessary enlargement of their networks of offices, and a system of checks – they had to cut down. They did so by abolishing the interest rates on checking accounts and started to expand their services for credit, first by offering personal loans and subsequently by instituting a variety of savings accounts, overdrafts on checking accounts, and mortgages. The government was instrumental in realizing this cross selling of financial services by banks. Back in 1932, the government had limited the possibilities of financing companies to give out loans with restrictions on terms and conditions, and instead stimulated municipal credit banks. This attitude shifted in the 1950s, when it reconsidered instalment purchases, most importantly allowing personal loans with a lump sum that was not connected to the purchasing specific goods. During the 1960s, the government still capped the amount of personal loans banks could extend, but in 1971 the law was changed again and bank loans could grow unbridled.

The end result was that in the 1970s, there was a new balance between the demand and supply of financial services. For households the bundling of savings, payments, and loans became more attractive as their incomes rose, the share of daily groceries declined, and more money could be set aside. Rising incomes also were an important incentive for households to borrow because they could anticipate on future earnings. In response, retail banks adopted a new business model in which they offered customers ready access to cash, a salary account, a savings account, and any set of bank loans.

The government thus gave the final push to making The Netherlands fully banked. Still, we should not overestimate the impact of the financial turn on households' day-to-day financial reality. The cash economy would remain intact for many decades to come. Households received their wage on a giro- or bank account and used this for paying larger, regular expenses, but continued to use cash for the much more frequent and smaller daily expenses on, for instance, groceries. Indeed, banks were aware of this and offered the possibility to regularly withdraw cash to facilitate direct payments of goods and service. Also for saving and borrowing, a dual system existed. Saving small amounts of cash in jars, borrowing some cash from a relative, or other ways of employing a social network to meet your financial needs was commonplace, as we have shown on the basis of private account books.

8. Conclusion

By the end of the 1970s, the financial system of The Netherlands had become what policy makers today would describe as inclusive. Virtually every household had a bank account that allowed them save, borrow, and pay, with additional financial services provided by the state, private lenders, and insurance companies. For a short period between 1965 and 1975 the system even operated as a public utility with two competing networks of bank branches and post offices offering savings accounts and payment services to households at no cost. But soon enough the commercial banks were confronted with high operating costs and they began to charge their clients for the services used. At the same time the banks started to take advantage of their direct knowledge of the financial situation of their clients, offering an even broader range of services, including checks, overdrafts, mortgages, personal loans, and after 1980 also ATM machines and credit cards.

Research by World Bank economists on bank penetration in the world today finds a positive correlation between income and financial inclusion and also points to gender, technology, and government intervention as the drivers of change. Our reconstruction of the historical pathway towards financial inclusion in the Netherlands is consistent with their findings but offers additional insights. We have shown that the use of three key service became commonplace at different moments in time. Savings came first in direct response to the growth of disposable income. Checking accounts came second when available technology made it possible to substitute giro transfers for cash payments. Bank loans came last, but are not a *driver* of inclusive finance, rather a consequence of bank penetration as banks used them to cover the costs of their giro systems.

In the 1960s, everything came together in commercial banks, when they started to cross sell financial services to finance the high costs of automatic payments. This was when the Dutch people *en masse* turned to banks to organize an important part of their finances. The government played a crucial role in this financial turn. It influenced the demand for financial services by expanding the welfare state, which came with mandatory savings to finance social security. As a result, automatic payments turned out to be the best solution for this complication of wage payments. The government also influenced the supply of financial services, by for instance gradually granting banks more rights to hand out personal loans.

Although the financial turn meant that the Netherlands became ‘fully banked’, households continued to concurrently employ other strategies to organize their finances. For decades to come, a dual system continued to exist, in which households used banks for certain things, such as paying larger monthly expenses, and cash for other things, most importantly for their day-to-day finances.

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Appendix A. HisFindex for The Netherlands 1921-2017

Global Findex measures the financial behavior of people aged 15 years and over in 150 countries across the globe. 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.

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.[22] 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.[23]

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 we have to make two adjustments to the total number of booklets in circulations.[24] 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.[25] 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.[26] We estimate that at every point in time children under the age of 15 made up 25 per

[22] CB/OG 25/02/2022: description of loan data to be completed.

[23] 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); for the period from 1950 onwards, there is annual data from CBS, "Bevolking; geslacht, leeftijd en burgerlijke staat, 1 januari Gewijzigd op: 7 september 2020", stable URL: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/7461BEV/table?ts=1614927111157&fromstatweb=true, accessed 7 July 2021.

[24] 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.

[25] *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.

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

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.[27] 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.[28]

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.[29] 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.[30] This percentage had doubled to five per cent in 1950.[31] 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.[32] Fifteen years later one out six RPS accounts were worth 1,000 guilders or more.[33] 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.[34] 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 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.[35] These numbers are considerably lower than our estimates for 1950 (68

[27] Gelderblom et al. *Memories van Successie Database 1921*. 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.
[28] Barendregt and Overman, *Ondernemend*, p. 75, 84; Cf. also: CBS *Statistiek van Nederland. Spaar- en Leenbanken over het jaar 1930-1931* (The Hague 1931), pp. 3-4, 6.
[29] CBS, *Jaarcijfers van Nederland* 1930, p. 134.
[30] CBS, *Statistiek der Spaarbanken over het jaar 1940*, p. 15.
[31] CBS, *Statistiek der Spaarbanken over het jaar 1950*, p. 19.
[32] The RPS data are cited in *Statistiek der Spaarbanken* 1951, p. 8.
[33] CBS, *Besparingen bij handelsbanken en spaarbanken* 1965, p. 20.
[34] 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, *Statistiek van de Spaargelden* 1969-1970, p. 26.
[35] CBS *Inkomensverdeling 1954 en Vermogensverdeling 1955*, pp. 30ff; CBS *Inkomensverdeling 1959 en Vermogensverdeling 1960*, pp. 103-115.

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.[36]

Table A2. The Percentage Share of the Dutch Population (15+) with a savings booklet between 1890 and 1970.[37]

Year	Population 15+[a]	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; (a) interpolation

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 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.[38] 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.[39] 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.[40] We have

[36] 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: J.J.L van Berckel, *De maatschappelijke en economische betekenis van de spreiding van effectenbezit* (Deventer: Kluwer 1969) *OG, 04-07-2021: Publication not found in Dutch libraries; check CBS library.

[37] 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.

[38] Nederlandsche Middenstandbank N.V., Verslag over het 1[e] boekjaar, 14 November 1927 – 31 december 1928, p. 17; *Verslag over het twee en dertigste boekjaar* (1959), p. 31

[39] Wurfbain 1969, p. 5; de Graaf 2012, p. 355

[40] 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.

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*.[41] 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.[42] 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%
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.

[41] 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: M. Peekel en J.W. Veluwenkamp, *Het girale betalingsverkeer in Nederland*. Deventer: Kluwer 1984, p. 14.

[42] For 1920 and 1939: Simon Lelieveldt, "Gemeentegiro was een revolutie in het betalingsverkeer", *Ons Amsterdam* 69 (2017), 8-13. 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.

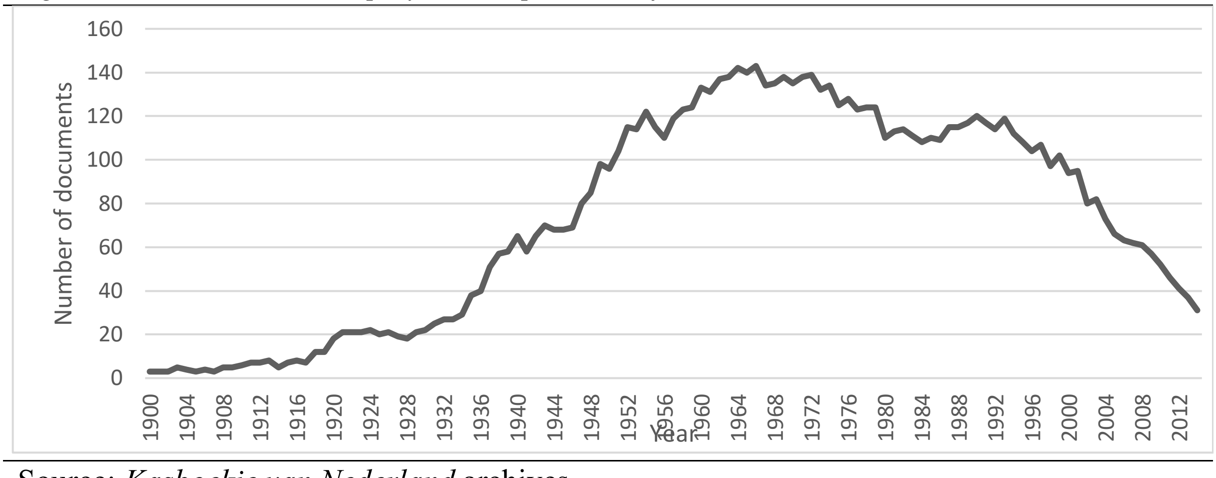
Appendix B. *Kasboekje van Nederland*

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 (Walker and Llewellyn 2000; Walker 1998), American farmers in the Great Depression (Walker 2014), and Australian households in the 19th and 20th centuries (Carnegie and Walker 2007a; Carnegie and Walker 2007b). In the Netherlands, scholars working on the history of ideas (Maas 2016), housewives (Kloek 2009), and small business owners (Pollmann 2016) have perused some domestic accounts but never engaged in a more systematic analysis. One obvious reason is the limited survival of these private documents in public archives.[43]

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.[44] 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 (Gelderblom and Van der Valk 2022). 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.

Figure 1. Number of documents per year in corpus *Kasboekje van Nederland*



Source: *Kasboekje van Nederland* archives

[43] 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.

[44] See our website www.kasboekjevannederland.nl.

Figure 1 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 plus a limited number of accounts from 1931, 1941, and 1961. 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.

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