

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM WASHINGTON, D.C. 20551

April 19, 1979

Attached for your information is a memorandum from Mr. Truman, dated April 18, 1979, on the subject of price adjusted exchange rate indices.



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April 18, 1979

то:	Federal Open Market Committee
FROM:	Edwin M. Truman Engl
SUBJECT:	Price Adjusted Exchange Rate Indices.

Attached for your information is a copy of the table of price adjusted exchange rate indices that Chairman Miller mentioned at the meeting of the Committee on Tuesday.

These measures of so-called real exchange rates are calculated using the consumer price indices for the G-10 countries plus Switzerland. The measure for the dollar, shown in column 11, has been used in several recent chart presentations to the FOMC. I should emphasize that this table presents only one measure of price adjusted exchange rates using a particular weighting scheme. Alternative measures are described in considerable detail by Peter Hooper and John Morton in "Summary Measures of the Dollar's Foreign Exchange Value" (Federal Reserve Bulletin, October 1978).

The indices presented in the attached table are calculated by dividing the index of each currency's weighted-average foreign exchange value (March 1973 equals 100) by the ratio of the weighted average of foreign consumer price indices to the domestic consumer price index for the country. - 2 -

The price indices for April are extrapolations; in the case of some other recent months, staff estimates are used. The last line in the table shows for each currency the average value of the index over the period March 1973 to April 1979.

Attachment

## Table 7 Price Adjusted Exchange Rate Indices

WEIGHTED AVERAGE ADJUSTED BY CPI INDICES MARCH 1973=100 \*

4/16/79

		3	4	5	6	7	8	9	10	11
Sterling	Canadian Dollar	German Mark	Swiss Franc	Nether- lands Guilder	French Franc	l <b>talia</b> n Lira	Belgian Franc	Japanese Yen	Swedish Krona	U.S. Dollar
102.2	97.1	106.6	101.7	102.2	103.1	93.3	101.1	97.2	101.9	95.9
95.3	100.8	105.9	103.3	102.0	99.3	95.7	96.6	98.6	97.3	100.6
101.0 98.4	102.6 98.3	106.4 104.1	104.2 117.8	105.2 107.7	92.3 99.9	91.1 94.6	103.2 105.9	101.6 95.6	97.2 101.1	97.7 96.0
104.4 101.5	90.5 99.7	104.3 96.0	115.9 114.2	109.6 105.4	110.1 106.1	96.9 96.1	108.1 103.9	94.0 96.9	103.0 99.3	89.9 97.9
92.2 89.6	105.6 98.1	99.7 104.1	120.2 116.3	106.9 116.2	102.4 96.5	83.4 85.6	105.8 114.1	103.5 104.8	102.5 108.3	98.6 95.4
94.0 95.5	95.1 93.5	102.8 102.7	108.8	114.4 114.4	95.9 96.8	85.3 85.6	112.1	110.4 112.2	107.3 103.8	95.1 93.9
96.4 98.9	92.3 87.3	101.9 105.6	112.6 122.7	114.2 115.3	97.8 96.5	86.8 85.3	113.5 115.4	115.1 120.5	94.8 93.7	93.3 88.5
98.6 95.7	82.5 83.3	108.5 103.9	128.5 127.4	119.5 114.5	95.7 99.6	86.0 86.2	118.9 113.0	122.1 131.9	95.2 94.6	85.4 86.4
97.4	78.9	102.8	137.6	113.9	101.8	85.2	113.0	145.0	93.7	84.4 82.5 82.3
97.0 97.6	72.8 75.9	107.1 105.8	142.1 133.4	119.3 118.3	102.1 101.3	86.1 85.4	118.0 117.0	144.3 138.7	93.9 94.4	79.3 82.2
	ł		1		ł					81.9
100.1	73.9	108.5	131.3	119.1	103.4	86.4 87.1 88.1	118.8	131.5	94.0	81.2 82.2 82.3
106.1	77.8	107.0	130.4	118.5	102.4	89.2	114.8	119.2	94.1	83.2
98.1	93.9	103.7	115.5	110.3	100,1	89.9	108.2	108.7	99.3	93.4
	102.2 95.3 101.0 98.4 104.4 101.5 92.2 89.6 94.0 95.5 96.4 98.9 98.6 95.7 96.7 96.7 96.7 97.4 97.8 97.0 97.6 99.1 100.1 100.6 102.8 106.1	Stering Dollar   102.2 97.1   95.3 100.8   101.0 102.6   98.4 98.3   104.4 90.5   101.5 99.7   92.2 105.6   89.6 98.1   94.0 95.1   95.5 93.5   96.4 92.3   98.9 87.3   98.6 82.5   95.7 83.3   96.7 82.1   97.4 78.9   97.6 75.9   97.0 72.8   97.0 72.8   97.6 75.9   99.1 75.1   100.1 73.8   100.6 73.9   102.8 75.5   106.1 77.8	Sterling Dollar Mark   102.2 97.1 106.6   95.3 100.8 105.9   101.0 102.6 106.4   98.4 98.3 104.1   104.4 90.5 104.3   101.5 99.7 96.0   92.2 105.6 99.7   96.0 95.1 102.8   95.5 93.5 102.7   96.4 92.3 101.9   98.9 87.3 105.6   98.6 82.5 108.5   95.7 83.3 103.9   96.7 82.1 102.8   97.4 78.9 102.8   97.0 72.8 107.1   97.0 72.8 107.1   97.0 72.8 107.1   100.1 73.8 108.5   100.6 73.9 108.4   102.8 75.5 108.0   106.1 77.8 107.0	Sterling Dollar Mark Franc   102.2 97.1 106.6 101.7   95.3 100.8 105.9 103.3   101.0 102.6 106.4 104.2   98.4 98.3 104.1 117.8   104.4 90.5 104.3 115.9   101.5 99.7 96.0 114.2   92.2 105.6 99.7 120.2   89.6 98.1 104.1 116.3   94.0 95.1 102.8 108.8   95.5 93.5 102.7 109.0   96.4 92.3 101.9 112.6   98.9 87.3 105.6 122.7   98.6 82.5 108.5 128.5   95.7 83.3 103.9 127.4   96.7 82.1 102.8 137.6   97.0 72.8 107.1 142.1   97.6 75.9 105.8 133.4   99.1 75.1 107.1 </td <td>Sterling Dollar Mark Franc fands Guilder   102.2 97.1 106.6 101.7 102.2   95.3 100.8 105.9 103.3 102.0   101.0 102.6 106.4 104.2 105.2   98.4 98.3 104.1 117.8 107.7   104.4 90.5 104.3 115.9 109.6   101.5 99.7 96.0 114.2 105.4   92.2 105.6 99.7 120.2 106.9   89.6 98.1 104.1 116.3 116.2   94.0 95.1 102.8 108.8 114.4   95.5 93.5 102.7 109.0 114.4   96.4 92.3 101.9 112.6 114.2   98.9 87.3 105.6 122.7 115.3   98.6 82.5 108.5 128.5 119.5   95.7 83.3 103.9 127.4 114.5   96.7 82.</td> <td>Sterling Dollar Mark Franc Iaros Guider Franc   102.2 97.1 106.6 101.7 102.2 103.1   95.3 100.8 105.9 103.3 102.0 99.3   101.0 102.6 106.4 104.2 105.2 92.3   98.4 98.3 104.1 117.8 107.7 99.9   104.4 90.5 104.3 115.9 109.6 110.1   101.5 99.7 96.0 114.2 105.4 106.1   92.2 105.6 99.7 120.2 106.9 102.4   89.6 98.1 104.1 116.3 116.2 96.5   94.0 95.1 102.8 108.8 114.4 95.9   95.5 93.5 102.7 109.0 114.4 96.8   96.4 92.3 101.9 112.6 114.2 97.8   98.7 83.3 103.9 127.4 114.5 99.6   <td< td=""><td>Sterling Dollar Mark Franc Iarlos Guilder Franc Lira   102.2 97.1 106.6 101.7 102.2 103.1 93.3   95.3 100.8 105.9 103.3 102.0 99.3 95.7   101.0 102.6 106.4 104.2 105.2 92.3 91.1   98.4 98.3 104.1 117.8 107.7 99.9 94.6   104.4 90.5 104.3 115.9 109.6 110.1 96.9   101.5 99.7 96.0 114.2 105.4 106.1 96.1   92.2 105.6 99.7 120.2 106.9 102.4 83.4   89.6 98.1 104.1 116.3 116.2 96.5 85.6   94.0 95.1 102.8 108.8 114.4 95.9 85.3   95.5 93.5 102.7 105.0 114.2 97.8 86.8   96.4 92.3 101.9</td><td>Sterling Dollar Mark Franc fands Guilder Franc Lira Franc   102.2 97.1 106.6 101.7 102.2 99.3 93.3 101.1   95.3 100.8 105.9 103.3 102.0 99.3 95.7 96.6   101.0 102.6 106.4 104.2 105.2 92.3 91.1 103.2   98.4 98.3 104.1 117.8 107.7 99.9 94.6 105.9   104.4 90.5 104.3 115.9 109.6 110.1 96.9 108.1   101.5 99.7 96.0 114.2 105.4 106.1 96.1 103.9   92.2 105.6 99.7 120.2 106.9 102.4 83.4 105.8   88.6 98.1 104.1 116.3 116.2 97.8 85.6 113.1   94.0 95.1 102.8 108.8 114.4 95.9 85.3 112.1   95.7</td><td>Sterling Dollar Mark Franc lands Guilder Franc Lira Franc Yen   102.2 97.1 106.6 101.7 102.2 103.1 93.3 101.1 97.2   95.3 100.8 105.9 103.3 102.0 99.3 95.7 96.6 98.6   101.0 102.6 106.4 104.2 105.2 92.3 91.1 103.2 101.6   98.4 98.3 104.1 117.8 107.7 99.9 94.6 105.9 95.6   104.4 90.5 104.3 115.9 109.6 110.1 96.9 108.1 94.0   101.5 99.7 96.0 114.2 105.4 106.1 96.1 103.9 96.9   92.2 105.6 99.7 120.2 106.9 102.4 83.4 105.8 103.5   89.6 98.1 104.1 116.3 116.2 97.8 85.6 113.1 112.2   96.7</td><td>Stering Dollar Mark Franc Guilder Franc Lira Franc Yen Krona   102.2 97.1 106.6 101.7 102.2 103.1 93.3 101.1 97.2 101.9   95.3 100.8 105.9 103.3 102.2 103.1 93.3 95.7 96.6 98.6 97.3   101.0 102.6 106.4 104.2 105.2 92.3 91.1 103.2 101.6 97.2   98.4 98.3 104.1 117.8 107.7 99.9 94.6 105.9 95.6 101.1   104.4 90.5 104.3 115.9 109.6 100.1 96.9 108.1 94.0 103.0   92.2 105.6 99.7 120.2 106.9 102.4 83.4 105.8 103.5 102.5   94.0 95.1 102.8 108.8 114.4 95.9 85.3 112.1 110.4 107.3   95.5 93.5</td></td<></td>	Sterling Dollar Mark Franc fands Guilder   102.2 97.1 106.6 101.7 102.2   95.3 100.8 105.9 103.3 102.0   101.0 102.6 106.4 104.2 105.2   98.4 98.3 104.1 117.8 107.7   104.4 90.5 104.3 115.9 109.6   101.5 99.7 96.0 114.2 105.4   92.2 105.6 99.7 120.2 106.9   89.6 98.1 104.1 116.3 116.2   94.0 95.1 102.8 108.8 114.4   95.5 93.5 102.7 109.0 114.4   96.4 92.3 101.9 112.6 114.2   98.9 87.3 105.6 122.7 115.3   98.6 82.5 108.5 128.5 119.5   95.7 83.3 103.9 127.4 114.5   96.7 82.	Sterling Dollar Mark Franc Iaros Guider Franc   102.2 97.1 106.6 101.7 102.2 103.1   95.3 100.8 105.9 103.3 102.0 99.3   101.0 102.6 106.4 104.2 105.2 92.3   98.4 98.3 104.1 117.8 107.7 99.9   104.4 90.5 104.3 115.9 109.6 110.1   101.5 99.7 96.0 114.2 105.4 106.1   92.2 105.6 99.7 120.2 106.9 102.4   89.6 98.1 104.1 116.3 116.2 96.5   94.0 95.1 102.8 108.8 114.4 95.9   95.5 93.5 102.7 109.0 114.4 96.8   96.4 92.3 101.9 112.6 114.2 97.8   98.7 83.3 103.9 127.4 114.5 99.6 <td< td=""><td>Sterling Dollar Mark Franc Iarlos Guilder Franc Lira   102.2 97.1 106.6 101.7 102.2 103.1 93.3   95.3 100.8 105.9 103.3 102.0 99.3 95.7   101.0 102.6 106.4 104.2 105.2 92.3 91.1   98.4 98.3 104.1 117.8 107.7 99.9 94.6   104.4 90.5 104.3 115.9 109.6 110.1 96.9   101.5 99.7 96.0 114.2 105.4 106.1 96.1   92.2 105.6 99.7 120.2 106.9 102.4 83.4   89.6 98.1 104.1 116.3 116.2 96.5 85.6   94.0 95.1 102.8 108.8 114.4 95.9 85.3   95.5 93.5 102.7 105.0 114.2 97.8 86.8   96.4 92.3 101.9</td><td>Sterling Dollar Mark Franc fands Guilder Franc Lira Franc   102.2 97.1 106.6 101.7 102.2 99.3 93.3 101.1   95.3 100.8 105.9 103.3 102.0 99.3 95.7 96.6   101.0 102.6 106.4 104.2 105.2 92.3 91.1 103.2   98.4 98.3 104.1 117.8 107.7 99.9 94.6 105.9   104.4 90.5 104.3 115.9 109.6 110.1 96.9 108.1   101.5 99.7 96.0 114.2 105.4 106.1 96.1 103.9   92.2 105.6 99.7 120.2 106.9 102.4 83.4 105.8   88.6 98.1 104.1 116.3 116.2 97.8 85.6 113.1   94.0 95.1 102.8 108.8 114.4 95.9 85.3 112.1   95.7</td><td>Sterling Dollar Mark Franc lands Guilder Franc Lira Franc Yen   102.2 97.1 106.6 101.7 102.2 103.1 93.3 101.1 97.2   95.3 100.8 105.9 103.3 102.0 99.3 95.7 96.6 98.6   101.0 102.6 106.4 104.2 105.2 92.3 91.1 103.2 101.6   98.4 98.3 104.1 117.8 107.7 99.9 94.6 105.9 95.6   104.4 90.5 104.3 115.9 109.6 110.1 96.9 108.1 94.0   101.5 99.7 96.0 114.2 105.4 106.1 96.1 103.9 96.9   92.2 105.6 99.7 120.2 106.9 102.4 83.4 105.8 103.5   89.6 98.1 104.1 116.3 116.2 97.8 85.6 113.1 112.2   96.7</td><td>Stering Dollar Mark Franc Guilder Franc Lira Franc Yen Krona   102.2 97.1 106.6 101.7 102.2 103.1 93.3 101.1 97.2 101.9   95.3 100.8 105.9 103.3 102.2 103.1 93.3 95.7 96.6 98.6 97.3   101.0 102.6 106.4 104.2 105.2 92.3 91.1 103.2 101.6 97.2   98.4 98.3 104.1 117.8 107.7 99.9 94.6 105.9 95.6 101.1   104.4 90.5 104.3 115.9 109.6 100.1 96.9 108.1 94.0 103.0   92.2 105.6 99.7 120.2 106.9 102.4 83.4 105.8 103.5 102.5   94.0 95.1 102.8 108.8 114.4 95.9 85.3 112.1 110.4 107.3   95.5 93.5</td></td<>	Sterling Dollar Mark Franc Iarlos Guilder Franc Lira   102.2 97.1 106.6 101.7 102.2 103.1 93.3   95.3 100.8 105.9 103.3 102.0 99.3 95.7   101.0 102.6 106.4 104.2 105.2 92.3 91.1   98.4 98.3 104.1 117.8 107.7 99.9 94.6   104.4 90.5 104.3 115.9 109.6 110.1 96.9   101.5 99.7 96.0 114.2 105.4 106.1 96.1   92.2 105.6 99.7 120.2 106.9 102.4 83.4   89.6 98.1 104.1 116.3 116.2 96.5 85.6   94.0 95.1 102.8 108.8 114.4 95.9 85.3   95.5 93.5 102.7 105.0 114.2 97.8 86.8   96.4 92.3 101.9	Sterling Dollar Mark Franc fands Guilder Franc Lira Franc   102.2 97.1 106.6 101.7 102.2 99.3 93.3 101.1   95.3 100.8 105.9 103.3 102.0 99.3 95.7 96.6   101.0 102.6 106.4 104.2 105.2 92.3 91.1 103.2   98.4 98.3 104.1 117.8 107.7 99.9 94.6 105.9   104.4 90.5 104.3 115.9 109.6 110.1 96.9 108.1   101.5 99.7 96.0 114.2 105.4 106.1 96.1 103.9   92.2 105.6 99.7 120.2 106.9 102.4 83.4 105.8   88.6 98.1 104.1 116.3 116.2 97.8 85.6 113.1   94.0 95.1 102.8 108.8 114.4 95.9 85.3 112.1   95.7	Sterling Dollar Mark Franc lands Guilder Franc Lira Franc Yen   102.2 97.1 106.6 101.7 102.2 103.1 93.3 101.1 97.2   95.3 100.8 105.9 103.3 102.0 99.3 95.7 96.6 98.6   101.0 102.6 106.4 104.2 105.2 92.3 91.1 103.2 101.6   98.4 98.3 104.1 117.8 107.7 99.9 94.6 105.9 95.6   104.4 90.5 104.3 115.9 109.6 110.1 96.9 108.1 94.0   101.5 99.7 96.0 114.2 105.4 106.1 96.1 103.9 96.9   92.2 105.6 99.7 120.2 106.9 102.4 83.4 105.8 103.5   89.6 98.1 104.1 116.3 116.2 97.8 85.6 113.1 112.2   96.7	Stering Dollar Mark Franc Guilder Franc Lira Franc Yen Krona   102.2 97.1 106.6 101.7 102.2 103.1 93.3 101.1 97.2 101.9   95.3 100.8 105.9 103.3 102.2 103.1 93.3 95.7 96.6 98.6 97.3   101.0 102.6 106.4 104.2 105.2 92.3 91.1 103.2 101.6 97.2   98.4 98.3 104.1 117.8 107.7 99.9 94.6 105.9 95.6 101.1   104.4 90.5 104.3 115.9 109.6 100.1 96.9 108.1 94.0 103.0   92.2 105.6 99.7 120.2 106.9 102.4 83.4 105.8 103.5 102.5   94.0 95.1 102.8 108.8 114.4 95.9 85.3 112.1 110.4 107.3   95.5 93.5

\* NOTES Weights are shares of each country in the total 1972-76 trade of the G-10 countries plus Switzerland