

## Note on Exchange Rate Data

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## 2. Errors in Reinhart and Rogoff's (2004) exchange rate data

I note in the article that RR accidentally used period average (IFS line AF) instead of end-of-period (IFS line AE) for all but a small subset of countries. As an example, compare the rates provided by RR for Canada for 1957–58 with the IFS rates:

Canada: Dollars per US\$1, Jan. 1957–Dec. 1958  
(Monthly observations)

RR rates		IFS Rates	
		End of period	Period average
CANADA		156..AE.ZF...	156..AF.ZF...
1957M1	0.9607	1957M1	0.9580
1957M2	0.9583	1957M2	0.9580
1957M3	0.9561	1957M3	0.9559
1957M4	0.9597	1957M4	0.9580
1957M5	0.9556	1957M5	0.9560
1957M6	0.9532	1957M6	0.9528
1957M7	0.9509	1957M7	0.9480
1957M8	0.9480	1957M8	0.9510
1957M9	0.9592	1957M9	0.9650
1957M10	0.9647	1957M10	0.9590
1957M11	0.9624	1957M11	0.9680
1957M12	0.9774	1957M12	0.9847
1958M1	0.9847	1958M1	0.9820
1958M2	0.9810	1958M2	0.9790
1958M3	0.9773	1958M3	0.9747
1958M4	0.9706	1958M4	0.9700
1958M5	0.9669	1958M5	0.9640
1958M6	0.9618	1958M6	0.9594
1958M7	0.9600	1958M7	0.9620
1958M8	0.9646	1958M8	0.9730
1958M9	0.9768	1958M9	0.9763
1958M10	0.9707	1958M10	0.9690
1958M11	0.9683	1958M11	0.9660
1958M12	0.9646	1958M12	0.9641

Sources: <http://www.carmenreinhardt.com/data/browse-by-topic/topics/10/> and electronic IFS dataset.

These rates are also found in the printed IFS rates (here, mid-1958):

INTERNATIONAL FINANCIAL STATISTICS										Canada											
VOLUME XI, NUMBER 12, DECEMBER 1958																					
1956 . . . . . By Quarters										1957 . . . . . By Quarters											
I II III IV										I II III IV IQ											
Canadian Dollars per US										1958 . . . . . By Months											
Millions of US Dollars:										Apr May June July Aug Sept Oct											
0	.955	.999	.981	.977	.960					.956	.953	.965	.985	.975	.970	.964	.959	.962	.973	.976	.969
5	1,836	1,880	1,912	1,916	1,945					1,931	1,955	1,899	1,836	1,880	1,883	1,906	1,929	1,944	1,932	1,897	1,926
1	1,160	1,130	1,101	1,106	1,103					1,161	1,168	1,162	1,190	1,089	1,093	1,078	1,077	1,085	1,078	1,078	1,074
2	736	750	811	811	841					830	852	797	735	721	759	828	852	839	853	819	832
3	728	751	799	798	833					822	839	788	725	779	782	820	844	852	844	810	843
4	2,080	1,547	1,647	1,787	1,883					1,881	2,048	2,093	2,098	2,067				2,342			
5	1,623	1,179	1,285	1,435	1,516					1,497	1,591	1,650	1,623	1,636	1,662	1,789	2,001	1,962	2,051	1,944	
6	1,337	945	1,038	1,194	1,234					1,218	1,295	1,361	1,337	1,383	1,418	1,566	1,706	1,741	1,798	1,691	
7	457	369	362	352	367					468	457	443	457	441			341				
8	90	73	75	90	90					90	90	90	90	90	90	90	90	90	90	90	
Exchange Rate																					
Gold and Foreign Exchange																					
OFFICIAL . . . . . 10																					
Gold . . . . . 11																					
Foreign Exchange . . . . . 12																					
US Dollars . . . . . a																					
Related Data from Other Sources																					
DOLLARS AS REPORTED BY US . . . . . 13																					
Short-Term . . . . . a																					
of Canadian Gov't & Banks . . . . . b																					
Long-Term . . . . . c																					
NET IMF POSITION . . . . . 14																					

The same is the case for all of the countries in their dataset except for the 17 rightmost countries on RR's spreadsheet.

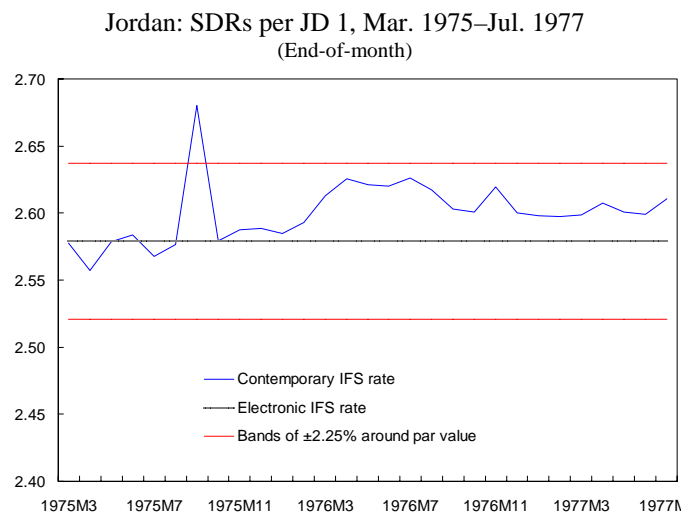
But does this error really matter? Yes, since period average rates have a smoothing effect. For example, RR found that for Canada in the five-year period 1957M5–1962M4, the probability of an exchange rate change being less than 1 percent is 0.83. As this is above the peg probability threshold of 0.80, it is classified as a peg. However, if we use end-of-period rates—as indicated by RR's methodology—the probability is 0.73, indicating that another classification is more appropriate.

### 3. The Accuracy of IFS Exchange Rates

I note in the article that the printed and especially the electronic version of the IFS exchange rates are not reliable. The following examples illustrate this. Note that “RED” indicated data in the Recent Economic Developments surveillance documents.

Surveillance documents on Jordan note that (SM/85/161): “Since February 15, 1975 the Jordan dinar has been pegged to the SDR at JD 1 = 2.57895 with margins of 2.25 percent.... Because of the wide fluctuations of major currencies and the resulting movements in the U.S. dollar/SDR rate, this rate has occasionally been slightly outside these margins....”

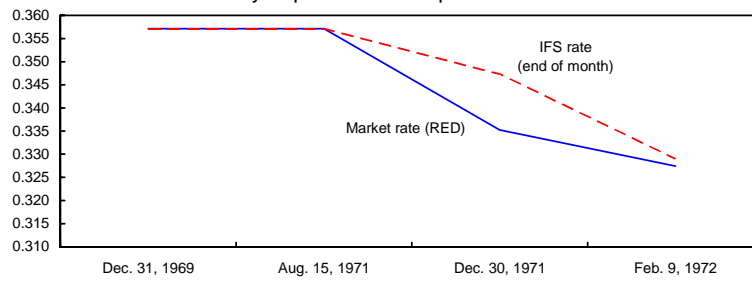
The electronic data from IFS show a flat exchange rate for the period. However, using IFS data in the contemporary printed volumes, we see a story more consistent with the description. We also see that the electronic rate reflects only the par value.



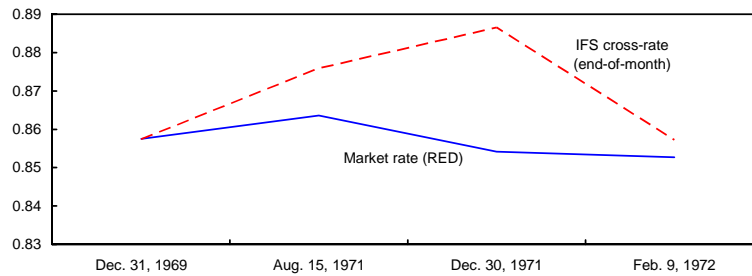
This notwithstanding, there are also times where the electronic data are correct and the printed data are not. One example is that the printed version does not show Malta’s Sept. 1971 devaluation, which met with an equal revaluation in December that year.

There are also instances where the printed data are incorrect when compared with other surveillance documents, especially in currencies that have a non-dollar anchor. For example, the dollar and sterling market rates in the 1972 RED surveillance document for Libya include rates that match neither the dollar rates nor the implied sterling cross-rates in the contemporary or the electronic IFS (Figure).

Libyan pounds/dinars per US\$1 and £ stg. 1, Dec. 1969–Feb. 1972  
 (End-of-month IFS cross-rate and actual spot rate on selected dates)  
 Libyan pounds/dinars per U.S. dollar



Libyan pounds/dinars per pound sterling



If one looked at the IFS data alone, one would conclude that the pound (and later dinar) were fixed to and later adjusted vis-à-vis the dollar. The RED data, however, support the view that the pound/dinar closely followed sterling.