

[1983]

R 2112

LAEBRA 1983/006

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Ivory Price Rises and Inflation

by

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It has often been said that the rate of killing elephants has increased because of a price rise in ivory. The premise, implicit in this view, is that ivory has not only risen, but has risen faster than inflation.

In order to test this hypothesis it is necessary to compare the ivory price rises with some index of inflation.

One index, commonly used for estimating the changes in value of commerce, is the US implicit GNP deflator provided by the World Bank. This gives a rate of inflation of approximately three times in the twenty years from 1960 to 1980.

Perhaps a more realistic deflator in terms of ivory is provided by the OECD for industrialized countries, including the USA, Japan, Belgium, France, Germany, UK, Italy, and other important ivory importing countries. This give a slightly higher rate of inflation of approximately 3.5 over the twenty years from 1960 to 1980.

For the purposes of this analysis, the ivory prices from 1960 to 1978 are taken from Table 104 in Parker (1979), and from 1979 to 1982 from Parker and Bradley Martin (1983). The former work combines minimum world imports with values for USA, Japan, Belgium, France, Germany, UK, Italy, Spain, Hong Kong and Singapore, but the latter work only takes the average prices of Japan and Hong Kong, the two main importers. A new index has been calculated from these prices based at 100 units in 1960.

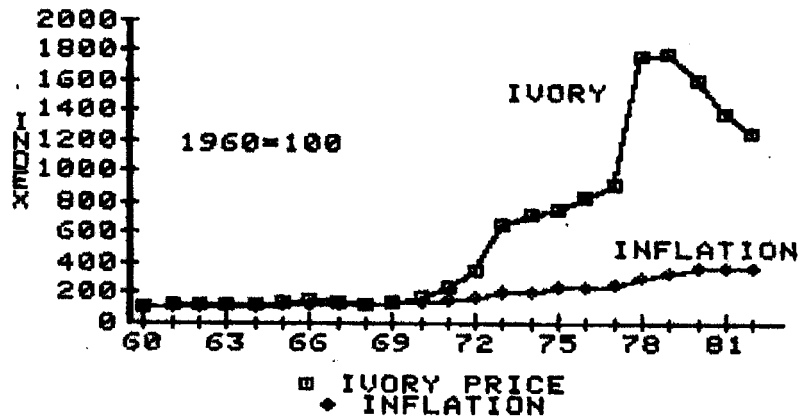
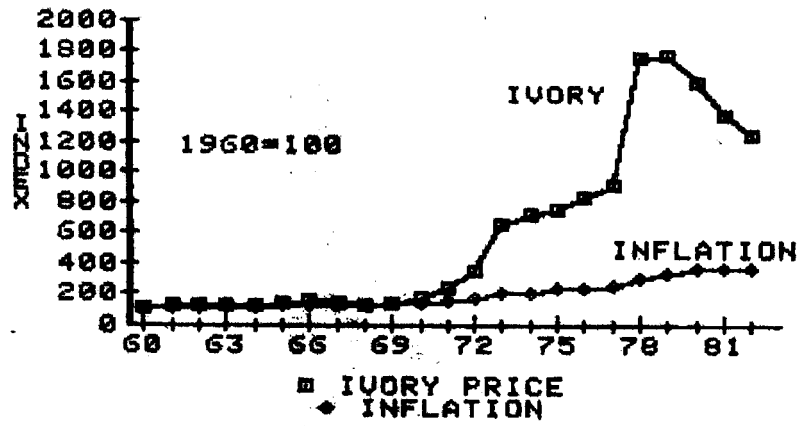
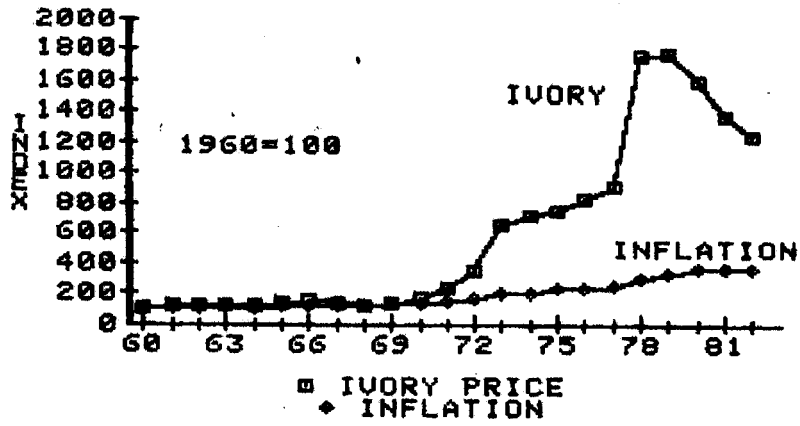
(NB Parker's prices match up in a consistent way with his ivory price index, up until the year 1971, when his index loses its constant relationship with them. It therefore seemed more sensible to calculate a new index.)

Taking 1960 as a starting point, the ivory price kept broadly in line with the rate of inflation for the first eight years. There was only a slight rise in ivory price from \$4.26 in 1960 to \$6.38 in 1966 at which point the ivory price index exceeded the inflation index by a factor of 1.27. It then dropped back to \$5.33 in 1968 at which point it again matched inflation. Then from 1969 to 1978 the ivory price climbed rapidly from \$5.77 to \$74.42 at which point it exceeded inflation by a factor of 5.9. Since then it has dropped steadily to \$52.8 in 1982, but the ivory price index still exceeds the inflation index, by a factor of 3.5.

It appears from this analysis that although the ivory price has fallen recently it is still very high in comparison to long term inflation.

NB The inflation presented here is a world summary. In many African countries it was very much higher for example in Kenya, Zaire and Uganda as appears below. This inflationary tendency would reinforce the demand for ivory as a commodity of real value.

Inflation Rates



IVORY PRICE 1960 - 1982

YEAR	DECD		IVORY		CONSTANT	INDEX		
	DEFLATOR	INCREASE	\$ PRICE	INCREASE	1975	% REAL		
	A	B	C	D	E	F		
1960	43.80	1.00	\$4.26	1.00	\$9.73	100		
1961	44.60	1.02	\$5.37	1.26	\$12.04	124		
1962	46.00	1.05	\$5.16	1.21	\$11.22	115		
1963	47.10	1.08	\$5.29	1.24	\$11.23	115		
1964	48.40	1.11	\$5.21	1.22	\$10.76	111		
1965	49.90	1.14	\$6.08	1.43	\$12.18	125		
1966	51.80	1.18	\$6.38	1.50	\$12.32	127		
1967	53.30	1.22	\$5.69	1.34	\$10.68	110		
1968	54.60	1.25	\$5.33	1.25	\$9.76	100		
1969	56.90	1.30	\$5.77	1.35	\$10.14	104		
1960 -- 1969 AVERAGES =			\$5.45	1.28	\$11.01	113.16	INCREASE OVER 60s	
1970	60.10	1.37	\$7.44	1.75	\$12.38	127	1.36	1.12
1971	64.40	1.47	\$10.20	2.39	\$15.84	163	1.87	1.44
1972	70.80	1.62	\$14.75	3.46	\$20.83	214	2.70	1.89
1973	84.90	1.94	\$27.75	6.51	\$32.69	336	5.09	2.97
1974	89.00	2.03	\$30.44	7.15	\$34.20	352	5.58	3.11
1975	100.00	2.28	\$31.88	7.48	\$31.88	328	5.85	2.90
1976	103.10	2.35	\$35.40	8.31	\$34.34	353	6.49	3.12
1977	112.10	2.56	\$38.43	9.02	\$34.28	352	7.05	3.11
1978	129.50	2.96	\$74.42	17.47	\$57.47	591	13.65	5.22
1979	143.40	3.27	\$75.13	17.64	\$52.39	539	13.78	4.76
1980	156.00	3.56	\$67.50	15.85	\$43.27	445	12.38	3.93
1981	155.80	3.56	\$58.18	13.66	\$37.34	384	10.67	3.39
1982	154.50	3.53	\$52.80	12.39	\$34.17	351	9.66	3.11
1983	162.22	3.70		0.00	\$0.00	0	0.00	0.00
1984	170.34	3.89		0.00	\$0.00	0	0.00	0.00
1985	178.85	4.08		0.00	\$0.00	0	0.00	0.00
1986	187.80	4.29		0.00	\$0.00	0	0.00	0.00
19700 - 1982 AVERAGES =			\$40.33	9.47	\$33.93	348.85	7.39	3.08

A = DECD Deflator for industrial nations (sent to I.D-H by Morgan Greil Bank).

$$B = A2 / A1 * 1$$

C = International ivory price (Parker, 1979; Parker and Martin, 1983)

$$D = C2 / C1 * 1$$

$$E = A(1975) / A1 * C1$$

$$F = E2 / E1 * 100$$