# The house price index for Stockholm 1420–2021

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## Introduction

Following the global financial crisis 2007, the interest in real estate prices and their possible effect on the macroeconomy soared. In light of the rapidly growing prices in Stockholm and many other cities during the last 30 years, many researchers have turned to history for lessons on financial instability. However, it has been argued that the existing house-price series are often too short to be useful for researchers. As Jordà, Schularick and Taylor (2015) note: "Financial crises and asset-price boom-busts are relatively rare events. Thus, any empirical study must employ very long time series and the historical experience of more than one country to have any hope of conducting a reasonable statistical analysis".

The trading town of Stockholm was founded on an island in the middle of the 13th century. In fact, it is situated where Lake Mälaren still flows into the Baltic Sea. Today, it is called the Old Town of Stockholm and its pre-industrial buildings and narrow, well-preserved alleys attract tourists from all over the world. Since the Old Town is still surrounded by water, it is sometimes referred to as the town between the bridges. The location for a pre-industrial export harbour was practical since it was risky to take ships through the strong currents. It was a place that simply was perfect for trans-shipping.

This chapter presents an overview of the development of Stockholm's real estate prices from 1420 to 2021. It summarises the results from the three studies in the present volume, which present new price indices for the periods 1420 to 1630, 1630 to 1730, and 1730 to 1875. Furthermore, it links together all these indices with already existing ones that cover the periods 1875 to 1957, 1957 to 1975, and 1975 to 2021, respectively. In addition, we have also gathered a few sporadic sources on sales back to 1283, only a few decades after the founding of Stockholm, which can give a very rough idea of the price level before and after the Black Death. Together, they form some of the longest existing real estate price indices in the world.

With this study, we can assess for the first time the trajectory of house prices in Stockholm over almost the full history of the city. This will not only give us new

insights into Stockholm´s economic history but will also be an important source for researchers seeking to include historical real estate prices as a variable in any future studies. Only a few high-quality real estate price series stretching back to the 1800s still exist, and there are even fewer going further back than that. There is therefore a need for studies like the present one to improve our knowledge of historical price developments.



*The Blockmakers House, at Södermalm in southern Stockholm, was built in the early eighteenth century. Over the years, it was housed by craftsmen and poor persons.*
*Source:* https://stockholmskallan.stockholm.se/post/3544

## Comparing source material and methods of the spliced index

To reconstruct a real estate price index for Stockholm up to the present day, several indices must be combined. The index presented in this book is based on the work presented in four chronological chapters written by eight authors. In volume 2, the period from 1875 is covered by Söderberg, Blöndal and Edvinsson (2014). In this volume, Franzén and Söderberg cover the period up to 1600, Aldman, Carlsson, Edvinsson and Franzén the period 1600–1730, and Carlsson, Edvinsson, Eriksson and Ingman the period 1730–1875 (including an estimate for the period 1726–1729 using the same method and sources as from 1730).

The index for the period after 1875 presented in Söderberg, Blöndal and Edvins-

son (2014) consists of one series based on primary data for the period 1875–1957, and earlier published series for the period from 1957 onwards.

For the period 1875–1957 two different methods are applied, both of which rest on the same dataset and are published in the same article (see also discussion in Edvinsson, Eriksson, and Ingman, 2020). In that study, the original repeated sales method was used. As can be seen in Figure 8.1, the repeated sales method produces a much more volatile index than the SPAR method. This is probably due to the small numbers of observations per year after the 1920s.

**Figure 8.1:** *Comparison of house-price indices constructed using different methods, nominal values, 1875–1957. 1875 = 100.*
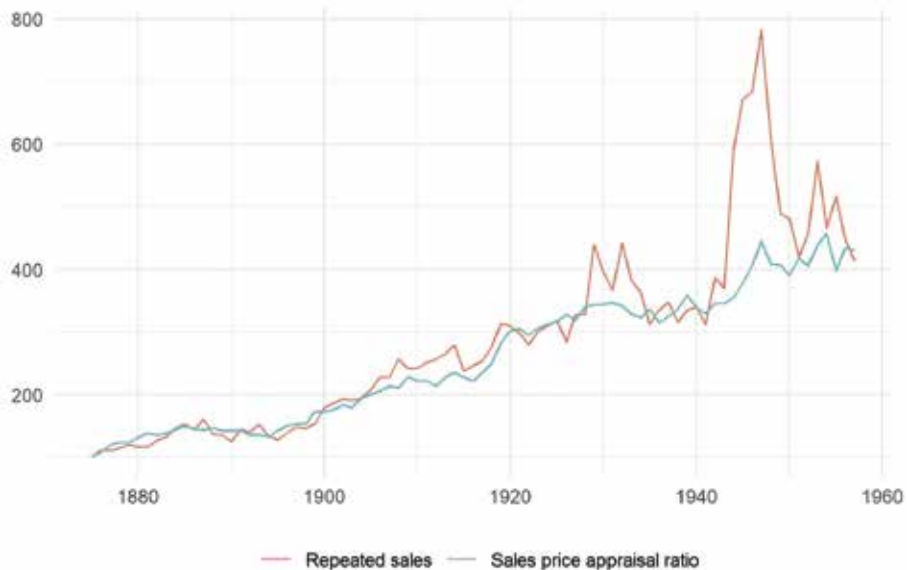


*Source:* Our calculations based on the material of Söderberg, Blöndal and Edvinsson (2014).

Because of the problem with volatility when constructing repeated sales indices with small samples, and because there has been no control for renovations or rebuilt houses for the index 1875–1957, the SPAR indices are preferred for the period 1875–1957. That series is linked to the series presented in the present study.

Real estate prices between 1957 and 1975 were initially compiled by Bo Sandelin (1977) and rests on data from Statistics Sweden. Sandelin also uses a sales price appraisals ratio, with the addition that he makes some adjustments to control for qualitative changes. The data can be found in Söderberg, Blöndal and Edvinsson (2014). From 1975 and onwards, housing-price statistics are available on the website of Statistics

Sweden. We use the Real Estate Price Index (in Swedish abbreviated as FASTPI) of Statistics Sweden, which rests on prices of sold properties combined with information about the whole housing stock. We follow Söderberg, Edvinsson and Blöndal (2014) and use the index for permanent single-family houses instead of apartment buildings. That is because rent regulations probably pushed down the prices of apartment buildings, so that prices of single-family houses better reflect the market price.

The combination of different indices means that the geographical boundaries are different between periods. From 1730 to 1957, only houses bought and sold within today´s inner city of Stockholm have been used. The index from 1957 to 1975, covers the city of Stockholm. This means that some of its suburban areas are included. From 1975 to 2021, we use data for Stockholm county, meaning that both the inner city and its suburbs are used. As almost all single-family houses today are located outside the inner city of Stockholm, the index 1975 to 2021 rarely include information about inner city dwellings.

**Table 8.1:** *Linked indices, 1283/1420–2021.*

| Period | Method | Coverage | Sources |
|---|---|---|---|
| 1283/1420–1630 | Hedonic | Old Town and its vicinity, all properties | *Stockholms stads tänkeböcker* ["Memory Books"]; Stockholms stads jordebok ["Land book of Stockholm"] |
| 1630–1650 | Following price of half-timbered houses only | Old Town, only half-timbered houses | *Stockholms stads tänkeböcker* ["Memory Books"]; *Brända boken* ["Burned Book"] |
| 1650–1730 | Hedonic | Old Town, all properties. | *Stockholms stads tänkeböcker* ["Memory Books"]; *Sekreterarens protokoll* ["Secretaries minutes"] |
| 1726/1730–1875 | Weighted repeated sales | Inner city, all properties except those sold in parts | *Uppbuds- och lagfartsprotokoll* ["Legal and Procurement protocols"] |
| 1875–1957 | Sales price appraisals ratio | Inner city, all properties registered April–December | *Stockholms adresskalender* ["Address Calendar of Stockholm"] |
| 1957–1975 | Sales price appraisals ratio | The municipality of Stockholm | Sandelin (1977). |
| 1975–2021 | See underlying source of FASTPI | Stockholm county | Statistics Sweden (2022), *Statistikdatabasen; Mäklarstatistik* (2022). |

As can be seen in Table 1, the geographical coverage of the individual price series is not the same. The main reason behind this is that Stockholm has grown over the last 700 years so its geographical borders have expanded. First via the islands surround-

ing the Old Town (*Gamla stan*), and later, during the twentieth century, across today's suburban areas outside the inner city. As this study aims to investigate price changes in a city, one cannot use the present borders of Stockholm county when studying the period before 1900 as that in practice would have meant that our sample, to a large degree, would have consisted of rural properties. On the other hand, one does not want to narrow the borders so much that observed changes might not be generalisable to the city as a whole.

The studies presented here have up until 1726 concentrated on the Old Town. The reason behind this is that the parts of the inner city that today are located outside the Old Town to a large extent were unexploited or only had smaller wooden houses built on them. From 1726 up until 1957, the index covers the inner city of Stockholm, i.e. Norrmalm, Södermalm, Östermalm, and Kungsholmen. After 1957, series from the official statistics are used and they cover Stockholm with its suburbs that began to grow during the first part of the twentieth century. This way, our indices roughly exclude parts that for the time period studied cannot be considered part of the city, but rather were rural areas. For the period before 1630, the vicinity of Stockholm is included, but the properties of the Old Town dominated.

## The long-term perspective

Figure 8.2 presents the spliced housing-price index from the Middle Ages to the present day deflated by the Consumer Price Index and wages, respectively. For the period 1420–2021, the index is based on frequent observations, which is why we put the start year at 1420. The figure also includes estimates based on the few observations that exist for the period 1283–1419. Deflation by the Consumer Price Index indicates how much the property cost in terms of consumer goods and services. However, in the 20th and 21st centuries real wages increased continually, i.e. an hour worked could buy ever more of these consumer goods and services. Deflation by wages, therefore, indicates how expensive the property was in terms of how much a labourer need to work to purchase it. The wage series is spliced using different wages in different periods.

It should be emphasised that what the index actually follows over a very long time is difficult to interpret, but this also relates to the index for the last decades constructed by statistical offices. The index follows some kind of constant quality, but this should not be mixed up with a square-meter price, given that the quality of a square meter can also change. It is likely that quality per square metre increased over time. For example, in the medieval period, the price of a square metre located in a stone house was higher than in a wooden house. In the Old Town, wooden houses disappeared during the course of the 16th and 17th centuries, and were replaced by stone houses, which means that the average quality per square metre most likely increased. During the 20th century, there were substantial improvements in the quality of housing.

*Part of a drawing of Stockholm picturing Old Town from 1630s. The drawing was discovered at an auction in 2009 where it was erroneously stated that it portraited Brussels.*
https://stockholmskallan.stockholm.se/post/19301

It is from 1420 that more frequent data exists, allowing the construction of an index per decade. However, there are also a few recorded sales before 1420, six in 1283–1349, i.e. occurring before the Black Death, and eight 1350–1419. In 1283 two yards in Stockholm were sold, that yielded 20 mark penningar per year (SDHK 1243). Assuming a rental income of 5 percent, which was prevalent in the Middle Ages, this means that the two yards were valued at 400 mark penningar. Concerning the year 1297, we have evidence in the form of a price in Stockholm in a charter telling us the value of 10 Swedish mark for a yard situated at Norrmalm (SDHK 1734).

Although Stockholm was founded in mid-13th century, there were other towns before that period located within the present borders of Stockholm county. In the early Viking age of what was to become Sweden, in the middle of the 8th century, the very first town was founded with a clear plot division on the island of Björkö, from which it took its Latin name Birka, located in Ekerö municipality (which is part of our index from 1975 onwards). Birka had 700 to 1,000 inhabitants. Around the year 830 Birka was visited by Ansgar, a Christian missionary sent out by the Carolingian emperor. According to his biography, *Vita Anskarii*, Ansgar bought a plot in Birka for a parsonage (Rimbert 1986, p. 56). The exact location of that building ground has not yet been determined by the archaeologists in their ongoing research on Björkö. However, this seems to be the first recorded purchase of landed urban property in Swedish economic history, although no information on the price is provided by the source.

The 12 sales recorded for Stockholm in 1283–1419 indicate that prices probably

were not lower in the first period of the development of Stockholm. In fact, before the Black Death, real prices may have been higher than for the next three centuries, reflecting the demographic decline that followed the Black Death. Between the 1420s and 1530s, the real housing price index was quite stable, with a slight declining trend.

Very roughly, the trajectory of the real housing price index can be described as the movement between long periods of stagnation or slight decline and shifts upwards between such periods. The periodisation of the shifts upwards depends on which criteria are used. However, we can roughly identify three periods of relatively stable real prices:

- **Period 1: 1420–1624**. The geometric average of the real housing price index was 58 (i.e. 42 percent below the level in 1730 given that the index is set to 100 in 1730), with a maximum of 83 in the 1430s and minimum of 23 in 1575–1579. Before 1420, the few cases of sales that we have gather indicate a somewhat higher level. During the reign of Gustav Vasa (roughly the Henry the VIII of Sweden), and continuing after his death in 1560, there was a decline in real prices, reaching a low point in the 1570s. However, by the 1580s real prices rebounded to a level slightly below the level reached in the Middle Ages.

- **Period 2: 1655–1814**. The geometric average of the real housing price index was 128, i.e. more than twice the average level in 1420–1624. As discussed in chapter 6, there was an upswing in real housing prices from the 17th century, reflecting the rapid growth of Stockholm. However, during the Great Nordic wars, there was a substantial decline in prices, followed by a recovery during the 1720s and 1730s.

- **Period 3: 1875–1999**. The geometric average of the real housing price index was 511, i.e. four times the level in 1655–1814. As discussed in chapter 7, there was a long upswing in real housing prices during 19th century, which is comparable in magnitude to the long upswing in the last decades. In 2020–2021 the index stood at 1907, i.e. almost four time the average in 1875–1999 – whether this level will be the beginning of a fourth period of stability can, of course, only be determined in the future.

The series deflated by wages displays a similar evolution up to the mid-19th century. However, afterwards there was a substantial deviation. While, the real housing price index indicates that prices in 2000 were slightly higher than in 1900, the index deflated by wages displays a substantial decline. The difference is explained by rising real wages in this period, which made housing much more affordable than in the 19th century. In fact, housing prices deflated by wages in 2021 was less than one fourth of the level in 1860s, and only slightly above the level in the 15th century. This is, however, not the square metre price, and it may be suspected that the quality per square metre has increased over time.

**Figure 8.2:** *The house price index of Stockholm deflated by CPI and wages, 1420–2021. 1730 = 100.*
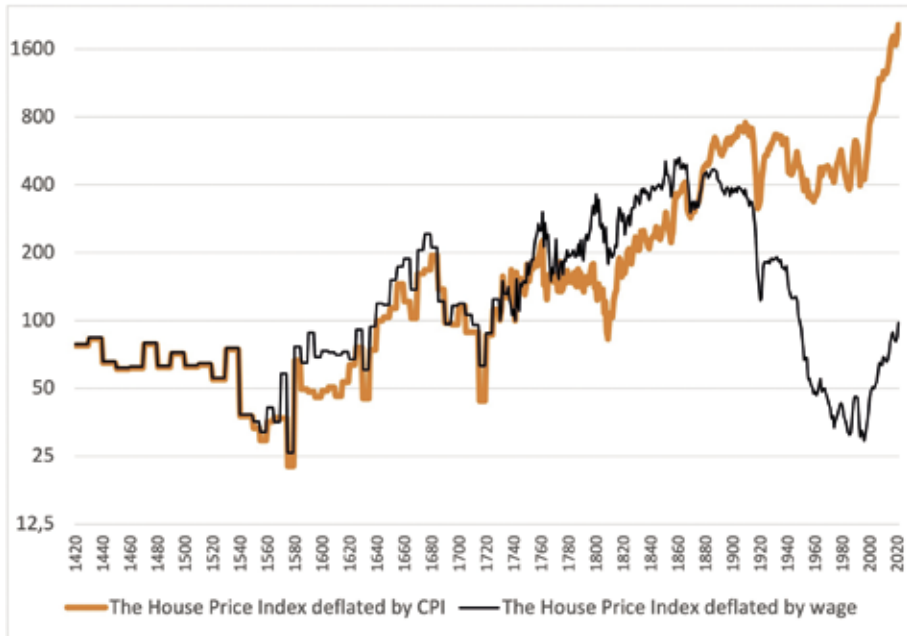


*Source:* Housing price index: This book, Söderberg, Edvinsson and Blöndal (2014). Consumer Price Index: Edvinsson and Söderberg (2010). Linked wage index: Söderberg (2010) – day male worker, Prado (2010) – male industrial worker, Statistics Sweden (2022) – whole business sector. Our calculations.

## The largest falls in real housing prices

Table 2 presents the 10 largest falls in the real housing price index. These are kind of medium-term crises, given that only geometric average of 5-year periods after 1550, and 10-year periods 1420–1549, are compared. Crises followed various types of macroeconomic shocks, although the exact causal mechanism is not investigated here.

**Table 8.2:** *The 10 largest declines in the real housing price index during a 10-year period over 10-year periods from 1420 to 1549 and 5-year periods from 1550 to 2019.*

| Period | Real housing price index, change (%) | Inflation (%) | Nominal housing price index, change (%) | Context |
|---|---|---|---|---|
| 1705/09–1715/19 | −50 | 124 | 11 | Great Nordic War 1700–1721. Spread of coin tokens, which were devalued by 50 percent in 1719. |
| 1680/84–1690/94 | −50 | 14 | −43 | Harvest failure in 1693. Stockholm's population declining. |
| 1530s–1540s | −49 | 49 | −24 | Few recorded sales in 1530s, which makes the result uncertain. Silver inflation. |
| 1905/09–1915/19 | −41 | 94 | 15 | World War I. Suspension of gold standard in 1914. |
| 1625/29–1630/34 | −41 | 81 | 7 | Copper coin inflation |
| 1565/69–1575/79 | −39 | 296 | 142 | Northern Seven Years' War 1563–1570. Älvsborg's ransom paid in 1571. Debasement of coins: 1 mark of better coins exchanged for 6.5 marks of debased coins in 1575. |
| 1795/99–1805/09 | −34 | 75 | 16 | Finnish War 1808–1809. Sweden lost Finland to Russia. Suspension of the convertibility of Riksbank notes in 1808. |
| 1945/49–1955/59 | −31 | 51 | 5 | Inflation. Post-war regulations. |
| 1655/59–1665/69 | −29 | 19 | −16 | Stockholm Banco suspends convertibility of notes in 1664 due to bank run, and restructures as Sveriges Riksbank in 1668. |
| 1930/34–1940/44 | −29 | 43 | 2 | 1930s crisis and World War II. |

A majority of the crises were accompanied by rampant inflation. In fact, during 7 out of the 10 crises nominal housing prices actually increased. This indicates that a major explanation of drastic decreases in the real housing prices is inflation. Nominal housing prices especially in the pre-industrial period were prone to be quite stable, and sudden depreciation of the currency could depress real housing prices for several years. Historical evidence may suggest that inflation and wars are more of a threat to the value of housing than financial crisis, even if the financial crises of 1907, early 1930s, early 1990s and 2008 were accompanied by declines in real housing prices. A majority of the crises happened during or after wars, which were accompanied by monetary instability.

The largest decline occurred at the end of the Great Nordic Wars. Coin tokens that came to dominate money supply were in circulation, quickly leading to inflation, until they were devalued by 50 percent in 1719. While real housing prices declined by

50 percent between 1705/1709 and 1715/1719, nominal prices actually increased by 11 percent. This example underlines how important it is to deflate nominal prices in order to arrive at a more accurate picture of real economic conditions over time.

A decline of equal magnitude occurred in the early 1690s. This was also, in contrast to the other crises, a very substantial decline in nominal housing prices. Real housing prices reached a peak in the 1680s, and the population of Stockholm started to decline. The 1690s experienced several severe harvest failures.

While real housing prices were quite stable during the Middle Ages, and up to 1530s, during the period 1540–1579 they reached a much lower level, a period characterised by inflation (Edvinsson, 2010). First there was silver inflation, i.e. silver lost its purchasing power, which was followed by debasement, i.e. that the silver content of coins was lowered. In the 1540s, real housing prices were halved compared to the 1530s, although this is uncertain since we only have data on a few sales in the 1530s, which may distort the result. During the Northern Seven Years' War 1563–1570 and its aftermath, Sweden suffered from rampant inflation, due to the deterioration of the silver content of the mark silver coin. By the 1570s a low point was reached in Stockholm's real housing prices, reaching less than half the level of the late Middle Ages, this despite some apparent population growth. One important factor could be the declining real wages during the 16th century.

While housing prices started to increase in the 1620s, following the increase in the population in Stockholm, there was a setback in the early 1630s. While real housing prices declined by 41 percent between 1625–1629 and 1630–1634, nominal housing prices increased by 7 percent. The discrepancy can be explained by the introduction of the copper standard in Sweden in 1624 (Edvinsson, 2010). Initially, one daler in copper coins was set equal to one daler in silver coins, but towards the end of the 1620s, copper coins fell in value. In 1633, one daler in silver coins was set equal to two daler in copper coins.

Two of the major setbacks to the real housing prices in the 20th century occurred during the two world wars, despite Sweden not participating in these wars. Inflation followed the suspension of the gold standard.

## The largest falls in nominal housing prices

For the period after 1730, our dataset also allows the investigation of more short-term crises in housing prices. The four largest declines in nominal housing prices all occurred during periods of anti-inflationary policy:

– The largest decline, by 39 percent, occurred between 1765 and 1769. This followed the deflationary policy of the time to reintroduce the silver standard at the old exchange rate (Edvinsson, 2010). Since the Consumer Price Index fell by 37 percent, the real housing price index only declined slightly. The deflationary policy was a failure, the old parity between notes and silver coins had to be abandoned, and inflation resumed in the early 1770s.

- Between 1991 and 1993 nominal housing prices declined by 28 percent, which was the second largest decline since 1730. The crisis of the early 1990s is generally considered the worst financial crisis in Sweden. Sweden defended the fixed exchange rate between the Swedish krona and the ecu, a defence that was abandoned in November 1992.

- Between 1865 and 1869 nominal housing prices declined by 28 percent as well. In 1867, Sweden experienced one of its worst harvest failures of the 19th century, which later contributed to increased emigration to America. It was not until 1876 that nominal housing prices surpassed their 1865 level. Sweden was on a silver standard at the time, whereby the riksdaler riksmynt was convertible into silver coins (the gold standard was introduced in 1873).

- Between 1818 and 1821 nominal housing prices declined by 26 percent. This was a period of monetary instability, with a floating exchange rate for the riksdaler riksgälds, following the suspension of the silver standard in 1808. Monetary policy aimed to restore the silver standard, although that did not fully occur until 1834.



*A copper plate minted in 1742 with the nominal value of ½ daler silvermynt. Copper plates constituted an important part of the available means of payment in the eighteenth century. Source:* https://digitaltmuseum.se/0210211589238/platmynt.

## The four secular upswings

Identifying periods of upswings is somewhat problematic given that different criteria yield a different periodisation. Some of the upswings continued for a long time. Table 3 identifies the four secular upswings of highest growth in the real index since 1420 in several steps, although it must be seen as mostly a heuristic device. Firstly, a geometric average of the index is calculated for each decade, so as not to let short-term movements in the index impact on the identification. Secondly, growth is calculated for periods from one to ten decades. Identifying long upswings of 100 years is motivated given that growth on two occasions continued steadily during the entire time span. Thirdly, four periods experiencing growth in the real index of more than 100 percent are identified that do not overlap with each other.

Two secular upswings of 100 years duration can be identified, 1570/79–1670/79, and 1800/09–1900/09. During both upswings, real prices increased almost sixfold. Both periods were also characterised by a substantial increase in the population of Stockholm. The secular upswing in 1950/59–2010/19 only comes in third place, although it may continue. In 2021 the real index was on a 440-percent higher level than in the 1950s, which comes close to the increase of 1570/79–1670/79 and 1800/09–1900/09. The fourth strongest secular upswing occurred in 1710/09–1750/59, when real prices almost trebled.

All four secular upswings were initially rebounds from low points, but it was the upswing of 1800/09–1900/09 that saw the biggest increase compared to the previous high point. The upswing of 1710/09–1750/59 could be described as almost entirely a rebound from the crisis at the end of the Great Nordic Wars. The level at the peak of 1750/59, was only slightly higher than the level at the peak of 1670/79.

**Table 8.3:** *Four secular upswings of highest growth in the real index since 1420 determined in several steps.*

| Ranking | Period | Growth (%) | Index, low point | Index, high point | Decade, previous high point | Index, previous high point | Growth from previous high point (%) |
|---|---|---|---|---|---|---|---|
| 2. | 1570/79–1670/79 | 471 | 29 | 165 | 1430/39 | 83 | 99 |
| 4. | 1710/19–1750/59 | 182 | 63 | 176 | 1670/79 | 165 | 7 |
| 1. | 1800/09–1900/09 | 477 | 119 | 689 | 1750/59 | 176 | 290 |
| 3. | 1950/59–2010/19 | 292 | 381 | 1493 (2054 in year 2021) | 1900/09 | 689 | 117 |

## International comparisons

As discussed in chapters 5, 6, and 7, there are only a few studies presenting a housing price index stretching back beyond the twentieth century. Even fewer cover the pre-industrial period. Figure 8.3 depicts indices that cover periods before 1900.

The longest index that, to our knowledge, has been presented is for Paris from 1200 onwards. This series is published by Friggit (2008) and consists of several spliced indices. As early as in 1894, Georges d'Avenel (1894–1912) presented a real estate price index for the center of Paris from 1200 to 1800. Duon (1943) built on that material and presented an index for Paris 1625–1944. While d'Avenel's series built on transaction prices averaged over 25-year periods, without controlling for changes in the housing stock, Duon presented average prices calculated over 10 to 50 years for the period 1625 to 1790. Between 1790 and 1850, Duon used the repeated sales method to calculate an index for 10-year periods. After that, an annual repeated sales index is reconstructed. The last series has recently been extended into the present by Friggit. Paris stands out for its long indices, but an annual index using modern econometric methods has only existed after 1840.

**Figure 8.3:** *Periods covered by long-run real estate price indices for different areas.*
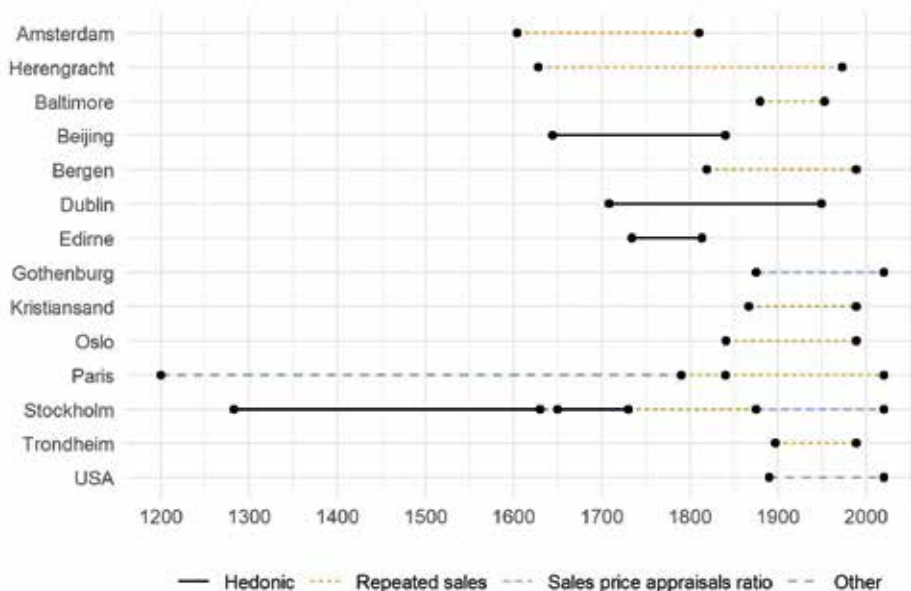


*Source:* See the main text.

Except for Paris and Stockholm, two other cities stand out with their long house price series. Eichholtz (1997) presents an index from 1628 to 1973 for the Herengracht district in Amsterdam. Korevaar (2021) presents an index building on all recorded legal sales in the city of Amsterdam from 1604 to 1811. In both cases, a repeated sales method has been used. Deeter, Duffy, and Quinn (2016) construct a price index for Dublin from 1708 to 1949 with a hedonic regression method.

Other long-run indices include: Beijing between 1644 and 1840 (Raff, Wachter, and Yan, 2013); the four Norwegian cities Bergen, Kristiansand, Oslo, and Trondheim from 1819 to 1989 (Eitrheim and Erlandsen, 2005); Edirne in the Ottoman Empire back to 1720 (Karagedikli and Tunçer, 2021); Gothenburg from 1875 to 1957 (Bohlin, 2014); Baltimore from 1880 to 1953 and other cities in the United States from 1890 until today (Shiller, 2016).

Building on various previous studies, Knoll, Schularick, and Steger (2017) present a dataset of 14 countries' house price data, covering the period from 1870 to 2012. They conclude that the price increase over the last few decades is unique from a historical perspective. Jordá, Schularick, and Taylor (2017) present a dataset of 17 countries.

Since real estate price indices that stretch back to medieval times only exist for Paris and Stockholm, it is interesting to compare those two cities. Figure 8.4 depicts the trajectory of the respective series. As already discussed, this data must be interpreted with caution, especially when it comes to volatility. Nonetheless, both series have the same long-run trend from around 1500. If we go back before that period, it seems like Paris prices started at a lower level than Stockholm's, relative to the price levels in 1840. A possible explanation is that the Paris series does not adjust for quality improvements as the Stockholm series does. The aftermath of the plague that hit Paris in 1349 stands out with its severe downfall. One can also note that from around 1800, the series in general moves in the same direction. The biggest deviation is that Paris prices plunged much deeper during the Second World War and that they have exhibited stronger growth since then.

**Figure 8.4:** *Real estate prices in Stockholm and Paris, 1283–2020, deflated with consumer price indices. Logarithmic scale. 1840 = 100.*
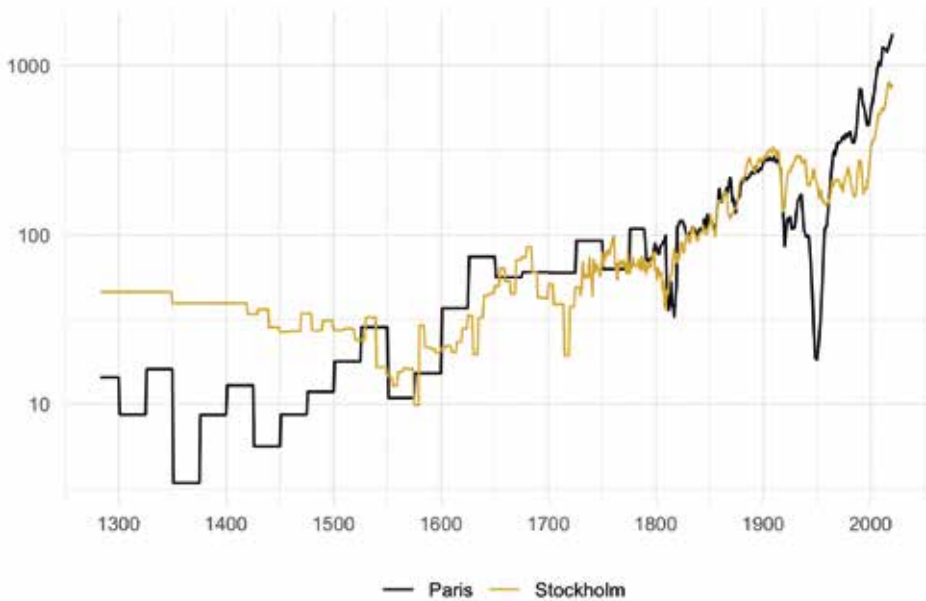
## Conclusions

This book presents a new housing price index for Stockholm back to the Middle Ages. The various periods are discussed in detail in several chapters of this book series. From 1420 there is enough sales data for our index to be reasonably reliable, although there is data on sales as far back as 1283. Having such a long index is unique from an international perspective and it sheds new light on the present debate on housing prices. The growth of real housing prices in the last few decades is not unique, and there have been upswings of similar magnitude earlier in time. The largest declines in real housing prices were mainly caused by inflation and wars, not financial crises.

The indices presented in this book rest on various assumptions that may be questioned, for example, concerning the representativity of the sales and adjustments for quality. Although studies show that there is some robustness to various assumptions for the analysis of overall trends, this raises new questions, answers to which we look forward to reading about in future research projects. First, for Sweden, we only have an index for Stockholm that goes back to the Middle Ages, and for Gothenburg back

to 1875. It should be possible to construct indices for more Swedish towns and also extend the Gothenburg series backwards. Second, our database for Stockholm could be expanded further, for example, by including more areas, especially outside the Old Town in the period 1600–1726, or outside the present inner city. Such a dataset would, for example, contribute to our understanding of how various crises during the 17th and early 18th centuries, but also in the 20th century, affected housing prices in the periphery of Stockholm. Furthermore, we have not been able to geographically locate the properties sold before 1726, which is possible to accomplish but would also be extremely time-consuming. Third, a more in-depth analysis is needed of exactly what a housing price index measures, and how the quality of housing has changed over time. For example, in the future, our dataset could be used to construct an index of the price per square metre, although that would require investigating the size of various properties sold in the past. Last, the present study allows more in-depth analyses of factors behind movements in the housing price index. With more international studies in the future, more international comparisons can also be made.

## Acknowledgement

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