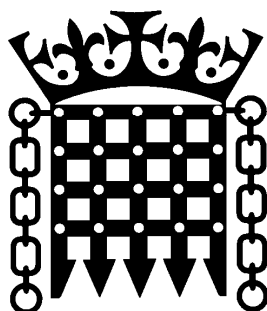


The Value of the Pound since 1750

Research Paper 96/18

1 February 1996



The Library is often asked about how the purchasing power of the pound has changed over various periods. This is frequently in order to estimate the current value of monetary amounts from past years. This Research Paper attempts to provide a long-term perspective by presenting a price index for the period 1750 to 1995 based on a range of official and unofficial sources. The results suggest that, over this period, prices have risen by nearly 110 times with a rise in excess of 55 fold since 1914. This Paper replaces Research Paper No 94/64.

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I Introduction

Inflation - the increase in the general level of prices over a specified period - results in an erosion of the internal value of a currency. Thus, for example, if prices double, a given nominal amount of currency will buy half the goods and services it did previously. On the other hand, although less common since the Second World War, a period of falling prices results in an increase in purchasing power. This paper presents a price index covering the period 1750 to 1995 to illustrate the way in which the purchasing power of the pound has changed 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. While many products now commonly purchased (cars, electrical appliances, processed foods, etc) simply did not exist in 1750, goods which 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. 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 today with that in 1959, it is much more difficult to identify the degree to which the increase in price reflects the improved specification of the car.

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

II The Sources

There are two main sources of information on changes in the level of prices faced by consumers. The more familiar is consumer price indices such as the **Retail Prices Index**. Alternatively, a measure can be derived from national accounts statistics. In the national accounts, estimates of consumers' expenditure are produced at both cash and constant prices and the difference between the two series implies a **price deflator for consumers' expenditure**.

The price series presented in this Paper is derived from the following sources which are listed in reverse chronological order:

1974 to 1995

- the all-items Retail Prices Index as published by the Central Statistical Office. Annual data are the average of monthly figures¹.

1948 to 1974

- the implied deflator for consumers' expenditure derived from the official national accounts of the United Kingdom².

1870 to 1948

- the implied deflator for consumers' expenditure derived from the unofficial national accounts of the United Kingdom produced by the Department of Applied Economics at Cambridge University³.

¹ Source: CSO database series CHAW, CBAB

² Source: CSO database series AIIK, CCBH

³ Source: C H Feinstein, *National Income, Expenditure and Output of the United Kingdom 1855 to 1965*, 1972, tables 3 and 5

1850 to 1870

- a retail price index constructed by Sir Walter Layton and Geoffrey Crowther covering the period 1850 to 1933⁴.

1750 to 1850

- an index of consumables' prices constructed by E H Phelps-Brown and Sheila Hopkins covering the period 1264 to 1954⁵.

An alternative long-term price index (covering the period 1914 to date excluding the years 1939 to 1945 inclusive) based solely on official sources is published by the Central Statistical Office in its monthly business monitor on the Retail Prices Index⁶.

III The Results

Table 1 (pages 9-14) shows for each year the level of the price index with 1974 equal to 100 and the value of the pound relative to a base of 100 pence in 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 100 times. Thus one (decimal) penny in 1750 would have had roughly the same purchasing power as a pound in 1995.

Although there was considerable 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 prices fell or showed very small

⁴ W Layton and G Crowther, *An Introduction to the Study of Prices*, 1935, table 1

⁵ E H Phelps-Brown and S Hopkins, "Seven Centuries of the Prices of Consumables compared with Builders' Wage-rates", *Economica* November 1956, pp296-314

⁶ *Retail Prices Index* Business Monitor MM23 table 14

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increases. Although prices began to rise during the Second World War the increase was less marked than during the First War. Since 1945 prices have risen in every year with an aggregate rise of over 20 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, prices rose by some 58% between 1985 and 1995.

Chart 1 (page 15) plots the price index for the period 1750 to 1995. 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 16). With a logarithmic scale, equal proportional increases have the same vertical displacement whatever the initial value. Charts 3 and 4 (pages 17 & 18) 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 20 year intervals between 1755 and 1995. 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 1976.

Table 1**Value of the Pound 1750 to 1995**

Year	Price index 1974=100	Value of the pound 1974= 100 pence	Increase in prices on year before
1750	5.0	2,012	-3.1%
1751	4.8	2,068	-2.7%
1752	5.1	1,975	4.7%
1753	4.9	2,029	-2.7%
1754	5.2	1,930	5.1%
1755	4.9	2,054	-6.0%
1756	5.1	1,972	4.2%
1757	6.2	1,619	21.8%
1758	6.2	1,624	-0.3%
1759	5.7	1,764	-7.9%
1760	5.4	1,846	-4.5%
1761	5.2	1,933	-4.5%
1762	5.4	1,861	3.9%
1763	5.5	1,812	2.7%
1764	6.0	1,665	8.9%
1765	6.2	1,608	3.5%
1766	6.3	1,589	1.2%
1767	6.7	1,503	5.8%
1768	6.6	1,520	-1.1%
1769	6.0	1,656	-8.2%
1770	6.0	1,662	-0.4%
1771	6.5	1,532	8.5%
1772	7.2	1,383	10.7%
1773	7.2	1,388	-0.3%
1774	7.3	1,375	0.9%
1775	6.9	1,456	-5.6%
1776	6.7	1,489	-2.2%
1777	6.7	1,495	-0.4%
1778	7.0	1,437	4.0%
1779	6.4	1,570	-8.5%
1780	6.1	1,626	-3.4%
1781	6.4	1,562	4.1%
1782	6.5	1,530	2.1%
1783	7.3	1,366	12.0%
1784	7.4	1,358	0.6%
1785	7.1	1,415	-4.0%
1786	7.1	1,415	0.0%
1787	7.0	1,423	-0.6%
1788	7.3	1,369	4.0%
1789	7.2	1,387	-1.3%

Table 1**Value of the Pound 1750 to 1995**

Year	Price index 1974=100	Value of the pound 1974= 100 pence	Increase in prices on year before
1790	7.3	1,363	1.8%
1791	7.3	1,364	-0.1%
1792	7.4	1,344	1.5%
1793	7.6	1,307	2.8%
1794	8.2	1,214	7.7%
1795	9.2	1,088	11.6%
1796	9.8	1,022	6.4%
1797	8.8	1,136	-10.0%
1798	8.6	1,161	-2.2%
1799	9.7	1,034	12.3%
1800	13.2	758	36.5%
1801	14.8	678	11.7%
1802	11.4	881	-23.0%
1803	10.7	936	-5.9%
1804	11.0	907	3.2%
1805	12.8	780	16.2%
1806	12.2	816	-4.4%
1807	12.0	832	-1.9%
1808	12.4	804	3.4%
1809	13.6	733	9.7%
1810	14.1	711	3.2%
1811	13.7	732	-2.9%
1812	15.5	647	13.2%
1813	15.8	631	2.5%
1814	13.8	723	-12.7%
1815	12.4	809	-10.7%
1816	11.3	883	-8.4%
1817	12.9	778	13.5%
1818	12.9	776	0.3%
1819	12.6	796	-2.5%
1820	11.4	877	-9.3%
1821	10.0	997	-12.0%
1822	8.7	1,154	-13.5%
1823	9.3	1,080	6.8%
1824	10.1	995	8.6%
1825	11.8	848	17.4%
1826	11.1	897	-5.5%
1827	10.4	960	-6.5%
1828	10.1	988	-2.9%
1829	10.0	998	-1.0%

Table 1**Value of the Pound 1750 to 1995**

Year	Price index 1974=100	Value of the pound 1974= 100 pence	Increase in prices on year before
1830	9.7	1,036	-3.6%
1831	10.6	942	9.9%
1832	9.8	1,017	-7.4%
1833	9.2	1,083	-6.1%
1834	8.5	1,174	-7.8%
1835	8.7	1,155	1.7%
1836	9.6	1,040	11.0%
1837	9.8	1,015	2.5%
1838	9.9	1,009	0.7%
1839	10.6	940	7.3%
1840	10.8	923	1.8%
1841	10.6	945	-2.3%
1842	9.8	1,022	-7.6%
1843	8.7	1,152	-11.3%
1844	8.7	1,154	-0.1%
1845	9.1	1,100	4.9%
1846	9.5	1,058	4.0%
1847	10.6	944	12.0%
1848	9.3	1,074	-12.1%
1849	8.7	1,147	-6.3%
1850	8.2	1,225	-6.4%
1851	7.9	1,263	-3.0%
1852	7.9	1,263	0.0%
1853	8.7	1,156	9.3%
1854	10.0	1,004	15.1%
1855	10.3	972	3.3%
1856	10.3	972	0.0%
1857	9.7	1,029	-5.6%
1858	8.9	1,124	-8.4%
1859	8.7	1,145	-1.8%
1860	9.1	1,104	3.7%
1861	9.3	1,075	2.7%
1862	9.1	1,104	-2.6%
1863	8.7	1,145	-3.6%
1864	8.7	1,156	-0.9%
1865	8.7	1,145	0.9%
1866	9.3	1,075	6.5%
1867	9.9	1,012	6.1%
1868	9.7	1,029	-1.7%
1869	9.2	1,084	-5.0%

Table 1**Value of the Pound 1750 to 1995**

Year	Price index 1974=100	Value of the pound 1974= 100 pence	Increase in prices on year before
1870	9.2	1,084	0.0%
1871	9.4	1,069	1.4%
1872	9.8	1,021	4.7%
1873	10.1	990	3.1%
1874	9.8	1,024	-3.3%
1875	9.6	1,044	-1.9%
1876	9.5	1,047	-0.3%
1877	9.5	1,054	-0.7%
1878	9.3	1,079	-2.2%
1879	8.9	1,128	-4.4%
1880	9.1	1,095	3.0%
1881	9.0	1,107	-1.1%
1882	9.1	1,096	1.0%
1883	9.1	1,101	-0.5%
1884	8.8	1,132	-2.7%
1885	8.6	1,166	-3.0%
1886	8.4	1,186	-1.6%
1887	8.4	1,192	-0.5%
1888	8.4	1,184	0.7%
1889	8.6	1,168	1.4%
1890	8.6	1,165	0.2%
1891	8.6	1,157	0.7%
1892	8.7	1,153	0.4%
1893	8.6	1,161	-0.7%
1894	8.4	1,184	-2.0%
1895	8.4	1,197	-1.0%
1896	8.3	1,201	-0.3%
1897	8.4	1,184	1.5%
1898	8.5	1,180	0.3%
1899	8.5	1,172	0.7%
1900	9.0	1,114	5.1%
1901	9.0	1,109	0.5%
1902	9.0	1,109	-0.0%
1903	9.0	1,105	0.4%
1904	9.0	1,108	-0.2%
1905	9.1	1,104	0.4%
1906	9.1	1,104	-0.0%
1907	9.2	1,090	1.2%
1908	9.2	1,086	0.5%
1909	9.3	1,080	0.5%

Table 1**Value of the Pound 1750 to 1995**

Year	Price index 1974=100	Value of the pound 1974= 100 pence	Increase in prices on year before
1910	9.3	1,070	0.9%
1911	9.4	1,069	0.1%
1912	9.6	1,038	3.0%
1913	9.6	1,043	-0.4%
1914	9.6	1,046	-0.3%
1915	10.8	929	12.5%
1916	12.7	787	18.1%
1917	15.9	629	25.2%
1918	19.4	515	22.0%
1919	21.4	468	10.1%
1920	24.7	406	15.4%
1921	22.5	444	-8.6%
1922	19.4	516	-14.0%
1923	18.2	549	-6.0%
1924	18.1	553	-0.7%
1925	18.2	551	0.3%
1926	18.0	555	-0.8%
1927	17.6	569	-2.4%
1928	17.5	571	-0.3%
1929	17.4	576	-0.9%
1930	16.9	592	-2.8%
1931	16.2	618	-4.3%
1932	15.8	635	-2.6%
1933	15.4	649	-2.1%
1934	15.4	649	-0.0%
1935	15.5	644	0.7%
1936	15.6	640	0.7%
1937	16.2	619	3.4%
1938	16.4	609	1.6%
1939	16.9	590	3.1%
1940	19.8	504	17.2%
1941	22.1	453	11.2%
1942	23.7	421	7.5%
1943	24.6	406	3.7%
1944	25.4	394	3.1%
1945	26.2	382	3.2%
1946	27.1	369	3.5%
1947	29.1	344	7.4%
1948	31.0	323	6.6%
1949	31.8	314	2.6%

Table 1**Value of the Pound 1750 to 1995**

Year	Price index 1974=100	Value of the pound 1974= 100 pence	Increase in prices on year before
1950	32.7	306	2.8%
1951	35.8	279	9.4%
1952	37.7	265	5.3%
1953	38.5	259	2.3%
1954	39.3	255	1.9%
1955	40.6	246	3.5%
1956	42.5	235	4.7%
1957	44.0	227	3.4%
1958	45.2	221	2.9%
1959	45.7	219	1.0%
1960	46.2	216	1.1%
1961	47.6	210	2.9%
1962	49.3	203	3.6%
1963	50.2	199	1.9%
1964	52.0	192	3.6%
1965	54.6	183	5.0%
1966	56.8	176	4.0%
1967	58.3	172	2.6%
1968	61.0	164	4.8%
1969	64.4	155	5.5%
1970	68.2	147	5.9%
1971	74.1	135	8.6%
1972	78.9	127	6.5%
1973	85.5	117	8.3%
1974	100.0	100	16.9%
1975	124.2	81	24.2%
1976	144.8	69	16.6%
1977	167.7	60	15.8%
1978	181.6	55	8.3%
1979	205.9	49	13.4%
1980	242.9	41	18.0%
1981	271.8	37	11.9%
1982	295.2	34	8.6%
1983	308.8	32	4.6%
1984	324.1	31	5.0%
1985	343.8	29	6.1%
1986	355.5	28	3.4%
1987	370.3	27	4.1%
1988	388.4	26	4.9%
1989	418.7	24	7.8%
1990	458.4	22	9.5%
1991	485.2	21	5.9%
1992	503.4	20	3.7%
1993	511.4	20	1.6%
1994	523.7	19	2.4%
1995	541.9	18	3.5%

Chart 1
Retail Prices 1750 to 1995
Index 1974=100
Linear scale

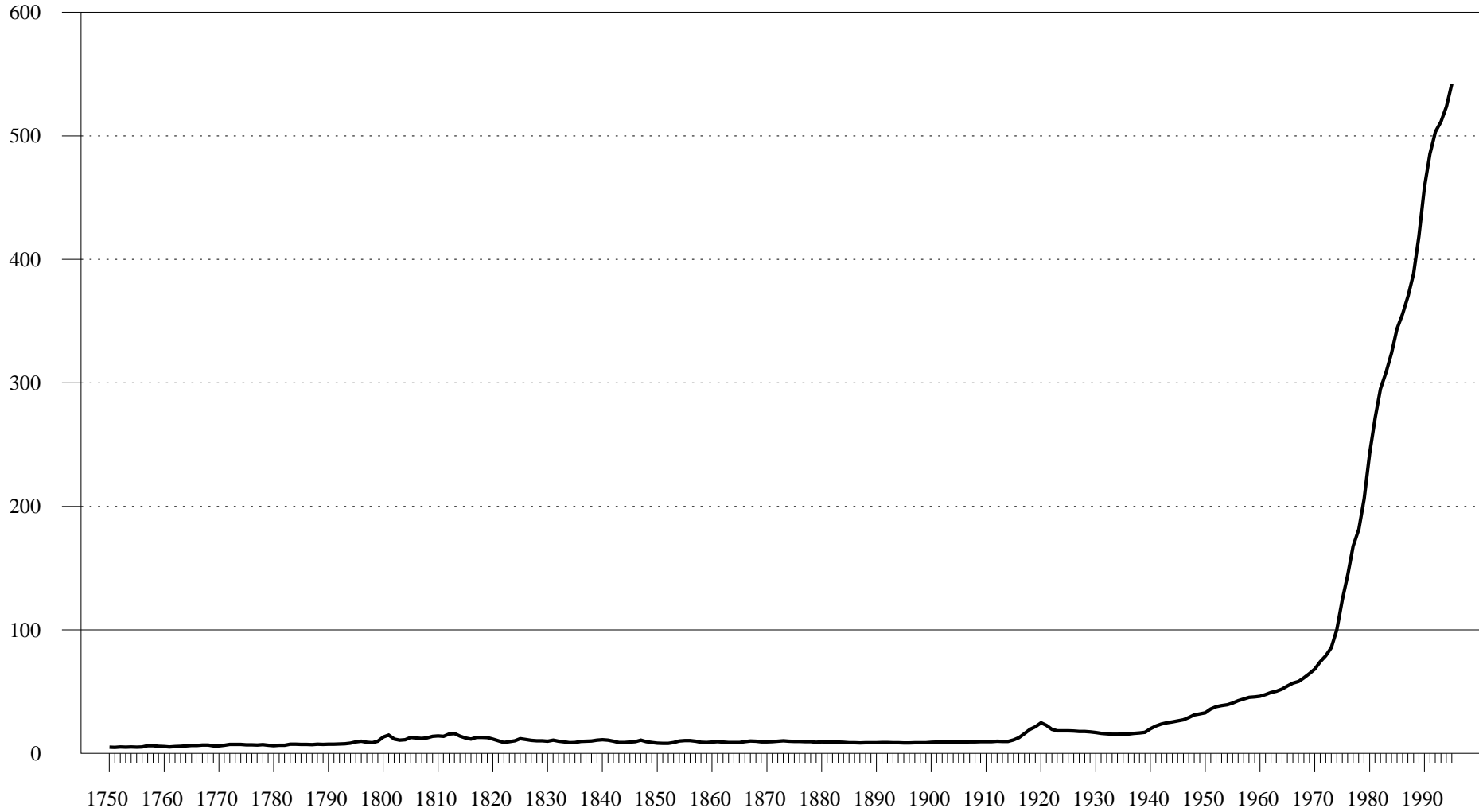


Chart 2
Retail Prices 1750 to 1995
Index 1974=100
Logarithmic scale

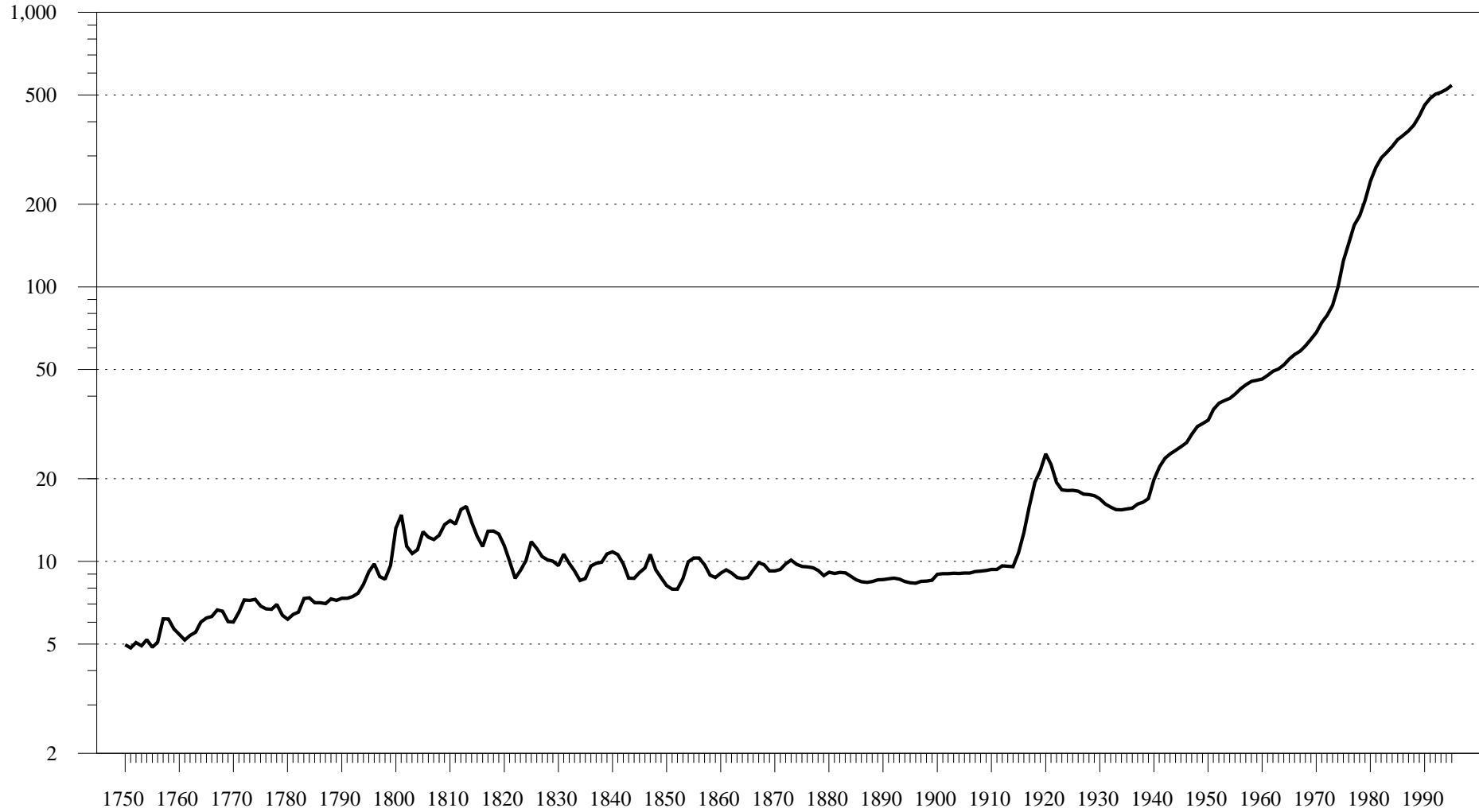


Chart 3
Value of the Pound 1750 to 1995
1974=100 pence
Linear scale

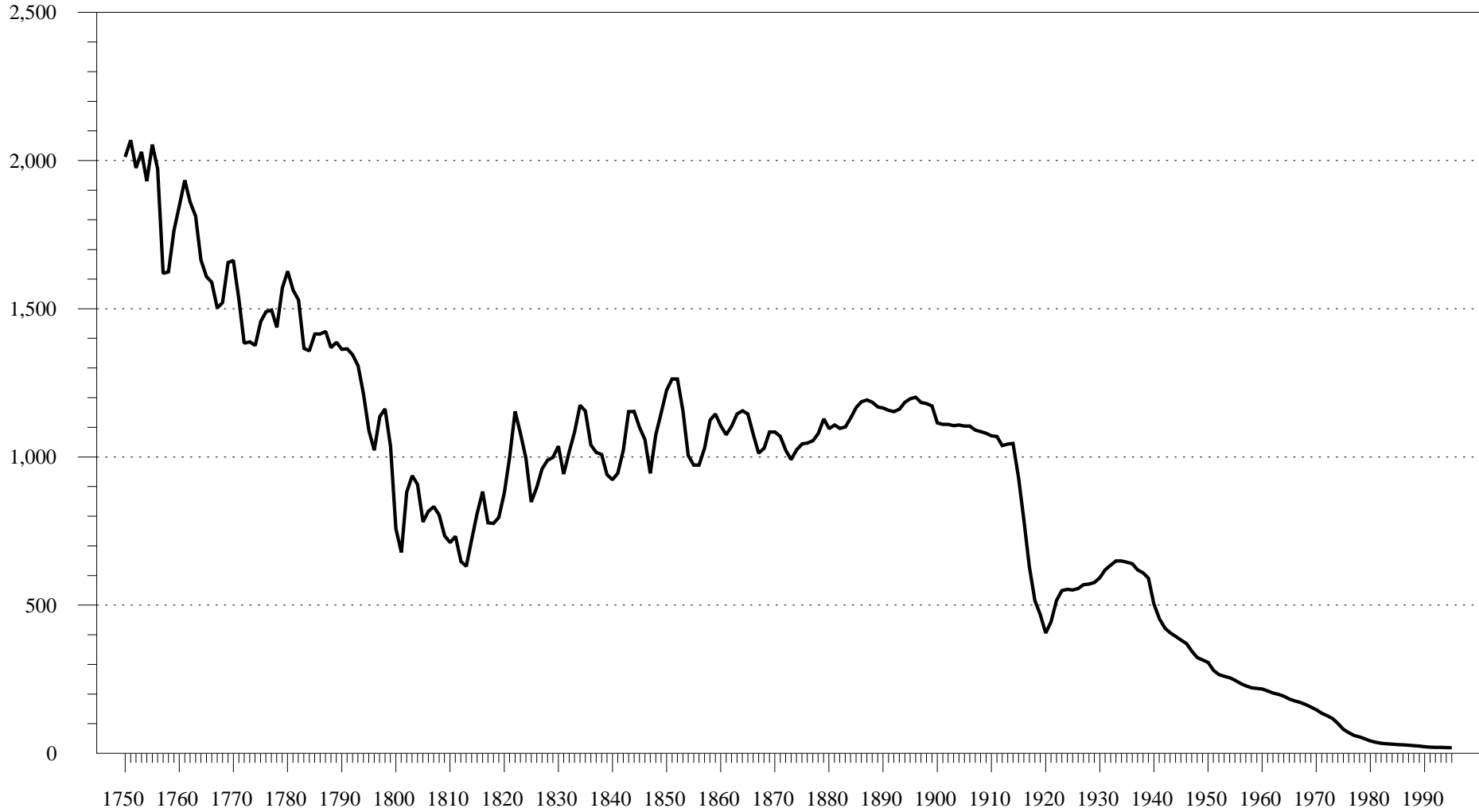


Chart 4
Value of the Pound 1750 to 1995
1974=100 pence
Logarithmic scale

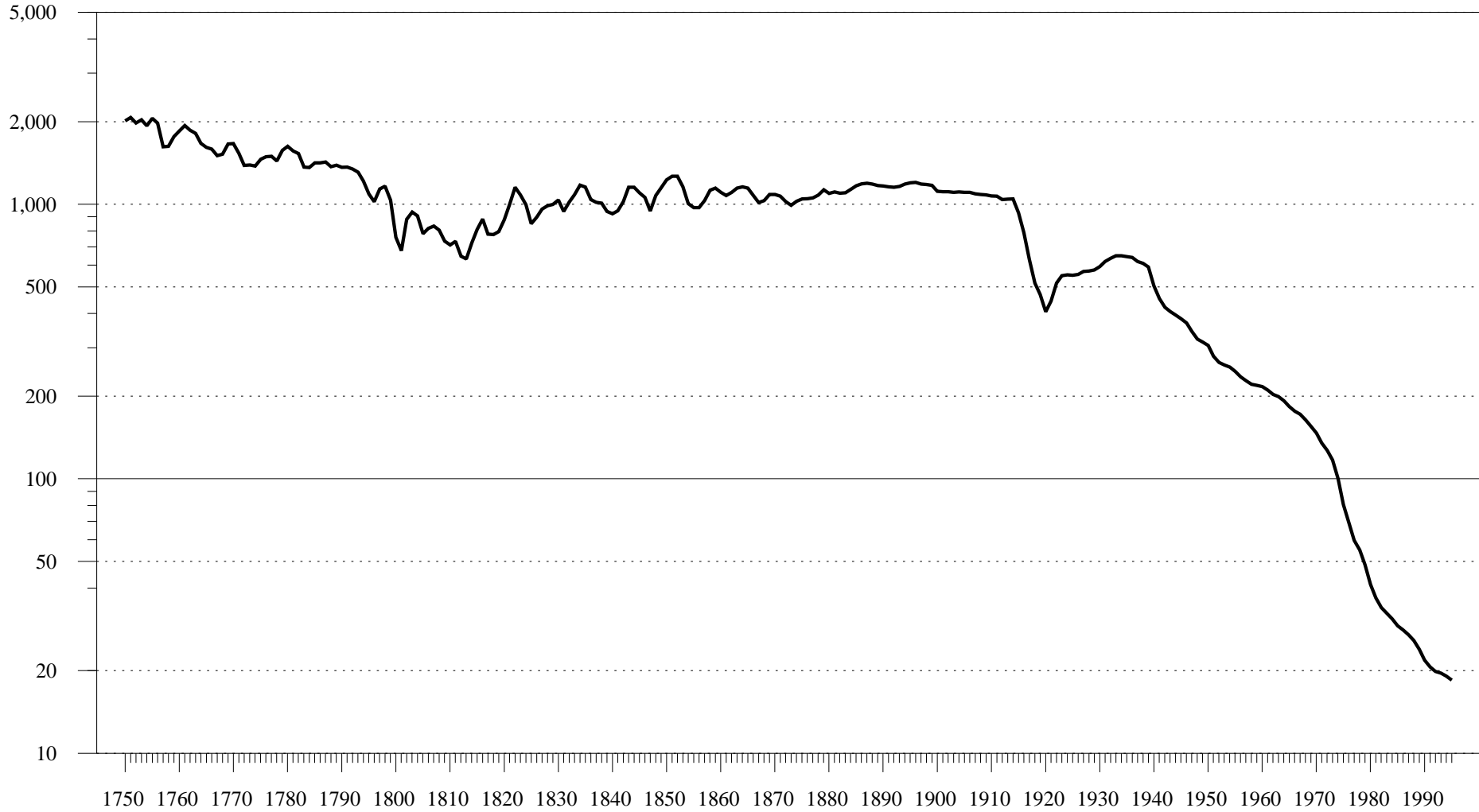


Chart 5
Change in prices on previous year
Percentage

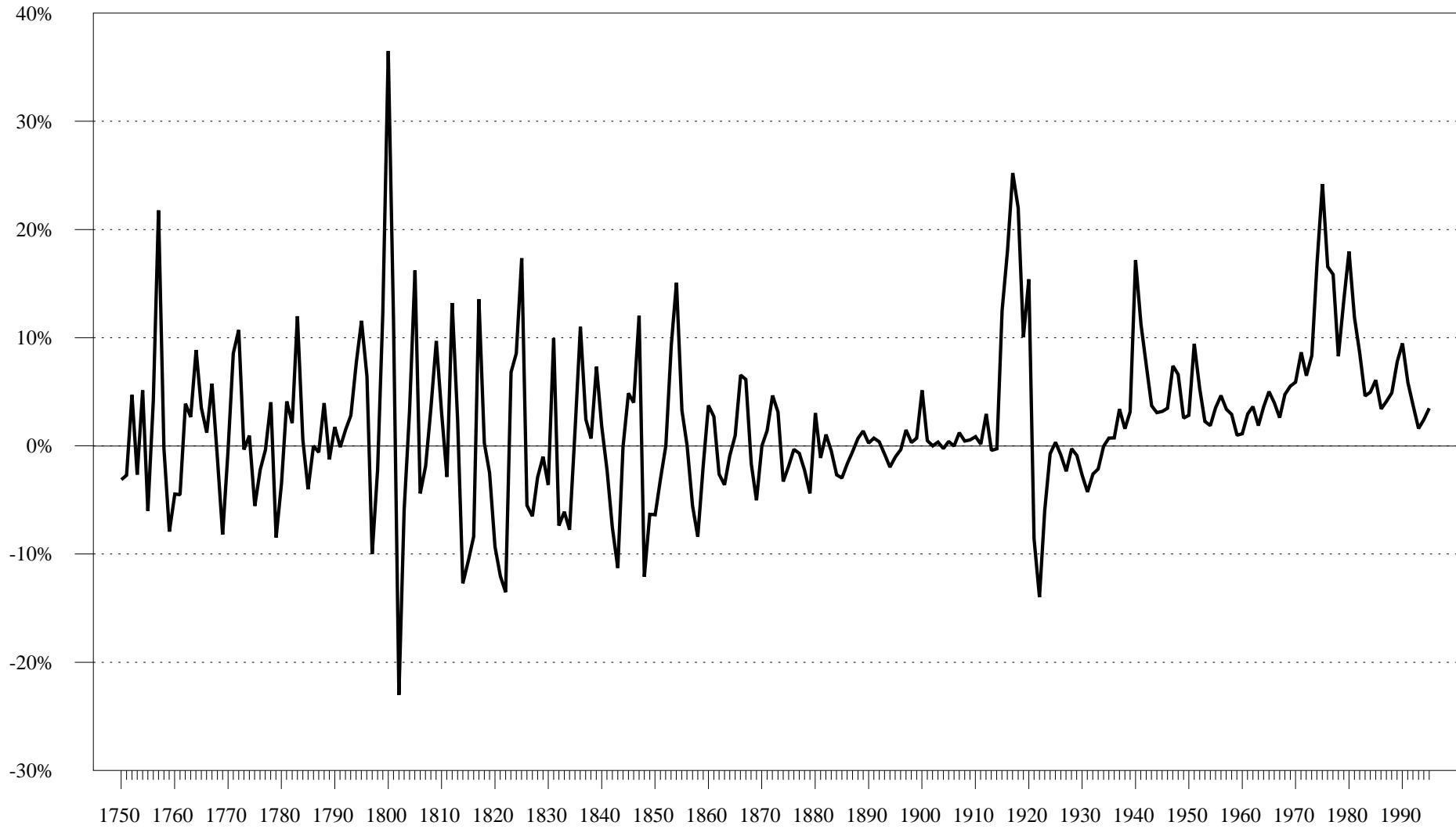


Table 2

Purchasing Power of the Pound 1755 to 1995 (pence)

	Year in which value equals 100 pence												
	1755	1775	1795	1815	1835	1855	1875	1895	1915	1935	1955	1975	1995
1755	100	141	189	254	178	211	197	172	221	319	835	2,551	11,129
1775	71	100	134	180	126	150	140	122	157	226	592	1,809	7,893
1795	53	75	100	134	94	112	104	91	117	169	442	1,351	5,896
1815	39	56	74	100	70	83	78	68	87	126	329	1,005	4,385
1835	56	79	106	143	100	119	111	96	124	179	469	1,434	6,257
1855	47	67	89	120	84	100	93	81	105	151	395	1,208	5,268
1875	51	72	96	129	90	107	100	87	112	162	424	1,296	5,656
1895	58	82	110	148	104	123	115	100	129	186	486	1,486	6,485
1915	45	64	85	115	80	96	89	78	100	144	378	1,154	5,036
1935	31	44	59	80	56	66	62	54	69	100	262	800	3,492
1955	12	17	23	30	21	25	24	21	26	38	100	306	1,334
1975	4	6	7	10	7	8	8	7	9	12	33	100	436
1995	1	1	2	2	2	2	2	2	2	3	7	23	100

Table 3

Purchasing Power of the Pound 1976 to 1995 (pence)

	Year in which value equals 100 pence																			
	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
1976	100	116	125	142	168	188	204	213	224	237	246	256	268	289	317	335	348	353	362	374
1977	86	100	108	123	145	162	176	184	193	205	212	221	232	250	273	289	300	305	312	323
1978	80	92	100	113	134	150	163	170	178	189	196	204	214	231	252	267	277	282	288	298
1979	70	81	88	100	118	132	143	150	157	167	173	180	189	203	223	236	244	248	254	263
1980	60	69	75	85	100	112	121	127	133	142	146	152	160	172	189	200	207	211	216	223
1981	53	62	67	76	89	100	109	114	119	126	131	136	143	154	169	179	185	188	193	199
1982	49	57	62	70	82	92	100	105	110	116	120	125	132	142	155	164	171	173	177	184
1983	47	54	59	67	79	88	96	100	105	111	115	120	126	136	148	157	163	166	170	176
1984	45	52	56	64	75	84	91	95	100	106	110	114	120	129	141	150	155	158	162	167
1985	42	49	53	60	71	79	86	90	94	100	103	108	113	122	133	141	146	149	152	158
1986	41	47	51	58	68	76	83	87	91	97	100	104	109	118	129	136	142	144	147	152
1987	39	45	49	56	66	73	80	83	88	93	96	100	105	113	124	131	136	138	141	146
1988	37	43	47	53	63	70	76	79	83	89	92	95	100	108	118	125	130	132	135	140
1989	35	40	43	49	58	65	70	74	77	82	85	88	93	100	109	116	120	122	125	129
1990	32	37	40	45	53	59	64	67	71	75	78	81	85	91	100	106	110	112	114	118
1991	30	35	37	42	50	56	61	64	67	71	73	76	80	86	94	100	104	105	108	112
1992	29	33	36	41	48	54	59	61	64	68	71	74	77	83	91	96	100	102	104	108
1993	28	33	36	40	48	53	58	60	63	67	70	72	76	82	90	95	98	100	102	106
1994	28	32	35	39	46	52	56	59	62	66	68	71	74	80	88	93	96	98	100	103
1995	27	31	34	38	45	50	54	57	60	63	66	68	72	77	85	90	93	94	97	100

Recent papers on related subjects have been:

95/20	Economic & Monetary Union	14.02.95
95/113	Investment	20.11.95
95/114	The economic background to the November 1995 Budget	21.11.95
96/7	Unemployment by Constituency: December 1995	17.1.96
96/17	Economic Indicators: February 1996	1.2.96