bulletin

Newsletter from the EABH

1/2004

European Association for Banking and Financial History e.V.

Editorial

Dear Colleagues,

2004 is an exciting year for the EABH, full of new beginnings and much anticipated change. Following fourteen years of dedication to the Association in his role as Chairman, **Sir Evelyn de Rothschild** has stepped down from this position. Sir Evelyn has made an invaluable contribution to the EABH, in both developing the Association to its current size of nearly 80 corporate members, and continuously improving the quality of our work. While we regret this loss, we are delighted to announce the election of **Dr. Willem F. Duisenberg** as the new chairman of the EABH. Dr. Duisenberg is a figure of considerable achievement in the realms of both academia and business. His leadership of Europe into an integrated economy has earned him both enormous respect and a place in the very fabric of financial history in Europe. It is an honour to welcome him as the new Chairman of the EABH.

This significant event coincided with another important and long awaited change; as from 28 May, the EABH e.V. will be known as the **European Association for Banking and Financial History e.V.** The new title broadens the Association's involvement within such complementary areas of research and demonstrates its commitment to responding to the ever-changing world of modern finance and the ongoing process of economic integration.

Under its new title, the EABH aims to meet the challenges which this very change instigates, while maintaining the high standards and quality of research with which it is associated. To this end, the Financial History Review has also been re-designed, sporting a new fresh cover and thereby reflecting the EABH's own attention to keeping abreast with the new age in which we find ourselves. This year also saw the appointment of a new editorial board for the Financial History Review whose diversity in terms of both professional background and culture is sure to stimulate new ideas and bring the journal to the attention of a wider audience. The EABH would like to thank the former members of the board for their unrelenting support which has ensured the much respected reputation of the journal while welcoming our new colleagues into the EABH.

The EABH and Alpha Bank Athens Conference *"The Human Factor in Banking"* was a most fitting backdrop for these important steps in the history of the EABH, providing an atmosphere contingent with progressive academic discussion, set in a city steeped in history. The Conference was an undisputable success for which we would like to offer our sincere gratitude to our hosts, Alpha Bank, for their generous hospitality and much valued organisational support.

It only remains for me to thank all the participants and speakers of the Athens conference and the workshop, which was the most highly attended workshop in the history of the EABH. Your answers to our survey on Corporate Culture, which can be found in this edition of the Bulletin, contributed to an extremely interactive and thought provoking workshop, which was concluded most thoroughly by Dr. Gurdon Wattles, Head of Group Capital Markets Communications at Deutsche Bank AG, London.

We hope that you share our enthusiasm for the changes which 2004 has brought and that we may count on your active support in meeting the challenges which are anticipated.

Manfred Pohl

Contents

Published by the European Association for Banking and Financial History e.V.

Editor: Damir Jelic

Editor Assistant: Verity Gale

Front page illustration: Pilgrimage to Rome - The Employees of Banca Cattolica del Veneto on the occasion of the *Anno Santo*, 1950 - Historical Archives of Banca Intesa - Milan

The European Association for Banking and Financial History e.V.

Guiollettstrasse 25

D - 60325 Frankfurt am Main

Telephone: +49 69 972 03 307

Telefax: +49 69 972 03 308

e-mail: info@bankinghistory.de

www.bankinghistory.de

Society, knowledge, and the behaviour of English investors, 1688 - 1702

The 1690s were witness to remarkable changes in the nature of both public and private investment in England. From 1688 onwards, a host of innovative ventures appeared, offering investors the opportunity to commit their capital to projects ranging from the manufacture of paper to the search for sunken treasure. The state also employed increasingly innovative tactics to attract money, resorting to tontine loans, lottery schemes, and authorising the incorporation of the Bank of England in 1694 and the New East India Company in 1698 on the condition that these companies functioned chiefly as vehicles to provide government funding. The public embraced the new financial markets with enthusiasm, in the process creating one of the world's first stock market booms. Yet, while the boom was typically short-lived, the revolution in public and private finance brought permanent changes in investment habits and the institutions created during this period, the National Debt, the Bank of England and an active stock market, survived, flourished and became the foundation of London's financial system.

Examination of the development of the financial markets has primarily focused upon explaining the technical changes that accompanied the creation of public and private debt instruments. Thus, the development of joint-stock companies, their management and their financial activities has been minutely documented in the work of W. R. Scott (The Constitution and Finance of English, Scottish and Irish Joint Stock Companies to 1720, Cambridge, 1911). Scott's work remains the most complete exposition of joint-stock companies before 1720 and is an invaluable source of information, yet it pays little attention to the nature of the investors who made those companies successful. Similarly, the development of the National Debt has also received attention, particularly from P. G. M. Dickson (The Financial Revolution in England, London, 1967), but again Dickson stops short of a detailed evaluation of the actions of investors.

Where the actions of investors have been examined, for example in the work of D. W. Jones (War and Economy in the Age of William III and Marlborough, Oxford, 1988), several factors have come to dominate explanations for investors' willingness to commit their capital to the new projects that abounded at this time. Firstly, the onset of war in 1689 is acknowledged to have obstructed overseas trade, thus diverting funds to domestic use. Secondly, the high returns offered by a government in need of money in order to facilitate the pursuit of war drew investors away from more traditional investment opportunities and into the public funds. Lastly, the constitutional changes wrought by the Glorious Revolution are acknowledged to have provided a legal and institutional framework in which investors could consider their money to be safe in government hands.

In concentrating on these issues, historians have created a picture in which the movement of capital into the public funds and joint-stock companies in the 1690s was a rational economic choice; one that diverted unproductive capital into safe and lucrative areas of investment. However, the explanation for the successful development of the financial markets is per-

haps not quite as straight-forward as this would suggest. Indeed, although the onset of war was a formative element in the development of the financial markets, it should be made clear that the new financial opportunities attracted a wide range of investors, not just discontented merchants; thus, redirected trading capital cannot account for all the monies invested at this time. Similarly, explanations that cite falling rents and the risks of private lending as reasons for switching into the public funds will not always suffice. In fact, where investment portfolios can be identified, they often demonstrate a diverse mix of traditional and new assets.

Furthermore, property rights were perhaps not so firmly established by the Glorious Revolution as some explanations would seek to suggest. The Stop of the Exchequer of 1672 remained prominent in the collective memory and left a legacy of suspicion that made many investors wary of the government's ability to honour their debts. The government, therefore, had to entice borrowers to invest in the public funds through schemes, such as lotteries. This created inaccurate ideas about the uses and potential rewards of investment, and helped to reinforce an association with gambling that has had a profound and long-lasting effect on perceptions of the financial markets.

Most importantly, it must be suggested that early modern investors were very unlikely to have been influenced solely by a rational understanding of potential risks and rewards. Understanding would have been obstructed by the belief systems prevailing in society at that time. Individuals would also have been dependent upon inadequate education and communication networks that would have restricted information flow and obstructed full comprehension of market data. Moreover, it is now becoming increasingly well recognised that decision-making abilities are affected by psychological factors; individuals are short-sighted, limited in their interpretation of data, over-hopeful about the outcomes of their decisions and profoundly influenced by the way that information is presented to them. The central question that my study will ask is, therefore, what actually governed investment behaviour in the late seventeenth century?

In order to answer this question, the study will concentrate on three aspects of investment in the late seventeenth century. Firstly, it will assess the way that the society of the time shaped attitudes towards investment and risk. The concern of seventeenth century society to understand and order the new environment, opportunities and problems that made up the financial markets led to a wide-ranging public debate that inevitably coloured the perceptions of many early modern investors and affected the way they approached the new opportunities that were being presented to them.

The second section of the thesis is concerned with the issue of information. Financial information in the late seventeenth century was necessarily sought in an inefficient manner. Full information, if such a thing could be said to exist at this time, was restricted to certain groups, notably those whose physical presence at the Exchange or in London's coffee houses allowed them to be at the centre of the rumour-mill. Those forced to operate on the periphery of the market, the occasional, provincial or female investor, would have faced tremendous difficulties when searching for information. It must, therefore, be asked how information networks functioned, who could benefit from them and, most importantly, whether information could be trusted?

In the final part, the study will turn its attention to the behaviour of investors in order to assess how the afore-mentioned factors affected decision-making and investment choice. In this section, profiles of the active and passive investor will be presented. In addition, an attempt will be made to identify those elusive individuals who acted as professional brokers in this market, and an assessment will be made of the amount of business they undertook and the level

of service they could offer to their clients. Additionally, the issue of market efficiency will be examined. Contemporary commentators, like Daniel Defoe, assumed that stock-jobbers were able to manipulate the markets with ease by combining to force a movement in seemingly solid securities. While a complete set of price data is unavailable for this period, it is anticipated that it will be possible to test this assumption through analysis of the type and level of turnover during periods of high market activity.

Although, reliable price data is difficult to come by, there are abundant sources through which to investigate the behaviour of early modern investors. These include the transfer books and stock ledgers of the major joint-stock companies of the time, ledgers of private bankers, and some collections of personal documents that offer a more detailed account of the actions of certain individuals. These records have facilitated the construction of an extensive database that will allow examination of the type and extent of participation in the early financial markets. It will also enable an examination of the way that participation changed over the period, particularly as new innovations in public finance occurred, such as the introduction of state lotteries and the engraftment of short-term government debt onto private company stock.

As the database covers a variety of joint-stock operations, over a period of time it will facilitate detailed investigation of the behaviour of the early modern investor; however, it will not enable a full understanding of his or her motives or motivations. Reasons for investment choices must be sought by other means; thus, the theories of behavioural finance will be employed to cast light on these aspects of market behaviour.

Behavioural finance offers a practical alternative to the efficient markets hypothesis. It allows acknowledgement of the fact that financial markets, whether historical or modern, are not populated by rational, profit-orientated automatons, they are populated by individuals with their own aims and agendas. Many of those individuals allow emotion to destroy their self-control and suffer cognitive failures that lead to misunderstanding and errors in perception. To gain a complete understanding of the behaviour of investors it is necessary to take these factors into account.

The 1690s were a crucial period for London's financial markets, not just because this was the time in which the private and public sectors began to make use of innovative financial products, but also because this was the period when England's investing community learned to take advantage of the opportunities that were being offered to them. Understanding how investment behaviour was constructed at this time is, therefore, an essential part of our understanding of the evolution of the financial markets and it is anticipated that this study, by combining a detailed set of data together with the application of theories that encourage a wide ranging discussion of investment behaviour, will be able to provide a far fuller picture of these developments than has hitherto been available.

Anne Murphy

University of Leicester,

1 Salisbury Road,

Leicester, LE1 7LT

Email: alm17@le.ac.uk

Anne Murphy spent twelve years working as a derivatives trader in the City before returning to education in 1998. She is currently working on her PhD thesis, under the supervision of Dr. H. V. Bowen, at the University of Leicester. The thesis is due for completion in 2005 and is funded by the Economic and Social Research Council

Mergers during the first and second phase of globalization:

Success, insider trading, and the role of regulation

Measuring the success of mergers

The merger wave that took place during the first phase of globalization, which lasted from 1895 to 1914, changed the industrial structure in Europe and the U.S. remarkably. Therefore, it is of great importance to assess whether mergers were successful during this period. Noticeably, studies that evaluate the success of mergers during the first phase of globalization are still lacking for Germany. One may argue that this statement is false and could refer to Huerkamp (1979). However, he defined success in terms of a firm which is able to stay among the 100 largest companies. Hence, mergers that destroy shareholder value and yet, being driven by `empire building´, lead to an increase in the size of the firm, are ultimately seen as successful investments. Consequently, I totally disagree with his view. In contrast, I try to quantify the market response due to mergers and, hence, focus on the change in shareholder value. This concept is in line with studies on the success of mergers within the United States and Great Britain. Generally, for the German case, economic historians concentrated on debates about the interrelation between the expansion of large scale enterprises, external growth, and mergers. Maintaining size and survivorship were seen as major factors of success. But also `traditional´ cross-country studies showed that the large German enterprise was a main guarantee for superior economic development in the pre-World War I period. After reviewing new statistical material, however, the picture has to be corrected. A recent empirical cross-country study on that issue was written by Kinghorn and Nye (1996). They found evidence that German firms and production facilities were smaller compared to U.S. or French companies. In addition, the concentration process was less developed in Germany. Besides these astonishing results, additional doubts emerge regarding the alleged success of large firms. In several empirical studies, Baten (2001 a, b, c) showed that small firms exhibited greater total factor productivity. Moreover, he provided evidence that contradicted the usual opinion which suggests a steady increase in firm size between 1895 and 1912. In contrast, he found that the median of firm size stayed unchanged over time.

When one turns to studies for the U.S. or Great Britain, the scope regarding mergers is totally different compared to the `traditional´ research conducted in Germany. For instance, Leeth and Borg (1994, 2000), who investigated the period of 1905 to 1930, measured the economic impact of mergers by applying event-study methods. In their study, successful mergers should yield an upsurge in market value.

Accordingly, my first aim is to assess the success of mergers based on the market response caused by merger announcements; thereby, a higher market value is the recipe for success and not firm size. Encouraged by the results of Baten (2001 a, b, c), I will also collect data on mergers among smaller companies, which so far, has not been done. Of course, my research contributes to closing the data gap for Germany that is a result of the absence of sources like Nelson (1957) and Eis (1971) who systematically collected data on mergers among U.S. companies.

Who gains from mergers?

If I did indeed detect an increase in market values stemming from a merger announcement, another question would arise. Which type of shareholder gains from higher market values? Focusing on two types, namely insiders and outsiders, I aim to answer this question. Thereby, the so called run-ups prior to merger announcements serve as a measure for insider gains. Run-ups are changes in stock prices triggered by an impending merger announcement. Because the merger is not yet public information, significant changes before the public release serve as a hint for insider-trading. If a market participant has only access to public sources, like the official newspaper announcement, this participant belongs to the group of outsiders. In contrast, insiders possess private information; hence, they already know that a firm will announce publicly that they are to engage in merger activities. This superior knowledge leads to trading activities of insiders before the public announcement. Through this insider trading, the private information is conveyed; thus, the market price is significantly influenced. Keown and Pinkerton (1981) used this measure to uncover insider activities around revealed mergers occurring in the years 1975 - 1978. Banerjee and Eckhard (2001) provided evidence for insider-trading in the year 1896 - 1903, known as the first merger wave. Both studies concentrate on the U.S. case.

The lack of regulatory restrictions is responsible for the appearance of two different forms of disclosure in the pre-World War I period in Germany. Some firms announce mergers after these mergers have already been executed, and others declare their desire to merge before the transfer of assets. Thus, one consideration is to assess whether the way of disclosure influences the gains of insiders and therefore losses of outsiders. By comparing the pre-Word-War I period with mergers that took place in the year 2000 in Germany, I will try to shed some light on the impact of regulations on insider activities and the ability of legislative restrictions to protect outsiders from insider trading.

The long-term impact of mergers

Thus far, using event-studies, one concentrates on short-term market reactions caused by mergers. My additional concern is to measure the long-term impact of mergers; thereby, an event-study approach must be replaced by more sophisticated methods. These superior models belong to the group of vector autoregressions (VAR). Besides focusing on mergers and, thus, micro-level shock, I will regard macroeconomic fluctuations as an additional source of uncertainties. My panel VAR is able to identify the dynamics in share prices, dividends, and nominal capital caused by different kinds of shocks. In contrast to my short-term analyses, my long-run study covers the period from 1870 to 1913, for which I collected annual data. Changes in the regulatory environment at the beginning and in the middle of this period - especially the establishment of the new exchange law in 1896 - make the investigation promising from an institutional point of view.

Results

Reading daily newspapers for several months, collecting an average of 6550 daily returns for the sample year 1908, 4941 daily returns of individual stocks and several thousand daily observations of the market index, DAX30, for the year 2000 as well as 4620 observations of share prices, dividends, and nominal capital for the long-term study, one should wonder whether the effort was worth it. Hence, I should present my empirical findings.

Rejecting the merger paradox for the pre-World War I period

Newspaper announcements regarding an impending merger cause severe market responses in the short-run leading to considerable increases in market values of acquiring and target firms. Hence, based on my sample drawn in the year 1908, I can reject the presence of the merger paradox which states that shareholders from acquiring firms actually benefit from mergers. Accordingly, my empirical findings add an additional piece to the puzzle of whether mergers create shareholder value by focusing on the pre-World War I period in Germany. Using daily returns to improve the statistical power of event-studies is a completely new concept for the pre-1914 period. Most importantly, my study underlines the high degree of informationally efficiency of stock exchanges because market reactions due to mergers are centered upon the public release of information. Interestingly, this finding can also be confirmed using alternative approaches like transfer-function models or panel GARCH models. Regardless which model is applied, they all point in the same direction: The market reacts fast.

Insider trading in the year 1908

Going back 100 years in history, one can observe natural firm behavior operating without regulatory restrictions. As a direct result, firms could decide to disclose price-sensitive information voluntarily. Event-studies and cross-sectional models confirm that hiding information is chargeable to outsiders. Ruling out the possibility that the way of disclosure influences the total gain from mergers, one can concentrate on the distributive effect. As a method of protecting the outsider, a state intervention that forces a firm to release information should be considered; in particular, a voluntary self-regulation cannot be supported by logit models. Henceforth, this historical experiment stresses that ad-hoc publication requirements or other retaliations, like a negative public opinion regarding the misbehavior, ensure the protection of outsiders. Most noteworthy, the media in 1908 did not criticize the situation whereby acquirers started buying shares of targets prior to official announcements - but newspapers spread rumors about impending transactions.

Irrational speculation in the year 2000

The adaptation process of share prices in the presence of newly available information differs from the clear run-ups and steady increases in market values observed in the historical sample. Generally, a strong upsurge in share prices shortly before the newspaper announcement is followed by a pronounced fall in market values. Regardless which group of companies is considered, this pattern remains nearly unaffected. Correspondingly, this adaptation pattern could stem from following irrational trading rules like `buy on rumors and sell on facts´. This empirical finding supports the effectiveness of insider regulation during the last 92 years.

Interpreting the high informationally efficiency in 1908

Both event-studies and GARCH models point out that in 1908 the market was highly based on informational efficiency. Besides the remarkable actuality of the `Berliner Börsenzeitung´ as shown by several case studies, insider trading may be mainly responsible for the tremendous speed with which new information is reflected in market prices. Accordingly, the benefit of informational efficiency comes with a loss, namely insider trading. So far, little historical research has been conducted to quantify the number of insiders versus outsiders during the pre-1914 period in Germany. After the new exchange law was established in 1896, the nine leading banks in Berlin gained a larger role in trading. For the

U.S., Warshow (1924) pointed out that smaller shareholders, the typical outsiders, were relatively unimportant.

The long-term impact of mergers

Mergers characterized as micro-level shocks possess a significantly negative impact on share prices; thereby, this direct impact also affects dividend streams with a time lag. After taking into account unexpected macroeconomic shocks, the effect of mergers disappears; hence, macro-level shock predominated in the period 1870 to 1914. Nevertheless, additional insights are gained by extending short-term evidence based on event-studies, for example, macroeconomic surprises severely affect share prices and dividends.

Merger waves and periods of real over- or undervaluation

As far as I know, I have provided the first empirical evidence for a merger wave in Germany centered around 1906. Executed mergers one or two years ago significantly increased the likelihood for subsequent transactions. Furthermore, mergers are more likely in periods exhibiting high inflation rates although past and present share prices and dividends have no partial impact regardless which lag structure is permitted. Based on impulse response functions, an asymmetric response - triggered by shocks in inflation rates - of share prices and dividends can be observed. Hence, an unanticipated upsurge in inflation causes a phase of real undervaluation of equity. More formal models, like hidden cointegration and the decomposition of time series, yield similar outcomes. Consequently, I state that the first merger wave coincided with a period of real undervaluation of companies. A recent study for the period from 1978 to 2000, conducted for the United States by Dong et al. (2003), showed that mergers occur if markets are overvalued. Hence, my empirical finding for the first phase of globalization in Germany contradicts today's empirical evidence.

What makes mergers different: Comparing both phases of globalization

Besides the hard facts justified by empirical models, adding some narrative evidence, as told by case studies, may help to get a clearer picture. During my investigation period, cross-border mergers did not occur, even though they are very common nowadays. Furthermore, acquirers were relatively large compared to their target firms, making an acquisition easer to finance and facilitating the integration of both entities. The velocity with which mergers were legally executed in the pre-1914 period is remarkable. As shown by the presented case studies, the announcement of a merger was followed by the approval of an extraordinary shareholder gathering within one month. Generally, nearly all mergers achieved the necessary majority in shareholder gatherings, and hostile takeovers were very uncommon. Although the leading companies included in my long-term study were very active to initiate mergers, mergers among these 35 largest companies did not occur. It can therefore be assumed that mergers are, to some extent, different in both phases of globalization - but maybe learning from historical evidence could help in making today's merger as successful as those taking place 100 years ago. A possible conclusion could state: acquire only smaller companies in your line of business and be friendly.

The inflation illusion hypothesis and the pre-World War I period

In the `resiliency´ paper (see Baltzer and Kling, 2003), my empirical result supports the inflation illusion hypothesis for the period 1870 to 1914

in Germany, but how can one interpret this finding? In 1873, Germany joined the gold standard; thus, one can argue that by introducing an effective commitment to avoid inflation, an inflation hedge provided by stocks was not needed. Unfortunately, this explanation has a blemish in that the inflation illusion can also be observed in later periods (see Madsen, 2000).

Inspiring the Hoffmann (1965) series, the cyclical movement in inflation rate characterized by alternating periods of inflation and deflation is apparent. Accordingly, I argue that, during the pre-World War I period, trend inflation cannot be observed, and thus, the average annual inflation rate is lower than 1%. Considering a long-term investor, namely a bank or a strategic investor, the question arises whether market participants should worry about inflation in the long-run. Due to the overwhelming importance of large investors with strategic interest, nominal share prices should not reflect inflation and inflation illusion is likely.

In addition, time series of nominal interest rates show that during the pre-World War I period, the development was almost stable over time, therefore suggesting that inflation rates did not influence nominal interest rates considerably. Putting this argument in other words, it states that by observing nominal interest rates, market participants were not able to improve their forecasts regarding future inflation rates. This finding is supported by my analysis on the predictability of macroeconomic variables. Hence, stable nominal interest rates suggest that inflation is not a major concern.

Gerhard Kling

Department of Economics, University of Tübingen

Mohlstrasse 36

72074 Tübingen - Germany

Email: gerhard.kling@uni-tuebingen.de

Homepage: http://www.uni-tuebingen.de/uni/wwl/kling.html

In May 2002, I received my diploma in economics from the Ludwig-Maximilians-University Munich. I am currently a member of the graduate school, "Firm development, market processes, and regulation in dynamic decision processes" (with a scholarship from the German Research Association, DFG) and a research assistant within the Department of Economics at the University of Tübingen. My dissertation project is supervised by Prof. Dr. Jörg Baten (Professor of Economic History, Dept. Economics, Univ. Tübingen and CESifo Fellow).

List of my working papers and conference contributions

Baltzer, M. and G. Kling, 2003, Resiliency of the pre-World War I German stock exchange: Evidence from a panel vector autoregression, accepted for presentation at the European Social Science History Conference 2004 in Berlin and at the 5th World Congress of Cliometrics 2004 in Venice.

Kling, G., 2003a, Disclosure of mergers without regulatory restrictions: Comparing insider- trading in the year 1908 and 2000 in Germany, presented at the NBER conference `On Developing and Sustaining inancial Market, 1820-2000´, 2003, accepted for presentation at the annual meeting of the Economic History Society 2004 in London.

Kling, G., 2003b, The impact of merger announcements on stock prices: The rejection of the merger paradox for German companies, presented at the Economics and Business Historical Society Conference 2003 in Memphis and at the European Historical Economics Society Conference 2003 in Madrid.

"Check please!"

The Rise and Fall of Means of Payment in the Netherlands 1814 - 2004

Buying, selling and paying are an age old phenomena. At present one can pay cash or cashless - by giro or by electronic transfer - and there is a wide variety to choose from: coins, banknotes, switch cards, debit cards, credit cards and chip cards. Ongoing product innovation in the internet age increases the number of possibilities even further. Generally speaking, innovations have been applied to the realms of commercial payments first and, from there, have spread to private payments. During the past century the boost in new means of payment paralleled a process of crowding out of some of the older means of exchange. Historically speaking, we are in a unique situation whereby one can choose from a multitude of payment instruments. The reverse of this rather unique situation is that consumers have become more technology dependent when they pay.

Cash

Coins are the oldest medium of payment still in existence. Over two millennia, coins dominated both domestic and international trade, and private payments. With the spatial extension of trade in goods, there was a demand for a more user-friendly medium of exchange. For commercial transactions, the bill of exchange was invented and the transport of considerable quantities of coins had become obsolete. Private persons, however, still carried coins made of precious metals such as gold, silver and copper. In the course of time, the coinage system was re-evaluated and the original weights and grades of finesse were altered or replaced by coins of non-precious medals. At times of shortages, coins were sometimes temporarily replaced by paper money. Around 1850, paper coins of 10, 50 and 100 guilders were introduced in the Netherlands as a coin substitute during the reminting of legal tender. Although originally a way of avoiding a shortage of silver, this paper money stayed in circulation until 1904. Only at this time did Dutch households begin to use banknotes as a medium of exchange.

Dutch a coin note of 10 guilders (1853)

Banknotes were the first product innovation in what is nowadays referred to as retail payments. Although paper money had already been in use for a long time in China, they were first introduced in Europe in the late 17th century. Sweden was the first European country to use banknotes where, in 1661, Stockholm's Banco was the first issue bank. By the end of the 17th century, banknotes had been introduced in England, Scotland and Norway. Gradually, banks in various countries were granted the privilege to issue banknotes. In the Netherlands, banknotes were introduced just after the establishment of De Nederlandsche Bank, in April 1814. This remained the only issue bank. For almost a century, however, its banknotes were mainly used as commercial paper rather than for daily purchases. The first Bank Charter in 1814 had specified the issue of nine denomination bank notes, varying from 25 to 1,000 guilders. At that time, these were unprecedentedly high denominations, which, if converted into today's currency, would equal around 450 to 18,500 Euros. As long as the

wages remained below the smallest denomination of 25 guilders, the common Dutch consumer of the 19th century did not handle a single banknote during his lifetime. The breakthrough of banknotes as a general medium of payment came in the early 20th century with the introduction of a ten guilder banknote. The rising public demand for banknotes more or less coincided with the introduction of non-cash payments transfers by giro. This new mode of remote payment appropriate for both businesses and households marked the end of cash supremacy, although this crowding out process would take more than a half a century.

Non-cash transfers

By the end of the nineteenth century, a new way of paying emerged in various European countries as governments looked at ways to facilitate retail payments. Although in the Netherlands the discussion regarding the introduction of the giro started early in the 20th century, it was only in 1916 that the national giro was granted its legal funding. At that time, other European countries had already implemented a giro system, such as Austria (1882), Germany (1899), Switzerland (1906) and Belgium (1913). Furthermore, it would take another two years before the Dutch Post Office Giro ['Postcheque - en Girodienst'] finally opened its doors. The original non-cash transfers were simple paper payment orders. By its nature, such an order was a remote payment. Soon banks offered their account holders a service of non-cash transfers too. It should be noted that non-cash transfers require a far more complex technique as well as infrastructure than conventional cash payments. In the Netherlands, each bank including the Post Office Giro, had its own particular unstandardised system and it took some negotiation before all financial institutions involved agreed on a national payment system. This therefore allowed the creation of an infrastructure needed for the efficient processing of payment orders.

The increase of giro payments gradually meant a decrease of cash payments by the public. Hence, an important development in this process was the computerization of salary records of some major Dutch companies and the introduction of current accounts by Dutch banks in the mid-1960s. Workers, who used to have their wages paid in cash, were now paid via non-cash transfer direct to their bank or giro account. It marked the beginning of retail banking in the Netherlands. At first, the new, inexperienced account holders showed a strong preference for cash and went immediately to their bank or post office to withdraw in cash the total sum of earned money. Meanwhile, Dutch banks tried to find ways of holding this money for a longer period of time and also to facilitate non-cash payment transactions. So, in the 1970s, a range of new forms of non-cash payment were introduced such as recurring transfer instructions, inpayment transfers and direct debits. These products were launched accompanied with ex-

The modern way of buying a parking ticket

tensive information campaigns. Besides these visible innovations, there have also been various invisible improvements in processing payment orders. A major shift in non-cash transfers was caused by a massive switch-over by the public to authorization for collection. Furthermore, there have been some major advances in the field of data processing of the original hand-written paper orders, such as optical character recognition and optically readable bar codes.

In 1967, the arrival of the guaranteed cheque paved the way for non-cash retail payments. Within a few years, this cheque became a very popular means of payment among the Dutch. Compared to other countries, the credit card had never become very popular in the Netherlands. In the 1980s, the then popular guaranteed cheques met severe competition from the pin card (a debit card), which had evolved from the plastic identity card which originally accompanied the guaranteed cheque. At first, the cheque card could only be used in Automatic Teller Machines as an alternative for cash withdrawals from the bank counter. Due to technological developments, these plastic cards were provided with a magnetic strip, making the cards suitable for use both in a cash dispenser and in point-of-sale terminals in shops and restaurants etc. Within a few years, these pin cards had become very popular mainly at the expense of paying by guaranteed cheques. At the end of December 2001, on the eve of the changeover to the euro, the banks decided that the time had come to abolish the once so popular guaranteed cheques. And so the exchange of money had evolved from exchanging cash money, via signing a paper bank order, to giving a number into a machine.

A recent study examining two centuries of means of payments in the Netherlands shows that, since the 1960s, the path of product innovation in the field of payments increases. For example, within two decades after the launch of the pin card, Dutch banks introduced an electronic purse. Prior to the market introduction, a test was conducted using point of sale terminals based on shop technology in the years 1989-1991. After some modifications, in 1995 the banks gave birth to the electronic purse, a card which could be loaded with a certain value, directly from a bank account. This 'chipknip' was meant to be a substitute for small coin payments up to 15 euro. In contrast, with the rapidly gaining popularity of the pin cards, paying by electronic purse did not become very popular until recently. Another type of electronic transfers in its infancy is electronic banking. So far, traditional remote payments are still used on a considerable scale. But direct debits are the most popular method among Dutch households. Dutch banks thereby encourage their customers to pay efficiently and have created new products, like e-banking. As a result, a growing number of payment orders are submitted via the Internet or mobile telephone.

During the past decades, banks have introduced various new ways of making non-cash transfers. Prior to any introduction of a new product into the market, market research is undertaken and the introduction of the payment instrument takes place alongside an extensive information campaign to the public. Even so, these marketing techniques are not always the instant key for success as the slow adoption of the electronic purse shows. By definition, product innovation goes hand in hand with crowding out. The afore-mentioned shows that this also applies for the banking industry. Much research is therefore needed into the history of product innovation in terms of payment means in order to explain national differences and preferences in the way we pay.

Joke Mooij

De Nederlandsche Bank

Amsterdam

Source: Joke Mooij and Ton Dongelmans,

"Mogen wij even afrekenen? Twee eeuwen betalen in Nederland", Boom, Amsterdam 2004

Inflation and love for Socialism

For decades, a light brown banknote featuring a picture of a worker was the smallest of the serial of banknotes in use. 10 dinars banknote was issued in 1978, yet by 1987, banknotes of 20.000 dinars were being issued. People used to make jokes, saying that the central bank had to put workers on banknotes because somebody had to work hard in order to print all those inflationist banknotes.

Most of the people who have lived in Socialist Yugoslavia hold a positive opinion about this period of their life. There is no doubt that the experience of war and the difficulties of transition years make their memories selective, but somehow, Yugoslav communists managed to run the country and continually raise the standard of living. Also contributing to the creation of this positive spirit towards life under Socialism is a particular monetary phenomenon - inflation.

From the early sixties, building credit became available through different forms of building credit associations in Socialist Yugoslavia. It was usually long-term credit with very low interest rate. During the late sixties, seventies and beginning of the eighties, cheap and easily available building and consumption credit was available to most of the working population provided by the companies where they worked, building credit associations or banks.

A significant share of the population in Socialist Yugoslavia used these credits to build houses. Taking into account ideological and consequently practical limits in developing private enterprises, investment in housing was the strongest and most common investment trend. Most rather more ambitious people built 200-400 metre square houses, as well as owning cottages on the Adriatic coast or in the mountains. Having limited investment opportunities, this generation of people active in the 1960s-80s, resolved not only their housing problems, but also the housing problems of their children and often even grand-children.

Inflation was one of the constancies of monetary life in Socialist Yugoslavia; sometimes higher, sometimes lower, and occasionally jumping to levels of hyperinflation. Such monetary circumstances, lead to the development of a specific business and living culture based on "do not keep cash" instinct. There is no doubt that inflationary monetary conditions additionally stimulated investment in housing.

Credits offered to the broad population, as a rule, had a low but more importantly fixed interest rate. In inflationary conditions, it meant that during the years of repayment debt lost its value. Typical long term building credit would lose its value in the first five to ten years. I recall my father going to the bank to pay off his last five years of mortgage with a banknote which would only cover the price of a box of cigarettes. I recall his comment: "Why did I not take a bigger credit?" And also his long lasting sympathy for Socialism.

Just how banks operated in such circumstances is not clear. Banking under socialism remains a topic which still awaits interested historians.

Damir Jelic

Tito, the controversial long-lasting president of Socialist Yugoslavia, was too smart to show his power by appearing in banknotes; this happened only after his death. And then he appeared on one of the hyper-inflationist banknotes, with which most mortgage credits were paid. Even in death, Tito seemed to care enough about his people - to pay off the mortgage.