# 4.
# The Gross Domestic Product of Sweden within present borders, 1620–2012

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## 4.1. Introduction[1]

This chapter presents estimates of the Gross Domestic Product (GDP) in Sweden within present borders back to 1800, and a new series for the period 1620–1800. An alternative GDP series is provided by Schön and Krantz (2012). There is also an ongoing project whereby Krantz, Schön and the present author will merge the two series.

Ingvar Ohlsson, in his classic work *On national accounting*, describes national accounting as "the rendering of systematic, statistical statements about the economic activity of a nation (on the basis of certain working hypotheses)".[2] National accounting is about production, as well as distribution, consumption and capital formation. Principles of national accounts and classifications have changed over time. The most recent international systematisation,[3] replacing *System of National Accounts 1993* (1993 SNA), is *System of National Accounts 2008* (2008 SNA).[4]

The most central economic variable in national accounting is the Gross Domestic Product (GDP), which is also an important monetary variable, being part of the quantity equation.

Sweden is a small country but does provide an interesting historical example of an

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2    Ohlsson (1961, p. 8).
3    United Nations et. al. (2009).
4    Inter-Secretariat Working Group on National Accounts (1993).

*Threshing. Painted in 1906 by Carl Larsson (1853–1919).*
Source: Wikipaintings.


area on Europe's periphery with high-quality statistical data. While *Swedish Industrial Statistics* has been published annually since 1858, the British *Census of Production* first appeared in 1907 and is published only every other year.[5] Sweden's annual official agricultural statistics go back to 1802, and annual population data have been gathered since 1749. Even for USA, the years before 1839 have been labelled a "statistical dark age" since 1839 was the first year for which a comprehensive census of agriculture and manufacture collected economic data.[6] Swedish historical national accounts are among the most detailed in the world.

Statistics Sweden switched to the 1993 SNA in the mid-1990s.[7] The guidelines for 2008 SNA were published recently but their difference from 1993 SNA is not as great as the change in 1993. Since Statistics Sweden has not applied the new methods and calculations to earlier periods at a more disaggregated level, and since earlier historical accounts are based on a somewhat different methodology, a mixture of methods (of both the 1993/2008 SNA and earlier principles) has been used in the present investigation in order to arrive at consistent long-term time series.

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5   Prado (2008, p. 89).
6   Rhode and Sutch (2006).
7   For a discussion of the methodology behind the construction of national accounts in Sweden, see Edvinsson (2005).

Swedish historical national accounts have been developed over a longer period.[8] The first work in this field, *National Income of Sweden 1861–1930*, was published in 1937.[9] The project *Swedish Historical National Accounts* (SHNA) has been ongoing since the early 1980s and the main aggregated series was presented by Krantz and Schön (2007). Two years earlier, Edvinsson (2005) published aggregated series based on SHNA that strove to harmonize the Swedish historical national accounts with modern guidelines and included more activities than in previous studies. During the work on the present revisions, Schön and Krantz (2012) have also produced new revisions of the Swedish GDP series for 1800–2000, and published a GDP series back to 1560.

In terms of historical national accounts, co-ordination among researchers and comparisons between countries are still not fully developed. Angus Maddison (2010b) has published series for all countries but only at an aggregated level. In a Nordic project from 1994–2003, economic historians and statisticians from the Nordic countries tried to establish common definitions and deflation methods whereby different countries' series would be comparable. The purpose was to apply the most recent SNA's modern definitions, for example, where to put the production boundary.[10] The present study has a similar purpose.

Recent attempts, initiated by Angus Maddison, have been made to extend the GDP series backwards to the whole Early Modern Period and the Middle Ages.[11] However, with the exceptions of Holland and England, most of these approximations are not based on direct empirical evidence concerning the actual output of various activities. For example, Malanima (2009) presents annual estimates for Italy back to 1300 and Álvarez-Nogal and Prados de la Escosura (2011) for Spain back to 1270; in both cases, the so-called demand approach is used to calculate agricultural output, while other activities are approximated from the rate of urbanisation. The demand approach was originally developed by Allen (2001, p. 13), based on positing a demand curve for agricultural products. Consumer theory requires that own price, income, and cross-price elasticities of demand add up to zero. Agricultural production is accordingly calculated from the development of real wages and real prices of agricultural and non-agricultural products. The demand approach is also applied by Schön and Krantz (2012) for Sweden for the early modern period. In their GDP series for Holland 1500–1800, van Leuwen and van Zanden (2009) use rent as an indicator of annual movements in agricultural production, even though they present direct evidence of the annual movements of other activities. The two series that exist for England/Britain, by Clark (2010) and Broadberry, Campbell, Klein, Overton,

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8   Edvinsson (2005); Krantz and Schön (2007).
9   Lindahl, Dahlgren and Kock (1937).
10  Christensen, Hjerppe, Krantz, and Nilsson (1995); Lindmark and Vikström (2001); Grytten (1999).
11  Broadberry and Gupta (2009); Broadberry, Campbell, Klein, Overton, and van Leeuwen (2010); Bassino, Broadberry, Fukao, Gupta, and Takashima (2011); Broadberry, Guan, and Li (2012).

and van Leeuwen (2010), use direct empirical data on production and income, but differ substantially. GDP per capita in the period before 1650 is much higher in Clark than in Broadberry et al.

The present study further improves the Swedish historical national accounts and extends the series back to 1620. These revisions have been published earlier: the estimates of Swedish GDP 1620–1800 in *Cliometrica*[12] and the data for 1800–2010 in *The Economic History Review*.[13] This chapter mainly provides a more detailed account of the empirical material and method. The analysis of long-term economic growth, comparisons with other countries and estimates of reliability are dealt with in the two articles.

The main revisions after 1800 concern agriculture, manufacturing, real estate, and construction. Recent research shows that harvests have been substantially underestimated.[14] Another dilemma is the exclusion of many activities. Jan Bohlin points out that "only factory production and the output of registered craftsmen is estimated" and that "a good part of this proto-industrial production is not accounted for in the new series of manufacturing and mining output", which entails an overestimation of economic growth in the 19th century.[15] Calculating the value of real estate, mainly services of dwellings, has posed significant problems in earlier studies, and various series differ greatly from each other.

## 4.2. Method

Krantz and Schön (2007, 2012) apply classifications and methods from the period before System of National Accounts. They use the post-1950 data from Statistics Sweden for forward extrapolation of the pre-1950 series. In contrast, Edvinsson (2005) extrapolates Statistics Sweden's series backwards, which is also the method in this chapter. The revisions in this study are made to Edvinsson (2005).

The present study strives to present reliable estimates of both long-term trends and annual fluctuations. Although linear interpolations are sometimes used, the aim has been to use indicators that are reasonably reliable when it comes to annual volatility. Generally the individual series of quantities are less reliable than the volume series at a more aggregated level.

GDP can be calculated in three different ways: by economic activity (or from the production side), by expenditure and by income. GDP by activity is directly computed as the sum of all economic activities' gross values added. The gross value added of each activity is computed in turn as gross output less intermediate consumption. Gross output is the total value of goods and services produced without

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12  Edvinsson (2013a). Minor adjustments are made in the present study, mainly concerning population growth and a downward revision of paid domestic services.
13  Edvinsson (2013b).
14  Gadd, Morell, and Myrdal (2011, p. 288).
15  Bohlin (2003, p. 85).

deducting intermediate consumption. Intermediate consumption consists of the goods and services used up in the production process, except for consumption of fixed capital, which represents the depreciation of the value of fixed assets used in production. Gross value added thus includes consumption of fixed capital, whereas in net value added it is deducted. GDP by expenditure is calculated as the sum of different uses: private final consumption, government final consumption, investment and net export (export less import). GDP by income is the sum of wages and salaries including social benefits, operating surplus, mixed income, and consumption of fixed capital.

Because of various taxes, the different items of national accounts (as value added) can be measured in different types of prices and values. Unfortunately, the definition of the different prices has changed over time. The main types of prices used by Statistic Sweden are: factor, basic and purchasers' prices. The relation between these measures can be summarised as follows:

> Gross output at factor prices
> + non-commodity-related indirect taxes less non-commodity-related subsidies
> = Gross output at basic prices
> + commodity-related indirect taxes less commodity-related subsidies
> + transport and trade margin
> = Gross output at purchasers' prices

The main GDP series in this study is estimated by activity in basic prices. GDP by expenditure in purchasers' prices disaggregated between different uses is also estimated back to 1800, with private consumption calculated as a residual. A series of GDP by expenditure and its components is also presented in accordance with the latest data by Statistics Sweden for the period 1800–2012.[16] For the period 1620–1800, only aggregated series of GDP by activity in basic prices and by expenditure in purchasers' prices are computed.

One of the greatest problems in national accounting is how to compute volume values, i.e. to eliminate the inflation component from the nominal values. There are various deflation techniques that are applicable and yield somewhat different results. The most commonly used volume indices are those named after Laspeyres and Paasche.[17]

The Laspeyres volume index expresses the change in the quantities of a bunch of items in the *prices of the base year* (if the accounting period is one year). Mathematically, this is written as:

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16  Statistics Sweden (2013).
17  The description of the deflation method is based on Edvinsson (2005).

$$V_{b,t}^{\mathrm{L}} = \frac{\sum_i p_{b,i} q_{t,i}}{\sum_i p_{b,i} q_{b,i}}$$

where $b$ stands for the base year, $t$ for the comparison year, $p$ for price, $q$ for quantity and $i$ for item. $p_{b,i} q_{t,i}$ is thus the value of items $i$ in year $t$ expressed in the prices of the base year, and $p_{b,i} q_{b,i}$ the value of items $i$ in the base year expressed in the prices of the base year.

The Paasche volume index expresses the change in the quantities of a bunch of items in the *prices of the compared year*, $t$. Algebraically:

$$V_{b,t}^{\mathrm{P}} = \frac{\sum_i p_{t,i} q_{t,i}}{\sum_1 p_{t,i} q_{b,i}}$$

Usually, the two volume indices roughly correspond. However, they tend to diverge when relative prices change dramatically. If relative prices were the same over time, deflation would not be a problem. In practice, relative prices usually change significantly during the investigated period, especially when this is very long.

There is also a systematic difference between the two volume indices. Over longer periods, a Laspeyres volume index tends to show a higher growth rate than a Paasche volume index (if the base year is located earlier in time than the compared year, i.e. if $t>b$), the so-called Gerschenkron effect.[18]

The Gerschenkron effect arises when activities whose relative prices are falling tend to increase their volume shares of total production and vice versa.[19] This is what happened during the industrial revolution; manufacturing expanded its volume share of GDP at the same time as relative prices for manufactured goods decreased (due to faster increases in productivity than for other sectors).

The Fisher volume index is a geometric average of the Laspeyres and Paasche indices:

$$V_{b,t}^{\mathrm{F}} = \sqrt{V_{b,t}^{\mathrm{L}} V_{b,t}^{\mathrm{P}}}$$

The Fisher volume index is more difficult to interpret than the Laspeyres and Paasche volume indices but has the advantage of being more stable; it represents a middle ground between the other two.

A price index, or deflator, is a measure of the level of prices in the compared year in relation to the level of prices in the base year. The volume index is derived by dividing the ratio between nominal values in two years with the price index, a proce-

18   Jonas and Sardy (1970, p. 83); Gerschenkron (1947).
19   Schön (1979, p. 91).

dure termed "deflation". The price indices can also be constructed in different ways, depending on how the individual prices are to be weighted. The Laspeyres price index is a measure of the level of prices in year $t$ in relation to year $b$ expressed in the *quantities of the base year*. The Paasche price index is a measure of the level of prices in year $t$ in relation to year $b$ expressed in the *quantities of the compared year*. The Laspeyres volume index can be derived by dividing the ratio between nominal values in two years with the Paasche price index (*not* with the Laspeyres price index). Similarly, the Paasche volume index can be derived by dividing the ratio between nominal values in two years with the Laspeyres price index.

Previous Swedish historical national accounts have applied the method of using deflation periods of 20-25 years. This method was also advocated in the Nordic Historical National Accounts.[20] It involves using Paasche price indices to arrive at Laspeyres volume indices. For the whole deflation period, the volume values are measured in the same prices, of the base period, and the base period is changed only for the next deflation period. Before the switch to the 1993 SNA, Statistics Sweden also used deflation periods.[21]

An alternative deflation technique is to compute an annual chain index, for which only two consecutive years are compared. The base year is changed (so-called re-basing) for every year. A volume index for a longer period is then calculated by linking the volume indices between consecutive years together to form a chain index.[22]

The use of deflation periods has several advantages, especially when constructing historical national accounts. Choosing a Laspeyres volume index rather than a Paasche volume index, and deflation periods instead of a chain index, has the advantage that the same prices are used for the whole deflation period. When expressed in one base year's prices, production for each year is additive (i.e. the aggregate figure equals the sum of its components), which is mostly not the case when the base year is changing. It is also less time-consuming than calculating a chain index, but this advantage has been eroded by the rapid increase in computer power.

However, deflation periods do entail the problem of the Gerschenkron effect. The further away from the base year or base period, the larger, normally, is the effect. An annual chain index is preferable if the purpose is to analyse short-term fluctuations in the economy.

In this study, following Edvinsson (2005), annual chain indices of a Fisher type are constructed for the period after 1800. For the period before 1800, the volume values are estimated in the reference prices of just one year, 1800, which could be described as a Laspeyres type of volume index. Since relative prices did not change much in the long-term before 1800, it may be assumed that the Gerschenkron effect was not as great then as after the industrial breakthrough.

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20  Grytten (1999, pp. 221–224).
21  Statistics Sweden (1979, pp. 16–19).
22  For a further discussion of the use of chain indices, see Al, Balk, de Boer and Bakker (1986), and Forsyth and Fowler (1981).

Since GDP and value added by activity are computed from two other variables, as gross output less intermediate consumption, the deflation techniques described above cannot be used straightforwardly. In general, there are several methods for deflating GDP and value added by activity:

1. The simplest method is to apply the deflator of gross output to value added as well.[23] The problem with this method is that the price index of intermediate consumption can fluctuate significantly compared to the price index of gross output, which means that the calculation can yield huge growth or contraction rates that simply reflect sharp fluctuations in relative prices.

2. Another method is to apply the deflator of gross output to value added and at the same time hold the share of value added in gross output constant for the whole deflation period, and set it equal to the share in the base period.[24] The estimate of volume growth is then not affected by fluctuations in the prices of intermediate consumption relative to the prices of gross output. The method is often preferred in historical national accounts, since data on intermediate consumption are mostly missing. The problem with this method is that an increase or decrease in the share of value added may actually reflect a real change – for instance, if a company outsources part of its production so that what formerly was counted as part of value added becomes part of intermediate consumption. Especially, in that the share of value added in gross output can increase or decrease significantly over time, the method can give a wrong impression of long-term growth.

3. So-called "double inflation" entails the construction of two deflators, one for gross output and the other for intermediate consumption. Volume value added is then calculated as the value of gross output deflated by the first deflator less the value of intermediate consumption deflated by the second.[25] With this method, the real relationship between intermediate consumption and gross output affects the volume growth of value added. From a theoretical point of view, this is probably the preferred method. But especially for older material, there is a lack of information about price changes of intermediate consumption. Another problem with double deflation is that the estimates of value added in constant prices can be zero or even negative, even if value added is positive in nominal prices (this cannot happen with the other two methods for deflating value added). That can be the case especially for activities where value added is rather small in relation to gross output.[26]

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23  Cassing (1996, p. 197).
24  Schön (1988, p. 199).
25  Cassing (1996, pp. 197–198).
26  See also an example provided by Durand (1994, pp. 304–305). A so-called double deflation Divisia index, which is a continuous time number formula, cannot result in a negative volume value added as long as nominal value added is non-negative (see Cassing, 1996, p. 199).

The double deflation method is recommended in international guidelines and used by Statistics Sweden, although at aggregate level Statistics Sweden deflates GDP only from the expenditure side.[27] One advantage of using double deflation is that it can be applied to compute volume GDP by activity as well as by expenditure and yield the same result in both cases, whereas the second method can only be used to calculate volume GDP by activity.

In this study, for the period after 1800 a mixture of methods is used for deflation of GDP and value added by activity. In a first step, the deflation technique assumes constant shares of value added (i.e. the second method) and annual chain indices of both Laspeyres and Paasche type are constructed for the gross value added of each type of activity and for GDP as a whole. As mentioned above, this means that changes in the share of value added in gross output are not taken into account. Therefore, a correction factor is estimated for the volume growth rate of the gross value added of each type of activity, based on the annual change in a weighted 10-year moving average of the ratio of value added to gross output. A Fisher volume index of GDP is then calculated from these corrected volume relatives. Further details are provided in Edvinsson (2005).

## 4.3. Revising agricultural production 1800–1950

Agriculture is divided into arable, animal and horticultural production. Ancillaries include forestry, hunting and fishing. International research into historical economic growth has focussed a great deal on manufacturing. For example, Joseph Davis thinks that GDP is less trustworthy and uses industrial production to establish a business cycle chronology for the USA back to 1790.[28] However, in an agrarian economy, economic activity is dominated by harvests, directly as well as indirectly. Judging annual fluctuations in the aggregate economy before the 20th century calls for reliable estimates of agriculture – especially arable output. Unfortunately, for this period, most countries do not have official statistics on national harvest fluctuations. For example, even the very detailed Dutch historical national accounts have to rely on a few regions and farms to interpolate annual harvests in the first half of the 19th century.[29]

Previous estimates of agricultural production in 1800–1950 are based on Lennart Schön's study.[30] The present study uses a completely new recalculation that is independent of Schön's data.

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27   Statens Offentliga Utredningar (2002, pp. 142–143).
28   Davis (2006).
29   Horlings et al. (2000, pp. 27).
30   Schön (1995).

*Plowing. Painted by the Swedish artist Carl Larsson (1853–1919).*
Source: Wikipaintings.


## 4.3.1. Arable output

For arable production, the present study makes four main changes to earlier Swedish historical national accounts: 1) harvests are registered for the year of production; 2) the estimated level of forage is reduced for the earlier years; 3) harvest fluctuations before 1865 are calculated from direct observations of yield ratios; 4) additional plants are included. The included crops are wheat, rye, barley, oats, dredge, peas, beans, vetch, potatoes, sugar beets, oil plants, textile plants and tobacco. The contribution from other types of crop is negligible.

Schön registers arable output in the year of consumption, instead of the year of the harvest (i.e. the preceding year), since this avoids the complication of consumption and production being separated by a year. The same method is followed by Edvinsson (2005). The application of this method in previous Swedish historical national accounts means that a bad or good harvest in one year has a negative or positive effect on GDP per capita in the subsequent year, which is also the year that was mostly affected by the bad or good harvest. This method is not necessarily wrong but in Statistics Sweden's GDP series from 1950 onwards, harvests are registered instead in the year of production. Thus, two different methods have hitherto been applied in Swedish historical national accounts, one for the period up to 1950 and the other for the period after that.

Published data on harvest (yield ratios) of different grains for all Swedish counties in 1831.
Source: *Post- och Inrikes tidningar*. Photo by Rodney Edvinsson.

Internationally, agricultural production has been registered for the production year and this is also recommended in the international guidelines. The principle in modern national accounts is always to register production in the time period in which the activity was actually conducted (unfinished products can be recorded as increases in inventories).[31] In the present study, a recalculation has therefore been made where all crops are registered for the year of production instead of the year of consumption (animal produce is, however, registered for the same year as in previous historical national accounts).

Official statistics on Swedish agricultural production started to be collected in 1802.[32] Clergymen were obliged to provide data on agricultural production, cultivated area, the planting of seeds, and livestock. Getting accurate data was very hard for the clergymen because farmers feared it would lead to heavier tax burdens. The reported figures on production, cultivated area and the planting of seeds are esti-

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31  United Nations et. al. (2009, p. 112).

32  Official statistics can be found in Lindahl, Dahlgren and Kock (1937, part two, pp. 28–54), Statistics Sweden, *N) Jordbruk* (1867-1912), and Statistics Sweden (1959, pp. 45–52).

mated to have been roughly half of the proper amounts.[33] The statistics were gradually improved but the underestimation was not eliminated until around 1900.[34] Lennart Schön upgraded arable output for his series, which was a major improvement on previous studies. Even so, in several preliminary studies on Sweden's agricultural production in the 19th century, Carl-Johan Gadd shows that Schön still underestimates the net production of crops in the first half of the 19th century, mainly because forage (fodder) – which is deducted from gross harvests – is overestimated.[35] For example, *National Income of Sweden* basically assumes that a constant share of harvests was used for forage, an assumption that Schön reproduces.[36]

An official investigation into conditions in agriculture in 1858 shows that the share of forage in gross harvests was quite low,[37] only 23 per cent of the total supply of grains (seeds deducted). The present study makes rough downward adjustments compared to *National Income*: for 1803–20 it assumes that, on average, 2.6 per cent of the total supply of wheat was used as forage, 2.7 per cent of rye, 21 per cent of barley, 39 per cent of oats, 66 per cent of dredge, 29 per cent of peas and 29 per cent of potatoes. The shares are gradually increased for later periods, especially after 1861, which by 1911 roughly correspond to the assumptions in Lindahl, Dahlgren and Kock (1937). To estimate the net product (harvests less forage and seeds), the next year's forage and seeds are deducted from the current year's harvest, since it is the current year's harvest that is used as forage and seeds the next year.

In addition, the upgrading of arable output in the 19th century is adjusted somewhat compared to Schön, by taking into account that it varied between grains. Previous research shows that the underestimation of oats and potatoes was most likely greater,[38] and these grains are, therefore, upgraded by a higher ratio in the present study. For 1865, official data on seeds of grains are upgraded by 23 per cent (oats by 29 per cent, other grains by 19 per cent) and potatoes by 55 per cent. By 1911, no upgrading is applied to the seeds of various grains, while potatoes are upgraded by 26 per cent.[39] In official statistics,[40] there is a discrepancy between the increase in total cultivated area and the area of reclaimed land. The former also reflects statistical improvements; the latter, which is at a much lower level, probably gives a better picture of the actual increase in the cultivated area. To estimate how much seeds should be upgraded between 1865 and 1911, this discrepancy is used as an indicator for interpolation. For the period before 1865, a further gradual increase is made to the official data on seeds; for 1802–20, seeds of wheat are upgraded by 66 per cent, rye

33  Hannerberg (1971, pp. 29–31).
34  Gadd (2000, pp. 331–333).
35  Gadd (2000); Gadd (2007); Gadd (2009).
36  Lindahl, Dahlgren and Kock (1937, part two, pp. 17–23).
37  Finanskomiteń (1863, table XXXI).
38  Gadd (1983, p. 324).
39  See Lindahl, Dahlgren and Kock (1937, part two, p. 22).
40  See Statistics Sweden, *N) Jordbruk* (1867–1912).

by 64 per cent, barley by 52 per cent, peas by 60 per cent, oats by 95 per cent, dredge by 78 per cent, and potatoes by 207 per cent.

Figure 4.1 compares the nominal value ratios of forage to the supply of arable output in Sweden and Holland in the period 1807–1913. Two estimates are provided for Sweden: the present study and *National Income of Sweden*. They indicate that the assumed reduction of forage seems to be reasonable when compared to such an advanced country as Holland. For the period before 1890s, the Swedish ratio is even somewhat higher than the corresponding ratio for Holland. Considering the large change in Holland, the previous assumption in Swedish historical national accounts of a long-term stable trend for this ratio for the 19th century, seems unrealistic. The reduction of fodder for cattle results in a significant increase in the estimated level of net arable production (harvests less seeds and forage) in the early 19th century.

**Figure 4.1:** *The value ratio of forage to the supply of arables (excluding seeds) in 1803–1930 in Holland and Sweden according to various estimates.*
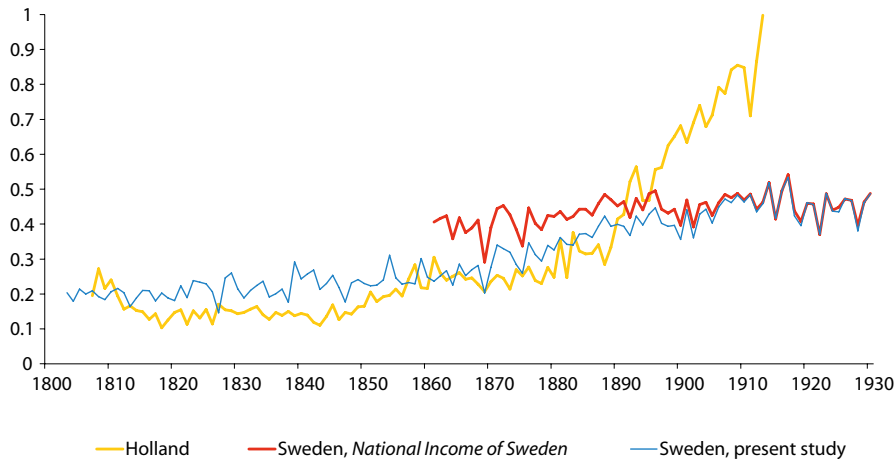


Sources: The present study; Lindahl, Dahlgren and Kock (1937); Horlings et al. (2000, pp. 121–123).

The most time-consuming revision of agricultural production concerns yield ratios (the ratio of total harvests to seeds used). Schön uses fluctuations in real wages as an indicator of harvest fluctuations, with adjustments for long-term trends.[41] This is problematic, since changes in real wages did not necessarily follow those in harvests, even though there was some correlation. Instead, to construct a new series, the present study uses 24 county governors' hand-written accounts of yield ratios for various grains (including potatoes) in the period 1820–65;[42] local clergymen's reports of

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41   Schön (1995).
42   The National Archives (Riksarkivet), Magasinet till Kungl. Maj:t; The National Archives (Riksarkivet), Statskontoret, kansliet, E3N, Vol. 1–15. Summaries of some of these reports have also been published in various forms (mainly in *Post- och Inrikes Tidningar*).

annual fluctuations in yield ratios are used for the period 1802–20.[43] Even if the latter underestimate absolute levels, the annual fluctuations should be fairly reasonable. Approximating the development of seeds before 1865 is more difficult, but the annual fluctuations were not as sharp as for yield ratios.

The new series of crops also includes oil, textile and tobacco plants, which were previously excluded in historical national accounts.[44] These plants accounted for only around four per cent of net arable production in the 1860s and less than one per cent in the 1930s. During the 1940s, however, oil plants increased dramatically, accounting for 29 per cent of the total value of arable production in 1950. This implies that previous historical national accounts underestimated the growth of agriculture in the 1940s, especially during the decade's second half.

In his computation of crops, Schön argues that his use of new price data from Lennart Jörberg (up to 1914) improved the calculation compared to *National Income of Sweden*.[45] The new price data reduced the nominal value by 5 per cent in 1860. However, Jörberg's data are prices per unit of volume, while the prices in *National Income of Sweden* are per unit of weight. Taking this into account, Jörberg's and *National Income of Sweden's* grain prices are almost identical. As the weight of grains per volume unit increased between the 1860s and 1910s, the price per volume unit increased faster than the price per unit of weight. The present study follows *National Income of Sweden* and uses the price per unit of weight, which further increases the nominal value of grains compared to Schön for the 1860s.

The new series on horticulture roughly follows previous estimates for long-term trends. However, since annual fluctuations in previous estimates are based on fluctuations in arable output, the new series on the latter also alters the estimated value of horticulture in individual years.

## 4.3.2. Animal produce

For animal produce, a completely new series is calculated for 1800–1950, which affects long-term trends as well as short-term fluctuations. The following animal products are included: meat from cows, bulls, oxen, calves, sheep, goats, horses, pigs, reindeer and fowl, and milk, eggs and wool. Previous historical national accounts are largely based on *National Income of Sweden* for 1861–1930. Compared to the previous estimates, the most important changes are as follows:

1. In previous historical national accounts, production per animal (mainly meat per slaughtered animal) was assumed to be constant in some periods. In the present

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43   For the period 1800–1802, Edvinsson (2009) is used.

44   Based on Statistics Sweden (1959), Statistics Sweden, N) Jordbruk (1867–1912), and Statistics Sweden (1930–1955). For 1824–1866, the estimates in Schön (1979, p. 205) on linen production are used for backward extrapolation of textile plants. When no other information exists, harvests of oil, textile and tobacco plants are assumed to follow the grain harvests.

45   Schön (1995, p. 60).

*Yard near Hötorget in Stockholm. Painted by Olof Arborelius in the 1880s.*
Source: Stockholm City Museum.



*The Beatiful Girl from Dalecarlia Selling Milk at Stortorget. Painted by Erik Wahlbergson in the 1830s.*
Source: Stockholm City Museum.

study, adjustments in this respect have been made for the period before 1913 by following various indicators, mainly prices of livestock relative to prices of animal produce.[46] The present study assumes that the carcass weight of cows increased from 70 kg in 1805 to 197 kg in 1913 (interpolation between those years is based on the price ratio of cows to milk), of bulls, oxen and horses in proportion to cows, and of calves as a linear increase from 20 kg in 1805 to 28 kg in 1913.[47] The carcass weight of pigs is assumed to follow the price ratio of pigs to pork (smoothed series), which increased by 147 per cent between 1805 and 1913. The carcass weight of sheep and goats (including lambs and kids) is assumed to be constant up to 1861, and then to have followed the price ratio of sheep to beef, which increased by 24 per cent between 1861 and 1913. As the price ratio of hens to eggs is unchanged in the period 1861–1913, no adjustment is made to the productivity of hens. Production per animal has been adjusted downwards for earlier periods, although the milk per cow estimate in *National Income of Sweden* is unchanged.[48]

2. From a comparison of estate inventories with official agricultural statistics during the 19th century, Carl-Johan Gadd concludes that the latter significantly underestimate livestock. This has previously not been taken into account in historical national accounts. The adjustment partly offsets the adjustment of assumed production per animal. The upward adjustments are smaller for cattle and horses, and larger for smaller animals. According to data collected by Gadd[49] for Skaraborg County, estate inventories give a 22 per cent higher number of horses and cattle than official statistics in 1805, and 13 per cent higher in 1861. According to Carin Israelsson, official statistics probably overestimated the number of cows in large agricultural units and underestimated them in small units.[50] The official statistics show a significant increase in the number of horses, cows and young cattle and calves between 1911 and 1913, which could be considered an improvement in measurement. While the estimates of milk production based on the number of cows is upgraded by 12 per cent in Lindahl, Dahlgren and Kock (1937, p. 63), this is not implemented for production of livestock (slaughter, net export and changes in livestock). In this study, the *National Income* data on production of horses, cows and young cattle and calves are increased by 12 per cent for the whole period 1861–1912.

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46  Price data are based on Jörberg (1972).

47  Gadd (1983, p.138); Lindahl, Dahlgren and Kock (1937, part two, p. 82).

48  Lindahl, Dahlgren and Kock (1937, part two, pp. 118–124), estimate the quantity of milk per cow to 1800 kg in 1913 and 830 kg in 1861. Staffansson (1995, pp. 43–82) claims that milk per cow in the 1860s is overestimated in Lindahl, Dahlgren and Kock (1937). Schön (1995, p. 60) argues convincingly against this view. Schön's view is confirmed by the long-term movements in the price ratio of cows to milk, which follows the assumption of Lindahl, Dahlgren and Kock (1937) rather than that of Staffansson. The definition of a cow used here follows the one in official statistics from 1913, which includes only heifers that have calved. See also Morell (2001, p. 355), for an overview of the Swedish debate.

49  Gadd (1983, pp. 335–337).

50  Israelsson (2005, p. 87).

For 1805, the official statistics on horses and cattle are increased by 15 per cent. The ratio of sheep and goats to cows and horses and the ratio of pigs to cows and horses, respectively, are increased by the same amount in 1805 as in 1861. Various studies on estate inventories in 1810–80[51] give ratios of the number of sheep, goats and pigs to the number of cows and horses that are anything from nil to more than 100 per cent above the official statistics. Against this background, compared to official statistics in 1805 and 1861, the present study increases the ratio of sheep and goats to cows and horses by 25 per cent and the ratio of pigs to cows and horses by 50 per cent (which is slightly below the average of various studies compared to official data). This increase is reduced linearly up to 1930, when official data on sheep, goats, and pigs are assumed to have reflected actual conditions. Fowl production is increased by the same amount as pig production in 1861–1930.

3. Wool production is included, whereas it was excluded in previous historical national accounts. Wool production accounted for around five per cent of total animal produce in the 1860s; by the 1940s it had fallen to less than a half per cent. Wool production per adult sheep at the beginning of the year is set to 4 kg per year from 1913; before that year it is assumed to follow the price ratio of sheep to wool. This implies that wool production per adult sheep is assumed to have been 1.17 kg in 1840. The actual number of sheep, including lambs, could be substantially higher during the year, in which case the actual assumed production per sheep would be less. In comparison, Gunilla Peterson shows that in 1822–65 wool production varied from 0.5 to 3.4 kg per sheep and year.[52] Lennart Schön (1979) puts average wool production per sheep and year in 1820–70 at 1.06 kg. Dutch historical national accounts assume that the annual wool yield averaged 2 kg per sheep in the early 19th century,[53] while for Denmark, Hansen estimates productivity per sheep in 1819 to 1 kg.[54]

4. Between 1805 and 1861 the calculated increase in animal produce is based on the official data on stocks of animals, adjusted for the underestimation in these official sources and the approximated growth of production per animal between the two years. Milk per cow increased significantly before 1861 which the present study assumes it followed the price ratio of cows to milk, which increased by 34 per cent between 1805 and 1861. This implies an average production of 621 kg milk per cow in 1805, which accords quite well with previous research.[55] Fowl production is assumed to have followed milk production from 1805 to 1861. Hens were unusual before the 1860s but geese were common in the early 19th century and hens replaced

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51  Gadd (1983, pp. 334–335); Larsson (2009, pp. 169–176); Dahlström (2006, p. 309); Peterson (1989, pp. 65–82); Jonsson (1980, p. 123); Isacson (1979, pp. 55, 129, 154–156).
52  Peterson (1989, pp. 92–93).
53  Horlings et al. (2000, p. 33).
54  Hansen (1974, p. 303).
55  See Gadd (1983, p. 137).

them as the century proceeded.[56] For interpolation between the two years, the growth of forage is used as an indicator (and gross harvests for extrapolation back to 1800). This is similar to the method used by Schön but since forage is estimated from new data on harvests, annual fluctuations differ substantially.

5. A consequence of the adjustments in the present study is a change in the price deflator of animal produce. While *National Income of Sweden* and Schön use the price per animal to calculate deflators, the present study uses the price per weight unit. The present study's price index of animal produce gives slower growth. While the volume growth of animal produce in 1861–1930 is about the same as in previous studies, the nominal value in the 1860s and earlier is upgraded substantially.

6. A new series of animal production is also calculated for the period 1930–1950, based on the number of livestock.[57]

### 4.3.3. Trends and fluctuations in agriculture

The development of per capita harvests for various crops in 1800–1954 is presented in Figure 4.2, which clearly shows that the long-term trend and volatility were fairly stable over time, while composition changed.

**Figure 4.2:** *Net harvest (harvest less forage and seeds) of various crops in kcal per day and inhabitant 1800–1954.*
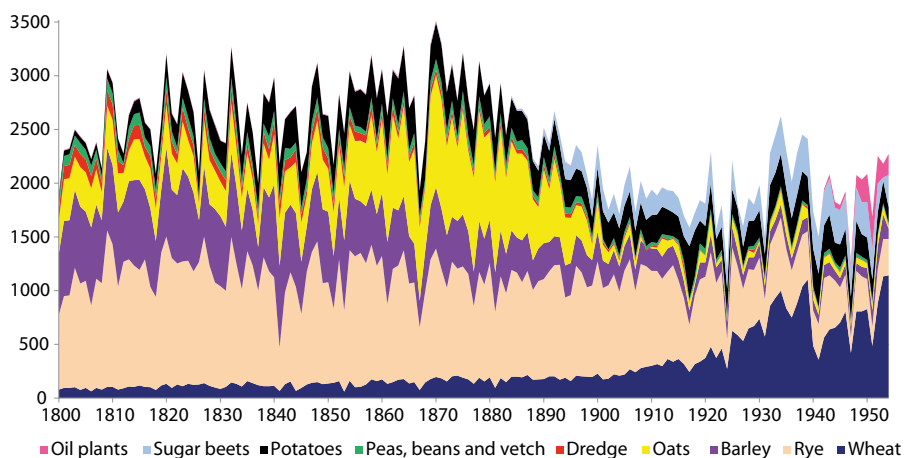


Sources: See the main text.

Figure 4.3 summarises the development of per capita agricultural production (excluding ancillaries) in the reference prices of 1800. It shows that the level per capita was basically unchanged up to the mid-19th century. However, even though agri-

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56  Peterson (1989, pp. 83–85); Morell (2001, p. 256).
57  Statistics Sweden (1959).

culture in the first half of the 19th century is substantially upgraded, the present study still assumes significant per capita growth in 1850–1950. In this period, it was animal production and horticulture that expanded, while per capita arable production even declined somewhat.

**Figure 4.3:** *Per capita gross production of agriculture (excluding forage and seeds) in 1800–1950 in the reference prices of 1800 (SEK).*



■ Animal produce, per capita gross output, in 1800 SEK (left scale)
■ Horticulture, per capita gross output, in 1800 SEK (left scale)
■ Crops, per capita gross output, in 1800 SEK (left scale)
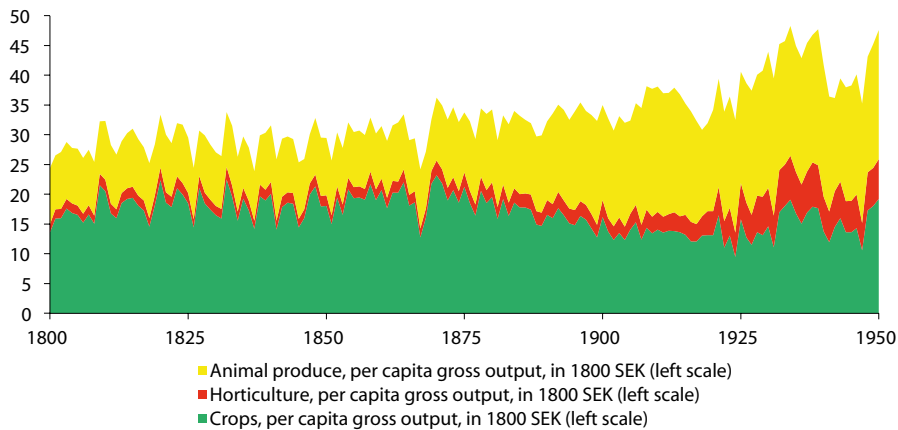
Sources: See the main text.

A new series of agricultural production was presented recently by Schön and Krantz (2012). It involves an upgrading for the early 19th century but not as much as in the present study. Their upgrading is due to agricultural production being extended to include the consumption of forage by horses used in transports, which was not the case in their previous publication. Krantz and Schön also upgrade agricultural production by including textiles and skins for the leather industry.[58] The present study adds textiles to agricultural production, while leather products are estimated for manufacturing (see below).

## 4.4. Adding home-based manufacturing to Swedish GDP before 1950

The most important change to manufacturing in this study is the addition of home-based manufacturing, here defined as manufacturing outside factory production and handicrafts, both for own consumption and for sale. The calculation of manufacturing in recent Swedish historical national accounts goes back to a study by Lennart Schön.[59] He does deal with home-based manufacturing but hitherto it has not been included in GDP. In their most recent revision of Swedish historical national

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58   Krantz and Schön (2012, p. 14).
59   Schön (1988).

accounts, Schön and Krantz (2012) choose not to include manufacturing activities outside factory production and handicrafts.

According to modern international national accounts guidelines, 2008 SNA, services (except for dwelling services) produced for own use by households are excluded from GDP but all goods produced for own use should be included, which is of particular importance for developing countries. Previous Swedish historical national accounts are, therefore, not in line with modern guidelines. 2008 SNA states:[60]

"The following types of production by households are included whether intended for own final consumption or not:

a. The production of agricultural products and their subsequent storage; the gathering of berries or other uncultivated crops; forestry; wood-cutting and the collection of firewood; hunting and fishing;

b. The production of other primary products such as mining salt, cutting peat, etc.;

c. The processing of agricultural products; the production of grain by threshing; the production of flour by milling; the curing of skins and the production of leather; the production and preservation of meat and fish products; the preservation of fruit by drying, bottling, etc.; the production of dairy products such as butter or cheese; the production of beer, wine, or spirits; the production of baskets or mats; etc.;

d. Other kinds of processing such as weaving cloth; dress making and tailoring; the production of footwear; the production of pottery, utensils or durables; making furniture or furnishings; etc.;

e. The supply of water is also considered a goodsproducing activity in this context. In principle, supplying water is a similar kind of activity to extracting and piping crude oil.

It is not feasible to draw up a complete, exhaustive list of all possible productive activities but the above list covers the most common types. When the amount of a good produced within households is believed to be quantitatively important in relation to the total supply of that good in a country, its production should be recorded. Otherwise, it may not be worthwhile trying to estimate it in practice."

Internationally, historical national accounts often approximate the size of manufacturing in the 19th century by following the intermediate consumption of raw materials, which indirectly implies the inclusion of manufacturing outside factory production and handicrafts (or, at least, the growth rate is not distorted by the relative decline of home-based manufacturing).[61] The low rate of urbanisation in Sweden before 1850 is, to some extent, explained by climatic factors. In Sweden, home-based manufacturing was more important than in other European countries to the south, not least because the rural population could not pursue agriculture during the long winter season.[62]

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60   United Nations et al. (2009, p. 99).

61   See, for example, Bourguignon and Lévy-Leboyer (1990, p. 266) for France, Grytten (2004, p. 249) for Norway, and Horlings et al. (2000 pp. 37–45) for Netherlands.

62   Hemslöjdskommittén (1918, pp. 15-16).

Schön makes a preliminary estimate of the share of output outside factory production and handicrafts for textile- and metal industries from the 1820s to the 1860s, based on the input of raw materials.[63] Guesstimating the size of woodcraft and leather processing,[64] he concludes that activities outside factory production and handicrafts accounted for around one third of manufacturing output during the 1820s as recorded by the Swedish historical national accounts, but for only one sixth during the 1860s. This guesstimate, however, excludes home production of food items. Notwithstanding these calculations, his final series of manufacturing and handicrafts does not include home-based manucturing. Schön argues that parts of home-based manufacturing are included in the series of unpaid domestic labour. However, since that series is not included in GDP, home-based manufacturing is also absent in the final estimate of economic growth in the SHNA project.

This study follows Schön's method for estimating the contribution of home-based manufacturing from the intermediate consumption of raw materials, which can be calculated from outputs of agriculture and mining, and international trade.

### 4.4.1. Food industries

This study presents a new series for food industries, mainly based on the total supply of crops (gross output less intermediate consumption in agriculture, plus import less export) and animal products, disaggregated between activities.[65] Volume and nominal growth in the slaughter and meat processing industry follow production and prices of slaughter animals. This does not take into account that slaughter and animal produce are not identical, since production also includes changes in the animal stock. However, these two series should be highly correlated with each other.

Volume and nominal growth in mills and bakeries are set equal to volume and price changes in the intermediate consumption of grains in milling. The intermediate consumption of grains for milling in year $t$ is calculated as (where the subscript denotes the year):

Gross output$_{t-1}$ – Export$_t$ + Import$_t$ – Seeds$_t$ – Forage$_t$ – Input breweries$_t$ – Input spirit industries$_t$

Milling of grains is assumed to be related to the previous year's harvest.[66]

Previous historical national accounts exclude the production of butter and cheese outside the industrial statistics. The present study assumes that for 1913–48, total cheese and butter production followed milk production. The difference between total and factory cheese and butter production is then added to the dairy production

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63   See also Schön (1979, 1987).

64   Schön (1988, p. 14).

65   The deflators are mostly based on Jörberg (1972), Lindahl, Dahlgren and Kock (1937), and Ljungberg (1988, 1990).

66   Input in breweries is based on Schön (1988) and input in spirit industries on Key-Åberg (1913).

*Baking Bread. Painted in 1889 by Anders Zorn (1860–1920).*
Source: Wikipaintings.

series according to Schön.[67] For the period before 1913, milk production is used as an indicator of total dairy production. The changes to other food industries after 1861 are very minor.[68] To interpolate the output of various food industries for the period before 1861, the supplies of animal products and grains are used as indicators. For simplicity, the value added shares of various food industries are assumed to be constant during the whole period 1800–1950.

### 4.4.2. Home crafts

One of the few direct studies of home craft covers the year 1911.[69] Recorded home craft consisted of roughly equal shares for market sales and own use. The recorded value of gross output of home craft for market sales was 0.9 per cent of the value in manufacturing and handicrafts (excluding food industries) and for own use it was 0.8 per cent.[70] Textile production stood for 64 per cent of home craft, wood products for 20 per cent, metal products for 11 per cent and leather products for 5 per cent. Even so, the investigation of 1911 emphasises that while the estimated value of home craft

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67  See Board of Trade (Sweden), Industri (1913–1952).
68  Based on Ljungberg (1988), and Board of Trade (Sweden), *D) Fabriker* (1859–1912).
69  Hemslöjdskommittén (1918, pp. 16–19).
70  Compared to Schön (1988).

*In the carpenter's shop. Painted in 1905 by Carl Larsson (1853–1919).*
Source: Wikipaintings.

for market sales is probably realistic, the value of home crafts for own use is most likely greatly underestimated. The same conclusion is drawn in the present study.

There are also accounts of how time was spent in rural areas during various months of the year. One such study for northern Sweden presents the seasonal work cycle for two areas in the 18th century.[71] It shows that women devoted from one fourth to one third of their working time to textile production and men spent around one tenth of their working time on various crafts. Since the time spent in household services is usually not accounted for, the ratio of the times women and men devoted to homecraft was probably somewhat lower.

The present study derives production in home crafts mainly from the input of raw materials,[72] which is calculated as the total supply of raw materials less their input in factories and handicrafts. The total supply is set equal to the gross output plus import less export.

To value home-based textile activities, the present study applies a method compa-

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71  Medelius (1968, pp. 16-17). See also Krantz (1987, pp. 52–53).
72  Foreign trade is based on Statistics Sweden (1972), Board of Trade (Sweden), *F) Utrikes handel och sjöfart* (1859–1895), Board of Trade (Sweden), *F) Handel* (1896–1912), and Board of Trade (Sweden), *Handel* (1913–1951).

rable to Schön's in his study covering the period 1826–71.[73] Official statistics provide data on the quantities of factory production of wool, linen and cotton products.[74] Intermediate consumption of raw materials in weaving (in tons) is computed by deducting intermediate consumption in factories (estimated from the assumed input per output based on later industrial statistics) from the total supply of raw materials. This, in turn, provides a rough approximation of home-based textile production. In addition, the present study adds home spinning, using a methodology similar to that for weaving.

Since spinning and weaving were negligible in handicrafts, their impact can be disregarded. Textile handicrafts concentrated mainly on clothing.

According to Schön, a 10 per cent loss of raw materials occurred in the production process.[75] The estimated ratio of the input of wool and linen to the output of wool and linen yarn is based on data on inputs and outputs in industrial statistics for 1935–39, which also allow for losses of raw materials in the production process. The weight of wool garn is greater than the weight of wool input, since other types of product are included in the production of wool garn. Following Schön, no home production of cotton yarn is assumed from 1838 onwards. Moreover, in the present study it is assumed that a 5 per cent weight loss occurred in the transformation of yarn into textiles. The estimated production of yarn is assumed to consume half of the preceding year's supply of inputs and half of the present year's. The home production of wool yarn is assumed to be nil from 1914 onwards, of linen yarn nil from 1916 onwards, and of linen and wool textures nil from 1941 onwards.

For the period 1800–27, the total production of textiles is first assumed to follow the total supply of wool, linen and cotton. Deducting production in manufacturing and handicrafts yields a residual. The volume value of home production is finally calculated as the average of the present and preceding year's residual (to take into account that inputs to home-based manufacturing were not immediately consumed in the production process).

Since the present study uprates the output of wool and linen, home-based textile production is upgraded compared to Schön (1979). For example, home weaving in 1838–40 is estimated to have been 33 per cent higher than according to Schön (1979), while including home spinning, the estimate for textile home crafts is 110 per cent above Schön's. To calculate nominal values, an index constructed on the basis of prices of cotton, and wool and linen yarns, is used to reflate the volume

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73  Schön (1979).

74  Based on Schön (1979), Board of Trade (Sweden), *D) Fabriker* (1859–1912), Board of Trade (Sweden), *Industri* (1913–1952). Weaving is presented in tons only from 1896. To estimate the weight of textiles, 1896 is used as a benchmark year, and the annual changes in the volume values (nominal values deflated by a price index of textiles) are used for backward extrapolation. The spinning of wool by wool cloth factories is not recorded in the industrial statistics up to 1895 (Board of Trade (Sweden), *D) Fabriker* (1898, p. v). The spinning of these factories up to 1895 is estimated, based on the data for 1896.

75  Schön (1979, p. 26).

series.[76] Although home-produced textiles were of lower quality, their price included a trade margin, which means that their price per unit of weight was probably higher than the corresponding price of factory textiles (which were more of wholesale prices).[77] The value added shares are estimated separately for home spinning and home weaving of cotton, wool and linen textiles, and assumed to be constant for the whole period of investigation.[78]

Other types of textile production are divided into (what during the period of investigation were considered to be) male (mainly production of baskets and nets) and female (mainly clothing) activities. For the period before 1911, the volume of other types of female textile production is assumed to follow weaving and spinning.

The estimated level of the total output of weaving and spinning is 171 per cent higher than according to the survey of 1911. Home production of other textiles, and of leather, metal and wood goods, is upgraded by the same amount. The year 1911 is used as a benchmark. The value added shares are calculated for each of the activities in 1911, and assumed to be constant during the whole period of investigation. For other textiles, leathers and metal products, the volume value of home-based manufacturing is assumed to be constant in 1911–50.

Estimating the size of intermediate consumption of raw materials in woodcrafts and other male textile activities is particularly problematic. A benchmark is constructed for these two types of activity for the year 1825, based on the average time men spent on these activities according to the account of the work cycle in northern Sweden in the 18th century (around four per cent for woodcrafts and three per cent for other male textile activities), the average wage of male agricultural workers,[79] and the size of the rural male labour force.[80] For other years, the volume value is estimated with various techniques of inter- and extrapolation. For the period 1825 to 1911, the volume value of other male textile activities is assumed to have decreased linearly, while before 1825 it is assumed to follow the population. For wood industries, the

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76 Based on Jörberg (1972), Ljungberg (1990), and Schön (1988, pp. 203–204). The prices in Jörberg (1972) are used as a benchmark. Yarn prices are used to estimate the prices of home textiles, based on the geometric average price ratios of textiles to yarns per unit of weight according to industrial statistics in 1896–1914.

77 On average, in 1896–1914 the price of linen garn is reported in Jörberg (1972) at a 42 per cent higher level and the price of wool garn at a 25 per cent higher level compared to the industrial statistics. However, compared to the prices presented in Jörberg (1972), in the present study the value per ton of home production is assumed to be 10 per cent lower for wool products, and 23 per cent lower for linen products, mainly because home production used raw materials of lower quality (see Schön, 1979, pp. 29-30).

78 The value added share in home spinning is assumed to be 56 per cent, in accordance with Hemslöjdskommittén (1918, p. 18). The value added shares in home weaving are based on the value ratio per unit of weight between textiles and yarns of wool, linen and cotton, respectively, in factory production, with an assumed loss of five per cent.

79 Based on Jörberg (1972).

80 Based on Statistics Sweden (1949, p. 122).

consumption of wood by households according to Schön[81] is used as an indicator. For the two benchmark years 1825 and 1911, the input of wood can be calculated from the assumed value added share, which implies that the input of home woodcraft was equivalent to 18 per cent of household wood consumption in 1825, and five per cent in 1911. For the period between 1825 and 1911, this ratio is assumed to have decreased linearly. Prior to 1825 the ratio is assumed to have been the same as in 1825; after 1911 it is assumed to remain the same as in 1911. Half of the current year's input is assumed to be used in that year, the other half in the coming year.

Up to 1911, the home production of leather and metal industries, respectively, is calculated similarly to that of textile products, by estimating the total size of leather and bar iron supply (production plus net import), respectively, and the intermediate consumption of leather[82] and bar iron[83], respectively, in factories and handicrafts. Home production's value added share of these products is set equal to the estimate in the survey of 1911, which was 39 per cent for leather products and 58 per cent for metal products. The estimated series implies that for 1911, the value of home-based leather production was only three per cent of total gross output of leather products in factory production and handicrafts, but 22 per cent in 1900 and 315 per cent in 1800, which is a much higher level than Schön's earlier guesstimate. However, the estimated size of metal products is about the same as Schön's conjectures.[84]

Part of home-based manufacturing was used as intermediate consumption in agriculture and ancillaries, implying a somewhat lower value added in agriculture. The assumption in this study is that 40 per cent of the home production of baskets, nets, etc was used as intermediate consumption in agriculture, 10 per cent of leather products, 20 per cent of wood products and 25 per cent of metal products. [85] Further-

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81  Schön (1995, pp. 95–99).

82  Compared to Schön (1988), rubber industries are deducted from leather production and reclassified into chemical, petroleum, rubber and plastic product industries, in accordance with later national accounts (Edvinsson, 2005, p. 81). The total production of unprocessed hides is estimated based on the total slaughter weight of sheep and goats, cattle, calves, and horses, the net import of unprocessed hides, and the relation between the supply of unprocessed hides (production plus net import) and their input in 1935–55 according to industrial statistics. The weight of produced leather is estimated at 45 per cent of the weight of unprocessed hides, which was the average in 1935–40 according to official industrial statistics (the ratio was lower from 1941). The value of the input of leather in leather factories except tanneries (mostly shoe production) is estimated at 28 per cent of gross output (based on industrial statistics for 1950), while the corresponding ratio for home industries is set to 61 per cent (gross output less value added), and for handicrafts to 38 per cent (calculated residual for 1911).

83  The production of bar iron is based on Schön (1988), Board of Trade (Sweden), *C) Bergshandteringen*, (1859–1912), and Board of Trade (Sweden), *Bergshantering* (1912–1913), while foreign trade is from Board of Trade (Sweden), *F) Utrikes handel och sjöfart* (1859–1895), and Board of Trade (Sweden), *F) Handel* (1896–1912). For the period before 1911, the input of bar iron in factories and handicrafts is assumed to follow the volume value of its gross output.

84  Schön (1987).

85  See also Schön (1988, pp. 179–185).

more, since Swedish historical national accounts estimate the size of forestry by its various uses,[86] the inclusion of home woodcraft somewhat enlarges forestry. For the period 1800–90, the total input in home woodcraft is added to forestry, while by 1950 it is assumed that it was already included in previous estimates of forestry. Between 1890 and 1950 it is assumed that the share of the input that has been excluded in previous estimates of forestry decreased linearly.

### 4.4.3. Trends and upgrading

Figure 4.4 presents the per capita volume value for four types of home crafts in 1800–1911. It shows that most home crafts did not start to decline in volume terms until around 1890. In relative terms, however, the decline started earlier as factory production expanded.

**Figure 4.4:** *Per capita volume value of home-based manufacturing 1800–1911 (reference prices of 1800, SEK), previously excluded in Swedish historical national accounts.*
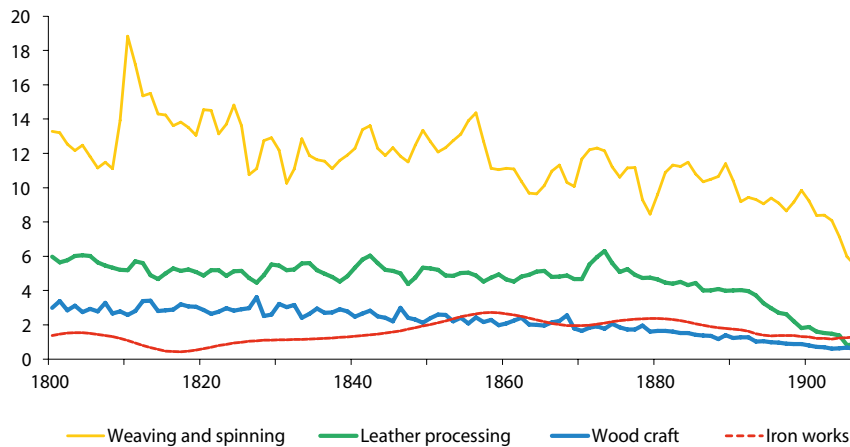


Sources: See the main text.

The further back in time, the larger was home-based production's share of total manufacturing output. For textile and leather products, home production stood for around 80 per cent of gross output up to the 1830s, while the rest was mostly produced by handicrafts. It was during the second half of the 19th century that home-based manufacturing's share decreased.

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86   Schön (1995, pp. 64–69).

## 4.5. Changes to real estate and other activities

The most important revision of services concerns real estate, which is one of the most problematic activities to value. Various attempts have been made in the context of Swedish historical national accounts, with unsatisfactory results. Part of the problem lies in deficiencies in Statistics Sweden's official estimates for the period 1950–70. The revision to services of dwellings – real estate's main component – that is presented in this study also involves a recalculation of building and construction for the period before 1938.

Official estimates of services of dwellings have underestimated both their volume growth and the development of the rent index in the decades before 1970. For example, according to earlier national accounts, the volume value of services of dwellings increased by a factor of 2.22 between 1945 and 1970.[87] Considering that the number of rooms, according to housing censuses, increased by a factor of 1.81 between those two years, this implies that quality per room increased by only 22 per cent. Yet this was in a period of rapid improvements in the quality of dwellings. For the period before 1950, some of the earlier historical national accounts roughly follow the number of rooms as an indicator of volume growth. This applies also to the study by Krantz (1991). The number of rooms is a quantity but is not to be confused with volume value, which should include qualitative improvements to rooms.

Another method is suggested in Edvinsson (2005), namely to calculate services of dwellings from the net capital stocks of residential buildings, which in turn are derived from past residential investments. This partly takes into account the qualitative improvements per room produced, since it can be presumed that room quality is related to the volume value of residential buildings per room. Following Edvinsson (2005), this method is applied by Krantz and Schön (2007).[88] For various reasons, the estimated increase in the volume of residential buildings is not completely satisfactory in either of these studies, and it is only in the period before 1950 that the method is applied consistently. In a revision of the series of services of dwellings, Schön and Krantz (2012) choose to use the series of Krantz (1991) up to 1912, and thereafter the series of Krantz and Schön (2007). However, these two series use methods that are inconsistent with one another, and therefore reproduce the weaknesses of both.

The present study assumes that the volume value of services of dwellings followed the net capital stock of residential buildings for the whole period up to 1970. The volume and nominal value of residential investment in 1861–1950 are based on Östen Johansson's study.[89] For the period 1861–1938, an adjustment is made to Johansson's assumption of quality improvements, which somewhat decreases its

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87   Based on Krantz and Nilsson (1975, pp. 173–174).
88   Krantz and Schön (2007) calculate the value of investment in private services based on Pettersson (1987) up to 1860, but they use Östen Johansson's (1967) values from 1861, which implies that the values up to 1860 are not consistent with those from 1861.
89   Johansson (1958).

growth. Certain qualitative improvements are also assumed to have occurred in the period 1840–61.

Östen Johansson assumes that the cost of producing one room (including kitchen) increased from 216 SEK in 1861 to 3759 SEK in 1938. In comparison, the cost-of-building index increased by a factor of only 4.46 in the same time period. Johansson concludes that the difference can be explained by a 3.74-fold increase in quality per room. However, his estimated cost of a room in 1861 is probably too low. Using two estimates of actual building costs gives a figure of 269 SEK; this is based on costs of building three extra rooms in Stockholm in 1806[90] and a two-room cottage on Gotland in 1863.[91] The cost in 1861 is calculated by taking differences in price levels into account.[92] This gives a 3-fold instead of a 3.7-fold increase in the quality of a room in the period 1861–1938.

Another problem is Östen Johansson's interpolation of the cost-per-room index between 1861 and 1938. As he explains (my translation from Swedish): "*The cost-of-building index has, therefore, been corrected by lowering the index number … for the year 1861 to around 6 (1938=100), i.e. by 73 per cent. The per cent deduction for later years has been lowered linearly to zero for the year 1938; thus the quality improvement of apartments has been assumed to occur at a constant rate during the whole period.*"[93]

He then uses the new index to reflate the quantity series of the number of rooms to arrive at nominal values, but then applies the old cost-of-living index to deflate the nominal values into a volume series (which takes into account the improvement in the quality of rooms). Although the latter procedure is reasonable, his method of linear interpolation to calculate costs per room is unsatisfactory, since it is not the growth rate that is interpolated but the percentage relative to the level in 1938. Consequently it does not assume a constant growth rate for quality per room. Instead, it basically implies that quality increased by more than three per cent per annum in the beginning of the period (early 1860s), but by less than one per cent per annum at the end (mid 1930s). In reality, quality is more likely to have improved either at a constant rate throughout the period or somewhat faster in the 20th century. Instead, to interpolate the growth of quality improvements to rooms between 1861 and 1938, the present study uses the change in the ratio of town population to total population. The same method is used back to 1840, while before 1840 the quality of rooms is assumed to be constant (the urbanisation ratio was roughly unchanged from 1800 to 1840). This method implies that between 1840 and 1861, quality per room increased by 19 per cent in total.

For the period up to 1861, previous historical national accounts draw on Lars Pettersson's study of building and construction.[94] However, his series is derived from

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90  Pursche (1989, p. 258).
91  Olsson (undated).
92  Using Jörberg (1972).
93  Johansson (1958, p. 25).
94  Pettersson (1987).

tax records for a few benchmark years, which are rather unreliable for approximating residential stocks and investments. For example, Pettersson assumes that half of the taxed value of rural properties consisted of buildings, while fire insurance data show that the proportion was probably less than a third.[95] Furthermore, it is very hard to deduce to what extent rural buildings were used as dwellings as opposed to agricultural production (mainly keeping animals). This study uses population growth instead as an indicator of annual changes in the construction of dwellings. The data are spliced to the estimated residential investments from 1861 onwards. The method may be rather crude but seems more reliable than the one applied by Pettersson.

All in all, the altered series of residential investment upgrades the net stock of residential buildings in the first half of the 19th century, which also upgrades the volume value of real estate for this period.

In Edvinsson (2005), nominal levels are determined by reflating the volume series with a rent index. For some periods, the rent index is adjusted to the development of the cost-of-building index. However, this approach is problematic. Instead, the present study computes nominal values directly and the rent index is adjusted accordingly. In the first step, the nominal value of the output of dwellings (the same as total rents) is established for the benchmark years 1910, 1945 and 1970.[96] For 1910, empirical data only exist for rents in various locations,[97] but Östen Johansson provides the number of apartments. The investigation reveals that previous studies have significantly underestimated nominal growth between 1945 and 1970, and that rents increased much faster than the official rent index suggests.

According to the housing censuses of 1945 and 1970, the nominal value of rents (which includes a fictitious market rent on owner-occupied apartments, or apartments rented out at a reduced rate) increased by a factor of 11.1. This is a much higher growth rate than recent historical national accounts indicate. It can be compared with the increase in the rent index by a factor of 2.46 and the 3-fold increase in the net stock of residential buildings, which together amounts to an increase in the nominal value by a factor of 7.38. To bridge this discrepancy we could assume a higher increase in either volume or price level (or both).

Between 1945 and 1970, average rent per room (which includes fictitious rents) increased from 204 SEK to 1252 SEK, whereas the rent index rose only 146 per cent. The increase in rent per room came in part from changes in quality but it also had to do with the changing geographic location of dwellings. The latter is not necessarily a quality improvement per se. Rural rents increased much faster than urban (especially Stockholm). Assuming that all the rooms in 1945 had the highest mea-

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95  In 1858, the estimated market value of rural buildings was 505 mn SEK (Finanskomiteń, 1863, table XXXI). The total market value of rural properties was at least three times higher.

96  Swedish Social Welfare Board (1952), and Statistics Sweden (1974). The investigation of 1945 and 1970 is based on the housing censuses, which also provide data on rents of apartments of various sizes, qualities and geographical locations.

97  Based on 119 towns and other locations presented in Swedish Social Welfare Board (1914).

sured quality at that time would give an average rent of 316 SEK per room. Assuming that in 1970 the average quality of rooms equalled the highest measured quality in 1945 would then give an average price increase by a factor of 3.96, i.e. a much faster price increase than according to the official rent index. From this it can be concluded that it is the growth of the rent index which is underestimated rather than the growth of the volume of residential buildings.

To arrive at nominal growth by a factor of 11.1 between 1945 and 1970, the price index of services of dwellings is assumed to have risen 1.65 percentage points faster per annum than the official rent index, or by a factor of 3.71 altogether in this 25-year period (this is still less than the estimate above of 3.96). This adjustment is based on the growth of the net capital stock of dwellings.

The output of other types of real estate roughly follows the method in Edvinsson (2005).

A comparison of actual rents between 1910 and 1945 shows an increase in the nominal value of total rents by a factor of around four-and-a-half. This yields roughly the same result as the method of reflating the volume series of residential buildings by the rent index. The latter method is therefore applied to the whole period before 1945 but the computed series is linked up to the lower values calculated for 1945.

**Figure 4.5:** *The nominal ratio of per capita value added of real estate, according to various estimates, to the average annual wage, 1800–2000.*
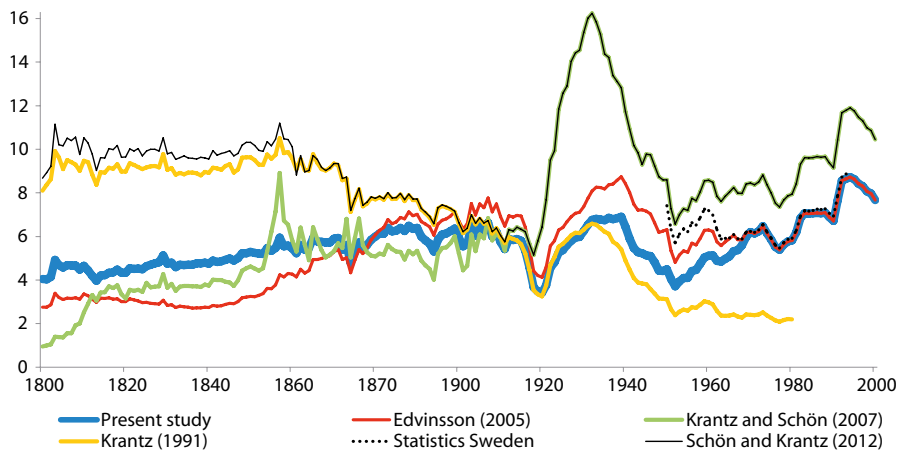


Sources: Edvinsson (2005), Krantz and Schön (2007), Schön and Krantz (2012), Krantz (1991), and the present study. Average annual wage is from Edvinsson (2005) back to 1850, and extrapolated back to 1800 using wage data in Jörberg (1972).

Figure 4.5 presents the ratio of per capita value added of real estate, according to various estimates, to the average annual wage. Using the revised series of the stock of residential buildings raises the value of real estate in the 19th century. For parts of the 20th century the value is significantly reduced.

For the early 19th century, the estimate in Krantz and Schön (2007) seems to be suspiciously low, which is admitted in Schön and Krantz (2012). In contrast, the series for this period in Krantz (1991) and Schön and Krantz (2012) seem to be much too high considering the low level of investment in dwellings. According to Schön and Krantz (2012), the volume ratio of investment in dwellings to services of dwellings rose from 0.12 in 1800–20 to 0.29 in 1930–50. Such a sharp increase is unrealistic if one assumes a constant rate of depreciation for the stock of dwellings. The increase around 1920 in the ratio of per capita value added of real estate to the average annual wage according to the series in Schön and Krantz (2012) is probably an exaggeration. For example, while according to Schön and Krantz (2012) the per capita volume of services of dwellings increased by 172 per cent between 1910 and 1930, the per capita volume of investment in dwellings increased by only 48 per cent between 1890–1909 and 1910–29. For the late 20th century the Krantz and Schön series are much too high compared to the series of Statistics Sweden.

## 4.6. Changes to other activities

The new calculations of real estate also affect the estimated size of the gross output of building and construction activities. The main changes concern residential investment, which is upgraded for the earlier periods, and repairs and maintenance of dwellings, which are downgraded.[98]

Some of the work which domestic maids performed in agriculture concerned industrial or agricultural production according to the definition in 2008 SNA. Jan Bohlin questions Krantz's assumption that 64 per cent of the time maids spent in agriculture was devoted to domestic services. From evidence in rural diaries, Bohlin argues that the share should be 10-25 per cent.[99] However, these diaries tend to omit the day-to-day service activities that women performed in an agrarian household. The share should therefore probably be somewhat larger than assumed by Bohlin. In Edvinsson (2005) the share is somewhat lower than Krantz's figure. The present study puts the share at 64 per cent in 1929–50, in accordance with Krantz' assumption, since it is based on information from that period. In earlier periods, however,

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98   From 1938 there are direct empirical data on repairs and maintenance, presented in Johansson (1958, p. 26). For the period before 1938, Johansson uses the gross output of services of dwellings for extrapolation backwards. However, this gross output significantly underestimates nominal growth. The present study uses the new series of services of dwellings to estimate a new series of repairs and maintenance as well, which significantly lowers the values, especially for the 19th century.

99   Bohlin (2003, p. 86).

the time devoted to domestic services was no doubt lower on account of the large scale of home-based manufacturing. The present study therefore assumes that in 1800 the share of domestic services was one third. For the years between 1800 and 1929 the share is interpolated using the trend in the ratio of value added in textile and food industries, including home-based manufacturing, to the value added of these activities in factory production and handicrafts.

The changes to other types of activities are minor. For shipping, a new freight index is used for the period 1800–25.[100] For trade, a correction is made by including pharmacies, which were accidentally excluded in Edvinsson (2005).

## 4.7. GDP by activity 1620–1800

Before the industrial revolution, annual fluctuations in the aggregate economy were largely dominated by the ups and downs of agricultural production.[101] The other activities did have an impact but it was not sufficient to determine the general direction from year to year. The fluctuations in agricultural production were, in turn, largely determined by the fluctuations in harvests. Animal produce was affected with some time lag. Harvests also affected some manufacturing and service activities, especially food, textile and leather industries, and trade, also with some time lag. Harvests were more volatile than other types of activity. Thus a reliable series of annual harvests may be used to estimate annual fluctuations in pre-industrial GDP.

Table 4.1 presents coefficients for four regressions covering the period 1800–40, where the two independent variables are the annual (natural) logarithmic changes in per capita harvests in the current and the preceding year.[102] The dependent variables are the logarithmic changes in per capita volume value added of the aggregate economy (two regressions), and of agriculture and food industries, respectively. When both the independent variables are included, the R-value of the regression for GDP per capita is as high as 0.96 (regression 1), implying that over 90 per cent of the variance is explained; when only the current logarithmic change in per capita harvests is included, the R-value falls to 0.81 (regression 2). For agricultural production (regression 3), the R-value is even higher (0.98) when two independent variables are included. For food industries (regression 4), current logarithmic change is excluded from the model because it is not significant, but the R-value is still very high (0.95).

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100 Based on North (1965, p. 235), and Harley (1988, pp. 873-874).

101 Edvinsson (2005, pp. 255-260).

102 Covering a longer period produces similar results. However, the regression equations are based on the period 1800-40 because it was from the 1840s that per capita GDP growth accelerated in Sweden.

**Table 4.1:** *Regressions for the period 1800–40, where the two independent variables are the annual logarithmic changes in per capita harvests in the current and the preceding year.*

| Dependent variable | 1. Logarithmic change in per capita GDP | 2. Logarithmic change in per capita GDP | 3. Logarithmic change in per capita value added of agriculture | 4. Logarithmic change in per capita value added of food industries |
|---|---|---|---|---|
| Constant | 0.00 | 0.00 | -0.00 | -0.00 |
| Coefficient, logarithmic change in per capita harvest | 0.30 | 0.25 | 0.69 | Not included |
| Coefficient, logarithmic change in per capita harvest, one-year lag | 0.17 | Not included | 0.14 | 0.74 |
| t-value, logarithmic change in per capita harvest | 21.50 | 8.63 | 31.19 | Not included |
| t-value, logarithmic change in per capita harvest, one-year lag | 11.82 | Not included | 6.38 | 17.92 |
| R-value | 0.96 | 0.81 | 0.98 | 0.95 |
| $R^2$ | 0.93 | 0.66 | 0.96 | 0.89 |
| Adjusted $R^2$ | 0.93 | 0.64 | 0.96 | 0.89 |
| Degrees of freedom | 37 | 38 | 37 | 38 |

For the coefficients of regression 1 in Table 4.1 to be applicable to the period before 1800 and thereby arrive at an annual volume GDP per capita series, two conditions must be met: 1) a reliable harvest series must exist, and 2) the possibility of trend growth means that the constant cannot be set to zero, so conjectures have to be made about other activities, at least for some benchmark years.

For the period before 1800, earlier research is not entirely unanimous about the development of agriculture and food industries in Sweden. The most reliable accounts are proably those in studies on consumption patterns.

Most Swedish economic historians argue that after the 16th century, the economy became more dependent on grain production at the expense of animal production.[103] However, this probably occurred during the 16th century, before the period for the present study. Mats Morell concludes that consumption of crops displayed long-term per capita growth from the early 17th century to the early 19th century, while consumption of animal products and beer decreased.[104] In 18th century Sweden, consumption of grains exceeded their production, so a large share of consumption

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103 Gadd (1983, p. 278); Morell (1986).
104 Morell (1989).

had to be imported. According to Eli Heckscher, Sweden became a net importer of grains already in the 1680s.[105]

In order to estimate an annual series of GDP for the pre-industrial period one needs a reliable series for harvests. The present study utilizes a series that goes back to 1665, constructed by the author in a previous study, with some minor adjustments. This series is based on movements in grain prices, tithes and subjective harvest estimates.[106] Tithe estimates and fluctuations in grain prices are used to extend this series back to 1620. Lotta Leijonhufvud presents tithes for Sweden for the whole period 1539–1680.[107] These are adjusted for the expected underestimation of tithe accounts due to tax evasion.[108]

The approximation of GDP per capita is done with regression equation 1 in Table 4.1. To estimate the constant, GDP per capita is disaggregated into the per capita volume values added (in 1800 prices) of various activities for a few benchmark years: 1637, 1685, 1751 and 1800. These benchmarks are chosen because data on foreign trade exist for each of these years[109] and the first census based on occupation is from 1751 (which can be compared to 1800).[110] The estimated per capita volume values added are presented in Table 4.2, which also includes the year 1820. Henceforth, the constant of the regression equation is set at different values for different periods, in accordance with the benchmark calculation. For 1620–37, the constant is set to zero.

105 Heckscher (1949, Vol. 2.1, p. 172).
106 Edvinsson (2009).
107 Leijonhufvud (2001).
108 The details are provided in Edvinsson (2013a).
109 Boëthius and Heckscher (1938); Statistics Sweden (1972).
110 Statistics Sweden (1949).

**Table 4.2:** *Estimates of per capita value added of various activities in Sweden within present borders for the benchmark years, expressed in prices in 1800 (SEK).*

|                                | 1820 | 1800 | 1751 | 1685 | 1637 |
|--------------------------------|------|------|------|------|------|
| Agriculture and ancillaries    | 36.6 | 28.2 | 31.2 | 35.5 | 32.8 |
| Food industries                | 6.1  | 5.8  | 6.9  | 5.7  | 6.3  |
| Mining and quarrying           | 1.5  | 1.4  | 1.5  | 1.6  | 1.1  |
| Textile and leather industries | 4.6  | 4.4  | 4.4  | 4.4  | 4.4  |
| Other manufacturing            | 2.1  | 2.2  | 1.9  | 1.9  | 1.6  |
| Building and construction      | 2.0  | 2.0  | 2.0  | 2.0  | 1.9  |
| Trade                          | 1.6  | 1.6  | 1.5  | 1.2  | 0.6  |
| Transports and communications  | 2.9  | 2.7  | 2.4  | 1.9  | 1.0  |
| Real estate                    | 2.9  | 3.0  | 3.0  | 3.0  | 2.7  |
| Paid household work            | 4.2  | 3.9  | 4.0  | 3.5  | 3.1  |
| Other private services         | 1.7  | 1.6  | 1.5  | 1.2  | 0.6  |
| Public services                | 4.4  | 4.8  | 6.0  | 6.0  | 3.9  |
| Sum                            | 70.6 | 61.5 | 66.3 | 67.8 | 60.0 |
| Population, 1000s              | 2573 | 2352 | 1791 | 1377 | 1110 |

The population series is from an earlier study by the author.[111] Estimating the size of the various activities is difficult, since no direct data exist for many of them. Various indicators are therefore used.

The values added of agriculture and food industries are estimated by extrapolating the known values in 1800 backwards, using the coefficients of regressions 3 and 4 in Table 4.1. One problem is to approximate the regression equations' constants. Even small constants entail an increase or decrease over time in per capita volume value added despite constant per capita harvests. For agriculture, the main factor behind such long-term changes is shifts in the relation between crops and animal produce. Since a calorie consumed from animals is of greater value than a calorie consumed from crops, the assumption of constant per capita calorie consumption and a shift from animal to crops entails a decrease in the per capita volume value of the consumption of food products. However, this only applies to comparisons between the 16th century and the 17th and 18th centuries. During the period under investigation, 1620–1800, the relation between production and consumption of crops and animal products can be assumed to be roughly stable. For food industries, Olle Krantz (2003) argues that a larger consumption of beer in the 16th century implies that the level of the per capita production of food industries in 1571 was much higher than in the early 19th century. However, the GDP series he uses from 1800 excludes home-based manufacturing, for example, baking at home, while the present

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111 Edvinsson (2009); Edvinsson (2013c).

study uses a GDP series that includes all manufacturing. If we assume that value added per unit of grain was roughly the same for bread baking and beer production, shifts in patterns of grain consumption should not affect value added of food industries. Therefore, the constants of regressions 3 and 4 in Table 4.1 are set to zero. The difference between the benchmark years reflects the volatility of harvests rather than long-term changes.

The 1751 census could only be used to estimate the size of public services, sea transports and paid domestic services if labour productivity is assumed to be constant. Andersson Palm shows that the prevalence of female servants increased from 6 to 9 per cent of the population between 1571 and 1751,[112] which is linearly interpolated to approximate the size of paid domestic services in 1637 and 1685. For some activities – forestry, fishing, wood industry, textile and leather industries, and stone and clay industries – the assumption is a constant level of per capita volume.[113] Foreign trade data are used to estimate production in mining and chemical industries, since the main part there was exported. For trade, Andersson Palm presents a series back to 1622 that is less reliable for the earlier decades.[114] When no other indicator is available, this series and the urban population are used as indicators for the development of most of the services. For building and construction, and real estate, 17th century urbanisation is assumed to have led to a 10 per cent increase between 1637 and 1800.

As can be seen from Table 4.2, per capita value added increased for some activities and stagnated for others. The per capita volume of trade increased 2.7-fold between 1637 and 1800. The censuses also show a slight increase in the proportion of the population engaged in sea transports between 1751 and 1800. The most dynamic activity was probably printing industries. Between 1620 and 1800, the number of book titles (registered by Sweden's central library) increased almost 10-fold.[115] If that is a correct reflection of the expansion of printing industries, the annual increase in per capita production amounts to 1.3 per cent. However, since printing industries represented just a tiny part of GDP (only 0.08 per cent in 1800), the impact on overall economic growth was minimal.

Some activities declined in the 18th century, after expanding in the preceding decades or centuries. This is most evident for mining and public services (the present study assumes that the secular decline of per capita agricultural production and food industries occurred before 1620). The most significant expansion of public services probably took place in the 16th century, with a continuation into the 17th century, at the height of Sweden's military power. Censuses show that the proportion of the

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112 Andersson Palm (2000, p. 24).

113 Since the number of workers in manufacturing declined between the mid 18th century and early 19th century, while the population increased, the per capita production of manufacturers declined significantly (Heckscher, 1949: Vol. 2.2, pp. 38*-39*). This, however, does not take into account home craft production, which may have advanced during the period. For example, there is no evidence that per capita consumption of textile and leather products decreased.

114 Andersson Palm (1992).

115 *Libris*, http://libris.kb.se.

population employed in public services (mostly military services) declined between 1751 and 1800. This negative development continued in the first half of the 19th century due to the dismantling of Sweden's military power. Copper production declined not only in per capita terms but also absolutely, after peaking in 1650.[116]

The annual fluctuations in GDP per capita between the benchmark years are assumed to be entirely determined by harvests fluctuations. Although wars increased the size of the public sector, that was presumably offset by the contraction of other activities that occurred when men were withdrawn from construction and crafts, for example.

## 4.8. GDP by expenditure

Edvinsson (2005) also includes a calculated series of GDP by expenditure, which for the period before 1950 is largely based on the series of GDP by activity. GDP by expenditure is estimated in market prices. The revision of GDP by activity in the present study leads to changes in GDP by expenditure. The main revisions concern private consumption and changes in inventories.

From 1950 onwards, the series is based on Statistics Sweden. Aggregate GDP is derived from GDP by activity by adding the excess of goods-related indirect taxes over goods related subsidies and a statistical discrepancy due to GDP by activity being recorded in basic prices. For the period before 1950, as in Edvinsson (2005), private consumption is calculated as a residual by deducting investment, public consumption and net export from GDP by expenditure. A difference from Edvinsson (2005) is that volume growth of GDP by expenditure is assumed to follow the series of GDP by activity (corrected for the distribution of indirect taxes on different expenditures), while the deflator of private consumption is estimated as a residual as well.

The upgrading of GDP that results from the inclusion of home-based manufacturing and higher agricultural output leads to private consumption in the 19th century being higher than in Edvinsson (2005). The revised real estate series explains the whole of the change to private consumption in 1950–70.

The registration of harvests in the year of production instead of the year of consumption calls for the calculation of a new series of changes in inventories. Harvests are assumed to be stored in the current year and consumed in the following year. Changes in inventories are therefore much more volatile, especially in the 19th century. The advantage of this method is that poor harvests have an effect on aggregate GDP in the current year, but on private consumption in the following year. The series of fixed investment is also revised, due to the recalculation of the production of dwellings.

The estimate of GDP by expenditure in the present study is based on an earlier series of Statistics Sweden before the switch to 1993 SNA, using the period 1980–94 as a benchmark. The newer series after 1994 are used for forward extrapolation of the 1980–94 series. The newer data by Statistics Sweden (2013) have substantially

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116 Tegengren (1924).

upgraded various expenditures, especially investment by broadening the concept of investment.

Moreover, the appendix presents a series based on the most recent data from Statistics Sweden, which are extrapolated backwards. For the period from 1970, the nominal values series are the same as the most recent series from Statistics Sweden, while for the period 1950–69 there are differences, especially for private consumption. The volume values are calculated using the Fisher annual chain index, whereas Statistics Sweden applies the Laspeyres annual chain index. Due to the so-called Gerschenkron effect, a Laspeyres chain index entails too low volume values for the early 19th century.

The appendix presents the two different series of GDP by expenditures; various expenditures are only presented with Statistics Sweden's most recent data as a benchmark for backward extrapolation.

Figure 4.6 displays the ratios of the various expenditures, based on Statistics Sweden's most recent series, to the series in Edvinsson (2005). For 2000, the changes in Statistics Sweden's methodology in the 1990s raise GDP by expenditure 12.5 per cent; a more inclusive concept of investment raises fixed investment almost 40 per cent; the uprating of private consumption is slight for 2000, while for 1922–67 the lower valuation of services of dwellings actually lowers private consumption. The largest revisions concern the 19th century and are occasioned by the inclusion of home-based manufacturing and the revised series of production of dwellings. For the first half of the century, GDP by expenditure is raised 32 per cent, private consumption 34 per cent and fixed investment 36 per cent. The revision to the changes in inventories, not depicted in the figure, is even more substantial. The series of government consumption, export and import are revised only slightly, mostly as a consequence of the changes in Statistics Sweden's methodology in the 1990s.

**Figure 4.6:** *Nominal ratios of various expenditures, using Statistics Sweden's most recent series, to the series in Edvinsson (2005).*
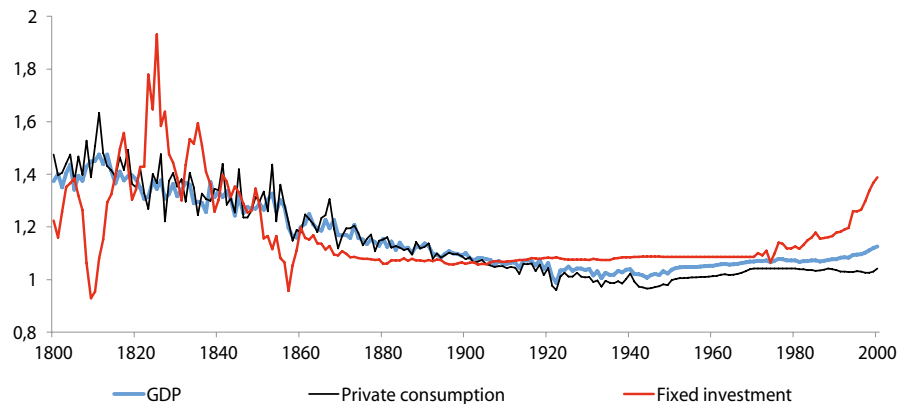


Sources: Table A4.2, Edvinsson (2005), and Statistics Sweden (2013).

## 4.9. Trends and fluctuations in GDP 1620–2012

Trend growth is a better measure of changes in long-term growth because it does away with the effects of individual years. According to the present study, average per capita trend growth (using an HP-filter, and setting λ=100) in 1620–1800 was only 0.04 per cent a year, but we cannot speak of complete stagnation. The present estimate is less than Maddison's assumption of 0.07 per cent annual growth in the same period.

Stagnation or very slow growth applies only to GDP per capita, not to total GDP. The increase in production was mainly a consequence of population growth.[117] That by itself required a more efficient use of natural resources. Given a constant level of technology, a larger population per unit of land would have led to lower production per capita. A constant or minor increase in per capita production in conjunction with a substantial increase in the population constituted significant technological progress, not technological stagnation.

While the present study was in progress, Schön and Krantz (2012) published their series of GDP before 1800, which goes back to 1560. There are some important methodological differences between their study and the present study.

Krantz and Schön estimate agricultural production by means of the demand approach, where per capita consumption of agricultural products is assumed to be negatively related to the real wage and positively related to the real price of agricultural products.[118] In contrast, the estimate in the present study is independent of the real wage's development. In the Krantz and Schön series, per capita agricultural production reached a very high level in the 17th and early 18th century; it then declined after the 1730s to a low in the early 19th century and it was not until the end of the 19th century that per capita production returned to the level in the 17th century. According to the Krantz and Schön series, in 1709, which according to the present study was the worst famine year after 1620, per capita agricultural production was 33 per cent above the average level in the 1820s, when Sweden was again a net exporter of grains for the first time in a century and a half. According to the present study, however, per capita agricultural production was largely unchanged up to the mid-19th century, followed by growth in the 1860s and '70s.

The sharp decline in per capita agricultural production from the early 18th to the early 19th century according to Krantz and Schön is problematic considering that the composition of food consumption and per capita net import of grains did not change much in this period.[119] There is no empirical support for a sharp fall in per capita calorie intake according earlier Swedish consumption studies.[120]

As calculated by Schön and Krantz (2012), per capita agricultural production follows the real wage, which does basically display such a trend, with a low point in

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117  See also Heckscher (1949, Vol. 2:1, p. 57).
118  Krantz and Schön (2012, p. 7).
119  Morell (1989).
120  Morell (1986).

the early 19th century. Earlier research is not in favour of using the real wage as an indicator of movements in per capita agricultural production. For example, Jörberg, who gathered the wage data used by Krantz and Schön, argues that "the fall in the real wages of day-workers provides no information on the general economic situation of agriculture during the later part of the 18th century".[121] The real wage is not a macroeconomic measure. As Maddison explains, as indicators of GDP per capita, measures of the real wage "cover only a small fraction of economic activity, and their representativity is almost never examined".[122]

The present study shows that economic difficulties were particuly severe in the years around 1700. Per capita trend growth was negative and total trend growth reached a low. The difficulties were aggravated by wars in the period 1700–20. The high real wage of male labourers reflected a shortage of men rather than a rising standard of living. For example, soldiers born in the 1720s were shorter than those in any subsequent period.[123] Mats Morell demonstrates that the calorie intake in Swedish "hospitals" was at a markedly low level in the period 1690–1730 and then stabilised at a higher level from the 1740s onwards.[124]

While the present study estimates GDP for various activities for a few benchmark years, Schön and Krantz (2012) estimate them annually. The main difference from the present study is that their level of public services is much higher in times of war. Since Krantz and Schön assume that the public sector expanded in wartime, their series display a very high level of GDP per capita in the early 18th century. While according to Krantz and Schön GDP per capita decreased by 32 per cent between 1700–20 and 1800–20, according to the present study it increased by four per cent. According to their series, GDP per capita was still eight per cent below the 1700–20 level in 1850–70, while according to the present study there was an increase of as much as 29 per cent. For 1700, the Krantz and Schön series puts GDP per capita 12 per cent above the level in the UK according to Maddison. Of all countries in the world, only Holland would have surpassed Sweden.

To what extent war expanded production is a difficult question that needs further investigation. Krantz and Schön's view is not unreasonable. However, if men were employed in the army, that would most likely entail fewer hours worked in other parts of the economy. In a capitalist economy with high unemployment, war could induce economic expansion because the unemployed or underemployed segment of the population could be brought into production. In an agrarian household economy, total employment did not change much. Of course, there could still be expansionary effects if hours worked per inhabitant tended to increase, but the ravages of war could also lead to a loss of labour productivity, offsetting such an effect. Against this background, the present study assumes that war had a neutral impact on the

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121  Jörberg (1972, Vol. 2, p. 343).
122  Maddison (2007, p. 308).
123  Gadd (2000: pp. 341–342).
124  Morell (1989: pp. 260–261).

pre-industrial economy. This implies that when the public sector expanded, less was produced in other activities, for example in home craft and construction.

In the Krantz and Schön series, volatility before 1732 is much more pronounced than according to the present study. The main reason is that for this period Krantz and Schön use a real wage series for Stockholm, where volatility is much greater than in the national wage series they use from 1732, since local series are more volatile than national series.

The population in 1620 is set substantially higher in the present study than in Krantz and Schön's, which follows a study by Lennart Andersson Palm. This is illustrated in Figure 4.7. Consequently, compared with the present study, while Krantz and Schön overestimate GDP per capita for the whole of the 17th century, they underestimate total GDP in the 1620s. For the 1630s and 1640s, total GDP is at much the same level in the two series, while Krantz and Schön overestimate total GDP for the whole of the 17th century's second half. The rapid growth of the population in the seventeenth century according to Andersson Palm can mainly be explained by his assumption of unrealistically low mortality rates – at a time of perpetual warfare. For example, for 1637 Andersson Palm records a crude death rate of 16.6 per 1000 and a non-war related death rate of just 13.5 per 1000. In comparison, official statistics indicate that the first year in which the death rate fell below 14 per 1000 was 1909 (in peacetime).[125]

**Figure 4.7:** *Two estimates of the population of Sweden within present borders 1620–1740.*
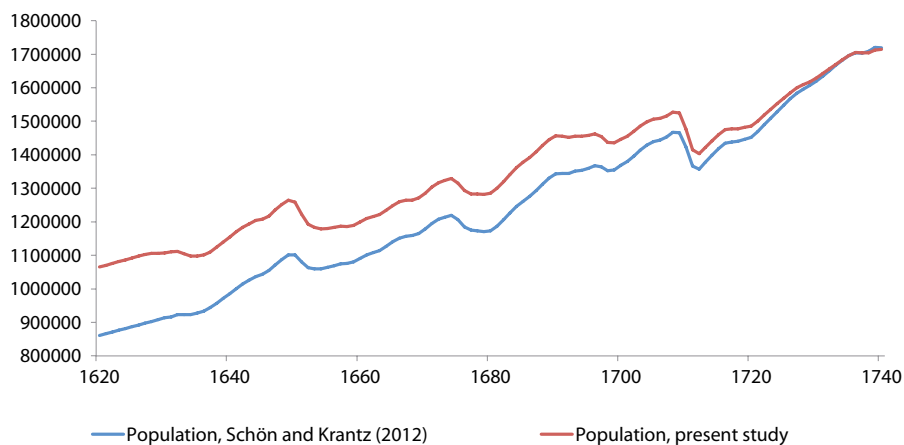


Sources: Schön and Krantz (2012), and Table A4.1.

Figure 4.8 compares various studies' pictures of the trend growth of volume GDP per capita in 1800–2010. It can be seen that the main revision in the present study

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125  Andersson Palm (2001).

concerns the period before the First World War, with substantially weaker spurts in growth around 1820 and in the 1850s and '70s. While the earlier series indicate that the trend growth of GDP per capita accelerated to above one per cent annually in the late 1840s, according to the present study this level was not reached until the late 1860s.

The main difference from Schön and Krantz (2012) in Figure 4.8 concerns trend growth in the early 19th century. Trend growth according to the present study is somewhat lower than in earlier studies but development according to the series in Schön and Krantz (2012) is very negative.

**Figure 4.8:** *Trend growth of volume GDP per capita (by activity) 1800–2010 according to various series.*
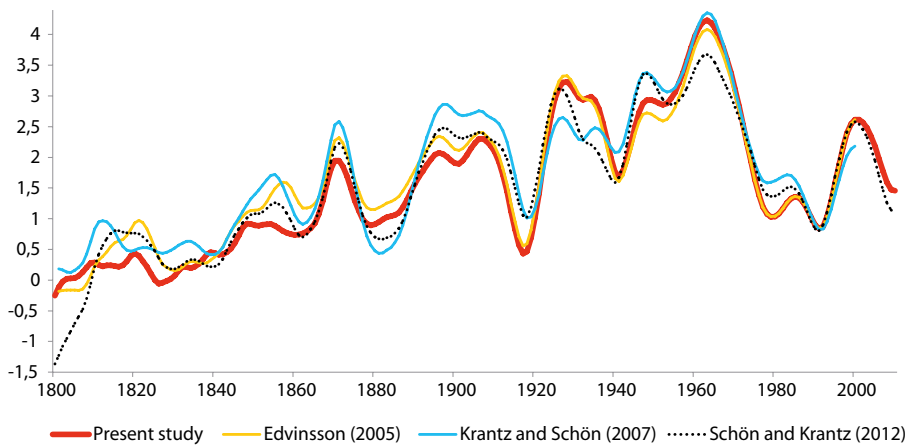


Source: Table A4.1, Edvinsson (2005), Krantz and Schön (2007), and Schön and Krantz (2012). The trend is calculated using a HP-filter with λ=100.

Since the present study presents relatively reliable estimates of annual fluctuations (long-term changes are more difficult to determine), it enables us to identify the most severe economic crises. In the pre-industrial economy, such crises were mainly caused by harvest failures. Furthermore, harvest failures were often followed by plagues.[126] Pre-industrial crises were therefore supply shocks. In contrast, modern economic crises were predominantly produced by fluctuations in the production of industrial goods, often as an effect of demand shocks.[127] During the early modern period, the negative demographic effects of supply shocks were mitigated by an increased division of labour and trade.

Modern crises, or recessions, are often measured as the fall in GDP. Another measure is the level of GDP or GDP per capita relative to a trend (so-called "growth

126  Larsson (2006, pp. 93–120).
127  Sherman (1991, p. 25).

cycles"). In an agrarian economy, falling GDP was not necessarily an indication of an economic crisis. Average harvests could follow either a good or a bad harvest. In the former case GDP would decline, in the latter it would rise. It seems more plausible to identify harvest failures in relation to the average for a certain period. Estimating the level of GDP relative to a trend therefore seems to be the best way of comparing modern and pre-industrial economic crises.

Figure 4.9 presents the level of GDP per capita in per cent above or below a trend; this is calculated by using an HP-filter, setting $\lambda=100$. Table 4.3 lists the 20 deepest crisis years. These tended to occur in all centuries, with a predominance in the pre-industrial period. Of the 20 worst crisis years, six occurred in the period 1620–1700, six in the 18th century, five in the 19th century, and three in the 20th century. All crises before the 20th century were caused by severe harvest failures.

**Figure 4.9:** *Swedish GDP per capita relative to its trend (using an HP-filter where $\lambda=100$), in per cent, and the moving 20-year standard deviation.*



— GDP/cap, deviation from trend (left-scale)    — Standard deviation, moving 20-year period (right-scale)
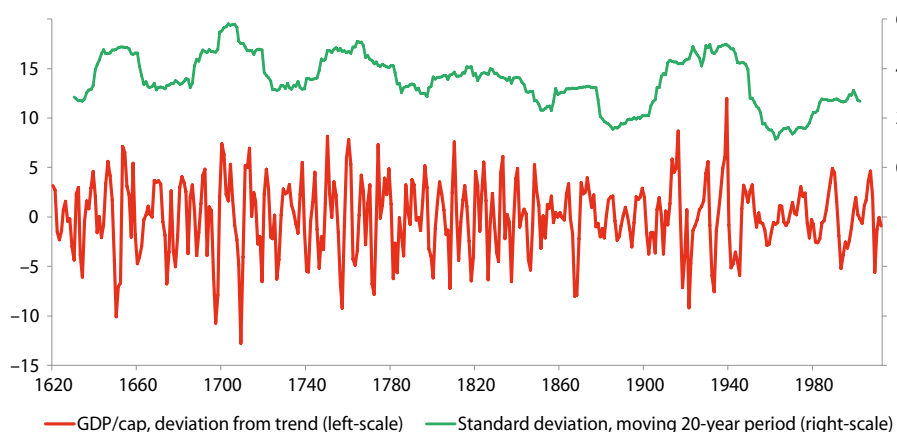
Source: Table A4.1.

**Table 4.3:** *Ranking of the 20 worst crisis years in 1620–2012, based on volume GDP per capita relative to its trend (using an HP-filter, where $\lambda=100$).*

| Rank | Year | Relative trend (%) | Rank | Year | Relative trend (%) | Rank | Year | Relative trend (%) | Rank | Year | Relative trend (%) |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 1709 | -12.8 | 6 | 1867 | -8.0 | 11 | 1808 | -7.2 | 16 | 1771 | -6.8 |
| 2 | 1697 | -10.7 | 7 | 1698 | -7.9 | 12 | 1918 | -7.2 | 17 | 1652 | -6.7 |
| 3 | 1650 | -10.1 | 8 | 1868 | -7.9 | 13 | 1651 | -7.0 | 18 | 1719 | -6.5 |
| 4 | 1757 | -9.2 | 9 | 1772 | -7.8 | 14 | 1756 | -6.8 | 19 | 1837 | -6.5 |
| 5 | 1921 | -9.2 | 10 | 1933 | -7.6 | 15 | 1674 | -6.8 | 20 | 1818 | -6.5 |

Source: Table A4.1.

The three deepest crisis years were 1650, 1697 and 1709. These were severe harvest failures, accompanied by increased death rates and substantial declines in the total population. Although there were many good years, in the agrarian society it was the most severe harvest failures that had the most damaging consequences, also in the longer term. In the period 1650–1720, average population growth slowed to 0.2 per cent a year (compared to 0.6 per cent a year in both 1620–50 and 1720–70). This corresponds to the so-called Maunder Minimum (spanning 1645 to 1715), when sunspots became very rare and the Little Ice Age was at its coldest.[128]

There is more to welfare than its level. Volatility must also be taken into account. A volatile economy generates insecurity and reduces the utility from a given, average level of GDP per capita. Figure 4.9 displays the 20-year moving standard deviation in GDP per capita relative to its trend. Volatility was highest in the years around 1700. Although it has decreased somewhat with the advent of industrial society, volatility in 1914–45 was above the average for 1620–1800, mainly due to the shocks of World Wars and the Great Depression.

## 4.10. Conclusion

Swedish historical national accounts are among the most detailed for any country. However, as shown in this chapter, previous estimates of Swedish GDP for the 19th century suffer from a number of shortcomings. This chapter reports some important revisions, whereby GDP is raised substantially for the first part of that century, but lowered to some extent for the 1930s. There is scope for further improvements but the revisions presented here should correct some of the most serious deficiencies. They also render the historical data comparable with modern national accounts.

In addition, a new annual GDP series is presented at the aggregated level for the period 1620–1800. This series is very crude but even modern national accounts can be rather unreliable. For example, quality improvements of products have made it very difficult to estimate long-term trends in the modern era. This chapter also shows that the presented series is in line with earlier research on the development of the early modern Swedish economy.

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128  Luterbacher et al. (2001).

# Appendix

**Table A4.1:** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, GDP/cap by expen-diture | 1980–94 benchmark | | 2008 SNA, GDP by expenditure |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | | GDP by activity | GDP by expenditure | |
| 1620 | | | | 1065 | 9723 | 10823 | 11320 | 33.1 | 34.8 | 36.2 |
| 1621 | -1.54 | -1.54 | -1.54 | 1070 | 9526 | 10603 | 11090 | 26.9 | 28.3 | 29.5 |
| 1622 | -5.17 | -5.17 | -5.17 | 1076 | 8988 | 10005 | 10464 | 29.3 | 30.8 | 32.0 |
| 1623 | -1.84 | -1.84 | -1.84 | 1081 | 8779 | 9772 | 10221 | 32.8 | 34.5 | 35.9 |
| 1624 | -0.01 | -0.01 | -0.01 | 1087 | 8734 | 9722 | 10169 | 34.1 | 35.9 | 37.4 |
| 1625 | 1.34 | 1.34 | 1.34 | 1092 | 8807 | 9803 | 10254 | 34.3 | 36.1 | 37.6 |
| 1626 | 0.24 | 0.24 | 0.24 | 1097 | 8785 | 9778 | 10227 | 39.3 | 41.4 | 43.0 |
| 1627 | -2.40 | -2.40 | -2.40 | 1103 | 8531 | 9496 | 9933 | 41.4 | 43.6 | 45.3 |
| 1628 | -0.21 | -0.21 | -0.21 | 1106 | 8492 | 9453 | 9887 | 56.5 | 59.5 | 61.8 |
| 1629 | -3.24 | -3.24 | -3.24 | 1106 | 8217 | 9146 | 9566 | 58.2 | 61.2 | 63.7 |
| 1630 | -1.50 | -1.50 | -1.50 | 1107 | 8088 | 9002 | 9416 | 74.8 | 78.7 | 81.9 |
| 1631 | 7.53 | 7.53 | 7.53 | 1111 | 8664 | 9643 | 10086 | 78.7 | 82.8 | 86.1 |
| 1632 | 1.12 | 1.12 | 1.12 | 1112 | 8749 | 9739 | 10186 | 75.4 | 79.4 | 82.5 |
| 1633 | -6.71 | -6.71 | -6.71 | 1105 | 8219 | 9149 | 9569 | 88.3 | 93.0 | 96.7 |
| 1634 | -2.17 | -2.17 | -2.17 | 1098 | 8088 | 9003 | 9416 | 83.1 | 87.4 | 90.9 |
| 1635 | 7.05 | 7.05 | 7.05 | 1098 | 8659 | 9639 | 10081 | 81.8 | 86.1 | 89.5 |
| 1636 | 3.38 | 3.38 | 3.38 | 1101 | 8929 | 9938 | 10395 | 86.1 | 90.6 | 94.2 |
| 1637 | 1.08 | 1.08 | 1.08 | 1110 | 8952 | 9964 | 10422 | 83.5 | 87.9 | 91.4 |
| 1638 | 4.37 | 4.37 | 4.37 | 1124 | 9225 | 10268 | 10739 | 85.4 | 89.9 | 93.5 |
| 1639 | 3.79 | 3.79 | 3.79 | 1139 | 9446 | 10514 | 10997 | 94.1 | 99.1 | 103.0 |
| 1640 | -0.56 | -0.56 | -0.56 | 1155 | 9268 | 10316 | 10790 | 92.3 | 97.2 | 101.1 |
| 1641 | -1.90 | -1.90 | -1.90 | 1170 | 8970 | 9984 | 10443 | 105.5 | 111.1 | 115.5 |
| 1642 | 2.98 | 2.98 | 2.98 | 1183 | 9137 | 10171 | 10638 | 109.2 | 115.0 | 119.6 |
| 1643 | -1.12 | -1.12 | -1.12 | 1194 | 8954 | 9967 | 10424 | 105.4 | 110.9 | 115.4 |
| 1644 | 2.08 | 2.08 | 2.08 | 1204 | 9065 | 10090 | 10553 | 123.7 | 130.2 | 135.4 |
| 1645 | 4.29 | 4.29 | 4.29 | 1208 | 9424 | 10490 | 10972 | 111.6 | 117.5 | 122.2 |
| 1646 | 2.65 | 2.65 | 2.65 | 1218 | 9597 | 10682 | 11173 | 117.1 | 123.3 | 128.2 |
| 1647 | -0.45 | -0.45 | -0.45 | 1235 | 9416 | 10481 | 10963 | 115.6 | 121.6 | 126.5 |
| 1648 | -1.69 | -1.69 | -1.69 | 1251 | 9139 | 10172 | 10640 | 116.3 | 122.4 | 127.3 |
| 1649 | -5.55 | -5.55 | -5.55 | 1265 | 8539 | 9505 | 9942 | 128.4 | 135.2 | 140.6 |
| 1650 | -6.78 | -6.78 | -6.78 | 1258 | 8001 | 8906 | 9315 | 165.1 | 173.8 | 180.8 |
| 1651 | 0.33 | 0.33 | 0.33 | 1223 | 8262 | 9197 | 9619 | 129.4 | 136.2 | 141.6 |
| 1652 | -1.95 | -1.95 | -1.95 | 1193 | 8302 | 9240 | 9665 | 160.8 | 169.2 | 176.0 |
| 1653 | 14.21 | 14.21 | 14.21 | 1183 | 9560 | 10641 | 11130 | 114.1 | 120.1 | 124.9 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 1654 | -0.60 | -0.60 | -0.60 | 1179 | 9535 | 10614 | 11101 | 113.0 | 119.0 | 123.7 |
| 1655 | -2.90 | -2.90 | -2.90 | 1180 | 9250 | 10296 | 10769 | 117.5 | 123.7 | 128.6 |
| 1656 | -0.43 | -0.43 | -0.43 | 1183 | 9187 | 10226 | 10696 | 123.7 | 130.2 | 135.4 |
| 1657 | -3.74 | -3.74 | -3.74 | 1187 | 8816 | 9813 | 10264 | 127.0 | 133.6 | 139.0 |
| 1658 | 7.72 | 7.72 | 7.72 | 1186 | 9505 | 10580 | 11066 | 115.0 | 121.1 | 125.9 |
| 1659 | -6.42 | -6.42 | -6.42 | 1189 | 8869 | 9872 | 10325 | 134.4 | 141.5 | 147.1 |
| 1660 | -1.94 | -1.94 | -1.94 | 1200 | 8621 | 9596 | 10037 | 133.7 | 140.7 | 146.3 |
| 1661 | 2.00 | 2.00 | 2.00 | 1210 | 8720 | 9706 | 10152 | 158.3 | 166.6 | 173.3 |
| 1662 | 2.21 | 2.21 | 2.21 | 1216 | 8869 | 9873 | 10326 | 152.6 | 160.6 | 167.0 |
| 1663 | 3.92 | 3.92 | 3.92 | 1221 | 9175 | 10212 | 10682 | 160.7 | 169.2 | 176.0 |
| 1664 | 2.26 | 2.26 | 2.26 | 1234 | 9286 | 10337 | 10812 | 153.3 | 161.3 | 167.8 |
| 1665 | 2.87 | 2.87 | 2.87 | 1248 | 9445 | 10513 | 10996 | 172.4 | 181.5 | 188.8 |
| 1666 | 0.80 | 0.80 | 0.80 | 1259 | 9435 | 10502 | 10984 | 168.3 | 177.2 | 184.2 |
| 1667 | 0.70 | 0.70 | 0.70 | 1264 | 9465 | 10536 | 11020 | 170.7 | 179.7 | 186.9 |
| 1668 | 4.25 | 4.25 | 4.25 | 1265 | 9863 | 10979 | 11483 | 151.2 | 159.2 | 165.5 |
| 1669 | 0.59 | 0.59 | 0.59 | 1271 | 9873 | 10990 | 11495 | 162.5 | 171.0 | 177.9 |
| 1670 | 1.35 | 1.35 | 1.35 | 1285 | 9897 | 11016 | 11522 | 152.3 | 160.4 | 166.8 |
| 1671 | 1.03 | 1.03 | 1.03 | 1303 | 9858 | 10973 | 11477 | 153.4 | 161.5 | 167.9 |
| 1672 | -2.88 | -2.88 | -2.88 | 1316 | 9479 | 10551 | 11036 | 173.4 | 182.5 | 189.8 |
| 1673 | -0.98 | -0.98 | -0.98 | 1324 | 9335 | 10391 | 10868 | 152.5 | 160.5 | 166.9 |
| 1674 | -4.69 | -4.69 | -4.69 | 1329 | 8862 | 9864 | 10317 | 204.7 | 215.5 | 224.1 |
| 1675 | 2.56 | 2.56 | 2.56 | 1316 | 9178 | 10216 | 10685 | 204.2 | 214.9 | 223.5 |
| 1676 | 4.87 | 4.87 | 4.87 | 1293 | 9796 | 10904 | 11405 | 194.0 | 204.2 | 212.4 |
| 1677 | -6.24 | -6.24 | -6.24 | 1283 | 9255 | 10302 | 10775 | 211.8 | 223.0 | 231.9 |
| 1678 | -1.05 | -1.05 | -1.05 | 1283 | 9159 | 10194 | 10663 | 202.6 | 213.3 | 221.8 |
| 1679 | 3.86 | 3.86 | 3.86 | 1282 | 9522 | 10598 | 11085 | 191.8 | 201.9 | 210.0 |
| 1680 | 6.04 | 6.04 | 6.04 | 1285 | 10070 | 11208 | 11723 | 166.7 | 175.5 | 182.5 |
| 1681 | 2.89 | 2.89 | 2.89 | 1300 | 10241 | 11399 | 11922 | 166.0 | 174.8 | 181.8 |
| 1682 | 1.42 | 1.42 | 1.42 | 1320 | 10228 | 11385 | 11908 | 162.1 | 170.6 | 177.5 |
| 1683 | 0.98 | 0.98 | 0.98 | 1341 | 10167 | 11317 | 11837 | 164.6 | 173.2 | 180.2 |
| 1684 | -4.63 | -4.63 | -4.63 | 1361 | 9552 | 10633 | 11121 | 211.3 | 222.4 | 231.3 |
| 1685 | 7.09 | 7.09 | 7.09 | 1377 | 10112 | 11256 | 11773 | 174.9 | 184.2 | 191.5 |
| 1686 | 2.06 | 2.06 | 2.06 | 1392 | 10211 | 11366 | 11888 | 171.2 | 180.2 | 187.4 |
| 1687 | -1.75 | -1.75 | -1.75 | 1409 | 9910 | 11031 | 11538 | 176.7 | 186.0 | 193.4 |
| 1688 | -3.72 | -3.72 | -3.72 | 1427 | 9419 | 10484 | 10966 | 182.1 | 191.7 | 199.3 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 1689 | 3.05 | 3.05 | 3.05 | 1445 | 9586 | 10670 | 11160 | 178.5 | 187.9 | 195.4 |
| 1690 | 3.14 | 3.14 | 3.14 | 1457 | 9810 | 10920 | 11421 | 188.4 | 198.3 | 206.2 |
| 1691 | 1.92 | 1.92 | 1.92 | 1455 | 10011 | 11143 | 11655 | 184.3 | 194.0 | 201.7 |
| 1692 | -0.41 | -0.41 | -0.41 | 1452 | 9989 | 11119 | 11629 | 195.1 | 205.4 | 213.6 |
| 1693 | -8.85 | -8.85 | -8.85 | 1455 | 9085 | 10112 | 10577 | 246.5 | 259.4 | 269.8 |
| 1694 | 4.29 | 4.29 | 4.29 | 1455 | 9476 | 10548 | 11033 | 241.3 | 254.0 | 264.2 |
| 1695 | -0.79 | -0.79 | -0.79 | 1457 | 9387 | 10449 | 10929 | 179.3 | 188.7 | 196.2 |
| 1696 | -6.67 | -6.67 | -6.67 | 1462 | 8730 | 9717 | 10164 | 228.2 | 240.3 | 249.9 |
| 1697 | -5.65 | -5.65 | -5.65 | 1454 | 8284 | 9221 | 9645 | 255.5 | 269.0 | 279.7 |
| 1698 | 2.20 | 2.20 | 2.20 | 1437 | 8566 | 9534 | 9972 | 273.1 | 287.5 | 299.0 |
| 1699 | 11.17 | 11.17 | 11.17 | 1436 | 9531 | 10609 | 11097 | 244.7 | 257.5 | 267.8 |
| 1700 | 6.54 | 6.54 | 6.54 | 1446 | 10081 | 11221 | 11737 | 239.2 | 251.7 | 261.8 |
| 1701 | 0.05 | 0.05 | 0.05 | 1456 | 10021 | 11154 | 11667 | 212.3 | 223.5 | 232.4 |
| 1702 | -2.65 | -2.65 | -2.65 | 1470 | 9661 | 10754 | 11248 | 227.6 | 239.6 | 249.2 |
| 1703 | 0.47 | 0.47 | 0.47 | 1486 | 9604 | 10690 | 11181 | 226.3 | 238.2 | 247.7 |
| 1704 | 4.41 | 4.41 | 4.41 | 1498 | 9942 | 11066 | 11575 | 204.1 | 214.8 | 223.4 |
| 1705 | -3.07 | -3.07 | -3.07 | 1507 | 9584 | 10668 | 11158 | 216.3 | 227.7 | 236.8 |
| 1706 | -2.81 | -2.81 | -2.81 | 1509 | 9302 | 10354 | 10829 | 207.1 | 218.0 | 226.7 |
| 1707 | -1.23 | -1.23 | -1.23 | 1516 | 9144 | 10179 | 10646 | 241.2 | 253.9 | 264.0 |
| 1708 | -1.89 | -1.89 | -1.89 | 1528 | 8902 | 9908 | 10363 | 247.9 | 260.9 | 271.3 |
| 1709 | -8.52 | -8.52 | -8.52 | 1525 | 8160 | 9082 | 9500 | 319.6 | 336.4 | 349.8 |
| 1710 | 6.86 | 6.86 | 6.86 | 1476 | 9004 | 10022 | 10482 | 222.7 | 234.4 | 243.8 |
| 1711 | 5.53 | 5.53 | 5.53 | 1415 | 9913 | 11034 | 11541 | 215.8 | 227.1 | 236.2 |
| 1712 | -0.57 | -0.57 | -0.57 | 1403 | 9941 | 11066 | 11574 | 227.0 | 238.9 | 248.5 |
| 1713 | 3.51 | 3.51 | 3.51 | 1422 | 10152 | 11300 | 11820 | 226.0 | 237.9 | 247.4 |
| 1714 | -5.00 | -5.00 | -5.00 | 1441 | 9514 | 10591 | 11077 | 270.4 | 284.6 | 296.0 |
| 1715 | 3.70 | 3.70 | 3.70 | 1460 | 9739 | 10841 | 11339 | 260.5 | 274.2 | 285.2 |
| 1716 | 0.09 | 0.09 | 0.09 | 1475 | 9647 | 10738 | 11232 | 315.8 | 332.4 | 345.7 |
| 1717 | -4.27 | -4.27 | -4.27 | 1477 | 9226 | 10270 | 10741 | 454.2 | 478.2 | 497.3 |
| 1718 | 0.60 | 0.60 | 0.60 | 1477 | 9279 | 10328 | 10803 | 449.9 | 473.6 | 492.5 |
| 1719 | -4.39 | -4.39 | -4.39 | 1482 | 8844 | 9845 | 10297 | 551.2 | 580.2 | 603.4 |
| 1720 | 9.70 | 9.70 | 9.70 | 1486 | 9678 | 10773 | 11268 | 373.8 | 393.5 | 409.2 |
| 1721 | 3.57 | 3.57 | 3.57 | 1501 | 9922 | 11044 | 11551 | 378.8 | 398.7 | 414.7 |
| 1722 | -0.74 | -0.74 | -0.74 | 1519 | 9734 | 10834 | 11332 | 309.1 | 325.4 | 338.4 |
| 1723 | -3.62 | -3.62 | -3.62 | 1535 | 9282 | 10331 | 10806 | 289.9 | 305.2 | 317.4 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 1724 | 1.17 | 1.17 | 1.17 | 1553 | 9282 | 10332 | 10806 | 285.6 | 300.6 | 312.6 |
| 1725 | 3.75 | 3.75 | 3.75 | 1569 | 9532 | 10610 | 11097 | 294.4 | 309.9 | 322.2 |
| 1726 | -5.06 | -5.06 | -5.06 | 1585 | 8954 | 9967 | 10424 | 303.8 | 319.8 | 332.5 |
| 1727 | 3.60 | 3.60 | 3.60 | 1600 | 9192 | 10232 | 10702 | 318.5 | 335.2 | 348.6 |
| 1728 | 5.98 | 5.98 | 5.98 | 1609 | 9686 | 10781 | 11276 | 302.5 | 318.4 | 331.1 |
| 1729 | 3.85 | 3.85 | 3.85 | 1618 | 10005 | 11137 | 11648 | 295.1 | 310.6 | 323.0 |
| 1730 | 0.79 | 0.79 | 0.79 | 1629 | 10014 | 11147 | 11659 | 293.6 | 309.1 | 321.4 |
| 1731 | 1.42 | 1.42 | 1.42 | 1643 | 10070 | 11209 | 11724 | 282.6 | 297.5 | 309.3 |
| 1732 | 1.82 | 1.82 | 1.82 | 1657 | 10168 | 11318 | 11838 | 289.9 | 305.1 | 317.3 |
| 1733 | -1.23 | -1.23 | -1.23 | 1670 | 9964 | 11091 | 11601 | 308.5 | 324.8 | 337.7 |
| 1734 | -0.10 | -0.10 | -0.10 | 1683 | 9876 | 10993 | 11498 | 297.1 | 312.7 | 325.2 |
| 1735 | -0.70 | -0.70 | -0.70 | 1696 | 9733 | 10834 | 11331 | 307.0 | 323.2 | 336.1 |
| 1736 | -0.87 | -0.87 | -0.87 | 1705 | 9599 | 10684 | 11175 | 317.4 | 334.1 | 347.5 |
| 1737 | 3.44 | 3.44 | 3.44 | 1705 | 9930 | 11053 | 11561 | 295.7 | 311.3 | 323.8 |
| 1738 | 2.58 | 2.58 | 2.58 | 1705 | 10186 | 11338 | 11859 | 291.5 | 306.8 | 319.1 |
| 1739 | -6.67 | -6.67 | -6.67 | 1712 | 9464 | 10534 | 11018 | 299.6 | 315.4 | 328.0 |
| 1740 | -4.58 | -4.58 | -4.58 | 1714 | 9020 | 10040 | 10502 | 335.4 | 353.1 | 367.2 |
| 1741 | -0.71 | -0.71 | -0.71 | 1711 | 8974 | 9989 | 10447 | 369.7 | 389.2 | 404.7 |
| 1742 | 4.74 | 4.74 | 4.74 | 1704 | 9436 | 10503 | 10985 | 359.8 | 378.8 | 393.9 |
| 1743 | 0.81 | 0.81 | 0.81 | 1686 | 9612 | 10700 | 11191 | 350.8 | 369.2 | 384.0 |
| 1744 | 2.83 | 2.83 | 2.83 | 1683 | 9903 | 11023 | 11529 | 345.0 | 363.2 | 377.7 |
| 1745 | -4.33 | -4.33 | -4.33 | 1703 | 9363 | 10422 | 10901 | 364.9 | 384.1 | 399.5 |
| 1746 | -2.71 | -2.71 | -2.71 | 1722 | 9009 | 10028 | 10489 | 370.5 | 390.0 | 405.6 |
| 1747 | 4.48 | 4.48 | 4.48 | 1736 | 9340 | 10396 | 10874 | 410.2 | 431.8 | 449.1 |
| 1748 | -0.19 | -0.19 | -0.19 | 1748 | 9254 | 10301 | 10774 | 439.8 | 463.0 | 481.5 |
| 1749 | 5.95 | 5.95 | 5.95 | 1760 | 9741 | 10843 | 11341 | 434.8 | 457.8 | 476.0 |
| 1750 | 7.87 | 7.87 | 7.87 | 1773 | 10431 | 11611 | 12144 | 449.0 | 472.7 | 491.5 |
| 1751 | -4.21 | -4.21 | -4.21 | 1791 | 9888 | 11006 | 11512 | 453.0 | 476.8 | 495.9 |
| 1752 | -1.28 | -1.28 | -1.28 | 1809 | 9664 | 10757 | 11251 | 447.0 | 470.5 | 489.3 |
| 1753 | 4.54 | 4.54 | 4.54 | 1827 | 10004 | 11135 | 11647 | 456.1 | 480.2 | 499.4 |
| 1754 | -0.36 | -0.36 | -0.36 | 1847 | 9859 | 10974 | 11479 | 475.9 | 501.0 | 521.0 |
| 1755 | -2.92 | -2.92 | -2.92 | 1866 | 9476 | 10547 | 11032 | 493.6 | 519.6 | 540.4 |
| 1756 | -4.59 | -4.59 | -4.59 | 1882 | 8963 | 9976 | 10435 | 523.3 | 550.9 | 572.9 |
| 1757 | -2.16 | -2.16 | -2.16 | 1891 | 8727 | 9714 | 10160 | 552.7 | 581.8 | 605.1 |
| 1758 | 9.37 | 9.37 | 9.37 | 1893 | 9534 | 10613 | 11100 | 605.8 | 637.7 | 663.2 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|------|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 1759 | 7.45 | 7.45 | 7.45 | 1900 | 10210 | 11365 | 11887 | 613.7 | 646.0 | 671.8 |
| 1760 | 2.64 | 2.64 | 2.64 | 1916 | 10393 | 11568 | 12100 | 656.2 | 690.7 | 718.3 |
| 1761 | -1.44 | -1.44 | -1.44 | 1934 | 10147 | 11295 | 11813 | 750.4 | 790.0 | 821.5 |
| 1762 | -8.65 | -8.65 | -8.65 | 1946 | 9212 | 10254 | 10725 | 955.1 | 1005.4 | 1045.6 |
| 1763 | -0.52 | -0.52 | -0.52 | 1951 | 9140 | 10174 | 10642 | 1029.6 | 1083.8 | 1127.1 |
| 1764 | 1.90 | 1.90 | 1.90 | 1959 | 9274 | 10323 | 10797 | 1109.0 | 1167.4 | 1214.0 |
| 1765 | 4.34 | 4.34 | 4.34 | 1971 | 9616 | 10704 | 11195 | 1084.2 | 1141.3 | 1186.9 |
| 1766 | 4.71 | 4.71 | 4.71 | 1984 | 10003 | 11135 | 11646 | 1007.6 | 1060.6 | 1103.0 |
| 1767 | -0.75 | -0.75 | -0.75 | 2001 | 9847 | 10961 | 11464 | 813.5 | 856.3 | 890.5 |
| 1768 | -4.62 | -4.62 | -4.62 | 2015 | 9325 | 10380 | 10857 | 681.4 | 717.3 | 746.0 |
| 1769 | 4.82 | 4.82 | 4.82 | 2026 | 9725 | 10825 | 11322 | 705.7 | 742.9 | 772.6 |
| 1770 | 2.45 | 2.45 | 2.45 | 2037 | 9909 | 11030 | 11537 | 806.1 | 848.6 | 882.5 |
| 1771 | -9.19 | -9.19 | -9.19 | 2047 | 8954 | 9967 | 10425 | 900.3 | 947.7 | 985.5 |
| 1772 | -1.19 | -1.19 | -1.19 | 2041 | 8871 | 9874 | 10327 | 933.9 | 983.1 | 1022.3 |
| 1773 | 6.71 | 6.71 | 6.71 | 2005 | 9640 | 10731 | 11224 | 918.3 | 966.7 | 1005.3 |
| 1774 | 6.87 | 6.87 | 6.87 | 1989 | 10385 | 11559 | 12090 | 863.0 | 908.4 | 944.7 |
| 1775 | -5.74 | -5.74 | -5.74 | 2011 | 9682 | 10777 | 11272 | 953.0 | 1003.2 | 1043.2 |
| 1776 | 2.38 | 2.38 | 2.38 | 2031 | 9812 | 10921 | 11423 | 974.8 | 1026.1 | 1067.1 |
| 1777 | 3.54 | 3.54 | 3.54 | 2049 | 10069 | 11207 | 11722 | 57.2 | 60.3 | 62.7 |
| 1778 | -1.09 | -1.09 | -1.09 | 2065 | 9882 | 10999 | 11505 | 59.6 | 62.7 | 65.2 |
| 1779 | 2.99 | 2.99 | 2.99 | 2081 | 10098 | 11240 | 11757 | 60.5 | 63.7 | 66.3 |
| 1780 | -2.77 | -2.77 | -2.77 | 2104 | 9714 | 10812 | 11309 | 59.3 | 62.4 | 64.9 |
| 1781 | -6.88 | -6.88 | -6.88 | 2126 | 8953 | 9966 | 10424 | 58.1 | 61.2 | 63.6 |
| 1782 | 4.15 | 4.15 | 4.15 | 2137 | 9276 | 10325 | 10799 | 60.7 | 63.9 | 66.5 |
| 1783 | -2.88 | -2.88 | -2.88 | 2142 | 8986 | 10002 | 10461 | 61.6 | 64.9 | 67.4 |
| 1784 | 6.17 | 6.17 | 6.17 | 2144 | 9531 | 10609 | 11096 | 59.5 | 62.6 | 65.1 |
| 1785 | -1.27 | -1.27 | -1.27 | 2147 | 9396 | 10459 | 10939 | 62.7 | 66.0 | 68.7 |
| 1786 | -1.16 | -1.16 | -1.16 | 2157 | 9248 | 10293 | 10766 | 63.5 | 66.8 | 69.5 |
| 1787 | 8.85 | 8.85 | 8.85 | 2171 | 9999 | 11130 | 11642 | 65.2 | 68.6 | 71.4 |
| 1788 | -1.31 | -1.31 | -1.31 | 2186 | 9802 | 10910 | 11412 | 68.1 | 71.7 | 74.5 |
| 1789 | -0.40 | -0.40 | -0.40 | 2191 | 9739 | 10840 | 11338 | 69.7 | 73.3 | 76.3 |
| 1790 | 5.03 | 5.03 | 5.03 | 2188 | 10240 | 11398 | 11922 | 72.9 | 76.8 | 79.8 |
| 1791 | 0.18 | 0.18 | 0.18 | 2195 | 10228 | 11385 | 11907 | 72.1 | 75.9 | 78.9 |
| 1792 | -2.28 | -2.28 | -2.28 | 2216 | 9901 | 11021 | 11527 | 75.1 | 79.1 | 82.2 |
| 1793 | 1.51 | 1.51 | 1.51 | 2240 | 9942 | 11066 | 11574 | 80.4 | 84.7 | 88.1 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 1794 | -0.39 | -0.39 | -0.39 | 2262 | 9808 | 10917 | 11419 | 92.0 | 96.8 | 100.7 |
| 1795 | 3.58 | 3.58 | 3.58 | 2277 | 10091 | 11232 | 11748 | 100.2 | 105.5 | 109.7 |
| 1796 | 3.89 | 3.89 | 3.89 | 2291 | 10420 | 11598 | 12131 | 103.4 | 108.9 | 113.2 |
| 1797 | -1.57 | -1.57 | -1.57 | 2312 | 10164 | 11314 | 11833 | 104.7 | 110.2 | 114.6 |
| 1798 | -5.51 | -5.51 | -5.51 | 2333 | 9515 | 10591 | 11077 | 107.2 | 112.9 | 117.4 |
| 1799 | -0.40 | -0.40 | -0.40 | 2351 | 9408 | 10472 | 10953 | 123.8 | 130.4 | 135.6 |
| 1800 | -2.48 | -2.48 | -2.48 | 2352 | 9169 | 10206 | 10675 | 144.7 | 152.3 | 158.4 |
| 1801 | 5.15 | 5.15 | 5.10 | 2351 | 9646 | 10737 | 11224 | 151.4 | 159.3 | 165.7 |
| 1802 | 3.17 | 3.17 | 3.28 | 2364 | 9899 | 11019 | 11532 | 149.3 | 157.0 | 163.5 |
| 1803 | 2.81 | 2.80 | 2.65 | 2380 | 10105 | 11248 | 11754 | 148.2 | 155.7 | 162.1 |
| 1804 | -0.52 | -0.52 | -0.21 | 2396 | 9986 | 11116 | 11652 | 149.1 | 156.8 | 163.7 |
| 1805 | -0.86 | -0.86 | -0.98 | 2413 | 9832 | 10944 | 11458 | 151.5 | 159.2 | 166.1 |
| 1806 | -1.88 | -1.87 | -1.81 | 2425 | 9597 | 10683 | 11192 | 169.2 | 178.1 | 185.6 |
| 1807 | 0.95 | 0.95 | 0.73 | 2434 | 9654 | 10746 | 11234 | 175.4 | 184.6 | 191.9 |
| 1808 | -5.78 | -5.78 | -5.65 | 2434 | 9098 | 10128 | 10602 | 203.1 | 213.7 | 222.3 |
| 1809 | 9.69 | 9.71 | 9.22 | 2411 | 10074 | 11216 | 11689 | 221.0 | 232.2 | 241.4 |
| 1810 | 4.63 | 4.63 | 5.08 | 2395 | 10609 | 11811 | 12364 | 235.2 | 246.9 | 258.1 |
| 1811 | -5.96 | -5.95 | -5.80 | 2404 | 9941 | 11069 | 11605 | 257.5 | 270.7 | 282.9 |
| 1812 | -4.26 | -4.26 | -4.33 | 2415 | 9474 | 10548 | 11051 | 300.1 | 315.6 | 329.5 |
| 1813 | 4.54 | 4.54 | 4.37 | 2421 | 9878 | 10999 | 11503 | 321.5 | 337.8 | 352.4 |
| 1814 | 2.93 | 2.93 | 2.92 | 2431 | 10127 | 11275 | 11792 | 320.5 | 336.6 | 351.7 |
| 1815 | 2.52 | 2.52 | 2.49 | 2452 | 10295 | 11462 | 11984 | 311.7 | 327.3 | 342.1 |
| 1816 | -0.66 | -0.66 | -0.55 | 2481 | 10105 | 11251 | 11776 | 333.4 | 350.0 | 366.1 |
| 1817 | -2.11 | -2.11 | -2.16 | 2509 | 9781 | 10890 | 11393 | 335.4 | 352.4 | 368.1 |
| 1818 | -2.92 | -2.92 | -2.78 | 2534 | 9404 | 10470 | 10969 | 339.9 | 357.1 | 373.5 |
| 1819 | 3.78 | 3.78 | 3.35 | 2554 | 9682 | 10779 | 11247 | 355.1 | 372.7 | 388.7 |
| 1820 | 10.37 | 10.37 | 10.23 | 2573 | 10607 | 11809 | 12306 | 351.2 | 368.2 | 384.5 |
| 1821 | -0.03 | -0.04 | 0.32 | 2598 | 10504 | 11693 | 12228 | 323.0 | 338.5 | 354.9 |
| 1822 | -3.06 | -3.06 | -3.13 | 2629 | 10063 | 11202 | 11707 | 311.9 | 330.6 | 342.3 |
| 1823 | 5.50 | 5.50 | 5.31 | 2668 | 10461 | 11645 | 12148 | 318.4 | 337.5 | 349.2 |
| 1824 | 4.93 | 4.92 | 5.10 | 2708 | 10813 | 12036 | 12577 | 333.4 | 349.2 | 366.1 |
| 1825 | -2.24 | -2.25 | -2.21 | 2749 | 10412 | 11590 | 12115 | 338.7 | 354.6 | 372.1 |
| 1826 | -6.63 | -6.64 | -6.45 | 2788 | 9586 | 10669 | 11175 | 361.2 | 378.7 | 397.1 |
| 1827 | 7.29 | 7.30 | 6.61 | 2816 | 10181 | 11333 | 11794 | 366.6 | 383.9 | 401.0 |
| 1828 | 3.64 | 3.64 | 4.02 | 2837 | 10474 | 11659 | 12177 | 350.1 | 366.4 | 384.5 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 1829 | -2.61 | -2.60 | -2.67 | 2855 | 10138 | 11285 | 11778 | 359.8 | 376.8 | 394.6 |
| 1830 | -1.95 | -1.94 | -1.95 | 2876 | 9869 | 10987 | 11466 | 367.0 | 384.6 | 402.4 |
| 1831 | -0.12 | -0.13 | -0.13 | 2895 | 9793 | 10901 | 11376 | 396.4 | 415.3 | 434.4 |
| 1832 | 10.30 | 10.31 | 9.90 | 2912 | 10737 | 11953 | 12427 | 415.0 | 434.7 | 453.7 |
| 1833 | 2.82 | 2.82 | 3.22 | 2941 | 10931 | 12168 | 12700 | 400.3 | 419.4 | 439.6 |
| 1834 | -6.72 | -6.72 | -6.60 | 2971 | 10093 | 11236 | 11742 | 383.4 | 401.6 | 421.3 |
| 1835 | 3.86 | 3.87 | 3.57 | 3004 | 10368 | 11542 | 12027 | 400.6 | 419.8 | 439.1 |
| 1836 | 0.76 | 0.76 | 0.99 | 3042 | 10315 | 11484 | 11993 | 410.4 | 429.9 | 450.9 |
| 1837 | -4.94 | -4.94 | -4.83 | 3068 | 9724 | 10825 | 11319 | 407.7 | 427.0 | 448.2 |
| 1838 | 7.41 | 7.42 | 6.89 | 3083 | 10393 | 11570 | 12038 | 452.9 | 474.3 | 495.5 |
| 1839 | 5.42 | 5.41 | 5.70 | 3098 | 10902 | 12137 | 12662 | 462.8 | 484.6 | 508.1 |
| 1840 | 2.21 | 2.21 | 2.14 | 3123 | 11056 | 12309 | 12833 | 464.1 | 485.8 | 509.2 |
| 1841 | -4.27 | -4.27 | -3.89 | 3156 | 10473 | 11658 | 12203 | 458.4 | 479.8 | 505.0 |
| 1842 | 2.69 | 2.69 | 2.14 | 3190 | 10640 | 11845 | 12332 | 477.2 | 499.6 | 522.9 |
| 1843 | 2.12 | 2.12 | 2.22 | 3222 | 10759 | 11977 | 12481 | 468.8 | 490.6 | 514.2 |
| 1844 | 1.09 | 1.09 | 1.17 | 3256 | 10762 | 11980 | 12494 | 440.2 | 460.7 | 483.5 |
| 1845 | -2.83 | -2.82 | -2.55 | 3296 | 10331 | 11500 | 12028 | 462.2 | 483.6 | 508.8 |
| 1846 | 0.65 | 0.64 | 0.30 | 3330 | 10291 | 11457 | 11941 | 486.8 | 509.3 | 534.1 |
| 1847 | 6.55 | 6.55 | 6.42 | 3352 | 10891 | 12124 | 12621 | 523.1 | 547.2 | 573.4 |
| 1848 | 7.89 | 7.88 | 7.93 | 3380 | 11656 | 12975 | 13513 | 527.1 | 551.2 | 578.4 |
| 1849 | -0.48 | -0.48 | -0.22 | 3419 | 11465 | 12763 | 13328 | 516.9 | 540.5 | 568.8 |
| 1850 | 0.73 | 0.73 | 0.58 | 3462 | 11406 | 12698 | 13240 | 540.7 | 565.3 | 594.1 |
| 1851 | -2.43 | -2.43 | -2.15 | 3500 | 11009 | 12256 | 12815 | 547.4 | 572.1 | 602.9 |
| 1852 | 5.16 | 5.16 | 4.73 | 3529 | 11482 | 12782 | 13312 | 578.6 | 604.7 | 634.7 |
| 1853 | -0.67 | -0.66 | -0.25 | 3552 | 11330 | 12614 | 13191 | 616.4 | 644.0 | 678.9 |
| 1854 | 5.35 | 5.35 | 4.99 | 3586 | 11823 | 13163 | 13719 | 665.4 | 695.4 | 731.0 |
| 1855 | 1.62 | 1.63 | 2.07 | 3625 | 11886 | 13234 | 13853 | 773.6 | 808.2 | 853.3 |
| 1856 | 2.95 | 2.96 | 2.94 | 3657 | 12129 | 13504 | 14133 | 859.8 | 898.4 | 948.0 |
| 1857 | -1.25 | -1.25 | -1.35 | 3680 | 11901 | 13251 | 13855 | 847.4 | 885.4 | 933.9 |
| 1858 | 2.65 | 2.65 | 2.47 | 3711 | 12116 | 13489 | 14080 | 759.6 | 793.2 | 835.5 |
| 1859 | 1.64 | 1.64 | 1.93 | 3761 | 12151 | 13528 | 14162 | 744.4 | 777.2 | 821.2 |
| 1860 | 2.88 | 2.89 | 2.76 | 3824 | 12296 | 13690 | 14314 | 809.2 | 844.9 | 891.4 |
| 1861 | 1.92 | 1.92 | 2.22 | 3888 | 12323 | 13720 | 14389 | 853.7 | 891.2 | 943.0 |
| 1862 | 1.89 | 1.89 | 1.69 | 3942 | 12388 | 13792 | 14435 | 874.7 | 912.6 | 964.0 |
| 1863 | 4.89 | 4.89 | 4.98 | 3994 | 12822 | 14275 | 14954 | 891.8 | 930.9 | 985.0 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, GDP/cap by expen-diture | 1980–94 benchmark | | 2008 SNA, GDP by expenditure |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | | GDP by activity | GDP by expenditure | |
| 1864 | 3.21 | 3.21 | 3.22 | 4046 | 13064 | 14544 | 15236 | 874.2 | 913.3 | 965.4 |
| 1865 | -1.37 | -1.36 | -1.24 | 4092 | 12741 | 14185 | 14879 | 864.3 | 902.1 | 956.4 |
| 1866 | 0.73 | 0.73 | 0.55 | 4137 | 12693 | 14132 | 14798 | 898.4 | 937.9 | 992.4 |
| 1867 | -4.25 | -4.25 | -3.93 | 4178 | 12036 | 13400 | 14077 | 919.1 | 959.9 | 1019.2 |
| 1868 | 1.89 | 1.89 | 1.20 | 4184 | 12244 | 13633 | 14225 | 916.3 | 957.7 | 1010.5 |
| 1869 | 7.67 | 7.66 | 7.78 | 4166 | 13242 | 14742 | 15399 | 930.8 | 974.8 | 1030.2 |
| 1870 | 7.80 | 7.81 | 7.97 | 4164 | 14283 | 15902 | 16635 | 988.1 | 1035.8 | 1096.1 |
| 1871 | 1.37 | 1.37 | 1.45 | 4186 | 14400 | 16033 | 16785 | 1034.8 | 1084.7 | 1148.8 |
| 1872 | 2.99 | 3.00 | 3.43 | 4227 | 14687 | 16354 | 17193 | 1164 | 1218 | 1297 |
| 1873 | 4.19 | 4.20 | 4.38 | 4274 | 15135 | 16855 | 17750 | 1372 | 1435 | 1531 |
| 1874 | 1.01 | 1.01 | 1.18 | 4320 | 15126 | 16846 | 17769 | 1411 | 1483 | 1586 |
| 1875 | 0.79 | 0.79 | 0.65 | 4362 | 15097 | 16813 | 17709 | 1382 | 1447 | 1544 |
| 1876 | 3.36 | 3.35 | 3.41 | 4406 | 15447 | 17201 | 18131 | 1435 | 1504 | 1606 |
| 1877 | -1.07 | -1.08 | -1.10 | 4457 | 15108 | 16822 | 17728 | 1431 | 1500 | 1601 |
| 1878 | 2.40 | 2.38 | 2.17 | 4508 | 15295 | 17028 | 17907 | 1326 | 1389 | 1480 |
| 1879 | 0.55 | 0.55 | 0.57 | 4555 | 15219 | 16943 | 17822 | 1278 | 1340 | 1428 |
| 1880 | 2.13 | 2.13 | 2.04 | 4572 | 15486 | 17241 | 18119 | 1356 | 1425 | 1519 |
| 1881 | -0.11 | -0.11 | 0.01 | 4569 | 15480 | 17234 | 18134 | 1379 | 1450 | 1547 |
| 1882 | 3.45 | 3.45 | 3.18 | 4576 | 15991 | 17803 | 18682 | 1421 | 1492 | 1588 |
| 1883 | 3.00 | 3.01 | 3.35 | 4591 | 16415 | 18276 | 19242 | 1431 | 1506 | 1609 |
| 1884 | 2.06 | 2.06 | 2.01 | 4624 | 16635 | 18521 | 19490 | 1436 | 1511 | 1614 |
| 1885 | 2.01 | 2.01 | 2.11 | 4664 | 16825 | 18733 | 19732 | 1396 | 1468 | 1570 |
| 1886 | -0.59 | -0.59 | -0.63 | 4700 | 16597 | 18478 | 19455 | 1316 | 1383 | 1480 |
| 1887 | -0.22 | -0.22 | -0.34 | 4726 | 16469 | 18335 | 19282 | 1254 | 1317 | 1409 |
| 1888 | 2.03 | 2.03 | 2.20 | 4742 | 16748 | 18646 | 19641 | 1346 | 1419 | 1521 |
| 1889 | 3.03 | 3.04 | 2.99 | 4761 | 17184 | 19132 | 20145 | 1417 | 1496 | 1604 |
| 1890 | 3.02 | 3.03 | 2.99 | 4780 | 17635 | 19635 | 20668 | 1488 | 1568 | 1680 |
| 1891 | 2.87 | 2.87 | 2.71 | 4794 | 18088 | 20140 | 21165 | 1563 | 1643 | 1755 |
| 1892 | 1.11 | 1.11 | 1.09 | 4805 | 18248 | 20317 | 21347 | 1544 | 1621 | 1734 |
| 1893 | 0.79 | 0.79 | 0.80 | 4815 | 18351 | 20433 | 21469 | 1528 | 1603 | 1715 |
| 1894 | 0.81 | 0.81 | 0.84 | 4849 | 18373 | 20457 | 21502 | 1505 | 1583 | 1695 |
| 1895 | 5.65 | 5.66 | 5.80 | 4896 | 19223 | 21405 | 22527 | 1601 | 1683 | 1804 |
| 1896 | 5.70 | 5.71 | 5.68 | 4941 | 20135 | 22424 | 23591 | 1694 | 1781 | 1910 |
| 1897 | 2.71 | 2.71 | 2.90 | 4986 | 20493 | 22824 | 24055 | 1821 | 1913 | 2056 |
| 1898 | 3.23 | 3.24 | 3.43 | 5036 | 20945 | 23329 | 24632 | 1959 | 2063 | 2219 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 1899 | 3.74 | 3.75 | 3.89 | 5080 | 21542 | 23995 | 25369 | 2118 | 2233 | 2404 |
| 1900 | 1.70 | 1.70 | 1.53 | 5117 | 21752 | 24228 | 25572 | 2185 | 2297 | 2471 |
| 1901 | -0.87 | -0.88 | -0.90 | 5156 | 21399 | 23834 | 25151 | 2125 | 2221 | 2390 |
| 1902 | 0.31 | 0.30 | 0.23 | 5187 | 21336 | 23761 | 25056 | 2107 | 2213 | 2379 |
| 1903 | 4.86 | 4.86 | 4.91 | 5210 | 22274 | 24807 | 26171 | 2288 | 2401 | 2581 |
| 1904 | 2.77 | 2.77 | 2.89 | 5241 | 22755 | 25344 | 26767 | 2331 | 2450 | 2636 |
| 1905 | 0.86 | 0.86 | 0.89 | 5278 | 22791 | 25383 | 26816 | 2390 | 2512 | 2701 |
| 1906 | 7.77 | 7.80 | 7.87 | 5316 | 24387 | 27167 | 28719 | 2670 | 2798 | 3011 |
| 1907 | 4.35 | 4.35 | 4.26 | 5357 | 25249 | 28131 | 29711 | 2889 | 3024 | 3249 |
| 1908 | 1.34 | 1.33 | 1.06 | 5404 | 25368 | 28261 | 29770 | 2931 | 3060 | 3280 |
| 1909 | -0.95 | -0.96 | -0.95 | 5453 | 24899 | 27736 | 29220 | 2899 | 3032 | 3251 |
| 1910 | 7.56 | 7.57 | 7.63 | 5499 | 26554 | 29584 | 31183 | 3118 | 3262 | 3499 |
| 1911 | 1.25 | 1.25 | 1.37 | 5542 | 26680 | 29723 | 31366 | 3178 | 3324 | 3568 |
| 1912 | 4.60 | 4.61 | 4.67 | 5583 | 27703 | 30866 | 32590 | 3388 | 3533 | 3794 |
| 1913 | 6.59 | 6.60 | 6.75 | 5621 | 29328 | 32679 | 34554 | 3636 | 3803 | 4087 |
| 1914 | 0.45 | 0.44 | 0.10 | 5659 | 29264 | 32605 | 34357 | 3762 | 3917 | 4205 |
| 1915 | 1.84 | 1.83 | 2.10 | 5696 | 29608 | 32985 | 34851 | 4349 | 4519 | 4858 |
| 1916 | 4.88 | 4.89 | 4.67 | 5735 | 30841 | 34363 | 36231 | 5472 | 5681 | 6096 |
| 1917 | -6.93 | -6.93 | -7.25 | 5779 | 28485 | 31739 | 33348 | 6329 | 6534 | 7002 |
| 1918 | -6.24 | -6.25 | -6.15 | 5807 | 26579 | 29610 | 31145 | 8611 | 8884 | 9499 |
| 1919 | 4.49 | 4.50 | 4.73 | 5830 | 27663 | 30819 | 32489 | 10243 | 10659 | 11438 |
| 1920 | 6.93 | 6.93 | 6.87 | 5876 | 29352 | 32701 | 34452 | 11566 | 12064 | 12957 |
| 1921 | -7.63 | -7.62 | -7.88 | 5929 | 26868 | 29936 | 31450 | 8477 | 8868 | 9492 |
| 1922 | 7.70 | 7.71 | 7.86 | 5971 | 28736 | 32019 | 33686 | 7153 | 7524 | 8061 |
| 1923 | 6.51 | 6.50 | 6.36 | 5997 | 30474 | 33954 | 35674 | 7145 | 7544 | 8075 |
| 1924 | 3.69 | 3.70 | 4.01 | 6021 | 31470 | 35069 | 36954 | 7384 | 7792 | 8356 |
| 1925 | 4.05 | 4.05 | 4.06 | 6045 | 32614 | 36347 | 38303 | 7646 | 8044 | 8628 |
| 1926 | 4.58 | 4.58 | 4.65 | 6064 | 34002 | 37892 | 39958 | 7674 | 8085 | 8679 |
| 1927 | 3.82 | 3.84 | 3.93 | 6081 | 35202 | 39235 | 41412 | 7790 | 8225 | 8837 |
| 1928 | 4.12 | 4.12 | 4.17 | 6097 | 36562 | 40750 | 43030 | 8058 | 8506 | 9143 |
| 1929 | 6.20 | 6.21 | 6.22 | 6113 | 38727 | 43165 | 45588 | 8407 | 8880 | 9546 |
| 1930 | 4.52 | 4.52 | 4.67 | 6131 | 40355 | 44981 | 47573 | 8488 | 8958 | 9643 |
| 1931 | -3.00 | -3.03 | -3.13 | 6152 | 39010 | 43468 | 45925 | 7796 | 8236 | 8853 |
| 1932 | -1.97 | -1.99 | -2.28 | 6176 | 38093 | 42439 | 44703 | 7437 | 7855 | 8417 |
| 1933 | 1.55 | 1.55 | 1.50 | 6201 | 38531 | 42928 | 45193 | 7399 | 7838 | 8388 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 1934 | 10.19 | 10.23 | 10.34 | 6222 | 42313 | 47157 | 49694 | 8137 | 8649 | 9255 |
| 1935 | 5.13 | 5.14 | 5.38 | 6242 | 44346 | 49425 | 52203 | 8670 | 9231 | 9891 |
| 1936 | 5.08 | 5.08 | 5.28 | 6259 | 46472 | 51796 | 54809 | 9244 | 9845 | 10563 |
| 1937 | 5.24 | 5.25 | 5.21 | 6276 | 48774 | 54364 | 57508 | 10239 | 10920 | 11721 |
| 1938 | 3.63 | 3.61 | 3.75 | 6297 | 50371 | 56133 | 59460 | 10685 | 11407 | 12250 |
| 1939 | 8.07 | 8.02 | 8.15 | 6326 | 54191 | 60363 | 64021 | 11830 | 12653 | 13590 |
| 1940 | -9.47 | -9.47 | -9.94 | 6356 | 48822 | 54387 | 57377 | 12632 | 13608 | 14523 |
| 1941 | -2.24 | -2.38 | -2.48 | 6389 | 47487 | 52822 | 55667 | 13831 | 15056 | 16040 |
| 1942 | 2.97 | 2.91 | 3.08 | 6432 | 48568 | 53994 | 56997 | 15105 | 16502 | 17602 |
| 1943 | 4.18 | 4.16 | 4.17 | 6490 | 50145 | 55737 | 58841 | 16258 | 17853 | 19037 |
| 1944 | 2.36 | 2.44 | 2.49 | 6560 | 50784 | 56493 | 59664 | 16763 | 18505 | 19718 |
| 1945 | 2.22 | 2.31 | 2.27 | 6635 | 51321 | 57139 | 60326 | 17515 | 19322 | 20579 |
| 1946 | 11.50 | 11.72 | 12.36 | 6719 | 56515 | 63045 | 66945 | 19764 | 21995 | 23534 |
| 1947 | 6.60 | 6.60 | 6.86 | 6803 | 59499 | 66372 | 70654 | 22034 | 24146 | 25912 |
| 1948 | 3.45 | 3.45 | 3.14 | 6883 | 60833 | 67857 | 72022 | 24465 | 26756 | 28616 |
| 1949 | 2.91 | 2.90 | 2.92 | 6955 | 61955 | 69104 | 73356 | 25340 | 27688 | 29618 |
| 1950 | 4.85 | 4.86 | 5.15 | 7014 | 64418 | 71857 | 76493 | 28276 | 30813 | 33036 |
| 1951 | 4.27 | 3.96 | 3.77 | 7070 | 66632 | 74111 | 78746 | 35508 | 38392 | 41151 |
| 1952 | 0.94 | 1.50 | 1.62 | 7125 | 66743 | 74651 | 79413 | 39611 | 41939 | 44970 |
| 1953 | 1.88 | 2.44 | 2.71 | 7171 | 67556 | 75970 | 81030 | 39703 | 43106 | 46302 |
| 1954 | 5.09 | 6.30 | 6.33 | 7213 | 70580 | 80284 | 85660 | 42119 | 45933 | 49339 |
| 1955 | 2.78 | 3.40 | 3.27 | 7262 | 72056 | 82452 | 87867 | 45130 | 49512 | 53106 |
| 1956 | 3.97 | 3.40 | 3.45 | 7315 | 74382 | 84647 | 90250 | 49371 | 53828 | 57750 |
| 1957 | 3.47 | 2.31 | 2.33 | 7364 | 76447 | 86020 | 91733 | 52962 | 57474 | 61665 |
| 1958 | 2.69 | 2.31 | 2.50 | 7409 | 78020 | 87464 | 93452 | 55116 | 60711 | 65190 |
| 1959 | 4.58 | 5.40 | 5.51 | 7446 | 81183 | 91725 | 98108 | 58013 | 64700 | 69516 |
| 1960 | 5.86 | 4.36 | 4.36 | 7480 | 85550 | 95287 | 101923 | 63275 | 70832 | 76065 |
| 1961 | 5.81 | 6.06 | 6.14 | 7520 | 90043 | 100532 | 107611 | 69442 | 77317 | 83067 |
| 1962 | 4.71 | 5.05 | 5.13 | 7562 | 93764 | 105033 | 112514 | 75648 | 84468 | 90782 |
| 1963 | 5.00 | 5.73 | 5.82 | 7604 | 97895 | 110422 | 118388 | 81257 | 91747 | 98668 |
| 1964 | 6.78 | 7.23 | 7.20 | 7661 | 103755 | 117523 | 125967 | 91343 | 102481 | 110165 |
| 1965 | 5.00 | 4.00 | 4.04 | 7734 | 107926 | 121077 | 129826 | 101342 | 113114 | 121563 |
| 1966 | 3.22 | 2.23 | 2.38 | 7808 | 110345 | 122608 | 131661 | 109586 | 123381 | 132635 |
| 1967 | 4.14 | 3.37 | 3.46 | 7868 | 114034 | 125777 | 135173 | 119583 | 134120 | 144186 |
| 1968 | 4.46 | 4.11 | 4.04 | 7912 | 118456 | 130213 | 139854 | 127784 | 142720 | 153281 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 1969 | 5.02 | 5.69 | 5.66 | 7968 | 123538 | 136665 | 146734 | 137947 | 155573 | 166963 |
| 1970 | 5.00 | 6.17 | 6.05 | 8043 | 128503 | 143743 | 154156 | 152975 | 174678 | 187279 |
| 1971 | 2.36 | 0.30 | 0.40 | 8098 | 130630 | 143184 | 153718 | 167126 | 188946 | 202434 |
| 1972 | 2.60 | 2.85 | 2.74 | 8122 | 133626 | 146834 | 157468 | 179643 | 207138 | 221529 |
| 1973 | 3.76 | 3.52 | 3.83 | 8137 | 138398 | 151734 | 163202 | 200265 | 229689 | 246530 |
| 1974 | 3.63 | 4.57 | 3.28 | 8161 | 143010 | 158207 | 168059 | 236884 | 261765 | 278692 |
| 1975 | 1.01 | 1.58 | 2.27 | 8193 | 143889 | 160083 | 171203 | 276086 | 305362 | 326966 |
| 1976 | 2.09 | 0.51 | 1.40 | 8222 | 146363 | 160322 | 172964 | 311851 | 342979 | 369967 |
| 1977 | -1.44 | -1.60 | -1.81 | 8252 | 143738 | 157196 | 169223 | 336939 | 373644 | 402428 |
| 1978 | -0.13 | 1.70 | 1.54 | 8276 | 143129 | 159404 | 171332 | 373436 | 418053 | 448325 |
| 1979 | 3.20 | 4.21 | 3.95 | 8294 | 147384 | 165760 | 177709 | 420438 | 468578 | 502652 |
| 1980 | 0.78 | 1.49 | 1.34 | 8310 | 148235 | 167885 | 179734 | 475040 | 531884 | 570187 |
| 1981 | -0.59 | 0.01 | -0.25 | 8320 | 147182 | 167708 | 179067 | 517326 | 583656 | 622998 |
| 1982 | 1.18 | 0.99 | 1.23 | 8325 | 148832 | 169268 | 181175 | 569881 | 637318 | 681773 |
| 1983 | 1.78 | 2.00 | 2.00 | 8329 | 151410 | 172570 | 184714 | 634618 | 713763 | 763885 |
| 1984 | 3.14 | 3.88 | 4.32 | 8337 | 156018 | 179096 | 192526 | 708723 | 799474 | 856991 |
| 1985 | 1.72 | 2.31 | 2.19 | 8350 | 158437 | 182939 | 196427 | 763610 | 868853 | 931577 |
| 1986 | 2.69 | 2.28 | 2.63 | 8370 | 162321 | 186678 | 201125 | 840304 | 951809 | 1017135 |
| 1987 | 3.15 | 3.25 | 3.38 | 8398 | 166884 | 192095 | 207224 | 904392 | 1027766 | 1100877 |
| 1988 | 2.80 | 1.98 | 2.56 | 8436 | 170762 | 194999 | 211559 | 988046 | 1119771 | 1203241 |
| 1989 | 3.07 | 2.50 | 2.63 | 8493 | 174832 | 198554 | 215684 | 1096193 | 1238391 | 1333069 |
| 1990 | 1.23 | 0.78 | 0.63 | 8559 | 175615 | 198556 | 215368 | 1196088 | 1365700 | 1470375 |
| 1991 | -1.30 | -1.09 | -1.26 | 8617 | 172152 | 195056 | 211212 | 1255284 | 1453208 | 1573394 |
| 1992 | -1.96 | -1.45 | -1.22 | 8668 | 167794 | 191095 | 207408 | 1269103 | 1447782 | 1570955 |
| 1993 | -1.78 | -2.08 | -1.97 | 8719 | 163847 | 186045 | 202146 | 1276770 | 1452507 | 1572541 |
| 1994 | 3.56 | 3.06 | 4.05 | 8781 | 168478 | 190389 | 208839 | 1355746 | 1535359 | 1678588 |
| 1995 | 3.63 | 4.10 | 3.99 | 8827 | 173671 | 197147 | 216033 | 1468283 | 1652877 | 1809575 |
| 1996 | 1.48 | 1.15 | 1.50 | 8841 | 175957 | 199106 | 218925 | 1509366 | 1690230 | 1853915 |
| 1997 | 3.08 | 2.24 | 2.71 | 8846 | 181272 | 203441 | 224724 | 1570262 | 1755355 | 1932988 |
| 1998 | 3.93 | 3.15 | 4.22 | 8851 | 188292 | 209737 | 234076 | 1630486 | 1823530 | 2025024 |
| 1999 | 4.51 | 4.08 | 4.70 | 8858 | 196625 | 218131 | 244876 | 1704541 | 1910279 | 2138421 |
| 2000 | 4.15 | 4.13 | 4.44 | 8872 | 204450 | 226779 | 255345 | 1813900 | 2012004 | 2265447 |
| 2001 | 1.10 | 1.30 | 1.30 | 8896 | 206144 | 229110 | 257970 | 1876741 | 2085693 | 2348419 |
| 2002 | 2.40 | 2.50 | 2.50 | 8925 | 210405 | 234075 | 263560 | 1950718 | 2170253 | 2443630 |
| 2003 | 2.40 | 2.30 | 2.30 | 8958 | 214650 | 238563 | 268614 | 2032805 | 2260164 | 2544867 |

**Table A4.1 (cont.):** *GDP and GDP per capita in Sweden (within present borders) in nominal and volume values 1620–2012.*

| Year | Volume growth (%) | | | Popu-lation, 1000s | Volume values, 2000 year's reference prices, SEK | | | Current prices, mn daler kmt 1620–1776, mn SEK 1777–2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980–94 benchmark | | 2008 SNA | | 1980–94 benchmark | | 2008 SNA, | 1980–94 benchmark | | 2008 SNA, |
| | GDP by activity | GDP by ex-penditure | GDP by ex-penditure | | GDP/cap by activity | GDP/cap by expen-diture | GDP/cap by expen-diture | GDP by activity | GDP by expenditure | GDP by expenditure |
| 2004 | 4.50 | 4.20 | 4.20 | 8993 | 223436 | 247615 | 278806 | 2128951 | 2363266 | 2660957 |
| 2005 | 3.00 | 3.20 | 3.20 | 9029 | 229221 | 254520 | 286581 | 2208465 | 2459555 | 2769375 |
| 2006 | 4.40 | 4.30 | 4.30 | 9080 | 237964 | 263975 | 297227 | 2351089 | 2615071 | 2944480 |
| 2007 | 3.30 | 3.30 | 3.30 | 9148 | 244003 | 270674 | 304770 | 2498031 | 2776299 | 3126018 |
| 2008 | -0.40 | -0.60 | -0.60 | 9219 | 241143 | 266964 | 300592 | 2561909 | 2845842 | 3204320 |
| 2009 | -5.50 | -5.00 | -5.00 | 9298 | 225944 | 251461 | 283137 | 2471261 | 2758334 | 3105790 |
| 2010 | 6.70 | 6.60 | 6.60 | 9378 | 239026 | 265771 | 299249 | 2656893 | 2964150 | 3337531 |
| 2011 | 3.20 | 2.90 | 2.90 | 9449 | 244821 | 271423 | 305613 | 2779001 | 3091162 | 3480543 |
| 2012 | 1.00 | 1.00 | 1.00 | 9517 | 245502 | 272178 | 306464 | | 3151768 | 3548783 |

Note: GDP by activity is measured in basic prices (excluding VAT, etc.), and GDP by expenditures in purchasers' (market) prices (which includes excess of goods-related indirect taxes over goods-related subsidies). SEK – riksdaler (specie) 1777–1788, riksdaler riksgälds 1789–1855, riksdaler riksmynt 1855-1873, krona 1873 onwards. In 1777: 1 SEK (riksdaler) = 18 daler kopparmynt.
Sources: For GDP see the main text. The population data are described in Edvinsson (2013c).

**Table A4.2:** *Various expenditures 1800–2012 and their volume growth (%).*

| Year | Private consumption | | Government consumption | | Gross fixed capital formation | | Changes in inventories | Export | | Import | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* |
| 1800 | 141.77 | | 13.70 | | 6.61 | | -4.69 | 15.82 | | 14.85 | |
| 1801 | 138.40 | -2.7 | 13.00 | -1.4 | 5.88 | -10.4 | 6.47 | 20.93 | 32.5 | 18.99 | 24.5 |
| 1802 | 135.80 | 4.0 | 13.00 | 4.5 | 5.80 | -1.7 | 1.10 | 22.34 | 8.5 | 14.51 | -15.4 |
| 1803 | 132.07 | 1.1 | 13.40 | 8.1 | 5.74 | 1.0 | 3.94 | 20.82 | -9.7 | 13.82 | -5.3 |
| 1804 | 148.95 | 11.9 | 12.94 | -6.2 | 7.06 | 15.8 | -0.94 | 19.16 | -9.7 | 23.45 | 66.8 |
| 1805 | 144.64 | -4.3 | 13.22 | 3.0 | 7.01 | -5.9 | 0.30 | 18.33 | -6.1 | 17.43 | -21.1 |
| 1806 | 165.09 | -1.2 | 14.69 | -7.7 | 6.81 | -5.7 | -2.47 | 20.38 | 9.6 | 18.93 | -4.6 |
| 1807 | 160.76 | -5.2 | 14.59 | -0.5 | 6.82 | 0.4 | 3.95 | 19.94 | -3.1 | 14.12 | -23.2 |
| 1808 | 203.26 | 4.1 | 18.32 | -1.0 | 7.56 | -6.5 | -5.19 | 12.69 | -44.7 | 14.31 | 1.7 |
| 1809 | 206.97 | -0.6 | 13.74 | -15.3 | 5.69 | -32.2 | 15.85 | 22.20 | 76.5 | 23.08 | 35.2 |
| 1810 | 243.55 | 13.6 | 14.15 | 11.6 | 9.04 | 39.7 | -2.28 | 23.23 | 0.3 | 29.57 | 10.9 |
| 1811 | 259.14 | -8.7 | 17.17 | -8.5 | 10.76 | 8.4 | -11.35 | 27.38 | 12.8 | 20.20 | -35.5 |
| 1812 | 311.75 | -1.8 | 21.19 | -0.3 | 14.94 | 17.9 | -3.53 | 23.21 | -26.0 | 38.07 | 61.5 |
| 1813 | 322.74 | 1.2 | 21.09 | -1.7 | 15.73 | -4.1 | 11.55 | 28.57 | 27.4 | 47.29 | 24.9 |
| 1814 | 322.17 | 1.3 | 19.68 | 0.3 | 14.91 | -5.1 | 3.77 | 32.95 | 7.8 | 41.78 | -22.0 |
| 1815 | 295.14 | -2.5 | 19.74 | 4.8 | 16.34 | 11.2 | 2.61 | 35.71 | 6.5 | 27.46 | -30.0 |
| 1816 | 317.90 | 0.8 | 23.20 | 3.9 | 20.96 | 20.7 | -2.68 | 32.20 | -17.9 | 25.47 | -11.6 |
| 1817 | 322.29 | -1.4 | 23.38 | -2.1 | 19.03 | -8.2 | -2.37 | 30.20 | -5.2 | 24.42 | 0.6 |
| 1818 | 329.60 | -2.0 | 26.30 | 5.3 | 18.94 | -0.7 | -11.90 | 39.39 | 17.1 | 28.85 | 6.3 |
| 1819 | 318.45 | -4.5 | 26.12 | -1.2 | 20.58 | 9.9 | 18.49 | 34.28 | -13.1 | 29.20 | 0.5 |
| 1820 | 317.18 | 10.2 | 22.94 | 6.5 | 19.42 | -3.4 | 17.66 | 33.29 | -0.8 | 26.03 | -8.1 |
| 1821 | 320.06 | 11.0 | 22.96 | 13.4 | 18.25 | -8.1 | -9.81 | 31.38 | -1.6 | 27.89 | 24.2 |
| 1822 | 296.91 | -6.6 | 22.90 | -1.9 | 18.75 | 6.1 | -0.25 | 31.63 | 0.5 | 27.61 | 2.6 |
| 1823 | 295.91 | 2.1 | 21.90 | 3.2 | 19.12 | 0.5 | 10.96 | 35.09 | 3.8 | 33.76 | 8.3 |
| 1824 | 314.45 | 8.5 | 23.93 | 8.7 | 21.31 | 8.3 | -0.11 | 34.87 | 2.0 | 28.32 | 1.1 |
| 1825 | 315.75 | -2.7 | 24.37 | -0.1 | 22.44 | 0.1 | -1.36 | 41.70 | 5.6 | 30.81 | 1.3 |
| 1826 | 363.57 | -2.7 | 29.29 | 6.3 | 22.69 | 6.0 | -17.94 | 32.00 | -11.9 | 32.47 | 11.5 |
| 1827 | 324.50 | -5.9 | 26.81 | -7.5 | 21.21 | -7.9 | 26.50 | 34.53 | 9.0 | 32.56 | -2.0 |
| 1828 | 338.19 | 13.7 | 24.72 | 4.6 | 21.07 | -1.4 | -5.93 | 34.92 | 3.4 | 28.49 | -5.1 |
| 1829 | 348.15 | -2.2 | 25.53 | -9.3 | 18.96 | -8.6 | -1.81 | 31.81 | -9.4 | 28.04 | 1.8 |
| 1830 | 352.85 | -2.9 | 26.60 | -1.6 | 18.69 | -0.3 | -1.01 | 31.36 | 3.1 | 26.10 | -3.5 |
| 1831 | 375.93 | -2.6 | 29.90 | 8.4 | 20.14 | 5.5 | 1.44 | 34.38 | 8.4 | 27.35 | -2.4 |
| 1832 | 377.75 | 4.6 | 27.21 | -3.6 | 19.91 | -3.0 | 29.54 | 33.22 | -2.1 | 33.97 | 16.0 |
| 1833 | 402.15 | 12.7 | 25.52 | 1.0 | 20.20 | 0.7 | -7.75 | 35.52 | 6.8 | 36.09 | -1.1 |
| 1834 | 384.26 | -6.2 | 27.11 | -0.4 | 21.80 | 7.0 | -12.84 | 35.53 | -2.2 | 34.60 | 2.8 |
| 1835 | 370.62 | -4.4 | 26.33 | -1.5 | 24.43 | 8.9 | 17.91 | 39.75 | 13.7 | 39.90 | 15.6 |
| 1836 | 392.81 | 4.5 | 27.93 | 4.8 | 26.69 | 8.7 | -4.18 | 41.22 | -3.8 | 33.58 | -19.5 |

**Table A4.2 (cont.):** *Various expenditures 1800–2012 and their volume growth (%).*

| Year | Private consumption | | Government consumption | | Gross fixed capital formation | | Changes in inventories | Export | | Import | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* |
| 1837 | 410.77 | 0.1 | 29.19 | -0.9 | 26.23 | 0.0 | -12.15 | 35.70 | -14.1 | 41.50 | 30.5 |
| 1838 | 415.91 | -3.1 | 29.72 | -1.5 | 22.78 | -14.0 | 31.75 | 44.18 | 26.5 | 48.82 | 12.0 |
| 1839 | 445.25 | 10.1 | 29.46 | 5.6 | 25.52 | 10.4 | 0.41 | 48.73 | 7.8 | 41.30 | -17.0 |
| 1840 | 440.77 | 0.5 | 29.02 | 0.4 | 26.01 | 2.9 | 8.76 | 47.65 | 2.1 | 43.04 | 6.2 |
| 1841 | 479.23 | 4.4 | 30.96 | 5.7 | 25.45 | -4.7 | -34.75 | 50.38 | 6.2 | 46.31 | 12.0 |
| 1842 | 444.07 | -8.5 | 30.75 | 0.9 | 27.93 | 10.7 | 23.69 | 43.13 | -13.0 | 46.71 | 7.2 |
| 1843 | 446.45 | 4.1 | 30.86 | 4.1 | 27.55 | -0.8 | 6.97 | 40.21 | 0.9 | 37.87 | -13.5 |
| 1844 | 413.66 | 0.2 | 27.97 | 7.1 | 27.94 | 2.5 | 2.52 | 50.43 | 21.1 | 39.04 | 5.3 |
| 1845 | 448.16 | 0.8 | 32.48 | -8.4 | 30.43 | 8.1 | -19.07 | 58.43 | 8.1 | 41.64 | 6.0 |
| 1846 | 439.45 | -7.2 | 34.92 | 7.1 | 31.57 | 3.1 | 15.72 | 58.50 | -2.3 | 46.09 | 9.3 |
| 1847 | 459.10 | 2.8 | 34.71 | 3.7 | 33.22 | 3.1 | 28.43 | 66.39 | 9.5 | 48.44 | 1.0 |
| 1848 | 502.86 | 16.4 | 34.18 | 5.8 | 33.79 | 0.3 | 12.38 | 48.65 | -19.0 | 53.43 | 15.5 |
| 1849 | 515.30 | 3.8 | 33.75 | -1.8 | 35.78 | 3.2 | -11.55 | 55.06 | 13.4 | 59.51 | 6.6 |
| 1850 | 514.94 | -4.8 | 35.09 | 0.7 | 38.27 | 7.4 | 7.32 | 55.21 | -0.4 | 56.76 | -10.2 |
| 1851 | 541.33 | 1.2 | 37.31 | 0.0 | 42.79 | 13.8 | -14.61 | 60.66 | 9.4 | 64.57 | 18.0 |
| 1852 | 519.55 | -4.3 | 37.14 | 1.3 | 43.86 | 2.7 | 33.75 | 60.35 | 0.2 | 59.90 | -1.6 |
| 1853 | 589.37 | 7.6 | 40.90 | -2.8 | 46.63 | 1.7 | -18.64 | 79.29 | 7.8 | 58.68 | -9.3 |
| 1854 | 580.89 | -4.7 | 41.40 | 5.7 | 53.20 | 4.0 | 36.70 | 93.36 | 20.5 | 74.57 | 24.6 |
| 1855 | 738.56 | 13.0 | 43.18 | -8.2 | 70.64 | 10.7 | -1.51 | 111.39 | 5.6 | 108.99 | 36.6 |
| 1856 | 863.87 | 7.5 | 43.72 | -2.0 | 77.54 | 2.3 | 15.74 | 103.69 | -6.0 | 156.59 | 39.0 |
| 1857 | 843.54 | -3.4 | 44.42 | 0.7 | 71.68 | -15.2 | 7.19 | 102.25 | 0.3 | 135.18 | -22.3 |
| 1858 | 695.53 | -5.0 | 46.13 | 11.2 | 69.10 | 12.7 | 22.97 | 83.91 | -7.1 | 82.11 | -28.1 |
| 1859 | 709.92 | 6.6 | 46.37 | -0.7 | 69.65 | 3.4 | -9.26 | 104.41 | 24.6 | 99.92 | 24.7 |
| 1860 | 736.53 | -2.5 | 48.15 | -0.2 | 77.58 | 8.9 | 26.10 | 116.33 | 8.5 | 113.31 | 9.3 |
| 1861 | 863.33 | 12.2 | 50.20 | 2.5 | 85.32 | 9.3 | -14.50 | 109.75 | -7.3 | 151.05 | 26.8 |
| 1862 | 805.15 | -7.0 | 51.65 | 3.2 | 94.60 | 7.8 | 28.64 | 112.28 | 6.4 | 128.33 | -10.8 |
| 1863 | 823.87 | 6.1 | 54.17 | 5.1 | 100.73 | 6.5 | 8.81 | 123.28 | 7.3 | 125.83 | 0.6 |
| 1864 | 773.69 | -2.6 | 56.19 | 9.9 | 113.70 | 18.4 | 24.86 | 127.41 | 4.7 | 130.47 | -2.9 |
| 1865 | 810.00 | 3.8 | 56.69 | -4.2 | 94.01 | -14.0 | -14.19 | 146.83 | 19.6 | 136.92 | 7.0 |
| 1866 | 798.86 | -5.3 | 60.08 | 1.4 | 91.04 | -2.6 | 16.21 | 154.12 | 6.3 | 127.87 | -7.3 |
| 1867 | 925.68 | 5.4 | 62.49 | -4.3 | 77.59 | -14.3 | -64.28 | 170.42 | 9.1 | 152.70 | 11.1 |
| 1868 | 836.62 | -7.1 | 64.76 | 0.1 | 57.32 | -26.8 | 41.64 | 167.36 | 0.4 | 157.22 | 6.9 |
| 1869 | 814.2 | 1.1 | 63.8 | 10.1 | 84.2 | 57.1 | 50.9 | 168.5 | 7.8 | 151.4 | 2.2 |
| 1870 | 874.3 | 8.7 | 66.4 | 6.2 | 87.1 | 3.3 | 25.6 | 199.8 | 22.6 | 157.0 | 6.3 |
| 1871 | 962.4 | 7.1 | 68.1 | -1.3 | 78.8 | -12.9 | 5.7 | 224.4 | 9.8 | 190.6 | 20.9 |
| 1872 | 1056.8 | 1.8 | 70.2 | -7.6 | 142.0 | 68.4 | -6.0 | 274.8 | 5.8 | 240.6 | 14.4 |
| 1873 | 1194.4 | 0.1 | 77.5 | -1.2 | 221.2 | 36.7 | 39.8 | 302.4 | -1.3 | 304.6 | 14.6 |

**Table A4.2 (cont.):** *Various expenditures 1800–2012 and their volume growth (%).*

| Year | Private consumption | | Government consumption | | Gross fixed capital formation | | Changes in inventories | Export | | Import | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* |
| 1874 | 1295.8 | 11.1 | 79.2 | -3.2 | 241.2 | -3.3 | 0.6 | 314.4 | -1.3 | 345.2 | 19.7 |
| 1875 | 1192.3 | -7.3 | 84.8 | 3.1 | 233.9 | 3.2 | 50.8 | 283.2 | 2.6 | 301.1 | -9.5 |
| 1876 | 1312.4 | 11.6 | 92.0 | 10.7 | 215.6 | -18.4 | 0.6 | 312.0 | 13.4 | 326.6 | 11.7 |
| 1877 | 1330.5 | -1.1 | 96.8 | 11.6 | 211.1 | -3.7 | 5.6 | 303.6 | -1.5 | 346.4 | 2.2 |
| 1878 | 1148.5 | -4.6 | 97.1 | 8.2 | 191.9 | -0.3 | 52.6 | 260.4 | -1.5 | 270.8 | -10.6 |
| 1879 | 1181.3 | 4.2 | 94.4 | -1.0 | 150.3 | -17.6 | -7.3 | 256.8 | 13.3 | 247.6 | -7.9 |
| 1880 | 1223.8 | 3.6 | 94.7 | -2.0 | 160.3 | 1.8 | 29.8 | 324.0 | 3.4 | 313.9 | 23.3 |
| 1881 | 1333.6 | 6.0 | 98.3 | 1.6 | 153.8 | -4.2 | -20.2 | 308.4 | -2.9 | 326.6 | 3.1 |
| 1882 | 1283.1 | -1.9 | 100.0 | 3.6 | 147.0 | -4.1 | 54.3 | 344.4 | 9.4 | 340.6 | 9.5 |
| 1883 | 1376.3 | 10.4 | 101.5 | 1.6 | 166.5 | 12.3 | -5.8 | 349.2 | 1.8 | 379.0 | 13.3 |
| 1884 | 1331.1 | -3.2 | 104.1 | 4.0 | 184.8 | 15.1 | 39.4 | 321.6 | 1.8 | 367.3 | 1.4 |
| 1885 | 1335.6 | 6.6 | 106.3 | 3.6 | 177.1 | -1.7 | 13.4 | 325.2 | 3.8 | 387.1 | 11.3 |
| 1886 | 1219.1 | -3.8 | 107.6 | 4.3 | 171.3 | 1.3 | 21.7 | 300.0 | -4.3 | 339.4 | -9.0 |
| 1887 | 1164.0 | 1.3 | 110.2 | 3.6 | 136.0 | -19.8 | 12.3 | 320.4 | 11.3 | 333.6 | 4.8 |
| 1888 | 1259.2 | 0.9 | 107.3 | -3.3 | 159.5 | 16.7 | -0.6 | 364.8 | 7.7 | 369.7 | 3.3 |
| 1889 | 1338.2 | 6.5 | 109.8 | -0.6 | 171.1 | 3.1 | 23.6 | 388.8 | -3.0 | 427.8 | 14.0 |
| 1890 | 1383.7 | -1.5 | 114.2 | 3.6 | 185.7 | 8.7 | 42.7 | 385.2 | 3.6 | 431.3 | -3.4 |
| 1891 | 1370.2 | 5.4 | 119.3 | 3.1 | 145.3 | -21.4 | 19.5 | 405.6 | 5.9 | 304.6 | -5.1 |
| 1892 | 1422.5 | -0.4 | 121.6 | 2.9 | 158.6 | 10.2 | 39.2 | 393.6 | -2.6 | 401.0 | 1.9 |
| 1893 | 1398.8 | 0.2 | 125.4 | 4.0 | 139.3 | -9.9 | 7.5 | 412.8 | 8.4 | 368.5 | -5.5 |
| 1894 | 1396.9 | 4.1 | 125.1 | 1.1 | 142.8 | 0.5 | 12.8 | 412.8 | -0.2 | 395.2 | 13.4 |
| 1895 | 1424.2 | 0.6 | 127.7 | 1.0 | 188.4 | 31.6 | 30.6 | 428.4 | 5.3 | 395.2 | -2.2 |
| 1896 | 1473.5 | 3.5 | 128.2 | -1.2 | 204.3 | 3.7 | 48.8 | 470.4 | 7.1 | 415.0 | 1.5 |
| 1897 | 1566.9 | 3.6 | 142.6 | 8.8 | 263.4 | 21.1 | 49.6 | 498.0 | -3.3 | 465.0 | 8.0 |
| 1898 | 1758.5 | 9.2 | 151.4 | 1.9 | 307.8 | 12.0 | 39.7 | 480.0 | -6.9 | 518.4 | 6.8 |
| 1899 | 1935.2 | 4.3 | 159.4 | 1.2 | 353.8 | 13.5 | 37.9 | 502.8 | 1.1 | 584.7 | 6.8 |
| 1900 | 1932.5 | -0.5 | 179.2 | 10.6 | 346.0 | -5.0 | 73.2 | 550.8 | 3.9 | 610.3 | 2.1 |
| 1901 | 1932.5 | 2.1 | 184.2 | 3.0 | 310.1 | -9.9 | 5.3 | 493.2 | -5.8 | 535.9 | -11.0 |
| 1902 | 1953.2 | 0.7 | 186.0 | 1.5 | 276.1 | -8.6 | 25.8 | 522.0 | 10.5 | 583.5 | 10.5 |
| 1903 | 2041.9 | 1.3 | 201.9 | 6.6 | 316.5 | 10.4 | 53.1 | 583.2 | 11.5 | 616.1 | 6.5 |
| 1904 | 2145.0 | 4.9 | 211.1 | 2.0 | 348.5 | 12.9 | 38.0 | 556.8 | -4.5 | 663.8 | 4.8 |
| 1905 | 2117.9 | -3.2 | 220.7 | 5.2 | 368.2 | 5.0 | 61.8 | 602.4 | 9.1 | 669.6 | 1.3 |
| 1906 | 2345.5 | 8.4 | 230.9 | -2.9 | 434.9 | 15.0 | 68.9 | 673.2 | 6.3 | 742.8 | 8.7 |
| 1907 | 2595.1 | 6.5 | 252.4 | 2.5 | 427.1 | -2.7 | 54.1 | 702.0 | 1.1 | 781.2 | 0.9 |
| 1908 | 2607.1 | -0.7 | 274.3 | 8.0 | 372.5 | -12.4 | 72.9 | 646.8 | -3.8 | 694.0 | -11.6 |
| 1909 | 2694.4 | 4.3 | 287.8 | 1.4 | 336.7 | -10.3 | 7.6 | 637.2 | -6.4 | 712.6 | 0.2 |
| 1910 | 2748.6 | 2.8 | 285.9 | -3.0 | 391.5 | 14.4 | 57.3 | 790.8 | 23.3 | 775.3 | 9.1 |

**Table A4.2 (cont.):** *Various expenditures 1800–2012 and their volume growth (%).*

| Year | Private consumption | | Government consumption | | Gross fixed capital formation | | Changes in inventories | Export | | Import | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* |
| 1911 | 2676.7 | -4.0 | 287.7 | -0.1 | 439.5 | 12.1 | 85.7 | 883.2 | 12.8 | 804.4 | 1.3 |
| 1912 | 2874.4 | 5.2 | 307.0 | 3.7 | 452.4 | 3.0 | 76.6 | 992.4 | 9.5 | 909.0 | 9.3 |
| 1913 | 3024.9 | 8.3 | 314.7 | 1.0 | 549.8 | 18.3 | 107.4 | 1074.0 | 3.8 | 983.4 | 11.8 |
| 1914 | 3077.1 | -6.6 | 331.5 | 3.9 | 530.6 | -6.5 | 76.5 | 1032.0 | -10.6 | 842.8 | -25.1 |
| 1915 | 3436.6 | -2.5 | 386.1 | 8.0 | 532.3 | -10.9 | 77.3 | 1789.1 | 54.1 | 1363.5 | 41.0 |
| 1916 | 3992.8 | -0.4 | 496.7 | 10.0 | 658.4 | 1.5 | 144.9 | 2221.1 | -2.5 | 1418.2 | -13.1 |
| 1917 | 4651.4 | 1.6 | 532.5 | -18.5 | 837.7 | 1.9 | 128.7 | 1870.7 | -43.3 | 1019.5 | -45.1 |
| 1918 | 6969.9 | -0.7 | 920.3 | 20.5 | 1115.9 | -2.0 | 21.1 | 2056.7 | -14.4 | 1584.4 | 9.4 |
| 1919 | 9595 | 26.1 | 950 | -33.6 | 1437 | 6.3 | 78 | 2323 | 2.1 | 2944 | 69.0 |
| 1920 | 10665 | 5.2 | 1095 | 29.3 | 1642 | 4.7 | 270 | 3138 | 13.9 | 3852 | 20.9 |
| 1921 | 7171 | -10.3 | 1101 | 1.5 | 1144 | -19.9 | 63 | 1476 | -22.0 | 1462 | -35.1 |
| 1922 | 6076 | 5.3 | 933 | 6.0 | 887 | 4.8 | -70 | 1534 | 37.4 | 1298 | 10.5 |
| 1923 | 5970 | 4.3 | 838 | 2.7 | 946 | 10.1 | 281 | 1546 | -1.9 | 1505 | 14.7 |
| 1924 | 6238 | 4.3 | 852 | 2.1 | 1069 | 5.9 | 161 | 1692 | 20.2 | 1656 | 7.8 |
| 1925 | 6119 | -0.4 | 874 | 1.2 | 1185 | 10.5 | 315 | 1817 | 10.7 | 1682 | 9.4 |
| 1926 | 6391 | 9.6 | 851 | 3.1 | 1138 | -3.8 | 126 | 1906 | 7.8 | 1732 | 5.5 |
| 1927 | 6337 | 0.4 | 851 | 0.2 | 1181 | 4.3 | 137 | 2172 | 19.3 | 1842 | 5.9 |
| 1928 | 6629 | 6.2 | 873 | 3.8 | 1321 | 12.6 | 221 | 2092 | -3.7 | 1992 | 13.3 |
| 1929 | 6747 | 4.0 | 895 | 4.9 | 1361 | 2.4 | 222 | 2399 | 18.9 | 2077 | 8.8 |
| 1930 | 6732 | 6.0 | 910 | 4.4 | 1604 | 18.0 | 239 | 2102 | -7.7 | 1945 | 3.5 |
| 1931 | 6618 | 5.0 | 930 | 5.9 | 1380 | -13.7 | 51 | 1535 | -18.5 | 1660 | -5.4 |
| 1932 | 6309 | -1.5 | 918 | 0.3 | 1147 | -15.3 | 92 | 1295 | -16.3 | 1343 | -19.0 |
| 1933 | 6200 | -0.5 | 889 | -0.9 | 1043 | -4.2 | 84 | 1446 | 12.5 | 1274 | -4.2 |
| 1934 | 6548 | 5.4 | 897 | 0.6 | 1318 | 26.3 | 288 | 1721 | 16.8 | 1517 | 15.0 |
| 1935 | 6916 | 2.7 | 954 | 3.8 | 1676 | 27.2 | 343 | 1718 | 2.0 | 1716 | 10.0 |
| 1936 | 7320 | 3.2 | 1000 | 5.4 | 1885 | 13.8 | 263 | 1993 | 14.3 | 1898 | 7.0 |
| 1937 | 7992 | 5.9 | 1105 | 6.3 | 2124 | 2.7 | 347 | 2621 | 5.0 | 2468 | 7.6 |
| 1938 | 8233 | 2.9 | 1235 | 8.7 | 2407 | 12.1 | 344 | 2452 | 1.0 | 2420 | 7.9 |
| 1939 | 9173 | 5.9 | 1639 | 29.1 | 2748 | 13.1 | 356 | 2580 | 10.3 | 2905 | 16.7 |
| 1940 | 10011 | -6.6 | 2404 | 7.3 | 2246 | -30.7 | 140 | 2052 | -32.4 | 2330 | -36.3 |
| 1941 | 10724 | -8.2 | 2926 | 10.8 | 2347 | -1.0 | -72 | 2060 | -7.7 | 1946 | -26.2 |
| 1942 | 11091 | -2.8 | 3144 | 1.4 | 3165 | 25.2 | 260 | 2012 | -8.4 | 2069 | 0.1 |
| 1943 | 11933 | 2.5 | 3302 | 3.5 | 3625 | 9.2 | 424 | 1861 | -6.7 | 2109 | 0.0 |
| 1944 | 12395 | 3.8 | 3522 | 3.7 | 3883 | 6.2 | 424 | 1444 | -25.5 | 1949 | -8.6 |
| 1945 | 11536 | -8.5 | 3455 | -1.7 | 3903 | -0.7 | 479 | 2466 | 55.0 | 1260 | -36.9 |
| 1946 | 14678 | 25.5 | 3071 | -15.9 | 5139 | 29.8 | 790 | 3792 | 60.7 | 3936 | 225.6 |
| 1947 | 16944 | 11.9 | 3290 | 1.6 | 6085 | 15.5 | 1082 | 4579 | 15.1 | 6068 | 45.1 |

**Table A4.2 (cont.):** *Various expenditures 1800–2012 and their volume growth (%).*

| Year | Private consumption | | Government consumption | | Gross fixed capital formation | | Changes in inventories | Export | | Import | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* |
| 1948 | 18166 | -0.1 | 3809 | 7.5 | 5779 | -6.9 | 1095 | 5515 | 10.5 | 5748 | -9.3 |
| 1949 | 18175 | 0.2 | 4052 | 5.3 | 5967 | 1.6 | 669 | 5791 | 1.8 | 5037 | -14.1 |
| 1950 | 21467 | 10.0 | 4300 | 4.3 | 6657 | 9.4 | 156 | 7549 | 22.3 | 7093 | 33.7 |
| 1951 | 24048 | -0.6 | 5371 | 4.8 | 8357 | 2.7 | 2021 | 11933 | 6.7 | 10579 | 14.7 |
| 1952 | 26714 | 4.0 | 6531 | 5.5 | 9699 | 2.8 | 1477 | 10846 | -7.8 | 10297 | -5.8 |
| 1953 | 27834 | 2.5 | 7197 | 8.7 | 10566 | 10.9 | 10 | 10151 | 3.8 | 9455 | 0.0 |
| 1954 | 29446 | 4.2 | 7540 | 5.0 | 11415 | 11.2 | 735 | 11112 | 10.7 | 10909 | 16.6 |
| 1955 | 31385 | 3.3 | 8192 | 2.1 | 11830 | 0.0 | 1743 | 12127 | 5.2 | 12171 | 9.6 |
| 1956 | 33935 | 2.9 | 9056 | 5.1 | 12798 | 2.6 | 1742 | 13794 | 9.4 | 13575 | 7.2 |
| 1957 | 35780 | 1.6 | 10089 | 3.0 | 13567 | 1.7 | 1845 | 15315 | 9.0 | 14931 | 6.9 |
| 1958 | 38271 | 2.5 | 10735 | 4.7 | 14969 | 9.7 | 1089 | 14734 | 0.1 | 14608 | 2.6 |
| 1959 | 40222 | 3.7 | 11460 | 5.0 | 16493 | 10.2 | 823 | 15317 | 6.1 | 14798 | 3.5 |
| 1960 | 42623 | 1.9 | 12319 | 1.7 | 18193 | 4.0 | 2803 | 17604 | 12.3 | 17477 | 16.2 |
| 1961 | 46190 | 6.0 | 13377 | 3.4 | 20257 | 7.9 | 2246 | 18597 | 5.2 | 17600 | 0.2 |
| 1962 | 50064 | 4.3 | 15320 | 6.2 | 22516 | 6.7 | 1933 | 19773 | 8.1 | 18824 | 5.7 |
| 1963 | 54304 | 5.3 | 17114 | 9.5 | 24880 | 7.0 | 1425 | 21439 | 7.3 | 20495 | 7.1 |
| 1964 | 58655 | 4.3 | 18974 | 2.9 | 28076 | 7.5 | 3390 | 24323 | 12.0 | 23252 | 9.7 |
| 1965 | 64849 | 4.8 | 21545 | 4.7 | 31013 | 4.3 | 4301 | 26206 | 5.6 | 26350 | 11.3 |
| 1966 | 70704 | 2.3 | 24920 | 5.5 | 33900 | 4.2 | 3067 | 27935 | 4.9 | 27891 | 4.3 |
| 1967 | 76490 | 2.6 | 27951 | 4.6 | 36755 | 5.2 | 2079 | 29880 | 5.5 | 28969 | 2.5 |
| 1968 | 81519 | 4.7 | 31252 | 6.9 | 37419 | 0.5 | 2304 | 32395 | 7.6 | 31608 | 8.3 |
| 1969 | 88635 | 5.2 | 34335 | 5.4 | 39407 | 4.1 | 3961 | 37266 | 11.5 | 36640 | 12.9 |
| 1970 | 96594 | 3.8 | 39855 | 8.1 | 42962 | 3.8 | 7409 | 44196 | 8.6 | 43737 | 10.4 |
| 1971 | 104065 | 0.1 | 45164 | 2.2 | 45292 | -0.6 | 4106 | 48258 | 4.8 | 44450 | -3.3 |
| 1972 | 114539 | 3.4 | 49939 | 2.4 | 50130 | 4.2 | 2001 | 52501 | 5.9 | 47580 | 4.0 |
| 1973 | 126380 | 2.6 | 55477 | 2.6 | 55005 | 2.7 | 1011 | 66191 | 13.7 | 57533 | 6.9 |
| 1974 | 144125 | 3.4 | 64121 | 3.1 | 61001 | -3.0 | 8528 | 87873 | 5.3 | 86956 | 9.9 |
| 1975 | 164319 | 2.8 | 77224 | 4.7 | 69787 | 3.1 | 13243 | 90184 | -9.3 | 87791 | -3.5 |
| 1976 | 190034 | 4.2 | 91271 | 3.5 | 79921 | 1.9 | 11296 | 100172 | 4.3 | 102727 | 9.0 |
| 1977 | 208324 | -1.0 | 109704 | 3.0 | 86643 | -2.9 | 505 | 107948 | 1.5 | 110696 | -3.8 |
| 1978 | 230893 | -0.7 | 124228 | 3.3 | 88960 | -6.8 | -4255 | 123999 | 7.8 | 115499 | -5.5 |
| 1979 | 255267 | 2.4 | 141058 | 4.7 | 101724 | 4.5 | 4411 | 149694 | 6.1 | 149502 | 11.6 |
| 1980 | 284664 | -0.8 | 163430 | 2.2 | 117798 | 3.5 | 9008 | 166745 | -0.6 | 171458 | 0.4 |
| 1981 | 317486 | -0.4 | 180586 | 2.2 | 121084 | -5.8 | -821 | 186711 | 2.8 | 182048 | -4.6 |
| 1982 | 353071 | 0.9 | 196509 | 0.7 | 131566 | 0.7 | -2377 | 221048 | 6.8 | 218044 | 4.7 |
| 1983 | 382923 | -2.2 | 215199 | 0.5 | 149684 | 3.4 | -5979 | 271886 | 9.5 | 249828 | 1.0 |
| 1984 | 418351 | 1.8 | 233271 | 2.0 | 170697 | 8.1 | -2601 | 310809 | 7.1 | 273536 | 5.3 |

**Table A4.2 (cont.):** *Various expenditures 1800–2012 and their volume growth (%).*

| Year | Private consumption | | Government consumption | | Gross fixed capital formation | | Changes in inventories | Export | | Import | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Current prices, mn SEK | Vol. gr., %* | Current prices, mn SEK | Vol. gr., %* |
| 1985 | 458591 | 2.6 | 250555 | 1.6 | 194646 | 7.9 | 5795 | 327587 | 1.3 | 305597 | 7.9 |
| 1986 | 504498 | 4.8 | 270331 | 1.7 | 203133 | 1.3 | 1038 | 333747 | 3.5 | 295612 | 3.6 |
| 1987 | 557974 | 5.0 | 284112 | 1.2 | 228949 | 6.1 | 2740 | 356644 | 4.0 | 329542 | 7.3 |
| 1988 | 608874 | 2.9 | 302267 | 0.9 | 261214 | 5.6 | 4163 | 386228 | 3.3 | 359505 | 5.0 |
| 1989 | 656971 | 1.1 | 338656 | 2.5 | 316610 | 11.4 | 7302 | 424642 | 3.2 | 411112 | 7.7 |
| 1990 | 717653 | -0.7 | 389731 | 2.7 | 344944 | 0.2 | 5475 | 442095 | 2.3 | 429523 | 1.1 |
| 1991 | 794743 | 0.2 | 430701 | 4.2 | 331178 | -8.8 | -13592 | 442108 | -2.0 | 411744 | -4.9 |
| 1992 | 800751 | -1.5 | 447668 | 2.3 | 291073 | -10.6 | 498 | 439103 | 2.2 | 408138 | 1.6 |
| 1993 | 819525 | -3.0 | 453491 | 0.2 | 245992 | -16.9 | -4947 | 514944 | 7.8 | 456464 | -2.7 |
| 1994 | 858786 | 2.1 | 467687 | -0.6 | 260378 | 7.0 | 17154 | 605524 | 13.5 | 530941 | 12.9 |
| 1995 | 894230 | 1.1 | 482083 | -0.7 | 289031 | 9.9 | 21477 | 718416 | 11.3 | 595662 | 7.1 |
| 1996 | 918710 | 1.8 | 505497 | 0.7 | 299953 | 4.7 | 7140 | 714885 | 4.4 | 592270 | 3.4 |
| 1997 | 957982 | 2.8 | 515850 | -0.8 | 304992 | 0.6 | 9371 | 813220 | 13.8 | 668427 | 12.4 |
| 1998 | 993943 | 3.3 | 543453 | 3.7 | 336903 | 8.8 | 15312 | 871764 | 9.0 | 736351 | 11.3 |
| 1999 | 1048348 | 4.0 | 571898 | 1.8 | 373808 | 8.7 | 5350 | 921629 | 7.2 | 782612 | 5.1 |
| 2000 | 1113679 | 5.3 | 585490 | -1.2 | 407041 | 5.7 | 15286 | 1053949 | 11.7 | 909998 | 11.7 |
| 2001 | 1145837 | 0.7 | 617180 | 0.8 | 421196 | 0.5 | 6661 | 1087395 | 0.6 | 929850 | -1.7 |
| 2002 | 1193701 | 2.6 | 659100 | 2.1 | 424061 | -1.3 | 1834 | 1084269 | 1.3 | 919335 | -1.3 |
| 2003 | 1241140 | 2.3 | 693596 | 0.9 | 428694 | 1.6 | 7672 | 1107579 | 4.2 | 933814 | 3.7 |
| 2004 | 1286263 | 2.8 | 704921 | -0.3 | 453261 | 5.7 | -1205 | 1222905 | 10.8 | 1005188 | 6.6 |
| 2005 | 1336052 | 2.8 | 725248 | 0.2 | 495703 | 8.1 | -4305 | 1341244 | 6.6 | 1124567 | 7.0 |
| 2006 | 1389299 | 2.7 | 765257 | 1.7 | 551106 | 9.2 | 423 | 1504836 | 9.0 | 1266441 | 9.0 |
| 2007 | 1460162 | 3.7 | 797414 | 0.7 | 611964 | 8.9 | 23247 | 1621472 | 5.7 | 1388241 | 9.0 |
| 2008 | 1504777 | 0.0 | 835164 | 1.0 | 641807 | 1.4 | 6231 | 1715236 | 1.7 | 1498895 | 3.5 |
| 2009 | 1532516 | -0.3 | 859703 | 2.2 | 558629 | -15.5 | -46290 | 1489445 | -13.8 | 1288213 | -14.3 |
| 2010 | 1617050 | 4.0 | 889623 | 2.1 | 601691 | 7.2 | 22802 | 1651448 | 11.4 | 1445083 | 12.0 |
| 2011 | 1671239 | 1.7 | 924116 | 0.8 | 650767 | 8.2 | 40391 | 1735241 | 6.1 | 1541211 | 7.1 |
| 2012 | 1718248 | 1.6 | 955873 | 0.7 | 672919 | 3.1 | -4307 | 1722409 | 0.7 | 1516359 | -0.6 |

* Volume growth.

**Table A4.3:** *Nominal value added of various activities, current basic prices (million SEK) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and com-munication | Trade, finance and business services | Real estate | Other private services | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1800 | 66.24 | 32.42 | 4.78 | 6.36 | 4.03 | 7.00 | 12.66 | 11.19 | 144.66 |
| 1801 | 71.13 | 33.45 | 4.74 | 6.41 | 5.04 | 7.23 | 12.44 | 11.00 | 151.43 |
| 1802 | 68.35 | 34.40 | 3.90 | 6.62 | 5.96 | 7.21 | 12.02 | 10.81 | 149.27 |
| 1803 | 67.53 | 33.61 | 3.94 | 7.78 | 5.46 | 7.96 | 11.13 | 10.77 | 148.18 |
| 1804 | 67.88 | 33.88 | 5.16 | 7.39 | 4.43 | 8.27 | 11.55 | 10.59 | 149.14 |
| 1805 | 68.43 | 34.51 | 4.50 | 7.40 | 5.52 | 8.54 | 11.66 | 10.92 | 151.49 |
| 1806 | 79.61 | 35.29 | 4.66 | 6.73 | 6.83 | 9.36 | 14.57 | 12.18 | 169.24 |
| 1807 | 84.79 | 36.19 | 4.81 | 6.65 | 6.91 | 9.41 | 14.49 | 12.18 | 175.43 |
| 1808 | 99.89 | 39.49 | 5.51 | 4.66 | 9.15 | 11.06 | 18.20 | 15.11 | 203.06 |
| 1809 | 115.37 | 45.29 | 5.14 | 8.87 | 7.51 | 11.91 | 15.52 | 11.44 | 221.04 |
| 1810 | 118.54 | 51.25 | 6.36 | 12.59 | 7.57 | 13.27 | 14.72 | 10.89 | 235.18 |
| 1811 | 128.05 | 50.79 | 8.13 | 15.82 | 6.76 | 15.14 | 20.16 | 12.68 | 257.53 |
| 1812 | 148.04 | 57.53 | 11.84 | 10.77 | 12.40 | 17.58 | 25.94 | 16.03 | 300.13 |
| 1813 | 154.15 | 67.89 | 12.61 | 13.34 | 12.69 | 18.05 | 26.24 | 16.52 | 321.48 |
| 1814 | 152.32 | 71.40 | 10.51 | 14.11 | 13.73 | 18.81 | 24.35 | 15.27 | 320.51 |
| 1815 | 146.81 | 70.00 | 11.17 | 12.12 | 14.14 | 18.93 | 23.76 | 14.79 | 311.72 |
| 1816 | 155.74 | 71.24 | 14.34 | 12.72 | 14.62 | 19.87 | 26.94 | 17.88 | 333.35 |
| 1817 | 152.72 | 72.94 | 13.94 | 13.54 | 15.12 | 20.02 | 28.70 | 18.44 | 335.43 |
| 1818 | 148.22 | 76.05 | 14.30 | 14.47 | 14.90 | 20.68 | 30.96 | 20.27 | 339.86 |
| 1819 | 164.70 | 74.11 | 14.39 | 13.51 | 17.97 | 19.80 | 29.83 | 20.77 | 355.08 |
| 1820 | 161.03 | 81.80 | 12.98 | 15.09 | 18.07 | 19.33 | 24.83 | 18.02 | 351.15 |
| 1821 | 136.33 | 79.68 | 12.79 | 16.61 | 16.30 | 20.85 | 22.34 | 18.15 | 323.04 |
| 1822 | 134.45 | 70.96 | 13.82 | 16.10 | 14.91 | 20.92 | 22.56 | 18.14 | 311.87 |
| 1823 | 137.16 | 72.43 | 14.36 | 17.89 | 15.65 | 21.65 | 22.05 | 17.23 | 318.43 |
| 1824 | 142.86 | 77.83 | 15.42 | 18.69 | 15.03 | 22.21 | 22.31 | 19.09 | 333.44 |
| 1825 | 140.80 | 77.53 | 16.55 | 19.17 | 16.57 | 24.79 | 23.57 | 19.67 | 338.65 |
| 1826 | 159.63 | 74.19 | 16.04 | 13.78 | 18.01 | 23.97 | 31.90 | 23.66 | 361.17 |
| 1827 | 158.18 | 82.84 | 15.68 | 17.05 | 20.32 | 24.81 | 25.65 | 22.09 | 366.62 |
| 1828 | 147.67 | 84.97 | 14.35 | 17.05 | 18.02 | 25.22 | 22.50 | 20.29 | 350.07 |
| 1829 | 155.92 | 80.10 | 14.00 | 17.59 | 17.49 | 27.27 | 26.47 | 20.90 | 359.75 |
| 1830 | 157.67 | 83.55 | 13.82 | 17.11 | 18.97 | 25.67 | 28.88 | 21.33 | 367.01 |
| 1831 | 175.14 | 85.40 | 15.02 | 17.32 | 20.69 | 26.80 | 32.22 | 23.83 | 396.41 |
| 1832 | 190.91 | 91.73 | 14.55 | 18.74 | 21.82 | 26.03 | 29.64 | 21.60 | 415.03 |
| 1833 | 169.64 | 99.37 | 14.45 | 19.22 | 21.06 | 26.90 | 28.76 | 20.93 | 400.35 |
| 1834 | 158.13 | 90.37 | 15.87 | 18.43 | 21.11 | 27.54 | 29.65 | 22.27 | 383.37 |
| 1835 | 173.24 | 88.67 | 18.05 | 18.80 | 22.20 | 27.96 | 30.51 | 21.22 | 400.65 |

**Table A4.3 (cont.):** *Nominal value added of various activities, current basic prices (million SEK) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and com-munication | Trade, finance and business services | Real estate | Other private services | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1836 | 172.87 | 95.40 | 19.12 | 17.56 | 23.99 | 28.44 | 31.13 | 21.87 | 410.39 |
| 1837 | 166.65 | 94.52 | 18.25 | 17.10 | 26.11 | 28.88 | 33.25 | 22.90 | 407.66 |
| 1838 | 207.79 | 95.19 | 17.32 | 19.48 | 25.55 | 29.19 | 35.42 | 22.93 | 452.87 |
| 1839 | 201.16 | 109.41 | 17.08 | 22.02 | 26.12 | 29.95 | 33.91 | 23.19 | 462.84 |
| 1840 | 207.39 | 105.49 | 16.99 | 22.43 | 25.72 | 29.81 | 33.61 | 22.69 | 464.13 |
| 1841 | 191.30 | 110.99 | 17.86 | 22.77 | 24.96 | 31.05 | 35.32 | 24.15 | 458.41 |
| 1842 | 213.18 | 103.75 | 18.97 | 23.43 | 25.97 | 31.81 | 36.47 | 23.63 | 477.22 |
| 1843 | 204.68 | 107.54 | 19.27 | 19.22 | 27.02 | 32.26 | 34.82 | 23.96 | 468.78 |
| 1844 | 182.96 | 106.24 | 19.42 | 21.20 | 25.42 | 32.00 | 31.73 | 21.18 | 440.15 |
| 1845 | 197.88 | 103.04 | 19.98 | 22.59 | 25.29 | 32.12 | 36.20 | 25.15 | 462.24 |
| 1846 | 210.90 | 106.07 | 21.75 | 21.11 | 29.00 | 32.32 | 38.85 | 26.84 | 486.83 |
| 1847 | 237.30 | 109.91 | 22.45 | 21.54 | 31.30 | 34.19 | 39.45 | 26.95 | 523.09 |
| 1848 | 229.23 | 120.39 | 21.03 | 23.53 | 33.04 | 36.38 | 36.70 | 26.79 | 527.09 |
| 1849 | 216.60 | 120.90 | 21.43 | 27.88 | 30.37 | 37.50 | 36.47 | 25.74 | 516.88 |
| 1850 | 234.80 | 119.84 | 23.11 | 25.69 | 33.21 | 38.49 | 38.76 | 26.80 | 540.69 |
| 1851 | 225.88 | 128.21 | 25.17 | 27.00 | 33.11 | 39.20 | 40.19 | 28.61 | 547.37 |
| 1852 | 254.67 | 127.05 | 27.00 | 25.40 | 34.82 | 39.81 | 41.64 | 28.20 | 578.58 |
| 1853 | 264.80 | 140.09 | 28.51 | 30.84 | 35.17 | 41.48 | 44.68 | 30.78 | 616.35 |
| 1854 | 295.90 | 145.18 | 32.56 | 29.21 | 41.22 | 45.91 | 45.52 | 29.93 | 665.43 |
| 1855 | 343.47 | 171.20 | 38.08 | 29.39 | 50.37 | 54.09 | 54.78 | 32.19 | 773.57 |
| 1856 | 373.55 | 197.79 | 42.35 | 32.50 | 59.60 | 60.71 | 60.54 | 32.75 | 859.79 |
| 1857 | 350.69 | 196.77 | 37.01 | 36.18 | 62.98 | 70.15 | 59.92 | 33.72 | 847.42 |
| 1858 | 318.56 | 170.22 | 35.60 | 32.08 | 56.09 | 58.76 | 52.17 | 36.07 | 759.57 |
| 1859 | 299.87 | 171.33 | 37.77 | 36.23 | 53.50 | 58.73 | 50.54 | 36.42 | 744.39 |
| 1860 | 341.88 | 171.92 | 44.15 | 38.48 | 58.13 | 61.39 | 55.34 | 37.96 | 809.25 |
| 1861 | 347.94 | 190.58 | 46.52 | 42.18 | 63.14 | 62.18 | 61.84 | 39.33 | 853.71 |
| 1862 | 368.84 | 188.43 | 48.25 | 39.90 | 60.33 | 67.53 | 61.89 | 39.50 | 874.67 |
| 1863 | 362.60 | 200.17 | 53.31 | 42.78 | 62.06 | 67.79 | 60.38 | 42.68 | 891.78 |
| 1864 | 344.19 | 198.37 | 57.49 | 40.77 | 62.92 | 69.07 | 57.28 | 44.11 | 874.19 |
| 1865 | 331.01 | 201.49 | 48.21 | 42.03 | 63.84 | 75.18 | 58.24 | 44.29 | 864.28 |
| 1866 | 366.01 | 197.73 | 46.68 | 46.58 | 61.32 | 71.47 | 62.52 | 46.06 | 898.37 |
| 1867 | 383.09 | 203.45 | 45.54 | 44.23 | 63.12 | 69.58 | 61.71 | 48.40 | 919.13 |
| 1868 | 390.39 | 198.65 | 39.79 | 43.92 | 62.45 | 68.52 | 63.08 | 49.54 | 916.34 |
| 1869 | 396.44 | 199.52 | 40.20 | 49.34 | 63.77 | 68.97 | 62.63 | 49.99 | 930.85 |
| 1870 | 435.8 | 206.3 | 44.8 | 48.8 | 68.0 | 70.7 | 63.0 | 50.6 | 988.1 |
| 1871 | 454.2 | 222.2 | 38.9 | 52.8 | 73.3 | 74.2 | 66.9 | 52.3 | 1034.8 |
| 1872 | 478.1 | 268.3 | 66.1 | 62.2 | 85.3 | 77.3 | 72.2 | 54.8 | 1164.3 |

**Table A4.3 (cont.):** *Nominal value added of various activities, current basic prices (million SEK) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and com-munication | Trade, finance and business services | Real estate | Other private services | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1873 | 567.4 | 302.0 | 97.6 | 77.0 | 98.0 | 95.9 | 76.5 | 57.8 | 1372.3 |
| 1874 | 541.1 | 330.0 | 103.2 | 95.0 | 109.9 | 91.7 | 80.7 | 59.5 | 1411.1 |
| 1875 | 530.6 | 307.5 | 97.0 | 89.6 | 105.8 | 103.2 | 82.9 | 64.9 | 1381.6 |
| 1876 | 549.6 | 308.6 | 103.4 | 92.8 | 106.1 | 114.1 | 88.8 | 71.2 | 1434.6 |
| 1877 | 549.7 | 304.7 | 103.1 | 92.7 | 109.1 | 109.6 | 91.5 | 70.2 | 1430.7 |
| 1878 | 525.5 | 249.4 | 107.3 | 78.8 | 96.1 | 106.7 | 87.8 | 74.1 | 1325.6 |
| 1879 | 520.6 | 236.1 | 89.7 | 70.4 | 94.7 | 104.0 | 87.8 | 74.4 | 1277.6 |
| 1880 | 543.9 | 270.3 | 87.4 | 85.0 | 96.9 | 107.4 | 89.9 | 75.7 | 1356.5 |
| 1881 | 516.2 | 297.7 | 79.6 | 93.9 | 107.5 | 111.9 | 94.0 | 78.4 | 1379.2 |
| 1882 | 547.5 | 311.5 | 69.8 | 104.5 | 101.1 | 114.1 | 94.3 | 78.7 | 1421.4 |
| 1883 | 532.9 | 303.8 | 84.8 | 105.3 | 109.5 | 120.7 | 95.4 | 79.0 | 1431.4 |
| 1884 | 526.7 | 298.9 | 97.1 | 102.4 | 109.0 | 122.7 | 99.3 | 80.3 | 1436.2 |
| 1885 | 500.1 | 296.9 | 92.3 | 95.9 | 110.8 | 122.9 | 96.9 | 80.4 | 1396.2 |
| 1886 | 459.3 | 265.4 | 97.1 | 89.3 | 102.3 | 122.7 | 98.1 | 81.2 | 1315.5 |
| 1887 | 416.2 | 265.5 | 79.5 | 89.9 | 100.3 | 121.4 | 99.8 | 81.6 | 1254.1 |
| 1888 | 460.3 | 291.4 | 82.1 | 98.7 | 101.1 | 126.8 | 103.7 | 82.2 | 1346.3 |
| 1889 | 470.4 | 319.6 | 84.3 | 110.3 | 115.9 | 128.9 | 104.1 | 83.6 | 1417.1 |
| 1890 | 513.9 | 326.5 | 88.7 | 108.0 | 125.0 | 135.1 | 106.5 | 84.2 | 1487.9 |
| 1891 | 577.8 | 342.7 | 70.8 | 104.2 | 137.9 | 132.4 | 110.6 | 86.4 | 1562.7 |
| 1892 | 550.7 | 346.8 | 73.3 | 104.2 | 138.8 | 130.0 | 111.6 | 88.4 | 1543.9 |
| 1893 | 538.3 | 351.3 | 67.0 | 103.2 | 136.9 | 128.7 | 111.9 | 90.5 | 1527.7 |
| 1894 | 503.9 | 361.5 | 63.9 | 112.7 | 136.5 | 121.6 | 114.2 | 91.3 | 1505.4 |
| 1895 | 532.7 | 376.2 | 87.5 | 118.2 | 139.3 | 138.4 | 116.7 | 92.3 | 1601.4 |
| 1896 | 572.2 | 413.4 | 73.8 | 124.9 | 147.1 | 147.3 | 121.1 | 94.4 | 1694.3 |
| 1897 | 579.8 | 455.6 | 112.3 | 136.0 | 161.5 | 154.6 | 125.5 | 96.0 | 1821.3 |
| 1898 | 618.2 | 494.3 | 116.0 | 144.7 | 189.9 | 168.0 | 128.8 | 99.2 | 1959.1 |
| 1899 | 655.7 | 520.1 | 144.2 | 152.9 | 215.7 | 185.6 | 140.7 | 102.8 | 2117.8 |
| 1900 | 682.2 | 550.6 | 140.3 | 156.3 | 219.2 | 183.0 | 144.5 | 108.5 | 2184.7 |
| 1901 | 654.3 | 532.0 | 134.5 | 150.5 | 220.2 | 172.9 | 150.0 | 111.0 | 2125.4 |
| 1902 | 619.3 | 542.4 | 114.1 | 151.6 | 228.2 | 178.9 | 154.7 | 118.1 | 2107.2 |
| 1903 | 681.1 | 573.7 | 132.6 | 165.6 | 238.4 | 210.1 | 162.7 | 123.4 | 2287.5 |
| 1904 | 666.8 | 594.6 | 146.1 | 172.6 | 251.1 | 203.6 | 168.0 | 128.3 | 2331.1 |
| 1905 | 640.2 | 600.7 | 176.0 | 183.6 | 255.5 | 227.3 | 175.9 | 130.8 | 2389.9 |
| 1906 | 718.3 | 695.4 | 192.0 | 199.4 | 302.7 | 238.2 | 188.2 | 135.6 | 2669.8 |
| 1907 | 787.2 | 769.4 | 150.7 | 208.4 | 358.1 | 272.1 | 198.1 | 144.9 | 2888.8 |
| 1908 | 865.3 | 744.6 | 147.1 | 206.7 | 356.2 | 256.0 | 204.5 | 150.6 | 2931.0 |
| 1909 | 853.2 | 699.5 | 138.2 | 205.5 | 363.2 | 264.7 | 209.2 | 165.2 | 2898.7 |

**Table A4.3 (cont.):** *Nominal value added of various activities, current basic prices (million SEK) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and com-munication | Trade, finance and business services | Real estate | Other private services | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1910 | 889.3 | 816.5 | 149.8 | 231.2 | 370.6 | 269.7 | 218.3 | 172.5 | 3117.9 |
| 1911 | 870.4 | 834.9 | 189.0 | 237.8 | 375.3 | 262.8 | 229.2 | 178.8 | 3178.3 |
| 1912 | 944.4 | 890.2 | 194.8 | 255.8 | 382.4 | 298.1 | 238.2 | 184.3 | 3388.2 |
| 1913 | 971.7 | 992.1 | 239.0 | 276.0 | 406.6 | 307.0 | 252.5 | 191.4 | 3636.3 |
| 1914 | 1057.3 | 981.8 | 225.7 | 275.3 | 417.5 | 322.5 | 280.5 | 201.0 | 3761.5 |
| 1915 | 1243.8 | 1153.8 | 224.9 | 337.1 | 479.9 | 340.4 | 343.6 | 225.4 | 4348.9 |
| 1916 | 1560.5 | 1563.9 | 242.6 | 421.3 | 628.2 | 366.0 | 442.2 | 246.8 | 5471.5 |
| 1917 | 1882.7 | 1726.6 | 245.1 | 429.5 | 786.2 | 387.9 | 598.1 | 272.7 | 6328.8 |
| 1918 | 2659 | 2116 | 386 | 634 | 1069 | 441 | 821 | 484 | 8611 |
| 1919 | 2804 | 2609 | 534 | 790 | 1412 | 513 | 974 | 607 | 10243 |
| 1920 | 2888 | 3222 | 549 | 888 | 1609 | 589 | 1083 | 739 | 11566 |
| 1921 | 1849 | 2094 | 587 | 693 | 1140 | 590 | 778 | 745 | 8477 |
| 1922 | 1362 | 1792 | 518 | 597 | 983 | 584 | 673 | 644 | 7153 |
| 1923 | 1462 | 1827 | 463 | 593 | 963 | 575 | 671 | 589 | 7145 |
| 1924 | 1484 | 1937 | 527 | 593 | 972 | 630 | 661 | 580 | 7384 |
| 1925 | 1567 | 1966 | 619 | 606 | 970 | 661 | 656 | 601 | 7646 |
| 1926 | 1493 | 2031 | 573 | 629 | 995 | 690 | 671 | 591 | 7674 |
| 1927 | 1493 | 2102 | 583 | 644 | 968 | 720 | 685 | 594 | 7790 |
| 1928 | 1520 | 2172 | 630 | 643 | 1038 | 744 | 706 | 605 | 8058 |
| 1929 | 1520 | 2386 | 649 | 694 | 1070 | 772 | 702 | 615 | 8407 |
| 1930 | 1412 | 2341 | 799 | 687 | 1073 | 815 | 739 | 624 | 8488 |
| 1931 | 1121 | 2089 | 727 | 671 | 978 | 844 | 718 | 648 | 7796 |
| 1932 | 1097 | 1930 | 644 | 683 | 872 | 863 | 696 | 653 | 7437 |
| 1933 | 1111 | 1916 | 639 | 676 | 857 | 865 | 691 | 645 | 7399 |
| 1934 | 1271 | 2317 | 636 | 712 | 971 | 884 | 696 | 649 | 8137 |
| 1935 | 1301 | 2568 | 713 | 738 | 1042 | 912 | 703 | 694 | 8670 |
| 1936 | 1427 | 2777 | 815 | 770 | 1067 | 951 | 723 | 713 | 9244 |
| 1937 | 1652 | 3262 | 796 | 837 | 1177 | 997 | 754 | 765 | 10239 |
| 1938 | 1554 | 3391 | 971 | 854 | 1222 | 1054 | 780 | 859 | 10685 |
| 1939 | 1683 | 3680 | 1034 | 1012 | 1408 | 1127 | 814 | 1073 | 11830 |
| 1940 | 1906 | 3823 | 758 | 1099 | 1448 | 1190 | 913 | 1495 | 12632 |
| 1941 | 2051 | 4243 | 860 | 1200 | 1480 | 1208 | 958 | 1831 | 13831 |
| 1942 | 2106 | 4640 | 1139 | 1342 | 1573 | 1235 | 1015 | 2055 | 15105 |
| 1943 | 2227 | 5100 | 1227 | 1416 | 1735 | 1275 | 1092 | 2187 | 16258 |
| 1944 | 2250 | 5302 | 1257 | 1476 | 1836 | 1329 | 1130 | 2183 | 16763 |
| 1945 | 2467 | 5417 | 1637 | 1543 | 1832 | 1386 | 1187 | 2046 | 17515 |
| 1946 | 2774 | 6378 | 1637 | 1767 | 2423 | 1533 | 1262 | 1989 | 19764 |

**Table A4.3 (cont.):** *Nominal value added of various activities, current basic prices (million SEK) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and com-munication | Trade, finance and business services | Real estate | Other private services | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1947 | 2771 | 7189 | 2023 | 1844 | 2871 | 1633 | 1423 | 2280 | 22034 |
| 1948 | 3146 | 8291 | 1987 | 2106 | 3129 | 1685 | 1553 | 2568 | 24465 |
| 1949 | 3212 | 8416 | 2166 | 2205 | 3251 | 1801 | 1600 | 2688 | 25340 |
| 1950 | 3992 | 9543 | 2335 | 2329 | 3613 | 1927 | 1710 | 2827 | 28276 |
| 1951 | 5059 | 13052 | 2793 | 3124 | 4016 | 2060 | 1949 | 3455 | 35508 |
| 1952 | 6881 | 12615 | 3282 | 3520 | 4626 | 2259 | 2164 | 4263 | 39611 |
| 1953 | 5365 | 12812 | 3728 | 3529 | 4930 | 2495 | 2318 | 4526 | 39703 |
| 1954 | 5674 | 13767 | 3943 | 3704 | 5144 | 2723 | 2440 | 4725 | 42119 |
| 1955 | 5599 | 14763 | 4172 | 4081 | 5757 | 2972 | 2564 | 5222 | 45130 |
| 1956 | 6223 | 16122 | 4453 | 4493 | 6232 | 3413 | 2755 | 5681 | 49371 |
| 1957 | 5806 | 17504 | 4654 | 4957 | 6993 | 3734 | 2936 | 6378 | 52962 |
| 1958 | 5801 | 18033 | 4986 | 4867 | 7281 | 4170 | 3093 | 6884 | 55116 |
| 1959 | 5354 | 19196 | 5425 | 5128 | 7753 | 4592 | 3166 | 7398 | 58013 |
| 1960 | 5995 | 21144 | 5747 | 5641 | 8249 | 5028 | 3423 | 8048 | 63275 |
| 1961 | 6505 | 22942 | 6367 | 6058 | 9409 | 5537 | 3693 | 8930 | 69442 |
| 1962 | 6664 | 25205 | 7004 | 6437 | 10305 | 5893 | 3951 | 10190 | 75648 |
| 1963 | 6211 | 26474 | 7890 | 6844 | 11503 | 6390 | 4352 | 11593 | 81257 |
| 1964 | 7191 | 29844 | 8922 | 7394 | 13300 | 7140 | 4581 | 12971 | 91343 |
| 1965 | 7575 | 32920 | 9848 | 8115 | 14842 | 8089 | 5138 | 14815 | 101342 |
| 1966 | 7309 | 34205 | 10834 | 8830 | 16090 | 9398 | 5710 | 17209 | 109586 |
| 1967 | 7446 | 35839 | 11932 | 9791 | 17963 | 10463 | 6368 | 19781 | 119583 |
| 1968 | 6818 | 37830 | 12032 | 10500 | 19850 | 11611 | 6936 | 22208 | 127784 |
| 1969 | 6650 | 41724 | 12579 | 11188 | 20880 | 13121 | 7365 | 24442 | 137947 |
| 1970 | 7375 | 47289 | 12826 | 11742 | 22957 | 14867 | 7823 | 28095 | 152975 |
| 1971 | 8509 | 49522 | 13710 | 12771 | 25863 | 16179 | 8377 | 32195 | 167126 |
| 1972 | 8004 | 52218 | 14844 | 14174 | 27207 | 17843 | 9408 | 35945 | 179643 |
| 1973 | 8485 | 59334 | 16628 | 15936 | 30480 | 19672 | 10362 | 39367 | 200265 |
| 1974 | 12184 | 74549 | 17289 | 18112 | 36760 | 21315 | 11253 | 45423 | 236884 |
| 1975 | 13685 | 85306 | 20376 | 19871 | 44433 | 23878 | 13414 | 55124 | 276086 |
| 1976 | 15482 | 89310 | 25417 | 22131 | 51519 | 26580 | 15913 | 65501 | 311851 |
| 1977 | 15161 | 88699 | 26965 | 24858 | 55097 | 29270 | 17917 | 78972 | 336939 |
| 1978 | 15105 | 94582 | 27902 | 27436 | 63039 | 33910 | 20006 | 91457 | 373436 |
| 1979 | 15063 | 108074 | 30716 | 30998 | 72084 | 37819 | 22118 | 103567 | 420438 |
| 1980 | 17340 | 120127 | 34309 | 36257 | 80237 | 42390 | 24583 | 119798 | 475040 |
| 1981 | 19224 | 124563 | 36215 | 39805 | 88610 | 49081 | 28538 | 131291 | 517326 |
| 1982 | 21124 | 137100 | 39612 | 42136 | 97673 | 57970 | 31460 | 142806 | 569881 |
| 1983 | 23871 | 157265 | 41252 | 45416 | 112404 | 64743 | 34638 | 155028 | 634618 |

**Table A4.3 (cont.):** *Nominal value added of various activities, current basic prices (million SEK) 1800–2000.*

|  | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and com-munication | Trade, finance and business services | Real estate | Other private services | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1984 | 26298 | 182593 | 45970 | 48303 | 128528 | 70581 | 38343 | 168106 | 708723 |
| 1985 | 27509 | 197978 | 48782 | 51985 | 139567 | 76404 | 41988 | 179398 | 763610 |
| 1986 | 28813 | 219090 | 50726 | 57398 | 160197 | 83193 | 46537 | 194350 | 840304 |
| 1987 | 29393 | 233488 | 56369 | 62473 | 177332 | 89972 | 52209 | 203155 | 904392 |
| 1988 | 30612 | 251379 | 63918 | 70443 | 198884 | 97911 | 57051 | 217849 | 988046 |
| 1989 | 33748 | 273051 | 79208 | 77700 | 219602 | 105706 | 64352 | 242827 | 1096193 |
| 1990 | 33603 | 282013 | 88602 | 86935 | 240568 | 116105 | 68302 | 279960 | 1196088 |
| 1991 | 29924 | 279528 | 93093 | 93684 | 243692 | 143079 | 74513 | 297772 | 1255284 |
| 1992 | 28513 | 277838 | 87853 | 94396 | 228487 | 167933 | 81601 | 302483 | 1269103 |
| 1993 | 26040 | 279978 | 74305 | 88059 | 247747 | 176380 | 82835 | 301425 | 1276770 |
| 1994 | 29035 | 323127 | 70094 | 93777 | 258454 | 188614 | 87263 | 305382 | 1355746 |
| 1995 | 32180 | 374999 | 71836 | 102306 | 287378 | 192607 | 95733 | 311244 | 1468283 |
| 1996 | 29882 | 376643 | 72366 | 106881 | 294179 | 200870 | 102653 | 325892 | 1509366 |
| 1997 | 30496 | 397110 | 71275 | 116162 | 306762 | 206677 | 109622 | 332159 | 1570262 |
| 1998 | 29816 | 417793 | 74760 | 121982 | 321683 | 205644 | 123108 | 335700 | 1630486 |
| 1999 | 29450 | 431038 | 78873 | 128657 | 349801 | 206495 | 133379 | 346848 | 1704541 |
| 2000 | 28049 | 453831 | 82548 | 130634 | 389057 | 211621 | 148300 | 369861 | 1813900 |

Source: See the main text.

**Table A4.4:** *Annual volume growth of the value added of various activities (per cent) 1800–2000.*

|  | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and communica-tion | Trade, finance and business services | Real estate | Other private ser-vices | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1800 |  |  |  |  |  |  |  |  |  |
| 1801 | 11.70 | -2.57 | -0.15 | 7.94 | -2.36 | -0.13 | 0.28 | 2.83 | 5.15 |
| 1802 | 1.07 | 8.83 | -13.44 | 16.09 | 4.47 | -0.27 | 0.79 | 3.86 | 3.17 |
| 1803 | 5.13 | -0.28 | 5.59 | 2.04 | -4.41 | 0.26 | 0.44 | 6.16 | 2.81 |
| 1804 | -3.13 | 4.08 | 13.85 | -2.47 | 2.30 | 0.83 | 0.59 | -5.68 | -0.52 |
| 1805 | -1.05 | -2.29 | -13.21 | 0.01 | 4.88 | 0.95 | 0.81 | 4.67 | -0.86 |
| 1806 | -1.49 | -0.06 | -2.33 | -10.41 | 3.76 | 0.79 | 0.06 | -10.93 | -1.88 |
| 1807 | 4.56 | -4.68 | 2.43 | -3.63 | -2.93 | 0.54 | 0.04 | -0.27 | 0.95 |
| 1808 | -8.83 | 1.91 | -4.58 | -32.89 | -2.93 | -0.04 | -0.66 | -4.29 | -5.78 |
| 1809 | 20.18 | -1.36 | -14.30 | 50.18 | -1.81 | -1.21 | -0.55 | -7.63 | 9.69 |
| 1810 | 0.13 | 16.22 | -1.33 | 21.79 | 7.47 | -2.01 | 1.06 | 4.02 | 4.63 |
| 1811 | -9.83 | -4.31 | 10.21 | 6.94 | 4.25 | -1.68 | 1.44 | -16.00 | -5.96 |
| 1812 | -4.26 | -7.19 | 17.64 | -21.45 | -3.76 | -0.51 | 1.03 | -1.64 | -4.26 |

**Table A4.4 (cont.):** *Annual volume growth of the value added of various activities (per cent) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and communica-tion | Trade, finance and business services | Real estate | Other private ser-vices | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1813 | 6.77 | 2.00 | -1.74 | 15.65 | -0.44 | 0.25 | 0.88 | 5.78 | 4.54 |
| 1814 | 4.89 | 1.85 | -8.84 | 5.22 | 0.92 | 0.28 | 1.14 | 3.72 | 2.93 |
| 1815 | 3.21 | 0.99 | 11.94 | 1.20 | 0.63 | 0.61 | 1.44 | 3.47 | 2.52 |
| 1816 | -3.42 | 0.88 | 15.73 | -4.75 | 0.58 | 1.40 | 1.25 | 3.77 | -0.66 |
| 1817 | -3.47 | -2.33 | -1.85 | -0.50 | -0.28 | 1.99 | 0.96 | -1.44 | -2.11 |
| 1818 | -7.34 | 0.32 | 4.07 | 2.21 | -2.05 | 2.06 | 1.09 | -0.38 | -2.92 |
| 1819 | 11.30 | -6.77 | 4.41 | -7.46 | 2.36 | 1.68 | 0.67 | 4.89 | 3.78 |
| 1820 | 14.98 | 10.92 | -5.62 | 12.57 | 3.13 | 1.34 | 1.04 | 10.83 | 10.37 |
| 1821 | -7.65 | 8.33 | -5.22 | 13.28 | 4.14 | 1.30 | 1.73 | 15.15 | -0.03 |
| 1822 | -3.50 | -8.69 | 8.80 | 0.33 | 1.42 | 1.60 | 1.98 | -2.06 | -3.06 |
| 1823 | 10.27 | 0.35 | 3.03 | 5.52 | 0.36 | 2.17 | 2.57 | 5.42 | 5.50 |
| 1824 | 2.12 | 11.28 | 4.33 | 3.99 | 2.92 | 2.58 | 1.83 | 11.35 | 4.93 |
| 1825 | -4.55 | -3.96 | 1.32 | 1.37 | 2.08 | 2.79 | 2.31 | 0.83 | -2.24 |
| 1826 | -12.48 | -4.66 | 5.04 | -13.73 | 1.68 | 2.69 | -0.06 | 1.82 | -6.63 |
| 1827 | 18.40 | -3.40 | -4.46 | 13.71 | 1.31 | 2.25 | 0.93 | -3.56 | 7.29 |
| 1828 | 0.10 | 14.14 | -8.64 | 6.55 | -1.32 | 1.62 | 0.49 | 7.51 | 3.64 |
| 1829 | -3.78 | -3.08 | -1.82 | -1.45 | 9.56 | 1.00 | 1.01 | -11.61 | -2.61 |
| 1830 | -3.15 | -0.65 | 1.04 | -5.43 | 0.62 | 0.78 | 0.89 | -6.08 | -1.95 |
| 1831 | -1.13 | -1.50 | 5.50 | -6.46 | 6.70 | 0.72 | 0.69 | 6.39 | -0.12 |
| 1832 | 22.61 | 1.01 | -3.94 | 11.55 | 0.82 | 0.69 | 0.44 | -1.38 | 10.30 |
| 1833 | -3.89 | 16.76 | -2.79 | 6.78 | 2.45 | 0.89 | 1.20 | 8.23 | 2.82 |
| 1834 | -12.32 | -6.21 | 5.86 | -6.06 | 3.72 | 1.16 | 0.87 | -2.93 | -6.72 |
| 1835 | 10.56 | -4.43 | 7.96 | 2.80 | 1.97 | 1.53 | 1.27 | -3.36 | 3.86 |
| 1836 | -3.38 | 7.16 | 4.85 | -5.43 | 6.19 | 1.72 | 1.67 | 1.99 | 0.76 |
| 1837 | -10.63 | -2.82 | -0.89 | -3.70 | 6.49 | 1.54 | 1.24 | -2.30 | -4.94 |
| 1838 | 19.16 | -1.67 | -4.79 | 6.63 | -2.41 | 1.06 | 0.60 | -2.31 | 7.41 |
| 1839 | 3.11 | 13.26 | 1.28 | 15.62 | -2.26 | 0.48 | 0.88 | 9.51 | 5.42 |
| 1840 | 3.98 | 0.16 | 0.25 | 4.96 | 1.71 | 0.45 | 1.31 | -0.66 | 2.21 |
| 1841 | -12.35 | 5.68 | 1.35 | -4.67 | -2.86 | 0.87 | 1.02 | 5.03 | -4.27 |
| 1842 | 9.80 | -8.60 | 7.35 | 6.50 | -0.77 | 1.30 | 1.03 | -0.65 | 2.69 |
| 1843 | 1.46 | 5.29 | -1.99 | -7.17 | 4.72 | 1.44 | 1.21 | 5.70 | 2.12 |
| 1844 | -0.33 | 0.97 | 2.18 | 5.54 | 0.23 | 1.43 | 1.28 | 9.70 | 1.09 |
| 1845 | -7.81 | 2.72 | 5.96 | -1.26 | 5.11 | 1.54 | 1.50 | -13.61 | -2.83 |
| 1846 | 2.30 | -4.46 | 4.96 | -4.93 | 3.96 | 1.57 | 1.18 | 5.18 | 0.65 |
| 1847 | 11.95 | 2.66 | -2.23 | -3.17 | 8.28 | 1.29 | 1.19 | 7.06 | 6.55 |
| 1848 | 7.79 | 11.44 | -4.00 | 23.59 | 6.51 | 1.01 | 1.68 | 11.72 | 7.89 |
| 1849 | -5.92 | 6.14 | 2.94 | 19.96 | -3.91 | 1.14 | 1.12 | -3.65 | -0.48 |

**Table A4.4 (cont.):** *Annual volume growth of the value added of various activities (per cent) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and communica-tion | Trade, finance and business services | Real estate | Other private ser-vices | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1850 | 1.45 | -1.32 | 6.30 | -7.42 | 7.44 | 1.58 | 1.60 | -2.27 | 0.73 |
| 1851 | -7.98 | 2.39 | 13.60 | 4.71 | -3.69 | 1.86 | -1.54 | -1.08 | -2.43 |
| 1852 | 14.46 | -3.73 | 2.21 | -8.17 | 2.84 | 1.54 | 1.75 | 0.53 | 5.16 |
| 1853 | -5.46 | 8.71 | 1.59 | -7.56 | 6.80 | 1.07 | 0.72 | -6.26 | -0.67 |
| 1854 | 13.04 | -4.65 | 0.73 | 12.60 | 0.07 | 1.02 | 1.15 | 3.53 | 5.35 |
| 1855 | -2.88 | 12.23 | -2.97 | -1.55 | 10.98 | 1.05 | 3.13 | -8.35 | 1.62 |
| 1856 | 1.46 | 4.75 | 1.18 | 7.10 | 10.58 | 1.47 | 2.72 | -1.49 | 2.95 |
| 1857 | -1.54 | -2.65 | -16.62 | 7.80 | 3.95 | 1.12 | 1.49 | 2.43 | -1.25 |
| 1858 | 7.17 | -5.87 | 11.68 | 3.22 | -4.08 | 1.30 | 1.93 | 13.53 | 2.65 |
| 1859 | -3.23 | 7.47 | 8.40 | 11.49 | 4.27 | 1.31 | 1.08 | -0.66 | 1.64 |
| 1860 | 3.92 | -0.57 | 11.73 | -1.38 | 8.11 | 2.36 | 1.62 | 0.33 | 2.88 |
| 1861 | -2.76 | 7.92 | 4.38 | 3.87 | 7.46 | 2.82 | 2.60 | 1.67 | 1.92 |
| 1862 | 8.17 | -5.06 | 1.99 | -2.80 | -7.00 | 2.55 | 0.86 | 1.30 | 1.89 |
| 1863 | 3.62 | 5.90 | 10.10 | 9.23 | 3.32 | 3.87 | 2.07 | 9.45 | 4.89 |
| 1864 | 3.50 | 0.86 | 11.10 | 0.39 | 2.78 | 3.86 | 1.55 | 6.80 | 3.21 |
| 1865 | -6.36 | 5.53 | -8.98 | 5.78 | 4.47 | 2.58 | 0.70 | -6.36 | -1.37 |
| 1866 | 2.02 | -1.05 | -3.76 | 10.37 | -3.83 | 1.71 | 0.75 | -0.50 | 0.73 |
| 1867 | -10.24 | 2.87 | -3.69 | -7.71 | 2.10 | 1.37 | 0.37 | -3.53 | -4.25 |
| 1868 | 9.07 | -6.65 | -8.79 | 10.72 | -5.04 | 0.93 | 0.23 | -1.11 | 1.89 |
| 1869 | 11.92 | 4.45 | 3.66 | 10.92 | 1.68 | 0.35 | 0.01 | 16.64 | 7.67 |
| 1870 | 10.10 | 9.51 | 7.98 | 0.91 | 15.44 | 0.94 | 0.21 | -0.74 | 7.80 |
| 1871 | -1.03 | 6.44 | -10.61 | 5.92 | 8.54 | 0.21 | 1.80 | -0.62 | 1.37 |
| 1872 | -0.73 | 4.17 | 45.79 | 13.68 | 2.57 | 0.97 | 1.99 | -8.86 | 2.99 |
| 1873 | 4.88 | -0.38 | 25.17 | 14.21 | 0.76 | 3.76 | 1.33 | -6.79 | 4.19 |
| 1874 | -3.80 | 3.90 | -1.16 | 22.24 | 3.17 | 4.89 | 1.28 | -2.32 | 1.01 |
| 1875 | 1.19 | -1.22 | -0.84 | -0.96 | 2.85 | 4.04 | 1.69 | 3.29 | 0.79 |
| 1876 | 2.02 | 8.59 | -12.32 | 1.90 | 6.88 | 3.79 | 2.80 | 13.03 | 3.36 |
| 1877 | -5.11 | 0.89 | 1.50 | -1.63 | 0.35 | 4.09 | 1.36 | 6.71 | -1.07 |
| 1878 | 9.07 | -8.71 | 4.92 | -9.04 | -0.34 | 3.78 | 0.15 | 15.34 | 2.40 |
| 1879 | 0.90 | 3.13 | -10.80 | -6.87 | 7.29 | 3.05 | 0.92 | 0.99 | 0.55 |
| 1880 | 1.84 | 3.91 | -0.94 | 16.13 | -5.89 | 2.85 | 0.21 | 0.40 | 2.13 |
| 1881 | -9.17 | 9.66 | -3.88 | 7.85 | 13.02 | 3.04 | 3.34 | 1.30 | -0.11 |
| 1882 | 8.12 | 0.97 | -9.72 | 14.68 | -6.17 | 1.70 | 0.30 | 1.99 | 3.45 |
| 1883 | 0.43 | 4.30 | 11.26 | 2.50 | 13.92 | 1.41 | 0.53 | 0.25 | 3.00 |
| 1884 | 2.71 | -1.58 | 15.28 | 3.65 | -3.86 | 2.09 | 3.25 | 2.46 | 2.06 |
| 1885 | 0.56 | 5.18 | -1.73 | -1.51 | 10.14 | 2.26 | -0.40 | 0.52 | 2.01 |
| 1886 | -2.20 | -3.93 | 5.87 | -2.42 | 3.43 | 1.77 | 2.23 | 3.69 | -0.59 |

**Table A4.4 (cont.):** *Annual volume growth of the value added of various activities (per cent) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and communica-tion | Trade, finance and business services | Real estate | Other private ser-vices | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1887 | -1.05 | 3.16 | -13.23 | 4.02 | -1.71 | 1.41 | 1.91 | 0.78 | -0.22 |
| 1888 | -0.21 | 5.94 | 7.14 | 1.76 | -0.39 | 0.92 | 2.19 | 1.02 | 2.03 |
| 1889 | 1.41 | 7.56 | -0.87 | 12.62 | 0.85 | 1.68 | -1.66 | -0.67 | 3.03 |
| 1890 | 5.37 | 1.54 | 2.94 | 1.25 | 3.95 | 1.93 | 0.63 | 1.03 | 3.02 |
| 1891 | 4.89 | 5.17 | -14.76 | -3.31 | 9.59 | 0.76 | 2.10 | 1.40 | 2.87 |
| 1892 | 1.29 | 0.03 | 6.89 | 2.46 | -0.44 | 0.01 | 0.61 | 2.86 | 1.11 |
| 1893 | -0.49 | 3.57 | -4.41 | -0.08 | 2.86 | -0.51 | 0.68 | 2.07 | 0.79 |
| 1894 | -2.33 | 3.95 | -4.91 | 8.71 | 1.58 | -0.44 | 2.44 | 0.68 | 0.81 |
| 1895 | 5.47 | 6.82 | 24.78 | 5.97 | 5.23 | 0.91 | 1.30 | 0.47 | 5.65 |
| 1896 | 6.72 | 10.73 | -6.51 | 7.03 | 3.50 | 3.25 | 2.72 | -0.35 | 5.70 |
| 1897 | -2.86 | 5.37 | 17.07 | 9.26 | 4.92 | 3.81 | 1.84 | -0.32 | 2.71 |
| 1898 | -0.38 | 6.61 | 1.23 | 2.76 | 13.18 | 4.30 | -0.45 | -1.11 | 3.23 |
| 1899 | -1.49 | 5.06 | 11.69 | 6.81 | 10.48 | 4.03 | 6.33 | -0.13 | 3.74 |
| 1900 | 3.36 | 0.41 | -3.99 | 3.32 | 0.45 | 3.92 | 0.82 | 3.47 | 1.70 |
| 1901 | -3.56 | -0.43 | -4.28 | -0.72 | 2.32 | 2.71 | 3.13 | 0.34 | -0.87 |
| 1902 | -3.99 | 4.30 | -7.91 | -0.18 | 3.02 | 1.59 | 1.07 | 8.44 | 0.31 |
| 1903 | 6.54 | 4.46 | 8.75 | 8.06 | 3.09 | 1.36 | 2.76 | 1.67 | 4.86 |
| 1904 | -1.52 | 5.03 | 9.64 | 3.62 | 7.07 | 3.12 | 1.93 | -0.30 | 2.77 |
| 1905 | -3.85 | 1.03 | 6.11 | 2.69 | 3.93 | 2.87 | 2.59 | 4.13 | 0.86 |
| 1906 | 8.84 | 8.96 | 9.29 | 8.52 | 15.30 | 3.64 | 4.23 | -8.12 | 7.77 |
| 1907 | 3.30 | 6.31 | -7.02 | 3.16 | 15.22 | 2.54 | 1.82 | -1.09 | 4.35 |
| 1908 | 5.42 | -0.30 | -8.65 | 2.49 | -2.11 | 1.53 | 1.25 | 4.63 | 1.34 |
| 1909 | -0.92 | -3.94 | -9.08 | -1.34 | 3.89 | 0.41 | 1.71 | 4.61 | -0.95 |
| 1910 | 5.61 | 16.35 | 10.27 | 11.20 | 3.56 | 0.77 | 2.58 | -0.38 | 7.56 |
| 1911 | -3.67 | 0.73 | 15.42 | 3.44 | 4.82 | 1.68 | 3.72 | 2.22 | 1.25 |
| 1912 | 1.35 | 9.83 | 0.75 | 1.09 | 11.26 | 2.36 | 1.37 | 0.21 | 4.60 |
| 1913 | 3.79 | 10.70 | 14.34 | 10.96 | 3.73 | 3.16 | 4.17 | 1.34 | 6.59 |
| 1914 | 3.78 | -2.28 | -7.63 | -3.89 | 5.09 | 2.45 | -2.46 | 5.01 | 0.45 |
| 1915 | -3.71 | 6.87 | -13.19 | -3.54 | 12.31 | 2.33 | 3.19 | 10.32 | 1.84 |
| 1916 | 1.47 | 8.77 | -0.38 | 2.71 | 16.55 | 1.71 | 3.69 | -6.03 | 4.88 |
| 1917 | -1.70 | -13.55 | -0.76 | -28.35 | 2.13 | 1.55 | 2.06 | -12.86 | -6.93 |
| 1918 | -16.10 | -12.97 | -0.50 | 8.74 | 3.72 | 0.57 | 3.54 | 24.70 | -6.24 |
| 1919 | 3.30 | 3.74 | -1.43 | 16.46 | 6.17 | -0.33 | 6.53 | 1.03 | 4.49 |
| 1920 | 11.33 | 5.39 | -1.93 | 12.99 | 7.27 | 0.48 | 3.86 | 5.00 | 6.93 |
| 1921 | 10.72 | -20.25 | -5.70 | 0.11 | -18.95 | -1.89 | -2.71 | -10.47 | -7.63 |
| 1922 | -5.55 | 21.24 | 18.26 | 5.36 | 8.39 | -0.73 | 6.72 | 5.50 | 7.70 |
| 1923 | 6.23 | 10.30 | 2.87 | 3.60 | 7.49 | 0.52 | 4.90 | 8.01 | 6.51 |

**Table A4.4 (cont.):** *Annual volume growth of the value added of various activities (per cent) 1800–2000.*

|  | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and communica-tion | Trade, finance and business services | Real estate | Other private ser-vices | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1924 | -4.36 | 14.00 | 1.81 | 1.97 | 6.94 | 1.59 | -0.88 | -1.32 | 3.69 |
| 1925 | 8.22 | 3.06 | 9.20 | 11.35 | -1.77 | 1.85 | -0.25 | 1.89 | 4.05 |
| 1926 | -1.82 | 8.64 | 0.44 | 8.61 | 6.79 | 2.66 | 5.77 | 5.63 | 4.58 |
| 1927 | 0.36 | 8.58 | 5.17 | 5.92 | 2.11 | 2.09 | 2.83 | -0.89 | 3.82 |
| 1928 | 1.08 | 5.24 | 10.75 | 3.20 | 5.18 | 2.36 | 3.07 | 4.06 | 4.12 |
| 1929 | 2.82 | 10.00 | 5.55 | 9.68 | 5.49 | 2.73 | 5.16 | 4.60 | 6.20 |
| 1930 | 5.00 | 1.56 | 17.59 | 3.70 | 4.22 | 2.77 | 5.20 | 3.43 | 4.52 |
| 1931 | -8.08 | -5.71 | -6.83 | 3.35 | -4.53 | 2.72 | -0.25 | 7.69 | -3.00 |
| 1932 | 0.11 | -5.27 | -6.94 | 1.62 | -4.41 | 2.13 | -0.44 | 3.33 | -1.97 |
| 1933 | -0.08 | 4.28 | -3.22 | -0.20 | 3.43 | 1.82 | 1.11 | 0.70 | 1.55 |
| 1934 | 7.09 | 20.44 | 12.41 | 7.57 | 13.89 | 3.11 | 0.61 | 0.70 | 10.19 |
| 1935 | -4.44 | 9.22 | 15.08 | 5.72 | 5.07 | 4.20 | 2.35 | 3.91 | 5.13 |
| 1936 | -0.57 | 7.56 | 12.90 | 5.43 | 3.32 | 5.31 | 1.81 | 4.16 | 5.08 |
| 1937 | 9.37 | 7.29 | -3.90 | 5.61 | 3.65 | 5.84 | 1.62 | 3.93 | 5.24 |
| 1938 | -2.85 | 3.85 | 10.72 | 6.00 | 2.82 | 5.05 | -0.09 | 9.20 | 3.63 |
| 1939 | 2.83 | 8.45 | 9.57 | 4.62 | 11.90 | 6.88 | 0.75 | 20.78 | 8.07 |
| 1940 | -9.12 | -11.79 | -33.93 | -3.78 | -7.83 | 4.47 | 5.46 | -10.79 | -9.47 |
| 1941 | -10.33 | -3.43 | -3.74 | 3.93 | -12.01 | -0.05 | -2.87 | 16.95 | -2.24 |
| 1942 | -3.39 | 2.44 | 21.03 | 6.42 | -3.72 | 2.03 | -1.82 | 9.22 | 2.97 |
| 1943 | 3.11 | 3.24 | 6.36 | 2.91 | 8.18 | 2.93 | 1.94 | 5.90 | 4.18 |
| 1944 | -0.50 | 5.36 | 2.78 | 1.74 | 8.17 | 2.63 | 0.21 | -4.95 | 2.36 |
| 1945 | 6.97 | 1.79 | 13.90 | 4.65 | -3.39 | 3.78 | 0.91 | -6.02 | 2.22 |
| 1946 | 9.71 | 16.34 | 12.02 | 18.57 | 26.70 | 6.61 | 2.81 | -9.51 | 11.50 |
| 1947 | -8.51 | 8.05 | 13.27 | 15.64 | 13.27 | 5.41 | 0.50 | 7.02 | 6.60 |
| 1948 | 3.82 | 5.89 | -5.75 | 8.34 | 1.10 | 3.11 | 1.17 | 4.00 | 3.45 |
| 1949 | 6.77 | 1.32 | 4.17 | 3.23 | 2.80 | 3.40 | -0.35 | 3.99 | 2.91 |
| 1950 | 3.94 | 4.57 | 6.14 | 3.64 | 8.78 | 4.93 | 2.43 | 3.55 | 4.85 |
| 1951 | 1.89 | 7.58 | -2.98 | 8.13 | 1.80 | 3.33 | 2.81 | 3.42 | 4.27 |
| 1952 | 2.89 | -3.51 | 7.01 | 2.81 | 2.19 | 3.61 | 0.21 | 4.53 | 0.94 |
| 1953 | -5.26 | 2.23 | 12.25 | -0.89 | 2.74 | 3.22 | 1.46 | 4.19 | 1.88 |
| 1954 | 4.31 | 5.58 | 6.88 | 5.36 | 7.08 | 3.81 | 3.11 | 2.58 | 5.09 |
| 1955 | -3.59 | 4.52 | 2.11 | 6.31 | 4.22 | 3.98 | 0.61 | 2.01 | 2.78 |
| 1956 | 0.62 | 4.81 | 3.68 | 4.32 | 5.82 | 4.07 | 1.86 | 4.20 | 3.97 |
| 1957 | 1.64 | 4.56 | 2.46 | 4.58 | 3.79 | 4.13 | 0.54 | 2.86 | 3.47 |
| 1958 | -1.06 | 2.16 | 6.02 | 1.78 | 4.95 | 3.87 | -1.01 | 4.32 | 2.69 |
| 1959 | -3.06 | 5.92 | 8.45 | 4.84 | 6.48 | 4.45 | 0.07 | 4.45 | 4.58 |
| 1960 | 5.34 | 9.06 | 0.59 | 9.15 | 4.48 | 5.08 | 3.01 | 2.87 | 5.86 |

**Table A4.4 (cont.):** *Annual volume growth of the value added of various activities (per cent) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and communica-tion | Trade, finance and business services | Real estate | Other private ser-vices | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1961 | 2.04 | 7.74 | 6.80 | 4.01 | 7.65 | 5.00 | 2.75 | 4.12 | 5.81 |
| 1962 | -0.25 | 7.18 | 4.44 | 4.92 | 5.43 | 5.58 | 0.04 | 2.78 | 4.71 |
| 1963 | -4.04 | 5.70 | 6.31 | 3.65 | 6.93 | 6.76 | 3.56 | 6.51 | 5.00 |
| 1964 | 4.45 | 10.14 | 6.30 | 5.72 | 9.15 | 5.13 | -0.07 | 2.64 | 6.78 |
| 1965 | -0.11 | 7.74 | 3.61 | 5.72 | 5.22 | 5.07 | 0.38 | 3.64 | 5.00 |
| 1966 | -3.57 | 3.35 | 3.58 | 4.25 | 4.25 | 5.93 | 0.54 | 3.92 | 3.22 |
| 1967 | 3.70 | 3.38 | 5.69 | 1.27 | 5.55 | 6.21 | 0.07 | 5.26 | 4.14 |
| 1968 | -1.81 | 5.68 | 0.85 | 5.11 | 4.52 | 6.69 | 1.62 | 6.02 | 4.46 |
| 1969 | -4.79 | 7.93 | 3.95 | 5.82 | 4.11 | 4.67 | -0.64 | 6.09 | 5.02 |
| 1970 | 0.69 | 7.20 | 1.90 | 2.75 | 4.91 | 4.97 | -5.01 | 8.19 | 5.00 |
| 1971 | 4.29 | 1.21 | -0.74 | 4.49 | 3.08 | 3.50 | -0.95 | 3.98 | 2.36 |
| 1972 | -3.91 | 2.01 | 3.56 | 1.31 | 4.35 | 3.04 | 3.48 | 3.41 | 2.60 |
| 1973 | -0.24 | 5.62 | -0.70 | 6.92 | 5.01 | 3.04 | 4.49 | 1.81 | 3.76 |
| 1974 | 4.27 | 3.96 | -8.35 | 10.90 | 4.29 | 2.49 | 6.45 | 4.58 | 3.63 |
| 1975 | -6.80 | -1.04 | 5.41 | -3.70 | 2.32 | 2.13 | 4.92 | 4.17 | 1.01 |
| 1976 | 0.60 | 0.15 | 2.02 | 2.60 | 4.16 | 1.80 | -0.22 | 4.22 | 2.09 |
| 1977 | -5.62 | -5.82 | -1.34 | 1.93 | -1.21 | 1.15 | 0.34 | 2.37 | -1.44 |
| 1978 | 1.49 | -2.51 | -1.97 | 0.59 | -0.97 | 1.46 | -0.51 | 2.67 | -0.13 |
| 1979 | -0.84 | 4.80 | 0.82 | 3.01 | 4.01 | 1.34 | 1.10 | 3.54 | 3.20 |
| 1980 | 0.75 | -2.26 | -0.30 | 3.86 | 1.16 | 0.92 | 1.44 | 2.92 | 0.78 |
| 1981 | -1.11 | -4.19 | -5.18 | -0.38 | 0.63 | 1.18 | 4.45 | 1.85 | -0.59 |
| 1982 | 2.69 | -1.80 | 1.97 | 0.69 | 3.66 | 1.47 | 0.82 | 2.07 | 1.18 |
| 1983 | 4.73 | 3.07 | -2.87 | -2.05 | 3.11 | 0.96 | 1.27 | 2.03 | 1.78 |
| 1984 | -0.24 | 4.84 | 5.01 | 4.14 | 3.65 | 1.07 | -0.27 | 2.39 | 3.14 |
| 1985 | -3.32 | 2.24 | -0.30 | 0.47 | 4.53 | 1.37 | 0.34 | 1.20 | 1.72 |
| 1986 | -1.05 | 2.86 | 2.02 | 2.76 | 6.56 | 1.16 | 2.10 | 1.00 | 2.69 |
| 1987 | -3.03 | 3.46 | 4.06 | 3.47 | 6.99 | 1.65 | 6.17 | 0.18 | 3.15 |
| 1988 | -0.67 | 2.65 | 2.56 | 4.00 | 5.80 | 1.57 | 1.97 | 1.28 | 2.80 |
| 1989 | 6.61 | 2.24 | 8.34 | 3.16 | 3.79 | 1.15 | 2.60 | 2.24 | 3.07 |
| 1990 | 0.46 | 0.35 | 1.93 | 5.59 | 1.43 | 1.41 | -1.22 | 1.07 | 1.23 |
| 1991 | -8.11 | -5.21 | -1.92 | -1.15 | 0.69 | 0.93 | 0.57 | 0.42 | -1.30 |
| 1992 | -1.34 | -2.55 | -5.76 | 0.53 | -3.74 | 1.33 | 1.93 | -2.32 | -1.96 |
| 1993 | -0.73 | 1.01 | -8.93 | -5.35 | -3.23 | 0.59 | 1.03 | -2.28 | -1.78 |
| 1994 | 2.29 | 11.32 | -4.39 | 2.15 | 5.55 | 1.68 | 1.18 | -1.08 | 3.56 |
| 1995 | 0.16 | 9.18 | -0.79 | 4.91 | 4.30 | 0.44 | 5.53 | -0.58 | 3.63 |
| 1996 | 0.22 | 2.96 | -0.45 | 3.98 | 1.55 | 1.01 | 1.51 | -0.28 | 1.48 |
| 1997 | 0.41 | 5.85 | -3.27 | 7.56 | 5.40 | 2.01 | 2.85 | -1.21 | 3.08 |

**Table A4.4 (cont.):** *Annual volume growth of the value added of various activities (per cent) 1800–2000.*

| | Agriculture and ancillaries | Manu-facturing | Building and construction | Transport and communica-tion | Trade, finance and business services | Real estate | Other private ser-vices | Public services | GDP |
|---|---|---|---|---|---|---|---|---|---|
| 1998 | -1.48 | 6.44 | 1.47 | 4.42 | 4.83 | 0.91 | 10.36 | 0.71 | 3.93 |
| 1999 | 0.73 | 5.82 | 2.84 | 7.84 | 7.46 | 1.99 | 4.02 | 1.30 | 4.51 |
| 2000 | 0.45 | 6.21 | 1.68 | 5.33 | 7.06 | 2.46 | 7.41 | -1.04 | 4.15 |

Source: See the main text.

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