A Modern History of Exchange Rate Arrangements: Chartbook, 1946-2001

Carmen Reinhart

University of Maryland, College Park, Department of Economics

May 2002

Online at http://mpra.ub.uni-muenchen.de/13192/
MPRA Paper No. 13192, posted 6. February 2009 06:27 UTC
A Modern History of Exchange Rate Arrangements: Chartbook, 1946-2001

Carmen M. Reinhart
University of Maryland, NBER and CEPR
About the Chronologies and Charts

Below we describe how to use and interpret the country chronologies and accompanying charts.

1. Using the chronologies

The individual country chronologies are also a central component of our approach to classifying regimes. The data are constructed by culling information from annual issues of various secondary sources, including *Pick’s Currency Yearbook*, *Pick’s World Currency Report*, *Pick’s Black Market Yearbook*, *International Financial Statistics*, the IMF’s *Annual Report on Exchange Rate Arrangements and Exchange Restrictions*, and the *United Nations Yearbook*. Constructing our data set required us to sort and interpret information for every year from every publication above. Importantly, we draw on national sources to investigate apparent data errors or inconsistencies. More generally, we rely on the broader economics literature to include pertinent information.

The chronologies allow us to date dual or multiple exchange rate episodes, as well as to differentiate between pre-announced pegs, crawling pegs, and bands from their *de facto* counterparts. We think it is important to distinguish between say, *de facto* pegs or bands from announced pegs or bands, because their properties are potentially different. The chronologies also flag the dates for important turning points, such as when the exchange rate first floated, or when the anchor currency was changed.

Note that we extend our chronologies as far back as possible (even though we can only classify from 1946 onwards.) The second column gives the arrangement, *according to our Natural classification algorithm*, which may or may not correspond to the official classification. In numerous cases there are dual or multiple rates in some periods. In these circumstances, our classification algorithm relies on the market-determined, rather than the official exchange rate. Over some periods the discrepancy between the official and parallel rate proved to be small. In these instances, we leave the notation in the second column that there are dual rates, but note in the third column that the premia is in single digits. For periods where the twelve-month monthly inflation exceeded 40 percent, our algorithm automatically categorizes these as freely falling exchange rate regimes—unless there is a pre-announced peg crawling peg or narrow band that is verified. For the freely falling cases, the second column also notes whether
there was a dual market and how our algorithm would categorize the regime absent knowledge of the inflation rate.

The third column in our chronology gives further sundry information on the regime—e.g., the width of the announced and *de facto* bands, etc. The third column also includes information about developments in the parallel market premia and currency reform.

2. About the charts

The top panel of each chart plots the path of the official and market-determined exchange rate for January 1946 through December 1998, depending on data availability. The bottom panel of each chart plots the parallel market premia (in percent). For the CFA franc zone countries and other North African former French colonies, there are two sets of chart, one showing the exchange rates versus the US dollar and another showing the exchange rate versus the French franc. Likewise, for the European countries the first chart plots the exchange rate versus the US dollar and the second versus the Deutschemark (DM).

Note that, because of the long period covered, especially for the many the countries that have experienced high or hyperinflation, the top panel of the charts tend to mask the large differences between the official and market-determined exchange rate. For example, if the period is restricted to 1946-1966 for the case of Brazil, as illustrated in the top panel of Chart A1, the gap between the official and market determined rate is quite evident. (We saw this scaling problem in Chart 3 of the text comparing Argentina to Canada). Even for more moderate inflation cases, such as China and Egypt (middle and bottom panels) plots over shorter periods tend to be more revealing. Nor is this gap between official and market-determined rates limited to developing countries. As shown in Chart A2 for France, Japan, and Portugal for 1946 to 1951, the picture painted by the official and market rates are quite different.

Chart A2. Official Exchange Rates Typically Validate the Changes in The Market Rates

Brazil: Log of Official and Market-Determined Exchange Rates:
January 1946-December 1966

China: Log of Official and Market-Determined Exchange Rates:
January 1984-December 1998

Egypt: Log of Official and Market-Determined Exchange Rates:
January 1974-December 1998


Algeria: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Austria: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium

Belgium: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Benin: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Benin: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Bolivia: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Botswana: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium


Burundi: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium

Chad: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Chad: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Chile: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

China: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Colombia: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Congo (Republic of): Official and Market-determined Exchange Rates 
and the Parallel Market Premium:
January 1946 - December 1998


Côte D’Ivoire: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Cyprus: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Dominican Republic: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Ecuador: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998


Official and Market-determined Exchange Rates

Parallel Market Premium

El Salvador: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Finland: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


France: Official and Market-determined Exchange Rates  
and the Parallel Market Premium:  
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Gabon: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Gabon: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Germany: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium

Greece: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Guinea Bissau: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Guyana: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Iceland: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


India: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Indonesia: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Official and Market-determined Exchange Rates

Parallel Market Premium


Ireland: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Israel: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Italy: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Jamaica: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Japan: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Jordan: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Kenya: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Korea: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Kuwait: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Log (local currency per U.S. dollar)

Official and Market-determined Exchange Rates

Parallel Market Premium

Lebanon: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Liberia: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Madagascar: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Malawi: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Malaysia: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998


Official and Market-determined Exchange Rates

Parallel Market Premium

Mali: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Malta: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Mauritania: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Mauritius: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Mexico: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Morocco: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Morocco: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Myanmar: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Nepal: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998


Netherlands: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Official and Market-determined Exchange Rates

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium

Niger: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Niger: Official and Market-determined Exchange Rates  
and the Parallel Market Premium:  
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Norway: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Norway: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Pakistan: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Paraguay: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Peru: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Philippines: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


**Official and Market-determined Exchange Rates**

![Graph showing Official and Market-determined Exchange Rates]

**Parallel Market Premium**

![Graph showing Parallel Market Premium]

Portugal: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Senegal: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Singapore: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Official and Market-determined Exchange Rates

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium

Sri Lanka: Official and Market-determined Exchange Rates and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Suriname Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Sweden: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Sweden: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Official and Market-determined Exchange Rates

Parallel Market Premium

Tanzania: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Thailand: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium

Togo: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998


Official and Market-determined Exchange Rates

Parallel Market Premium


United Kingdom: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

United Kingdom: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Official and Market-determined Exchange Rates

Parallel Market Premium


Venezuela: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998

Parallel Market Premium


Official and Market-determined Exchange Rates

Parallel Market Premium

Zimbabwe: Official and Market-determined Exchange Rates
and the Parallel Market Premium:
January 1946 - December 1998