Historical Monetary and Financial Statistics for Sweden

VOLUME 3

BANKING, BONDS, NATIONAL WEALTH, AND STOCKHOLM HOUSE PRICES, 1420–2020

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Introduction to Historical Monetary and Financial Statistics for Sweden, Volume III

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Introduction and background

This book is the third volume in the research project coordinated by Sveriges Riksbank, *Historical Monetary and Financial Statistics for Sweden*. The first volume, published in 2010, dealt with exchange rates, consumer prices, and wages from as far back as the Middle Ages to the present day. The second volume, published 2014, included chapters on historical house prices, real GDP, stock returns, and money supply from the seventeenth century onwards. In the present third volume, the series include a considerably extended property price index for Stockholm, private-sector bank balance sheets, primary bond market issues and bonds in circulation, and the national wealth of Sweden.

The Riksbank historical research project has compiled existing evidence and assembled new data. Its overall ambition has been to construct time series that are both consistent over time, as well as adjusted so as to fit – as closely as possible – the data definitions as applied today. There is a great difference between compiling contemporary statistics, for which data are often readily accessible from the internet, and historical statistics, for which the availability of data is much more problematic and often requires considerable in-person archive work. Linking long-run time series requires not only an understanding of the economic importance of whatever phenomena are at hand, but also a thorough knowledge about the relevant historical circumstances during which the data were generated. Needless to say, both aspects create great challenges for the researchers when compiling the series.

History offers economists and others an opportunity to study the roots of today's economic and political institutions as well as make specific inquiries into events that resemble our current developments but in a different context. Having comparable series that span extensive time periods enables analysis of a number of important issues. For example, understanding the relationship between money supply and inflation or detecting specific long-run patterns in the macro economy require consistent and comparable data across time periods. Economic forecasting can also be based on consistent historical series which go a long way back in time and not only the last 10–15 years. Moreover, our comprehension of the causes and effects of financial crises arguably rely on historical analysis, e.g., by comparing the course of events leading up to the Great Depression around 1930 and the recent financial turmoil starting in 2007.

It is our intention that the series generated within this project will not only be used in academic research. People working with policy analyses, or perhaps journalists wanting to draw conclusions from historical comparisons, as well as teachers and students at universities and high-schools, should find much useful material here. In order to make the database accessible to as many as possible, all data and data descriptions presented in the three volumes, as well as additional material used to construct the series, are freely available on the website of the Riksbank.[1]

There are similar historical projects that compile long-run monetary and financial statistics within the central bank sphere. An important source of inspiration for the Riksbank project is and has been the pioneering work at Norges Bank, the central bank of Norway, which to date has produced two volumes presenting new macroeconomic historical evidence on prices, money, banking statistics, interest rates, exchange rates, property prices, and GDP for Norway (Eitrheim, Klovland and Qvigstad 2004, 2007). Currently, the Norges Bank project is finalizing a third volume in the series, entitled *Historical Monetary and Financial Statistics for Norway*. More recently, the Bank of International Settlement (BIS) has initiated a working group for the purpose of enhancing central banks' efforts in the collection and production of historical monetary and financial statistics. The working group – with members representing close to a dozen central banks world-wide – aims to provide methodological contributions towards best practice for historical statistics, as well as a coordinated stock-taking of available data. In the near future, two working papers reflecting these themes will be released as a result of the initiative: Borio, Eitrheim, Flandreau, Jobst, Qvigstad, and Thomas (2022) and BIS (forthcoming). Among the BIS working group participants, two central banks can be mentioned. The Danish Nationalbanken has documented prices and wages in Denmark from the Middle Ages and forward, as well as Danish national wealth from the mid-1800s as prominent examples, (Abildgren, 2016, 2017). The Bank of England presents historical databases with impressive coverage and depth, see Thomas and Dimsdale (2022) and Bank of England (2022). However, interesting and important work in historical sta-

1 The database address is http://www.riksbank.com/research/historicalstatistics (English version) and http://www.riksbank.se/forskning/historiskstatistik (Swedish version).

tistics is also carried out in many other central banks. All for the benefit of future economic research and policy analysis.[2]

Why would the Riksbank undertake the responsibility of constructing a new publically accessible database for historical monetary and financial statistics? There are several good reasons. First, building and maintaining a scientific database is a public good that individual researchers cannot be expected to provide. As scholars regularly tend to move on to different places or topics, the continuous work which is necessary in order to maintain a scientific database may prove difficult to uphold on an individual basis. In contrast, a public institution is better suited to run a database and, in the context of a monetary database, the Riksbank represents perhaps the most natural "focal point" for the research community. Second, the Riksbank has already long-standing traditions in taking an active part in promoting the Swedish monetary and financial system, as well as gathering information about it. The Riksbank – arguably the world's oldest central bank, founded in 1668 by the Swedish Parliament – has played a central role in the monetization of Sweden.[3] Moreover, in the 1920s, the Riksbank initiated a research project very similar to the current one. Although the older project was mainly aimed at documenting the history of the bank, a considerable part of the undertaking was the assembly of historical monetary and financial statistics, including long-run series on prices, interest rates, exchange rates and bank balance sheets (Sveriges Riksbank, 1918–1931). A fourth reason for why the Riksbank should take responsibility for a project like this as that it continues where the Bank of Norway started, extending the work towards an extensive international historical statistical database. As noted above, the early Norwegian efforts have been followed by central banks in other countries, running projects with similar aims and to a considerable degree under the guidance of the BIS working group.

Contents of the volume

The eight Chapters 2 to 9 in this volume present novel time series collected exclusively for this project. In all chapters, readers are offered a careful description of how the series were constructed, addressing the specific nature of the historical source material, as well as the influence of contemporary surrounding institutions on the measured economic activities.

Chapters 2 and 3 present statistics on the Swedish commercial banking system and its predecessors. There were early variants of private banks and bankers that offered depositing and lending services in the latter half of the eighteenth century.

2 Earlier academic contributions to the literature on historical monetary statistics include e.g. Friedman and Schwartz (1963) and Cagan (1965) on the United States, Jonung (1975) on Sweden and Capie and Webber (1985) on the United Kingdom.

3 One can, of course, discuss whether the Riksbank was the first central bank in a modern sense. The Bank of England was established later, in 1694, but carried out more central bank-like practices such as being lender of last resort before the Riksbank did (Brisman, 1918).

The first savings banks came in the 1820s and the first commercial retail banks came a decade later. A particular feature of the Swedish private commercial banks of the nineteenth century was that they were granted the right to issue banknotes, which means that their private money constituted an important part of Sweden's monetary stock until the Riksbank's formal monopoly as note-issuer was instated in 1904. During the twentieth century, the Swedish banking system developed to become a more homogenous system. Agrarian banks, mortgage associations and thrifts gradually went out of business or were incorporated into the savings or commercial banks. By the end of the century, the organizational developments had continued to change the Swedish banking system. In the 1990s, foreign banking companies were allowed to set up businesses in Sweden and the rules for chartering banks were relaxed to open up for other financial firms, and even some non-financial companies, to set up banks in Sweden. Since the beginning of the twenty-first century, new financial technology firms have started offering bank services in ways that will change the banking industry even further.

Chapter 4 deals with the evolution of the Swedish bond market from the 1830s to the present day. The chapter presents newly collected data over aggregate amounts of new bond issues and bonds in circulation, covering the universe of Swedish bonds issued by the government, municipalities, different kinds of financial institutions, and corporations. The series cover both domestic debt issued to Swedish investors and denominated in Swedish kronor, and external debt issued to foreign markets and denominated in foreign currency. In the nineteenth century, bonds were initially a way for farmers to attract funding through mortgage association bonds issued mainly in Germany. The state soon became a dominant bond issuer later in that century. First, the purpose was to finance the state-led railway expansion, and later in the twentieth century, bonds have been used to fund military armaments, especially during the World Wars, and later to finance the welfare state. Municipalities have used bond financing to fund larger investments as well as welfare-related expenditures. Looking at private-sector bond issues over the past two centuries, financial institutions, mainly banks, have used bonds to fund their lending, in recent decades in the form of mortgages. Corporations used bonds to finance their investments up to the interwar era, then stopped doing so due to the tightening of post-war regulations, but have again started issuing bonds on a larger scale since the 2000s.

Chapters 5 to 8 jointly present a new historical house price index for Stockholm covering a 600-year period from the late Middle Ages until today. Chapters 5 to 7 are chronological and each covers data and data sources for a particular sub-period, chosen on the basis of the specific circumstances that prevailed in that period, but then changed over time.

Chapter 5 presents the database on property sales in Stockholm from the late Middle Ages up to the year 1600. Throughout this entire period, Stockholm remained a small town with fewer than 10,000 inhabitants. The earliest records of house prices are from 1283, however it is only from 1420 and onwards that sufficient price notations are observable to enable reasonably accurate inference on averages, hence that year has been chosen as the starting point for the full period index. The chapter discusses how Stockholm prices varied over time, and in comparison with prices for the town of Arboga, as well as price developments across various house types. It is shown that both stone and wooden houses became cheaper over time when nominal values are deflated by the Consumer Price Index. A plausible explanation is that falling wages may have pushed down construction costs.

Chapter 6 covers data and data sources for the period 1600–1726/1730, but presents an index construction for a longer period, namely 1420–1730, thus including the data presented in Chapter 5. Prior to 1726, no information exists on the exact location of sold properties, therefore the so-called repeated sales method cannot be used. For the early period, 1420–1730, we instead present a hedonic price index, where quality is controlled for by differentiating between various types of houses. The population of Stockholm increased rapidly in the 17th century and the city expanded geographically. In order not to bias the index construction by including properties that were transformed in their belonging from countryside to township, only observations of properties pertaining to the Old Town have been used for the period 1636–1730. The chapter shows that real prices increased substantially in the 1630s and 1640s, accompanying the rapid increase in the population of Stockholm. In the 1670s and 1680s real prices reached a peak. Prices then fell substantially in the 1710s, following wars and plagues. Although prices subsequently picked up again in the 1720s, real prices remained below the levels reached in the 1670s and 1680s.

Chapter 7 presents an index for the period 1730–1875. Since we can identify the geographical location for most of the sold properties in this period, the so-called repeated sales method has been used for the index construction. This method is also applied for the overlapping years of 1726–1729, thereby allowing for a comparison with the results using the hedonic price index approach. The chapter shows that real prices stagnated during most of the studied period, which reflected a general stagnation in the population numbers. Thus, this was a period quite in contrast with the more dynamic developments of the 17th century discussed in Chapter 6. Towards the middle of the 19th century, real prices started to increase, again accompanied by demographic expansion as well as economic growth and liberal reforms.

Chapter 8 provides a summary of house price developments during the full time period, i.e., an index for 1420–2021. This chapter also includes a discussion about the period after 1875 up until the present day, previously covered in the second volume of the series. A comparison of alternative approaches and methods used for the construction of indices for various periods is provided. The very long time period covered enables fruitful identification of extended periods of upswings in property prices, and also the occurrences of the deepest downturns over time. Four secular upturns in real prices can be found: 1570/79–1670/79, 1710/19–1750/59, 1800/09–1900/09, and 1950/59–2010/19. All four upturns were initially rebounds from low price levels. The trajectory of real prices is similar to that of Paris from around 1500, while before that, Paris seems to have started from a lower level than Stockholm. The chapter also shows that a majority of downturns in real prices were accompanied by rampant inflation, while nominal house prices were prone to be quite stable.

Finally, Chapter 9 offers a detailed description of the assets and liabilities of the Swedish economy and all its sectors: the government, corporations and households, for the period 1810–2020. The chapter consists of two parts. The first presents basic facts on the historical evolution of Sweden's national wealth, as well as descriptions of earlier Swedish studies of national wealth, basic methodologies and measurement problems. The second part contains a set of appendices, which discuss details of the database, methodological considerations, further measurement problems and robustness checks. In the nineteenth century, Sweden was a poor, agrarian country that consumed most of its income and therefore was unable to accumulate capital on its own. Industrialization brought new opportunities for the country, raised income and boosted investments in productive capital. The twentieth century saw a steady wealth growth driven by both savings and capital gains. There was also an extraordinarily large growth of government wealth in the postwar era, precisely at the time of the most intensive expansion of the social democratic welfare state.

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