[Article]

# 'Central banks' in the Holy Roman Empire and their role in financial and economic crises: Hamburg and Nuremberg in the 17<sup>th</sup> and 18<sup>th</sup> century<sup>1</sup>

#### Markus A. DENZEL

Faculty of History, Arts and Oriental Studies, University of Leipzig

#### Abstract

The Holy Roman Empire of pre-modern age had two institutions which may be justified as 'central bank'. These were the Bank of Hamburg and Nuremberg Banco Publico. They were both founded in the aftermath of the Kipper-and-Wipper crisis of the 1610s, following the example of the public banks of Amsterdam and Venice.

Their function was to stabilize the cashless payment systems as well as the cities' local currencies. After their highly successful initial phase, the development of both public banks with the long history ran in opposite directions.

In Hamburg, this institution contributed to the commercial success of Hamburg as Germany's most important port, moreover it was held internationally in high esteem. In Nuremberg, it no longer could provide positive impulses for the development of urban economy although Banco Publico and its responsible parties usually guaranteed the stability of currency and an 'organized' cashless payment system. Nuremberg clearly suffered from the prerequisite and external conditions worse than in Hamburg.

This paper analyzes, by means of a direct comparative analysis of both 'central banks' and the economic development of both cities, how such institutions could exert a positive or negative impact during financial or economic crises.

keywords: The Holy Roman Empire, Central Bank, Cashless Payment Systems, Multiple Endorsements, Financial or Economic Crises

## 神聖ローマ帝国における「中央銀行」と金融経済危機に おけるその役割

---17, 18世紀におけるハンブルクとニュルンベルク---

マルクス・デンツェル

ライプツィヒ大学歴史学部

#### INTRODUCTION

During the entire period of its existence the Holy Roman Empire only had two institutions at its disposal, for which the designation as 'central banks' may be justified, even though, of course, they did not yet execute all the functions of a modern central bank. These banks were the Bank of Hamburg and the Nuremberg Banco Publico, which were both founded in the aftermath of the Kipper-and-Wipper crisis of the 1610s following the example of the public banks of Amsterdam and Venice. Their function was to stabilise the cashless payment systems of the respective trading cities as well as the cities' local currencies. In this function, both 'central banks' exerted a lasting influence on the general economic development of Hamburg and Nuremberg in the seventeenth and eighteenth centuries, and this in truly different ways. Whereas the Bank of Hamburg made an essential contribution to the stabilisation of trade and finance of the Hansecity and to its economic rise to a commercial, exchange and insurance centre of international significance, the Nuremberg Banco Publico is usually made responsible for the economic decline of the free city, before all during the eighteenth century. This paper analyses by means of a direct comparative analysis of both 'central banks' and the economic development of both cities, how such institutions could exert a positive or negative impact during financial or economic crises<sup>3</sup> and which long-term consequences their respective 'crisis management', <sup>4</sup>

<sup>1</sup> This paper was given in condensed form at the XVII<sup>th</sup> World Economic History Congress (Kyoto, 3–7 August 2015). The session's title was "Central banks and their role in financial and economic crises" and it was chaired by William Roberds (Atlanta, Georgia, USA), Werner Scheltjens (Leipzig, Germany) and the author himself. My dear colleague and friend Professor Dr. Kunio Nashiro (Nagoya, Japan) took part in this session and enriched it by his useful and constructive comments. – I am grateful to Dr. Werner Scheltjens, Assistant Professor at my chair at the University of Leipzig, for his translation and comments on the text.

This contribution is largely based on earlier publications of the author. For Nuremberg: Markus A. Denzel, Der Nürnberger Banco Publico, seine Kaufleute und ihr Zahlungsverkehr (1621–1827), Stuttgart 2012. For Hamburg: Idem, Hamburg as a Financial market from the Late Sixteenth to the Mid-nineteenth Century. Exchange market – *Girobank* – Insurance market, in: The Bulletin of the Institute for World Affairs, Kyoto Sangyo University 28, 2013, pp. 17–36; idem, Die Errichtung der Hamburger Bank 1619. Wegbereitung einer stabilen Währung und Ausdehnung des bargeldlosen Zahlungsverkehrs, in: Dieter Lindenlaub/ Carsten Burhop/Joachim Scholtyseck (eds.), Schlüsselereignisse der deutschen Bankengeschichte, Stuttgart 2013, pp. 38–50; idem, Monetary and Financial Innovations in Flanders, Antwerp, London and Hamburg: Fifteenth to Eighteenth Century, in: Peter Bernholz/Rudolf Vaubel (eds.), Explaining Monetary and Financial Innovation. A Historical Analysis, Heidelberg/New York 2014, pp. 253–282.

<sup>3</sup> Cf. Markus A. Denzel, The Role of Institutions in Financial Crises: Fairs – Public Banks – Stock Exchanges (13<sup>th</sup> to 18<sup>th</sup> Century), in: Financial Crises, 1300–1800/Le crisi financiarie, 1300–1800. Selezione di ricerche, Firenze 2016, pp. 427–450.

<sup>4</sup> It is necessary to state that until today we have no "closed" or coherent theory of crisis management: Kurt Rothschild, Krisenbegriff und Krisenbewältigung aus der Sicht der Wirtschaftswissenschaften, in:

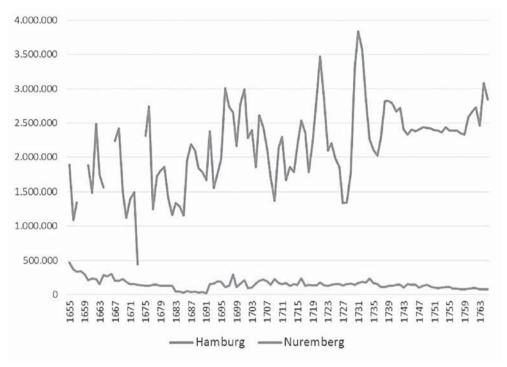


Figure The Deposits in the Public Banks of Hamburg (*Kaufmannscassa*) and Nuremberg (*Banco Publico*), 1655–1765, in mark Hamburg Bank money (*mark Banco*)<sup>5</sup>

if there was any at all, brought about.

#### 1. THE FOUNDATION OF PUBLIC BANKS IN THE HOLY ROMAN EMPIRE

Since 1582 at the latest, the exchange rate of the *Reichstaler* and other full-bodied coins that were used for trade in the Holy Roman Empire rose. A quarter of a century later, in 1607, the imperial council and the *Reichspfennigmeister* Zacharias Geizkofler developed the idea of founding banks with the goal

Hanspeter Neuhold/Hans-Joachim Heinemann (eds.), Krise und Krisenmanagement in den internationalen Beziehungen, Stuttgart 1989, pp. 77–88, at p. 83. Attempts which go into this direction are usually limited to modern banking crises: E.g. Marc Bauer, Krisenbewältigung in der Finanzwirtschaft: Parallelen und Unterschiede der Bankenkrisen, Düsseldorf 2008.

Sources: Denzel, Der Nürnberger Banco Publico, passim; Heinrich Sieveking, Die Hamburger Bank, in: Johannes Gerard van Dillen (ed.), History of the Principal Public Banks Accompanied by Extensive Bibliographies of the History of Banking and Credit in Eleven European Countries, The Hague 1934, ND. London/New York 1964, pp. 125–160, at pp.113f., 139–141. – The Nuremberg values quoted in guilders has been converted in mark Hamburg Bank money (the so-called mark Banco) on the following base: 1 guilder = 1.5 mark Banco.

#### 名古屋学院大学論集

of securing payment transactions and trade in a time of increasing coin debasement, especially since bills of exchange transactions were usually also seen as dangerous. The first plan to found a public bank to stabilize currency and regulate cashless payment transactions was developed in Nuremberg in 1615 by two merchants with strong ties to Venice: Viatis and Peller. In a time of relatively slow coin debasement (especially in comparison with the later Kipper-and-Wipper era), the plan provided for some sort of copy of the organisation of the Banco di Rialto, which had been founded in 1586/85 and had started its operations in 1587. It is unknown why Viatis' and Peller's plan was not realized.

Consequently, the first public bank of the Holy Roman Empire was not founded in Nuremberg but in Hamburg and not following the Venetian example, but the model of the *Wisselbank* of Amsterdam. This foundation was to transform Hamburg into one of northern Europe's largest and most important financial markets. Also in Hamburg the monetary stability was in danger, as a growing amount of debased small change steadily increased the exchange rate of the *thaler* or *rixdollar* against the smaller currencies, due to the fact that merchants charged an increasing premium or agio on payments made in debased small change. The Imperial Circle of Lower Saxony (the *Niedersächsische Reichskreis*), the subsidiary institution of the Empire that was responsible for coordinating monetary policy amongst the territories incorporated within this area of the German Empire, drafted some legislation anent a coordinated strategy against currency debasements in 1617, which came to naught, however – as usually all these legislative initiatives on the Imperial, and its subsidiary level of the Imperial Circles (*Reichskreise*), usually did.<sup>7</sup> Thus it was agreed upon a different strategy by Hamburg merchants to

Rudolf Endres, Die selbständig handelnde Kaufmannschaft. Nürnberger Handelsvorstand zwischen Renaissance und Biedermeier, in: Gerhard Pfeiffer (ed.), Im Zeichen der Waage. 425 Jahre Nürnberger Handelsvorstand 1560–1985. Wirtschaft und Gesellschaft im Wandel, begleitet von Organen der wirtschaftlichen Selbstverwaltung, Nürnberg 1985, pp. 35–44, at p. 37; Gerhard Seibold, Die Viatis und Peller. Beiträge zur Geschichte ihrer Handelsgesellschaft, Köln/Wien 1977, pp. 264f.; Heinrich von Poschinger, Bankgeschichte des Königreichs Bayern. Nach amtlichen Quellen bearbeitet, II. Lieferung: Bankgeschichte der Reichsstadt Nürnberg, Erlangen 1875, p. 12; Carl L. Sachs, Die Nürnberger Girobank (1621–1827) im Rahmen der kontinentalen Bankgeschichte, in: Adolf Günther (ed.), Eheberg-Festgabe. Beiträge zur Wirtschaftsgeschichte und Sozialtheorie. Carl Theodor von Eheberg zum 70. Geburtstage dargebracht, Leipzig/Erlangen 1925, pp. 139–161, at p. 153.

Hans-Jürgen Gerhard, Ursachen und Folgen der Wandlungen im Währungssystem des Deutschen Reiches 1500–1625. Eine Studie zu den Hintergründen der sogenannten Preisrevolution, in: Eckart Schremmer (ed.), Geld und Währung vom 16. Jahrhundert bis zur Gegenwart, Stuttgart 1993, pp. 69–84; idem, "Ein schöner Garten ohne Zaun". Die währungspolitische Situation des Deutschen Reiches um 1600, in: Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte 81 (1994), pp. 158–177; idem, Neue Erkenntnisse zum Münzvergleich von Zinna. Wandlungen in der Währungsstruktur des Reiches in der zweiten Hälfte des 17. Jahrhunderts, in: Idem (ed.), Struktur und Dimension. Festschrift für Karl Heinrich Kaufhold zum 65. Geburtstag, vol. 1: Mittelalter und Frühe Neuzeit, Stuttgart 1997, pp. 138–172.

cope with monetary stability: the foundation of a Bank. It seems as though the initiative towards the foundation of this institution can be traced back mainly to foreign merchants resident at Hamburg, who were especially keen on monetary stability, such as the English Court (which resided at Hamburg since 1611), the Dutch merchants, as well as the Sephardic Jews from Portugal and Spain.<sup>8</sup> Votes against a new banking project mainly came from those merchants traditionally resident at Hamburg and who were traditionally active in the trades with Friesland and Holland. Their argument was that they had paid their dues using small change for ages, even in exchange transactions. If – as the Bank's charter stipulated - from now on bills of exchange had to be paid up in good, i.e. large and full-bodied coins exclusively, they were put at a disadvantage, as their transactions would yield them chiefly small change. The acquisition of high-value coins would increase their overall business risk and transaction cost, as they would have to purchase the good coins using their debased small change and accordingly high risk premiums (agios). A first initiative to establish such a bank dating from 9 February 1615 had proved abortive, as the native merchants of Hamburg strongly opposed the planned monopoly on foreign exchange transactions that involved the conversion from foreign currency into marks Lübeck Current money which was to be conveyed upon the bank. Shortly thereafter, however, by 1617, it had become increasingly clear to everyone how vital an institution providing financial and monetary stability to Hamburg finance and commerce would be - at least for the larger wholesale merchants.

The foundation charter of the Bank provided for the regulation that all bill transactions surpassing the amount of 400 marks Lübeck Current money, and all commodity transactions exceeding 400 marks Hamburg Bank money would have to pass through a Bank of Hamburg account – just as had been the case in Amsterdam and Venice, where similar banks had been established earlier on. Merchants could dispose of their assets in the Bank by simple bank transfers, which effectively made the new bank a deposit, exchange, as well as giro and transfer banking venture. Accounts were kept in the Bank's own virtual currency – mark Banco – which was characterized by its (fictitious) stable silver content. The option of settling debts and liabilities without using cash by simple bank transfer and draft provided a very powerful tool for the city's standing as an international financial market. Transfers and drafts to external accounts not held with the Bank were prohibited. The Bank remained firmly in the hands of the Hamburg merchants, as well as the foreigners that were permanently resident at Hamburg and which were considered denizens of Hamburg. Foreigners could not open an account with the Bank. Deposits could only be made in high-value full-bodied coin (as was the case with customs duties and local tolls on overseas trade) which resulted in a constantly high demand for those nominals at Hamburg. Deposits could be made in some lower denominations, such as shillings

<sup>8</sup> See Hermann Kellenbenz, Unternehmerkräfte im Hamburger Portugal- und Spanienhandel, 1590–1625, Hamburg 1954; idem, Sephardim an der unteren Elbe. Ihre wirtschaftliche und politische Bedeutung vom Ende des 16. bis zum Beginn des 18. Jahrhunderts, Wiesbaden 1958.

or six-groats-pieces (*Sechs-Groschen-Stücke*), but only to the tune of no more than five per cent of the transaction value. Withdrawals in 'current money' could be made upon payment of a commission fee in the order of one per mille; some of the larger denominations, such as the old and particularly valuable rixdollars were only given out with a heavy premium (here: disagio). The Bank was obliged to pay out to each account holder the full balance (expressed in terms of its silver content) upon demand at any time. Liability for damages and losses was with the Bank.

On top of the deposit, giro as well as exchange business came a fourth branch of activity since 20 November 1619: lending and loans. These focused on municipal credit, such as loans to the municipal treasure chamber, or advances on taxes that were still to be yielded. Loans were also provided to private individuals against pawns (to the tune of 75 per cent of the pawn's market value). The minting of Hamburg currency was likewise placed under the umbrella and responsibility of the Bank. This was coupled with a monopoly on precious metal acquisition. The Bank was also charged with full responsibility of public grain purchases; especially the regulation that it had to provide a fixed amount of corn at subsidized rates (initially 500 and then 1,000 lasts) to the poorer members of urban society.

When the bank was opened to the public on 2 March 1619 this proved to be an epoch-making event. This was, after all, not only the first, but the only municipal exchange bank within the Holy Roman Empire that proved to be a long-run success. Moreover, the Bank quickly attained an exemplary character, being by and large the only such institution within the Empire. A similar or 'sister' venture became the Banco Publico in Nuremberg, founded in 1621:<sup>10</sup> Background of the foundation of a public bank in Nuremberg also was the massive coin debasement in the 1610s, which found fault with the Reichskreis of Franken several times. Probably the concern that this devastating development could spill over from other towns in Franken to Nuremberg placed an important role in the decision to found a public bank. On top of that, a structural change in the economy of the free city had to be taken into account: the gradual shift of Nuremberg's trade from the wide long-distance overland trade, which had been dominant until late in the sixteenth century, to a more local and regional trade, because, as a consequence of the European expansion, the long-distance overland trade routes that crossed Empire had moved towards the sea and particularly towards the Atlantic. The increasing importance of the Nuremberg's surroundings find expression in its weight for the free city's finances, which resulted from the levies on goods transferred in local and regional trade. Beside the merchants, the

<sup>9</sup> See J. F. Voigt, Die Anleihen der Stadt Hamburg w\u00e4hrend der Jahre 1601 bis 1650, in: Zeitschrift f\u00fcr Hamburgische Geschichte 17, 1912, pp. 129-253.

<sup>10</sup> See also Lambert F. Peters, Der Handel Nürnbergs am Anfang des Dreißigjährigen Krieges. Strukturkomponenten, Unternehmen und Unternehmer – Eine quantitative Analyse, Stuttgart 1994; idem, Einführung in die Erfassung, Aufbereitung und Analyse von Quellen zur internationalen Handels- und Bankgeschichte. Banco Publico Nürnberg 1621/22-1647/48 – Hamburger Bank 1619 – Amsterdamer Bank 1625, in: Mitteilungen des Vereins für Geschichte der Stadt Nürnberg 91, 2004, pp. 47-179.

city council or the 'noble families' of the town (the so-called *ratsfähigen Geschlechter*), which were also part of the merchant group, had to be highly interested in the continuation of the traditionally solid monetary and exchange rate policy of the free city. The protection of the own good coins, which should not drain away from the city, and the high activity of the Nuremberg trade market were of equal importance to the council and the merchants.<sup>11</sup>

Preceding the foundation of the bank, negotiations between the various groups of merchants and the council went on for several months. They were accompanied with an ever more rapid debasement of currency, which found expression in the continuous rise of the exchange rates of the Reichstaler. At the end of April 1621, on the initiative of 31 merchants who wanted to defend themselves against the inflationary profits of some of their colleagues, the council started to schedule the actual foundation of a bank. At that time, the council of Hamburg was asked to send over its banking rules. The merchants of Nuremberg proposed to found a bank managed by the authorities and supervised by the council. Thus, in Nuremberg the example of the public banks in Amsterdam and Hamburg was followed and not that of the elder banking institutions in Venice, which had a private basis.<sup>12</sup> In Nuremberg, like in all three cities, banking was to be compulsory, that is: all bills of exchange and private settlements were to be paid via the Banco. In accordance with the Banco-rules of 1621, this applied to all payments of more than 200 guilders. Overdraft loans were not allowed and all costs had to be covered by the collected bank charges. In this way, for larger sums, cash money was no longer needed and, insofar as payments in cash were made to the Banco, they were accepted only in specific, full-bodied types of coins. Both measures were taken to keep coins of inferior quality away from the Nuremberg market and to stabilize payment transactions for the benefit of trade. On May 15, 1621 the foundation of the so-called Banco Publico was decided by the city council, whereby compulsory banking was stipulated as well. The (first) statutes of the Banco Publico (Bancostatut) were deliberately constructed following the examples set by the Amsterdam Wisselbank, the Banco Giro founded in Venice in 1619 and the rules of the Bank of Hamburg, which were revised already in January 1621.<sup>13</sup> Moreover, the experiences made in Nuremberg with the exchanges offices (the

<sup>11</sup> Rudolf Fuchs, Der Bancho (!) Publico zu Nürnberg, Berlin 1955, pp. 11f. Cf. also Ernst Scholler, Der Reichsstadt Nürnberg Geld- und Münzwesen in älterer und neuerer Zeit (Ein Beitrag zur reichsstädtischen Wirtschaftsgeschichte), Nürnberg 1916, pp. 210–230; Ulrich Rosseaux, Die Kipper und Wipper als publizistisches Ereignis (1620–1626). Eine Studie zu den Strukturen öffentlicher Kommunikation im Zeitalter des Dreißigjährigen Krieges, Berlin 2001, pp. 57–73; Hans Christian Altmann, Die Kipper- und Wipperinflation in Bayern (1620–23). Ein Beitrag zur Strukturanalyse des frühabsolutistischen Staates, München 1976, pp. 89–113.

<sup>12</sup> von Poschinger, Bankgeschichte, II. Lieferung, pp. 11f.

<sup>13</sup> Fuchs, Bancho Publico, pp. 12f, 61; von Poschinger, Bankgeschichte, II. Lieferung, S. 15 and "Beilage" II, S. A4–A6; Sachs, Die Nürnberger Girobank, S. 153f.

#### 名古屋学院大学論集

so-called *Wechselstuben*) that had emerged under King Sigismund (1411–1437), <sup>14</sup> were included in the foundation of the bank; then, Augsburg was addressed about a number of issues (June 1621). <sup>15</sup> On June 8, a decree informed the public about the foundation of the bank, just like this was done in Hamburg before the establishment of the bank there. <sup>16</sup> Finally, in a request of June 7, the merchants of Nuremberg proposed to open the Nuremberg Banco Publico in the new vault of the city hall on Saint-Lawrence-Day (August 10), the day of the festival of the city's Saint Lawrence. <sup>17</sup> "In this way the Nuremberg Banco Publico showed from the very beginning that it had preserved its character as clearing bank in a pure form that would not be imitated easily by other banks." <sup>18</sup> Different than in Hamburg, for example, there was no loan bank attached to the Banco Publico, and the bank did not execute business on its own account. Thus, the business operations of the Banco were limited to accepting deposits, their disbursement and the transfer between different account holders.

Both foundations of banks were, in contrast with most similar attempts in the eighteenth century, very successful at first: In Hamburg, during the first year of its existence 539 merchants and firms opened an account with the Bank; total turnover on assets was more than 16.3 million mark Bank money within this first year alone. Most of the individuals that opened an account with the Bank were merchants that had only recently moved to Hamburg – Dutch merchants, English merchant adventurers, as well as Sephardic Jews from the Iberian Peninsula; it was, however, eschewed by the majority of the traditional merchants that had been resident here for a long time. In the long run, the Hamburg bank, provided an important foundation for the subsequent expansion of Hamburg's foreign commerce. In Nuremberg in a relatively short period of time following the start of the business operations of the bank, significant amounts of money were deposited at the Banco: until August 17, 1621 about 56.000 guilders (37 single entries), until the end of October 1621 a total of 464,500 guilders (325 single entries), until the end of the year 1622 close to 750,000 guilders, and by May 31, 1623, an absolute peak level of 800,000 guilders was achieved, which until the end of the

<sup>14</sup> Wolfgang von Stromer, Funktion und Rechtsnatur der Wechselstuben als Banken in Oberdeutschland, den Rheinlanden und den mitteleuropäischen Montanzentren im Spätmittelalter, in: Bankhistorisches Archiv, 1979, pp. 3–33; idem, Funktion und Rechtsnatur der Wechselstuben als Banken im internationalen Vergleich, in: Anna Vannini Marx (a cura di), Credito, banche e investimenti, secoli XIII–XX. Atti della "Quarta Settimana di Studi", Istituto Internazionale di Storia Economica "F. Datini" (Prato), Firenze 1985, pp. 229–254.

<sup>15</sup> Fuchs, Bancho Publico, p. 6.

<sup>16</sup> Von Poschinger, Bankgeschichte, II. Lieferung, pp. 16.

<sup>17</sup> Fuchs, Bancho Publico, pp. 13f., 62f.; Seibold, Viatis und Peller, p. 266.

<sup>18</sup> Von Poschinger, Bankgeschichte, II. Lieferung, p. 34.

<sup>19</sup> Figures have been taken from Lambert F. Peters, Art. "Hamburger Bank", in: Michael North (ed.), Von Aktie bis Zoll. Ein historisches Lexikon des Geldes, München 1995, pp. 154s., at p. 154.

<sup>20</sup> Sieveking, Die Hamburger Bank, p. 127.

Kipper-and-Wipper time was reduced to about 700,000 guilders. Although these figures may seem impressive at first glance, they are relatively modest when compared internationally, as the figures of the Amsterdam *Wisselbank* show: After one year, i.e. still in 1609, the deposits of the Amsterdam *Wisselbank* amounted to 1 million guilders, in 1626 11 millions, which is more than 47 times the amount deposited at the Nuremberg Banco Publico.<sup>21</sup> During the deflationary process that followed the currency reforms of 1622 and its follow-up, when the Kipper-and-Wipper time came to an end, so to speak when "normality" set in, the deposits diminished in the course of one month – from August until September 1623– by half a million guilders. The *Wisselbank*'s turnover diminished from clearly more than 30 million guilders during inflationary times to 16 to 17 million guilders in the later 1620s.

Two considerable differences between both public banks are noticeable from the start. On one hand, the deposits and turnover of the Bank of Hamburg made it an essentially larger institutions; on the other, the Bank of Hamburg was supported by a merchant stratum with a much stronger international orientation than the Nuremberg Banco Publico. These different preconditions would become visible in the following financial and economic crises of the later seventeenth and eighteenth centuries.

## 2. THE FACTORS OF AN (UN) SUCCESFUL (CENTRAL) BANK POLICY IN THE HOLY ROMAN EMPIRE IN THE 17<sup>TH</sup> AND 18<sup>TH</sup> CENTURIES

A first important factor for the success of any public bank were the internationality and the economic power of its merchant clientele. It is not without reason that in Hamburg the English Court, which had resided here since 1611, the Dutch and the Portuguese and Spanish Sephardim push ahead from the start with the banking project. They were also the first to open accounts and the bank immediately after its foundation. The old-established Holland- and Friesland-traders, however, not only were hardly inclined to use the bank; in the run-up they had even acted against its foundation. Similarly, in Nuremberg, the banking project was set in motion primarily by wholesale merchants trading with Italy and particularly with Venice. Among them most importantly Bartholomeus Viatis, who originated from the Republic of Venice<sup>22</sup> and seems to have had a thorough knowledge of the functioning of the *Banco di Rialto*, his son-in-law Martin Peller and Cesare Calandrini, an Italian immigrant merchant with equally good knowledge of the Venetian institution. In Nuremberg as well immigrant merchants from Italy and the Netherlands, which had settled in the free city had a disproportionately high share in the opening of account after the foundation of the bank compared to the old-established Nuremberg

<sup>21</sup> Von Poschinger, Bankgeschichte, II. Lieferung, S. 34-36 Anm. 8 and A133, "Beilage" LXXVIII, table I.

<sup>22</sup> Viatis was born on 18 May 1538 in Pesari in the Bergamo Alps, north of Brescia. This area was Venetian territory since 1456; Lambert Peters, Strategische Allianzen, Wirtschaftsstandort und Standortwettbewerb. Nürnberg 1500–1625, Frankfurt/Main u.a. 2005, pp. 341 Anm. 1114, 524 Anm. 1683.

families.

The high degree of internationality of the merchant stratum was retained throughout the seventeenth and eighteenth centuries in Hamburg, whereas it became a less and less prominent feature in Nuremberg. In the late seventeenth century, several Italian merchants still settled in Nuremberg, <sup>23</sup> and from the Italian perspective Nuremberg, with its larger branch of Italian merchants, still was more important as a payment location than Augsburg, <sup>24</sup> but in the late seventeenth century this position was already severely threatened and it would be impossible to maintain it for much longer. The Nuremberg bills of exchange regulation of 1654 had to account for the weighty significance of the Italians inside of Nuremberg. Therefore it had accepted the single endorsement or giro, for the technique of (multiple) endorsements, which was widespread in North-West Europe, was neither common in Italy nor was it popular (in the long run, this "consideration" of the Italians would become a structural disadvantage in Nuremberg in the international cashless payment system). In the eighteenth century, foreign merchants no longer played a significant role in the trade and payment transactions of Nuremberg. The Banco Publico no longer had any significance beyond the city itself or its immediate surroundings.

Similarly, the economic power, i.e. the size of the businesses of merchants of Nuremberg, which already at the time of the foundation of both banks was generally lower than that of Hamburg, declined significantly after the disaster of the Thirty Years' War. Large, international merchant-bankers, such as for example the merchant-banking house Viatis & Peller, became an exception in Nuremberg. From this perspective of smaller capital resources and business activities of the merchant stratum the declining deposits and transactions of the Nuremberg Banco Publico can be explained, whereas the same time, a long-term rising trend can be observed in Hamburg.

Secondly, these developments should be seen against the background of the respective commercial frameworks of Hamburg and Nuremberg. Hamburg was among those cities that benefited in the long run from the Thirty Years' War and it experienced a significant upswing of its widely spread trade with large parts of Europe in the latter part of the seventeenth and during the eighteenth century. The city on the Elbe became the central entrepôt for Western-European nations involved in overseas trade with the Baltic, on one hand, and with Hamburg's extensive German hinterland, that spread all the way to Leipzig and Breslau, on the other. In the long run, thanks to its close connections with France since the 1730s and with Great Britain at the end of the eighteenth century, Hamburg became Germany's most important port of import and export, from which the payment system, the trade in precious metals and therefore also its bank benefited: "Hamburg occupied a place in European finance

<sup>23</sup> Gerhard Seibold, Zur Situation der italienischen Kaufleute in Nürnberg während der zweiten Hälfte des 17. und der ersten Hälfte des 18. Jahrhunderts, in: Mitteilungen des Vereins für die Geschichte der Stadt Nürnberg 71, 1984, pp. 186–207.

<sup>24</sup> Cf. Peters, Handel Nürnbergs, pp. 117, 511, 543.

similar to that of Amsterdam, in that merchants and brokers in the city served as the intermediaries in exchange transactions between the Mediterranean, the Atlantic, and the Baltic." <sup>25</sup> Quite differently, Nuremberg had become a centre of stagnating, if not declining interregional trade.

Closely related, the third factor was the supply of precious metals: the most successful foundations of banks in the seventeenth century, those of Amsterdam and Hamburg, benefited particularly from their precious metal transactions, which resulted from the ever expanding trade of both maritime cities and not at the least from the re-export of overseas imports. Nuremberg could not rely on a similar 'reservoir' for its precious metals supply. Therefore, the main problem of the Banco Publico, securing precious metals in sufficient quantities, could not be solved throughout its existence.

The 'founding fathers' of the Banco Publico had been well aware of these extremely unfavourable circumstances and in order to support the financial provisions of the bank that reason they had connected compulsory banking with a banking fee, that was thought to finance the Banco Publico. At no point throughout its existence the Banco Publico could fully go without these transaction fees, which made its acceptance among the merchants of Nuremberg fade in the eighteenth century. Additionally, the fact that Jewish merchant-bankers from the surroundings of Nuremberg had to pay banking fees that were twice as high as the fees for Christians, had a negative effect on the turnover of the Banco, since more and more Christian as well as Jewish merchants tried to circumvent the Banco in order to avoid paying the banking fees. Hamburg, like Amsterdam and Venice, did not need such alimentation for their banks by their proper merchant circles, since their banks financed their business through their extensive precious metal transactions. Thus, there was no need for the merchants to avoid these banks. Thus, fourthly, the design and financial equipment of each bank, made an essential, if not *the* essential contribution to the success or failure of a public bank.

### 3. THE 'CRISIS MANAGEMENT' OF THE PUBLIC BANKS IN HAMBURG AND NUREMBERG

The banks of Hamburg and Nuremberg were established with the goal of stabilizing currency and the (cashless) payment system, not with general economic goals, that would have made them comparable to modern central banks. The banks of Hamburg and Nuremberg were to secure so to speak indirectly – through their monetary "stabilisation policy" – the trade of their respective cities and they were to create a most profitable and stable framework for its trading merchants. Any instability should therefore be seen as a monetary or financial crisis.

Whereas Hamburg was one of the long-term beneficiaries of the Thirty Years' War, in Nuremberg

<sup>25</sup> John J. McCusker, Money and Exchange in Europe and America, 1600–1775. A Handbook, London/ Basingstoke 1978, p. 61.

the positive effects of the war economy ended in 1631 with the penetration of the Swedes and the following siege of the free city. Turnover already decline in 1631/32 to about 15 million guilders and in 1634/35 it amounted to only 2.8 million guilders. The deposits of the Banco Publico had diminished continuously since 1632; in July 1635 they amounted to only 46,000 guilders. The Nuremberg Banco Publico also suffered significantly from the fact, that the city council withdrew money from the bank at its own discretion, whereby in some years the sums that were withdrawn were so high that the solvency of the Banco could no longer be assured. Between 1622 and 1635, the withdrawals of the authorities amounted to more than 1.119 million guilders. In September 1631, when Nuremberg was forced to give up its policy of neutrality between the fighting parties, the withdrawals of the council at the Banco Publico increased significantly to cover the contributions that were due to the Swedes. Until July 1632, about 145,000 guilders were withdrawn, whereas the deposits, which one year earlier still had amounted to more than 600,000 guilders had now declined to less than 200,000 guilders. The situation worsened when the armies of Gustav Adolf and Wallerstein gathered at the gates of Nuremberg and when, after the death of Gustav Adolf in the battle of Lützen, the Swedes marched through Upper Germany several times. In December 1634, the deposits (89,399 guilders) were just 5,664 guilders higher than the withdrawals of the city council (83,735 guilders), in January 1635 just 5,114 guilders (85,049 guilders against 79,935 guilders).<sup>26</sup> By that time, the Banco Publico was close to bankrupt.<sup>27</sup> In this way, the Banco Publico was neither the cause nor the crisis manager of the severe financial crisis of 1634/35, but it was itself a victim of the crisis, whereby the policy of the city council contributed significantly to its disastrous situation.

In 1635 an attempt to re-establish the capacity for action of the *Banco Publico* was successful, but the problem of insufficient reserve funds continued to exist in Nuremberg until the end of the Holy Roman Empire. Because of the risk of insolvency, the Banco had to be closed again for several months in 1682. On top of this, a certain incapability and reluctance to reform existed in Nuremberg, both in the execution of the banking business and in payment transactions themselves. The both most important problems were the authorization of (full-weighted) coins as bank money and the fees for banking transactions, which the merchant-bankers were not willing to pay. All attempts and desires, half-hearted as they were, to change both lasting institutional design failures of the

<sup>26</sup> See also Fuchs, Bancho Publico, pp. 45; Michael Diefenbacher, Handel im Wandel: Die Handels- und Wirtschaftsmetropole Nürnberg in der frühen Neuzeit (1550–1630), in: Bernhard Kirchgässner/Hans-Peter Becht (eds.), Stadt und Handel. 32. Arbeitstagung in Schwäbisch Hall 1993, Sigmaringen 1995, pp. 63–81, at p. 80.

<sup>27</sup> At the same time this was a mirror of the free city's financial position: the debts of the city had risen from 1.8 million at the start of the war to a total of 7.5 million, of which the Emperor alone had received about 1.2 million guilders as war contribution; Rudolf Endres, Endzeit des Dreißigjährigen Krieges, in: Gerhard Pfeiffer (ed.), Nürnberg – Geschichte einer europäischen Stadt, München 1982, pp. 273–279, at p. 278f.

Banco Publico, were unsuccessful because of the city council and the bank administration itself. For comparison, in Hamburg all the banking transactions were done without any fee, and, therefore, the bank much more attractive to the merchant-bankers as it was in Nuremberg. Whereas in Hamburg the banking business had been restructured several times during the seventeenth century to meet the requirements of the time, it took Nuremberg much too long to accept multiple endorsements (1700), which made the function of the Banco Publico in the cashless payment system superfluous. At the latest since the 1740s the Nuremberg Banco Publico was seen as 'backward' and as an obstacle for the further development of the city's economy, not at least because it was not in the capacity, due to its ever declining financial reserves, to guarantee the stability of the city's currency. The Banco Publico thus became so to say the incarnation of a lasting financial crisis in Nuremberg. Thus naturally, the Banco Publico was incapable of organising a 'crisis management', especially since the acceptance of this institution as a clearing centre for the cashless payment system of merchant-bankers dwindled increasingly in the eighteenth century and the number of transactions executed outside of the Banco Publico continued to rise despite the threat of high penalties. Not the institution that was originally created to this end, the Banco Publico, overcame 1764/65 the monetary crisis that had smouldered for decades in Nuremberg, but the city council did, by introducing the guilder Konventionskurant, which was the current money in most adjacent South-German territories, as currency of the free city and as bank currency. Thus, the Banco Publico lost its currency policy function and its last function as 'central bank' for the free city. For the remainder of its existence until the late 1820s, the bank continued to function as the public bank of the city. But it no longer operated as a central bank, because it had given up its independent currency policy in currency reforms of 1764/65.

Whereas in the older literature the slowly declining loss of significance of the Banco Publico is commonly seen as the mirror image of Nuremberg's dwindling economic power, the flourishing of the Bank of Hamburg is seen as a sign of the growing economic importance of the Hansecity in the trade and payment transactions of North-West Europe as a whole. After the foundation of the bank and Hamburg's role during the Thirty Years War as a financial intermediary for Sweden, cashless payments at Hamburg were institutionalized and safeguarded by the existence of the public bank. She could now advance to become one of the most important exchange markets of the Empire, as well as Europe in general.<sup>28</sup>

The Hamburg Bank provided a crucial stabilizing mechanism for the city's currency and monetary matters – similar to the cases of Amsterdam and Venice – until the demise of Hamburg's own currency in 1875. The statutes of the Hamburg Bank fixed the exchange rate of her internal book money (mark

<sup>28</sup> Markus A. Denzel, Handbook of World Exchange Rates, 1590 to 1914, Farnham/Burlington 2010, pp. 198–200; with more detail: Idem, Das System des bargeldlosen Zahlungsverkehrs europäischer Prägung vom Mittelalter bis 1914, Stuttgart 2008, pp. 169f., 206–210.

Banco) in terms of Lübeck Current Money from the start; one mark Banco was set at 1/3 Speciestaler or 8.66 grams of fine silver. This relation was retained even when the bank money from 1669 on exchanged against the current money at a variable premium or agio. Even though mark Banco was a virtual creation and never circulated in the shape of coins, this keeping and adhering to a traditional currency in terms of nomenclature and structure provided some sort of stability in the long run, as from now on the local means of clearing and settling of accounts remained fixed and stable - one mark Banco was always worth 8.66 grams of silver. It thus had become independent of current monetary circulation. Accounts and balances could always be settled using a means of exchange whose silver content remained constant and unaltered over time. If drafts were honoured and outstanding balances redeemed in underweight current money - or at face value in times of credit extension some problems would nevertheless occur, as during the monetary conflict between Hamburg and Denmark, 1717-1736, or the aftermath of the financial crises of 1755 and 1763. The first fundamental reform of that system came in the wake of the financial crisis of the 1760s, when loans made by the bank were put under the supervision of the Chamber of Commerce (the representative body of the resident native Hamburg merchants), even though the Bank continued to be called on for large loans and credits made to the City Council of Hamburg. Moreover, the Bank began to accept silver bars as deposits from 18 January 1770 onwards. This was a reaction on the financial disturbances of 1755 and 1763. When, from 8 July 1790 on the Bank would only accept fine silver for deposits, the old Species currency was gradually replaced as a means of backing and a pure silver currency was introduced. From 1780 the exchange rate of the mark Banco had been fixed at 27¾ mark (Banko) against the mark fine weight, which was still close to the traditional relation of 27 5/8 mark Banco against the mark fine silver. Thus the Hamburg currency was stabilized in a way that it even survived the crises of the Napoleonic era.<sup>29</sup> The long project of stabilizing Hamburg's currency and monetary system according to the needs of an increasingly globalized trade that had commenced during the eighteenth century was finally and fully accomplished during the later eighteenth and the nineteenth century. In this way, from a monetary policy perspective, the Bank of Hamburg completely fulfilled the functions of a central bank.

So, by the provision that all deposits into the Bank of Hamburg had to be made in silver and all financial transactions that were made through the Bank were implicitly based upon a silver standard, Hamburg attained a larger significance as a silver market. The amount of silver deposited at Hamburg grew so large after the reforms of 1770, 1780 and 1790 that Hamburg's importance as a northern European silver market was only topped by Amsterdam. This silver trade comprised, on top of the

<sup>29</sup> Cf. Konrad Schneider, Hamburgs Münz- und Geldgeschichte im 19. Jahrhundert bis zur Einführung der Reichswährung, Hamburg 1983; Olaf Schmidt, Bankwesen und Bankpolitik in den freien Hansestädten um die Mitte des 19. Jahrhunderts, Frankfurt/Main 1988.

trade in raw silver or bar silver, also the exchange business in the larger coins of their time that were used in international trade and payments.

Because of its extensive reserve funds, which eighteenth-century Hamburg could secure thanks to trade growth and increasing influx of precious metals, Hamburg had better options for crisis management as Nuremberg, even though more limited than those of the Amsterdam Wisselbank or the Bank of England. However, even in Hamburg, 'crisis management' did not mean an active intervention to solve a financial crisis, but rather a restrained reaction in the background so as to exert a stabilising influence on the current financial and economic situation. Such was the case in the international trade and commercial crisis at the end of the Seven Years' War (1763), which developed at least in Berlin, Hamburg and Amsterdam into a massive financial crisis.<sup>30</sup> In 1799 as well, during the so-called Hamburg trade crisis, that was caused by the flooding of the Hamburg market with unsold goods, was clearly sharpened by the simultaneous stock exchange speculations and grew into a financial crisis. These financial crises that were invigorated by stock exchange markets were 'only' crises of (cashless) payment transactions and thus of international credit, which had become insufficient due to the insolvency of singly merchant and banking houses. But because of the bank's policy of a stable currency they did not become crises of public finance as a whole or currency crises. Again, this becomes clear in the example of the trade and financial crisis of 1763, which led to the bankruptcy of 97 merchant houses in Hamburg, but did not have lasting consequences for the Bank of Hamburg.

However, public or 'central banks' could not only act in the sense of 'crisis management', but also cause or reinforce financial crises, and this could broadly be reduced to organisational failure and missing financial back-ups of these banking institutions. The case of Nuremberg shows that the incapability of the Banco Publico and the unwillingness of the city authorities to reform largely contributed to its dwindling acceptance among merchants and its belittled significance for the development of trade and the economy of the city. But even in seventeenth-century Hamburg the institutional inadequacy could play a considerable role, as it may be shown by a comparison between the Bank of Amsterdam and the Bank of Hamburg during the financial crisis of 1672. After France had attacked The Netherlands in the Franco-Dutch War of 1672–1678), the public feared a run on the Amsterdam *Wisselbank*, which however, was able to deal with the general abolition of its deposits thanks to its enormous reserves; this in turn even strengthened the good name of the bank.<sup>31</sup>

<sup>30</sup> Stephan Skalweit, Die Berliner Wirtschaftskrise von 1763 und ihre Hintergründe, Stuttgart 1937; William O. Henderson, The Berlin Commercial Crisis of 1763, in: The Economic History Review new ser. 15/1, 1962, pp. 89–102.

<sup>31</sup> Helma Houtman-de Smedt/Herman Van der Wee, Die Entstehung des modernen Geld- und Finanzwesens Europas in der Neuzeit, in: Hans Pohl (ed.), Europäische Bankengeschichte, Frankfurt am Main 1993, pp. 73–173, at p. 131; Johannes Gerard van Dillen, The Bank of Amsterdam, in: Idem (ed.), History of the

Contrastingly, in Hamburg, the bank was closed for six months as a precaution, even though no danger of insolvency existed. Alone the request of the Dutch Envoy von Amerong of the 24<sup>th</sup> of May 1672 to pay him 120,000 rixdollars from the bank in anticipation of the expected assignations of 200,000 rixdollars, was a sufficient reason for taking this measure.<sup>32</sup> Insufficient financial reserves and lacking institutional stability of the bank itself required such a drastic decision, which in the eighteenth century in a similar situation no longer would have been necessary or taken into consideration.

#### CONCLUSION

After their highly successful initial phase, the development of both public banks with the longest history in the Holy Roman Empire ran in opposite directions: In Hamburg – not at the least as a result of several reforms – an institution was developed, which lent stability to the local currency, the merchants' payment system and finally to the entire urban economy. This institution contributed to the commercial success of Hamburg as Germany's most important port and was held in high esteem internationally and by local Hamburg merchants alike. In Nuremberg, the city's Banco Publico and its responsible parties usually guaranteed the stability of currency<sup>33</sup> and an 'organised' cashless payment system, but in the later stages of its existence it no longer provided positive impulses for the development of the urban economy. On the contrary, the Banco Publico gradually lost its central-banking functions, first with the introduction of multiple endorsements in the cashless payment system (1700), then after the introduction of the *Konventionskurant* for the stabilisation of the local currency (1764/65), so that at the latest during the last decades of the eighteenth century merchants regarded the bank as obsolete.

Background for these diverging development paths were the clearly different factors that were responsible for the success of the public bank in Hamburg and the limited success of the Nuremberg Banco Publico: Nuremberg clearly suffered from prerequisites and external conditions worse than in Hamburg, which negatively influenced the success of its Banco Publico. Insufficient reserve funds, related with massive organisational inefficiencies constituted the background for the long-term failure of the Nuremberg *Banco Publico*. The example of Nuremberg shows, like no other, how the organisational weaknesses of an institution, together with the reluctance to reform of its responsible parties, could cause a lasting financial crisis in the long run, thus contributing to the decline of a

Principal Public Banks, pp. 79-123, at p. 96.

<sup>32</sup> Cf. Manfred Pohl, Hamburger Bankengeschichte, Mainz 1986, p. 23.

<sup>&</sup>quot;Garant für die Stabilität waren der Banco selbst und das in ihn gesetzte Vertrauen der Kaufleute. Das unterwertig ausgeprägte Münzgeld verlor damit automatisch an Bedeutung. Es war deshalb in der Zukunft bei weitem nicht mehr so lohnend, sich durch Kippen und Wippen zu finanzieren, da nunmehr weit weniger Bargeld benötigt wurde als in der Vergangenheit." Seibold, Viatis und Peller, p. 267.

financial market. Nevertheless, the Nuremberg Banco Publico existed for more than 200 years and until the end of its time as a free city continued to be one of its significant financial institutions. The impact and significance of the Bank of Hamburg, however, went far beyond the city itself and was capable of carrying out in a much stronger way and for a much longer time than the Nuremberg Banco Publico several functions of a central bank, just like the Amsterdam Wisselbank and the Bank of England. At first, both banks limited their 'central banking'-functions to two areas: the guarantee of a regulated cashless payment system and the stability of the respective coinage or currency relations. In Hamburg, the former was achieved without limitations in the long run, whereas from the late seventeenth century, the merchants of Nuremberg tried to circumvent this 'service' of the Banco, because of its associated costs. The latter was successful at both locations insofar as Hamburg and Nuremberg developed bank currencies, in which transactions at the respective banks were settled. But by means of the accumulation of precious metals Hamburg was more efficient in the long-term stabilisation of its currency than Nuremberg, where the shortage of precious metals threatened the existence of the Banco several times and where the free city finally decided to abandon its own currency. Thus, from 1764/65 the Nuremberg Banco Publico can no longer be seen as the 'central bank' of the free city. In addition to the above-mentioned functions, the Bank of Hamburg was capable of stabilising its trade and economy in general during decisive crises situations. In the crisis of 1672, only the drastic measure of closing the bank was sufficient, which made the Bank of Hamburg far less 'superior' than the Amsterdam Wisselbank, but during the commercial crises of the second half of the eighteenth century the Bank of Hamburg functioned as a haven of stability. It came out of these crises without losses, indeed having become stronger, even though it is not yet possible to speak of active 'crisis management' at that time. The Nuremberg banco Publico, however, became, because of the reasons mentioned above, a part of the smouldering monetary and financial crises of the free city rather than being able to contribute to their overcoming.