## Inflation: the value of the pound 1750-2002

The Library is often asked how the purchasing power of the pound has changed over various periods.

Previously, the Library index was the main source of publicly available price information over such a long period, although both the Office for National Statistics (ONS) and the Bank of England had calculated indices for their own internal use.

During 2003, discussions were held between the Library, ONS and the Bank to agree the best index for long term price comparisons over the period 1750 to 2002.

This Paper presents the new index and compares it to the index previously calculated by the Library. It replaces Research Paper 02/44.

Grahame Allen

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## Summary of main points

- This Paper presents a price index covering the period 1750 to 2002 to illustrate the way in which the purchasing power of the pound has changed over the long-term.
- A new price index has been agreed between the Office for National Statistics, the Bank of England and the Library. It differs from the Library's previous price index only for the years 1939 to 1974.
- Over the period as a whole, prices have risen by around 136 times. This compares to an increase of 128 times using the old method. Thus one (decimal) penny in 1750 would have had greater purchasing power than a pound in 2002.
- Since 1945 prices have risen in every year. In 2002 prices were almost 27 times higher than in 1945. By contrast, prices were lower in 1939 than in 1919.


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## I Introduction

Inflation - the increase in the general level of prices over a specified period - reduces the internal value of a currency. So, if prices double, any given (nominal) amount of currency will buy half the goods and services it previously did. On the other hand (although unusual in the UK since the Second World War) a period of falling prices results in an increase in purchasing power.

This Paper presents a new price index, as agreed with the ONS and the Bank of England, covering the period 1750 to 2002, and illustrates the changing purchasing power of the pound over the long-term. No attempt is made to measure changes in the external value of the currency as a result of movements in exchange rates, but changes in the prices of imported goods are reflected in the price index.

It must be stressed that, for a number of reasons, such an exercise is very approximate. Expenditure patterns have changed dramatically over the past 250 years. Many products now commonly purchased (cars, electrical appliances, processed foods, etc) simply did not exist in 1750, and conversely goods that consumed a large share of household budgets in the eighteenth century - candles for instance - are now an insignificant part of most families' expenditure.

It is, however, possible to compare price levels over the long-term by linking price indices covering relatively short periods into a single series. Even so, indices covering only a few years can become unrepresentative if they are not adjusted to reflect changes in expenditure patterns. Today's Retail Prices Index (RPI), for example, is annually updated to reflect changes in consumers' tastes, and new products and services. For example, pre-recorded cassette albums were taken out of the 2002 'RPI basket' of representative goods and services, while DVD players and recordable CDs came in.

A further problem with long-term comparisons involves changes in the quality of goods. For example, while it is possible to compare the price of a Mini motor car today with that of one in 1959, it is much more difficult to identify the degree that the increase in price reflects an improvement in manufacturing quality and specification.

In addition, the further one looks back into history, the more difficult it is to obtain reliable information. The first official consumer price index started in 1914. This was the Cost of Living Index (COLI) that reflected changes in the cost of providing a standard of living prevalent in working class households. There are also periods for which a number of alternative indices are available that can suggest different trends in price levels. Therefore, although the new index given in this Paper is presented in unrounded form to facilitate computation and presentation, it is not necessarily accurate to the degree suggested.

## II Sources

Information on changes in prices comes from two main types of source. The more familiar are consumer price indices such as the RPI. An alternative measure can be derived from estimates of household expenditure in the national accounts statistics; a price deflator for household expenditure can be implied as expenditure data are produced at both current and constant prices. The new price index presented is derived from the following sources. Further details of source materials are available from the Library:

| New agreed index | Old Library index |
| :---: | :---: |
| 1947 to 2002 <br> The all-items RPI as published by the Office for National Statistics. (The all-items RPI includes mortgage interest payments.) Annual data are the average of monthly figures. ${ }^{1}$ | 1974 to 2002 <br> Same as new agreed index. ${ }^{1}$ <br> 1948 to 1974 <br> The implied deflator for household final consumption derived from the official national accounts of the UK. ${ }^{2}$ |
| 1870 to 1947 <br> The implied deflator for consumers' expenditure derived from the unofficial national accounts of the UK based on the structure of expenditure in 1938 and produced by the Department of Applied Economics at Cambridge University. ${ }^{3}$ | 1870 to 1948 <br> Same source as new agreed index. ${ }^{3}$ However, for the period 1938 to 1948 two alternative estimates of prices changes are available, one based on the structure of expenditure in 1938 and the other on the structure of expenditure in 1948. The figures in the old Library series for this period were adjusted so that they represented the average of these two estimates. |
| 1850 to 1870 <br> A retail price index constructed by Sir Walter Layton and Geoffrey Crowther covering the period 1850 to 1933. The index for the period 1850 to 1870 is a reproduction of earlier work by GH Wood from the Board of Trade's Report on Wholesale and Retail Prices and Cooperative Society records. ${ }^{4}$ | $\frac{1850 \text { to } 1870}{\text { Same as new agreed index. }}{ }^{4}$ |
| 1750 to 1850 <br> An index of consumables' prices constructed by E H Phelps-Brown and Sheila Hopkins covering the period 1264 to $1954 .{ }^{5}$ | $\frac{1750 \text { to } 1850}{\text { Same as new }} \text { agreed index. }{ }^{5}$ |

[^0]
## III Results

Table 1 (pages 11-17) shows for each year the level of the price index with January 1974 equal to 100 and the value of the pound relative to a base of 100 pence in January 1974. 1974 was chosen as the base year largely on the pragmatic grounds that as well as being one of the link years in the series, its use prevents the data at the start and the end of the period being inconveniently large or small. The table also shows the change in prices (the inflation rate) each year. Over the period as a whole, prices have risen by around 136 times. Thus one (decimal) penny in 1750 would have had greater purchasing power than a pound in 2002.

Although there was considerable year on year fluctuation in price levels prior to 1914 (reflecting the quality of the harvest, wars, etc) there was not the long-term steady increase in prices associated with the period since 1945. Prices in 1914 were roughly twice their level in 1750 but were below the level of the early nineteenth century. Prices doubled during the First World War but in most years between 1921 and 1938 they fell or showed very small increases. Although prices began to rise during the Second World War, the increase was less marked than during the First World War. Since 1945 prices have risen in every year with an aggregate rise of over 27 times. In the period 1974 to 1981, inflation was above $10 \%$ in each year except 1978, and prices more than tripled in these eight years. Despite lower inflation rates in the late 1980s and early 1990s, and very low (by post-war standards) rates in recent years, prices rose by almost $65 \%$ between 1988 and 2002.

Chart 1 (page 17) plots the price index for the period 1750 to 2002. Although such a graph illustrates the extent to which the absolute increase in prices has been concentrated in recent years, it over-emphasises the proportional impact. For example, in chart 1 a doubling of the price index in the eighteenth century from, say, 5 to 10 appears to be much less significant than a doubling in the 1970s from 100 to 200. Such problems can be overcome by use of a logarithmic scale as in chart 2 (page 18). With a logarithmic scale, equal proportional increases produce the same vertical change whatever the initial value. Charts 3 and 4 (pages 18 and 19) plot the value of the pound on linear and logarithmic scales respectively. Chart 5 (page 19) plots the rate of inflation in each year.

Table 2 (page 20) shows the value of the pound at intervals between 1752 and 2002. In each column the value of the pound is equivalent to 100 pence in a different year. Table 3 (page 21) provides a similar analysis for each year since 1984.

Table 4 (page 22) compares the difference in the inflation series calculated from the new index and the index previously calculated by the Library. It shows that the differences between the two series are accounted for by the change in the sources used to calculate the new and old indices as shown in the table on page 8.

## IV Specimen calculations

The examples illustrate how the price index in table 1 can be used to answer frequently asked questions.

## Example 1:

How much would have been needed in 2002 to have the same purchasing power as $£ 100$ in 1850 ?

From table 1 the price index for 1850 was 8.4 and the index for 2002 was 695.1. In 2002 the average price level was 82.8 times (695.1/8.4) the 1850 level. Thus, to have the same purchasing power as $£ 100$ in 1850 one would have needed some $£ 8,280(82.8 \times £ 100)$ in 2002.

Example 2:
What was the purchasing power of a pound in 2002 compared to the pound in 1930 ?
From table 1 the price index for 1930 was 17.3 and the index for 2002 was 695.1. In 2002 the average price level was some 40.2 times (695.1/17.3) the 1930 level. Thus, relative to 1930, a pound in 2002 was worth under 3 (decimal) pence (100p/40.2).

Example 3:
Cheddar cheese cost 17 pence per kilogram in 1923 and $£ 5.10$ per kg in 2002. How did the price change in real terms?

From table 1 the price index for 1923 was 18.7 and the index for 2002 was 695.1. In 2002 the average price level was 37.2 times (695.1/18.7) the 1923 level. Over the same period the price of cheese rose 30.0 times (510/17). Thus, in real terms, the price has fallen by $19.3 \%$ [((30.0/37.2)-1) x100].

Table 1 Price Index 1750-2002

| Year | Price index Jan 1974=100 | Value of the pound Jan 1974= 100 pence | Change in prices on year before |
| :---: | :---: | :---: | :---: |
| 1750 | 5.1 | 1,962 | -3.1\% |
| 1751 | 5.0 | 2,016 | -2.7\% |
| 1752 | 5.2 | 1,926 | 4.7\% |
| 1753 | 5.1 | 1,978 | -2.7\% |
| 1754 | 5.3 | 1,882 | 5.1\% |
| 1755 | 5.0 | 2,002 | -6.0\% |
| 1756 | 5.2 | 1,923 | 4.2\% |
| 1757 | 6.3 | 1,579 | 21.8\% |
| 1758 | 6.3 | 1,583 | -0.3\% |
| 1759 | 5.8 | 1,720 | -7.9\% |
| 1760 | 5.6 | 1,800 | -4.5\% |
| 1761 | 5.3 | 1,885 | -4.5\% |
| 1762 | 5.5 | 1,814 | 3.9\% |
| 1763 | 5.7 | 1,767 | 2.7\% |
| 1764 | 6.2 | 1,623 | 8.9\% |
| 1765 | 6.4 | 1,568 | 3.5\% |
| 1766 | 6.5 | 1,549 | 1.2\% |
| 1767 | 6.8 | 1,465 | 5.8\% |
| 1768 | 6.7 | 1,482 | -1.1\% |
| 1769 | 6.2 | 1,614 | -8.2\% |
| 1770 | 6.2 | 1,621 | -0.4\% |
| 1771 | 6.7 | 1,493 | 8.5\% |
| 1772 | 7.4 | 1,349 | 10.7\% |
| 1773 | 7.4 | 1,354 | -0.3\% |
| 1774 | 7.5 | 1,341 | 0.9\% |
| 1775 | 7.0 | 1,420 | -5.6\% |
| 1776 | 6.9 | 1,452 | -2.2\% |
| 1777 | 6.9 | 1,458 | -0.4\% |
| 1778 | 7.1 | 1,401 | 4.0\% |
| 1779 | 6.5 | 1,531 | -8.5\% |
| 1780 | 6.3 | 1,585 | -3.4\% |
| 1781 | 6.6 | 1,523 | 4.1\% |
| 1782 | 6.7 | 1,491 | 2.1\% |
| 1783 | 7.5 | 1,332 | 12.0\% |
| 1784 | 7.6 | 1,324 | 0.6\% |
| 1785 | 7.2 | 1,379 | -4.0\% |
| 1786 | 7.2 | 1,379 | 0.0\% |
| 1787 | 7.2 | 1,388 | -0.6\% |
| 1788 | 7.5 | 1,335 | 4.0\% |
| 1789 | 7.4 | 1,352 | -1.3\% |

Table 1 (continued)

## Price Index 1750 to 2002

| Year | Price index | Value of the pound Jan 1974= 100 pence | Change in prices on year before |
| :---: | :---: | :---: | :---: |
| 1790 | 7.5 | 1,329 | 1.8\% |
| 1791 | 7.5 | 1,330 | -0.1\% |
| 1792 | 7.6 | 1,311 | 1.5\% |
| 1793 | 7.8 | 1,275 | 2.8\% |
| 1794 | 8.5 | 1,183 | 7.7\% |
| 1795 | 9.4 | 1,061 | 11.6\% |
| 1796 | 10.0 | 997 | 6.4\% |
| 1797 | 9.0 | 1,108 | -10.0\% |
| 1798 | 8.8 | 1,132 | -2.2\% |
| 1799 | 9.9 | 1,008 | 12.3\% |
| 1800 | 13.5 | 739 | 36.5\% |
| 1801 | 15.1 | 661 | 11.7\% |
| 1802 | 11.6 | 859 | -23.0\% |
| 1803 | 11.0 | 913 | -5.9\% |
| 1804 | 11.3 | 884 | 3.2\% |
| 1805 | 13.1 | 761 | 16.2\% |
| 1806 | 12.6 | 796 | -4.4\% |
| 1807 | 12.3 | 811 | -1.9\% |
| 1808 | 12.8 | 784 | 3.4\% |
| 1809 | 14.0 | 715 | 9.7\% |
| 1810 | 14.4 | 693 | 3.2\% |
| 1811 | 14.0 | 714 | -2.9\% |
| 1812 | 15.9 | 630 | 13.2\% |
| 1813 | 16.3 | 615 | 2.5\% |
| 1814 | 14.2 | 705 | -12.7\% |
| 1815 | 12.7 | 789 | -10.7\% |
| 1816 | 11.6 | 861 | -8.4\% |
| 1817 | 13.2 | 758 | 13.5\% |
| 1818 | 13.2 | 756 | 0.3\% |
| 1819 | 12.9 | 776 | -2.5\% |
| 1820 | 11.7 | 855 | -9.3\% |
| 1821 | 10.3 | 973 | -12.0\% |
| 1822 | 8.9 | 1,125 | -13.5\% |
| 1823 | 9.5 | 1,053 | 6.8\% |
| 1824 | 10.3 | 970 | 8.6\% |
| 1825 | 12.1 | 827 | 17.4\% |
| 1826 | 11.4 | 875 | -5.5\% |
| 1827 | 10.7 | 936 | -6.5\% |
| 1828 | 10.4 | 964 | -2.9\% |
| 1829 | 10.3 | 973 | -1.0\% |

Table 1 (continued)
Price Index 1750 to 2002

| Year | Price index Jan 1974 $=100$ | Value of the pound Jan 1974= 100 pence | Change in prices on year before |
| :---: | :---: | :---: | :---: |
| 1830 | 9.9 | 1,010 | -3.6\% |
| 1831 | 10.9 | 919 | 9.9\% |
| 1832 | 10.1 | 992 | -7.4\% |
| 1833 | 9.5 | 1,056 | -6.1\% |
| 1834 | 8.7 | 1,145 | -7.8\% |
| 1835 | 8.9 | 1,126 | 1.7\% |
| 1836 | 9.9 | 1,014 | 11.0\% |
| 1837 | 10.1 | 990 | 2.5\% |
| 1838 | 10.2 | 983 | 0.7\% |
| 1839 | 10.9 | 916 | 7.3\% |
| 1840 | 11.1 | 900 | 1.8\% |
| 1841 | 10.9 | 921 | -2.3\% |
| 1842 | 10.0 | 997 | -7.6\% |
| 1843 | 8.9 | 1,124 | -11.3\% |
| 1844 | 8.9 | 1,125 | -0.1\% |
| 1845 | 9.3 | 1,073 | 4.9\% |
| 1846 | 9.7 | 1,032 | 4.0\% |
| 1847 | 10.9 | 921 | 12.0\% |
| 1848 | 9.5 | 1,047 | -12.1\% |
| 1849 | 8.9 | 1,118 | -6.3\% |
| 1850 | 8.4 | 1,194 | -6.4\% |
| 1851 | 8.1 | 1,231 | -3.0\% |
| 1852 | 8.1 | 1,231 | 0.0\% |
| 1853 | 8.9 | 1,127 | 9.3\% |
| 1854 | 10.2 | 979 | 15.1\% |
| 1855 | 10.5 | 948 | 3.3\% |
| 1856 | 10.5 | 948 | 0.0\% |
| 1857 | 10.0 | 1,004 | -5.6\% |
| 1858 | 9.1 | 1,096 | -8.4\% |
| 1859 | 9.0 | 1,116 | -1.8\% |
| 1860 | 9.3 | 1,076 | 3.7\% |
| 1861 | 9.5 | 1,048 | 2.7\% |
| 1862 | 9.3 | 1,076 | -2.6\% |
| 1863 | 9.0 | 1,116 | -3.6\% |
| 1864 | 8.9 | 1,127 | -0.9\% |
| 1865 | 9.0 | 1,116 | 0.9\% |
| 1866 | 9.5 | 1,048 | 6.5\% |
| 1867 | 10.1 | 987 | 6.1\% |
| 1868 | 10.0 | 1,004 | -1.7\% |
| 1869 | 9.5 | 1,057 | -5.0\% |

Table 1 (continued)

## Price Index 1750 to 2002

| Year | Price index | Value of the pound Jan 1974= 100 pence | Change in prices on year before |
| :---: | :---: | :---: | :---: |
| 1870 | 9.5 | 1,057 | 0.0\% |
| 1871 | 9.6 | 1,042 | 1.4\% |
| 1872 | 10.0 | 996 | 4.7\% |
| 1873 | 10.4 | 966 | 3.1\% |
| 1874 | 10.0 | 999 | -3.3\% |
| 1875 | 9.8 | 1,018 | -1.9\% |
| 1876 | 9.8 | 1,021 | -0.3\% |
| 1877 | 9.7 | 1,028 | -0.7\% |
| 1878 | 9.5 | 1,052 | -2.2\% |
| 1879 | 9.1 | 1,100 | -4.4\% |
| 1880 | 9.4 | 1,068 | 3.0\% |
| 1881 | 9.3 | 1,080 | -1.1\% |
| 1882 | 9.4 | 1,069 | 1.0\% |
| 1883 | 9.3 | 1,074 | -0.5\% |
| 1884 | 9.1 | 1,103 | -2.7\% |
| 1885 | 8.8 | 1,137 | -3.0\% |
| 1886 | 8.7 | 1,156 | -1.6\% |
| 1887 | 8.6 | 1,162 | -0.5\% |
| 1888 | 8.7 | 1,154 | 0.7\% |
| 1889 | 8.8 | 1,139 | 1.4\% |
| 1890 | 8.8 | 1,136 | 0.2\% |
| 1891 | 8.9 | 1,128 | 0.7\% |
| 1892 | 8.9 | 1,124 | 0.4\% |
| 1893 | 8.8 | 1,132 | -0.7\% |
| 1894 | 8.7 | 1,155 | -2.0\% |
| 1895 | 8.6 | 1,167 | -1.0\% |
| 1896 | 8.5 | 1,171 | -0.3\% |
| 1897 | 8.7 | 1,154 | 1.5\% |
| 1898 | 8.7 | 1,150 | 0.3\% |
| 1899 | 8.8 | 1,142 | 0.7\% |
| 1900 | 9.2 | 1,087 | 5.1\% |
| 1901 | 9.2 | 1,081 | 0.5\% |
| 1902 | 9.2 | 1,081 | 0.0\% |
| 1903 | 9.3 | 1,078 | 0.4\% |
| 1904 | 9.3 | 1,080 | -0.2\% |
| 1905 | 9.3 | 1,076 | 0.4\% |
| 1906 | 9.3 | 1,076 | 0.0\% |
| 1907 | 9.4 | 1,063 | 1.2\% |
| 1908 | 9.4 | 1,058 | 0.5\% |
| 1909 | 9.5 | 1,053 | 0.5\% |

Table 1 (continued)
Price Index 1750 to 2002

| Year | Price index Jan 1974 $=100$ | Value of the pound Jan 1974= 100 pence | $\begin{array}{r} \hline \text { Change } \\ \text { in prices } \\ \text { on year } \\ \text { before } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: |
| 1910 | 9.6 | 1,044 | 0.9\% |
| 1911 | 9.6 | 1,042 | 0.1\% |
| 1912 | 9.9 | 1,012 | 3.0\% |
| 1913 | 9.8 | 1,017 | -0.4\% |
| 1914 | 9.8 | 1,019 | -0.3\% |
| 1915 | 11.0 | 906 | 12.5\% |
| 1916 | 13.0 | 767 | 18.1\% |
| 1917 | 16.3 | 613 | 25.2\% |
| 1918 | 19.9 | 502 | 22.0\% |
| 1919 | 21.9 | 456 | 10.1\% |
| 1920 | 25.3 | 395 | 15.4\% |
| 1921 | 23.1 | 433 | -8.6\% |
| 1922 | 19.9 | 503 | -14.0\% |
| 1923 | 18.7 | 535 | -6.0\% |
| 1924 | 18.6 | 539 | -0.7\% |
| 1925 | 18.6 | 537 | 0.3\% |
| 1926 | 18.5 | 542 | -0.8\% |
| 1927 | 18.0 | 555 | -2.4\% |
| 1928 | 18.0 | 556 | -0.3\% |
| 1929 | 17.8 | 561 | -0.9\% |
| 1930 | 17.3 | 577 | -2.8\% |
| 1931 | 16.6 | 603 | -4.3\% |
| 1932 | 16.2 | 619 | -2.6\% |
| 1933 | 15.8 | 633 | -2.1\% |
| 1934 | 15.8 | 633 | 0.0\% |
| 1935 | 15.9 | 628 | 0.7\% |
| 1936 | 16.0 | 624 | 0.7\% |
| 1937 | 16.6 | 603 | 3.4\% |
| 1938 | 16.8 | 594 | 1.6\% |
| 1939 | 17.3 | 578 | 3.1\% |
| 1940 | 20.2 | 495 | 17.2\% |
| 1941 | 22.4 | 446 | 11.2\% |
| 1942 | 24.0 | 417 | 7.5\% |
| 1943 | 24.8 | 403 | 3.7\% |
| 1944 | 25.5 | 392 | 3.1\% |
| 1945 | 26.2 | 382 | 3.2\% |
| 1946 | 27.0 | 370 | 3.5\% |
| 1947 | 28.9 | 346 | 7.4\% |
| 1948 | 31.1 | 321 | 6.6\% |
| 1949 | 32.0 | 312 | 2.6\% |

Table 1 (continued)

## Price Index 1750 to 2002

| Year | Price index Jan $1974=100$ | Value of the pound Jan 1974= 100 pence | Change in prices on year before |
| :---: | :---: | :---: | :---: |
| 1950 | 33.0 | 303 | 2.8\% |
| 1951 | 36.0 | 278 | 9.5\% |
| 1952 | 39.3 | 254 | 5.3\% |
| 1953 | 40.5 | 247 | 2.2\% |
| 1954 | 41.3 | 242 | 1.9\% |
| 1955 | 43.1 | 232 | 3.5\% |
| 1956 | 45.3 | 221 | 4.7\% |
| 1957 | 46.9 | 213 | 3.3\% |
| 1958 | 48.4 | 207 | 2.7\% |
| 1959 | 48.6 | 206 | 0.9\% |
| 1960 | 49.1 | 204 | 1.1\% |
| 1961 | 50.8 | 197 | 2.9\% |
| 1962 | 53.0 | 189 | 3.6\% |
| 1963 | 54.0 | 185 | 1.8\% |
| 1964 | 55.8 | 179 | 3.5\% |
| 1965 | 58.4 | 171 | 4.9\% |
| 1966 | 60.7 | 165 | 3.8\% |
| 1967 | 62.3 | 161 | 2.6\% |
| 1968 | 65.2 | 153 | 4.7\% |
| 1969 | 68.7 | 146 | 5.6\% |
| 1970 | 73.1 | 137 | 5.9\% |
| 1971 | 80.0 | 125 | 8.6\% |
| 1972 | 85.7 | 117 | 6.4\% |
| 1973 | 93.5 | 107 | 8.4\% |
| 1974 | 108.5 | 92 | 17.2\% |
| 1975 | 134.8 | 74 | 24.2\% |
| 1976 | 157.1 | 64 | 16.5\% |
| 1977 | 182.0 | 55 | 15.8\% |
| 1978 | 197.1 | 51 | 8.3\% |
| 1979 | 223.5 | 45 | 13.4\% |
| 1980 | 263.7 | 38 | 18.0\% |
| 1981 | 295.0 | 34 | 11.9\% |
| 1982 | 320.4 | 31 | 8.6\% |
| 1983 | 335.1 | 30 | 4.6\% |
| 1984 | 351.8 | 28 | 5.0\% |
| 1985 | 373.2 | 27 | 6.1\% |
| 1986 | 385.9 | 26 | 3.4\% |
| 1987 | 402.0 | 25 | 4.2\% |
| 1988 | 421.7 | 24 | 4.9\% |
| 1989 | 454.5 | 22 | 7.8\% |

Table 1 (continued)
Price Index 1750 to 2002

| Year | Price <br> index <br> Jan 1974=100 | Value of <br> the pound <br> Jan 1974= <br> $\mathbf{1 0 0}$ pence | Change <br> in prices <br> on year <br> before |
| :--- | ---: | ---: | ---: |
|  |  |  |  |
| 1990 | 497.5 | 20 | $9.5 \%$ |
| 1991 | 526.7 | 19 | $5.9 \%$ |
| 1992 | 546.4 | 18 | $3.7 \%$ |
| 1993 | 555.1 | 18 | $1.6 \%$ |
| 1994 | 568.5 | 18 | $2.4 \%$ |
| 1995 | 588.2 | 17 | $3.5 \%$ |
| 1996 | 602.4 | 17 | $2.4 \%$ |
| 1997 | 621.3 | 16 | $3.1 \%$ |
| 1998 | 642.6 | 16 | $3.4 \%$ |
| 1999 | 652.5 | 15 | $1.5 \%$ |
|  |  |  |  |
| 2000 | 671.8 | 15 | $3.0 \%$ |
| 2001 | 683.7 | 15 | $1.8 \%$ |
| 2002 | 695.1 | 14 | $1.7 \%$ |
|  |  |  |  |

1. Chart 1 Retail prices $\mathbf{1 7 5 0}$-2002 (linear scale)

2. Chart 2 Retail prices 1750-2002 (log scale)

3. Chart 3 Value of the pound 1750-2002 (linear scale)

4. Chart 4 Value of the pound 1750-2002 (log scale)

Value of the pound 1750-2002

5. Chart 5 Change in prices on previous year 1750-2002

## Change in prices on previous year



## VI Table 2 Purchasing power of the pound 1752-2002

|  | Year in which value equals 100 pence |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1752 | 1772 | 1792 | 1812 | 1832 | 1852 | 1872 | 1892 | 1912 | 1932 | 1952 | 1972 | 1992 | 2002 |
| 1752 | 100 | 143 | 147 | 305 | 194 | 156 | 193 | 171 | 190 | 311 | 745 | 1,544 | 9,873 | 12,560 |
| 1772 | 70 | 100 | 103 | 214 | 136 | 110 | 135 | 120 | 133 | 218 | 522 | 1,081 | 6,916 | 8,798 |
| 1792 | 68 | 97 | 100 | 208 | 132 | 106 | 132 | 117 | 129 | 212 | 507 | 1,051 | 6,720 | 8,549 |
| 1812 | 33 | 47 | 48 | 100 | 64 | 51 | 63 | 56 | 62 | 102 | 244 | 505 | 3,232 | 4,112 |
| 1832 | 51 | 74 | 76 | 157 | 100 | 81 | 100 | 88 | 98 | 160 | 384 | 795 | 5,084 | 6,468 |
| 1852 | 64 | 91 | 94 | 195 | 124 | 100 | 124 | 110 | 122 | 199 | 476 | 987 | 6,313 | 8,031 |
| 1872 | 52 | 74 | 76 | 158 | 100 | 81 | 100 | 89 | 98 | 161 | 385 | 798 | 5,105 | 6,495 |
| 1892 | 58 | 83 | 86 | 178 | 113 | 91 | 113 | 100 | 111 | 182 | 435 | 901 | 5,762 | 7,330 |
| 1912 | 53 | 75 | 77 | 161 | 102 | 82 | 102 | 90 | 100 | 164 | 391 | 812 | 5,190 | 6,603 |
| 1932 | 32 | 46 | 47 | 98 | 62 | 50 | 62 | 55 | 61 | 100 | 239 | 496 | 3,173 | 4,037 |
| 1952 | 13 | 19 | 20 | 41 | 26 | 21 | 26 | 23 | 26 | 42 | 100 | 207 | 1,326 | 1,687 |
| 1972 | 6 | 9 | 10 | 20 | 13 | 10 | 13 | 11 | 12 | 20 | 48 | 100 | 640 | 814 |
| 1992 | 1 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 8 | 16 | 100 | 127 |
| 2002 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 6 | 12 | 79 | 100 |

## VII Table 3 Purchasing power of the pound 1984-2002

|  | Year in which value equals 100 pence |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| 1984 | 100 | 106 | 110 | 114 | 120 | 129 | 141 | 150 | 155 | 158 | 162 | 167 | 171 | 177 | 183 | 185 | 191 | 194 | 198 |
| 1985 | 94 | 100 | 103 | 108 | 113 | 122 | 133 | 141 | 146 | 149 | 152 | 158 | 161 | 166 | 172 | 175 | 180 | 183 | 186 |
| 1986 | 91 | 97 | 100 | 104 | 109 | 118 | 129 | 136 | 142 | 144 | 147 | 152 | 156 | 161 | 167 | 169 | 174 | 177 | 180 |
| 1987 | 88 | 93 | 96 | 100 | 105 | 113 | 124 | 131 | 136 | 138 | 141 | 146 | 150 | 155 | 160 | 162 | 167 | 170 | 173 |
| 1988 | 83 | 88 | 92 | 95 | 100 | 108 | 118 | 125 | 130 | 132 | 135 | 139 | 143 | 147 | 152 | 155 | 159 | 162 | 165 |
| 1989 | 77 | 82 | 85 | 88 | 93 | 100 | 109 | 116 | 120 | 122 | 125 | 129 | 133 | 137 | 141 | 144 | 148 | 150 | 153 |
| 1990 | 71 | 75 | 78 | 81 | 85 | 91 | 100 | 106 | 110 | 112 | 114 | 118 | 121 | 125 | 129 | 131 | 135 | 137 | 140 |
| 1991 | 67 | 71 | 73 | 76 | 80 | 86 | 94 | 100 | 104 | 105 | 108 | 112 | 114 | 118 | 122 | 124 | 128 | 130 | 132 |
| 1992 | 64 | 68 | 71 | 74 | 77 | 83 | 91 | 96 | 100 | 102 | 104 | 108 | 110 | 114 | 118 | 119 | 123 | 125 | 127 |
| 1993 | 63 | 67 | 70 | 72 | 76 | 82 | 90 | 95 | 98 | 100 | 102 | 106 | 109 | 112 | 116 | 118 | 121 | 123 | 125 |
| 1994 | 62 | 66 | 68 | 71 | 74 | 80 | 88 | 93 | 96 | 98 | 100 | 103 | 106 | 109 | 113 | 115 | 118 | 120 | 122 |
| 1995 | 60 | 63 | 66 | 68 | 72 | 77 | 85 | 90 | 93 | 94 | 97 | 100 | 102 | 106 | 109 | 111 | 114 | 116 | 118 |
| 1996 | 58 | 62 | 64 | 67 | 70 | 75 | 83 | 87 | 91 | 92 | 94 | 98 | 100 | 103 | 107 | 108 | 112 | 113 | 115 |
| 1997 | 57 | 60 | 62 | 65 | 68 | 73 | 80 | 85 | 88 | 89 | 91 | 95 | 97 | 100 | 103 | 105 | 108 | 110 | 112 |
| 1998 | 55 | 58 | 60 | 63 | 66 | 71 | 77 | 82 | 85 | 86 | 88 | 92 | 94 | 97 | 100 | 102 | 105 | 106 | 108 |
| 1999 | 54 | 57 | 59 | 62 | 65 | 70 | 76 | 81 | 84 | 85 | 87 | 90 | 92 | 95 | 98 | 100 | 103 | 105 | 107 |
| 2000 | 52 | 56 | 57 | 60 | 63 | 68 | 74 | 78 | 81 | 83 | 85 | 88 | 90 | 92 | 96 | 97 | 100 | 102 | 103 |
| 2001 | 51 | 55 | 56 | 59 | 62 | 66 | 73 | 77 | 80 | 81 | 83 | 86 | 88 | 91 | 94 | 95 | 98 | 100 | 102 |
| 2002 | 51 | 54 | 56 | 58 | 61 | 65 | 72 | 76 | 79 | 80 | 82 | 85 | 87 | 89 | 92 | 94 | 97 | 98 | 100 |

VIII Table 4 Comparison of old and new indices

|  | New series as table 1 |  | Library series consistent with RP 02/44 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Price index $\begin{array}{r} \text { Jan } \\ 1974=100 \end{array}$ | Change in prices on year before | Price index $1974=100$ | Change in prices on year before | Difference in year-on-year \% change between two indices |
| 1750 | 5.1 | -3.1\% | 5.0 | $-3.1 \%$ | 0.0\% |
| 1751 to 1937 - no difference in year-on-year \% change between two indices |  |  |  |  |  |
| 1938 | 16.8 | 1.6\% | 16.5 | 1.6\% | 0.0\% |
| 1939 | 17.3 | 2.8\% | 17.1 | 3.1\% | -0.4\% |
| 1940 | 20.2 | 16.8\% | 20.0 | 17.2\% | -0.4\% |
| 1941 | 22.4 | 10.8\% | 22.2 | 11.2\% | -0.4\% |
| 1942 | 24.0 | 7.1\% | 23.9 | 7.5\% | -0.4\% |
| 1943 | 24.8 | 3.4\% | 24.8 | 3.7\% | -0.4\% |
| 1944 | 25.5 | 2.7\% | 25.5 | 3.1\% | -0.4\% |
| 1945 | 26.2 | 2.8\% | 26.4 | 3.2\% | -0.4\% |
| 1946 | 27.0 | 3.1\% | 27.3 | 3.5\% | -0.4\% |
| 1947 | 28.9 | 7.0\% | 29.3 | 7.4\% | -0.4\% |
| 1948 | 31.1 | 7.7\% | 31.2 | 6.6\% | 1.1\% |
| 1949 | 32.0 | 2.8\% | 32.0 | 2.6\% | 0.2\% |
| 1950 | 33.0 | 3.1\% | 32.9 | 2.8\% | 0.2\% |
| 1951 | 36.0 | 9.1\% | 36.1 | 9.5\% | -0.4\% |
| 1952 | 39.3 | 9.2\% | 38.0 | 5.3\% | 3.9\% |
| 1953 | 40.5 | 3.1\% | 38.8 | 2.2\% | 0.9\% |
| 1954 | 41.3 | 1.8\% | 39.5 | 1.9\% | -0.1\% |
| 1955 | 43.1 | 4.5\% | 40.9 | 3.5\% | 1.0\% |
| 1956 | 45.3 | 4.9\% | 42.9 | 4.7\% | 0.2\% |
| 1957 | 46.9 | 3.7\% | 44.3 | 3.3\% | 0.4\% |
| 1958 | 48.4 | 3.0\% | 45.5 | 2.7\% | 0.4\% |
| 1959 | 48.6 | 0.6\% | 45.9 | 0.9\% | -0.4\% |
| 1960 | 49.1 | 1.0\% | 46.4 | 1.1\% | -0.1\% |
| 1961 | 50.8 | 3.4\% | 47.7 | 2.9\% | 0.5\% |
| 1962 | 53.0 | 4.3\% | 49.4 | 3.6\% | 0.7\% |
| 1963 | 54.0 | 2.0\% | 50.3 | 1.8\% | 0.2\% |
| 1964 | 55.8 | 3.3\% | 52.1 | 3.5\% | -0.2\% |
| 1965 | 58.4 | 4.8\% | 54.6 | 4.9\% | -0.2\% |
| 1966 | 60.7 | 3.9\% | 56.7 | 3.8\% | 0.1\% |
| 1967 | 62.3 | 2.5\% | 58.2 | 2.6\% | -0.1\% |
| 1968 | 65.2 | 4.7\% | 61.0 | 4.7\% | 0.0\% |
| 1969 | 68.7 | 5.4\% | 64.4 | 5.6\% | -0.1\% |
| 1970 | 73.1 | 6.4\% | 68.2 | 5.9\% | 0.4\% |
| 1971 | 80.0 | 9.4\% | 74.0 | 8.6\% | 0.8\% |
| 1972 | 85.7 | 7.1\% | 78.7 | 6.4\% | 0.7\% |
| 1973 | 93.5 | 9.2\% | 85.3 | 8.4\% | 0.8\% |
| 1974 | 108.5 | 16.0\% | 100.0 | 17.2\% | -1.2\% |
| 1975 | 134.8 | 24.2\% | 124.2 | 24.2\% | 0.0\% |
| 1976 to 2001 - no difference in year-on-year \% change between two indices |  |  |  |  |  |
| 2002 | 695.1 | 1.7\% | 640.7 | 1.7\% | 0.0\% |


[^0]:    1 The all-items RPI is published by ONS monthly and is available on their website at: www.statistics.gov.uk/statbase/Product.asp?vlnk=9412
    ${ }^{2}$ Source: NS database series ABJQ and ABJR
    3 Source: C H Feinstein, National Income, Expenditure and Output of the United Kingdom 1855 to 1965, 1972, tables 24 and 25.
    4 Source: W Layton and G Crowther, An Introduction to the Study of Prices, 1935, table 1
    5 Source: E H Phelps-Brown and S Hopkins, "Seven Centuries of the Prices of Consumables compared with Builders' Wage-rates", Economica, November 1956, pp296-314

