

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

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# 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

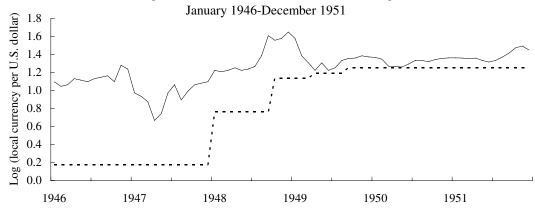
The top panel of each chart plots the path of the official and market-determined exchange rate for January 1946 through December 1998, depending on data availability. The bottom panel of each chart plots the parallel market premia (in percent). For the CFA franc zone countries and other North African 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.

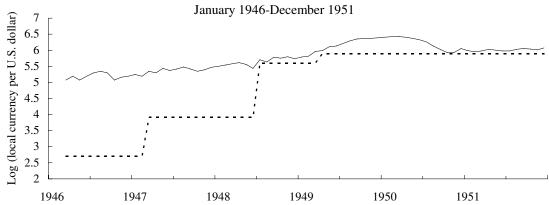
Chart A1. Official Exchange Rates Typically Validate the Changes in The Market Rates



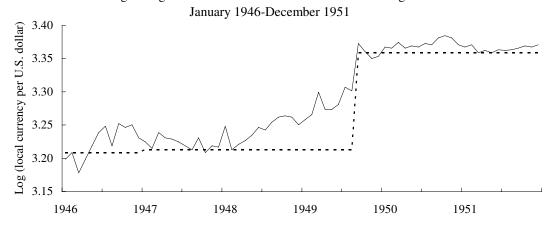
France: Log of Offical and Market-Determined Exchange Rates:



Japan: Log of Official and Market-Determined Exchange Rates:



Portugal: Log of Official and Market-Determined Exchange Rates:

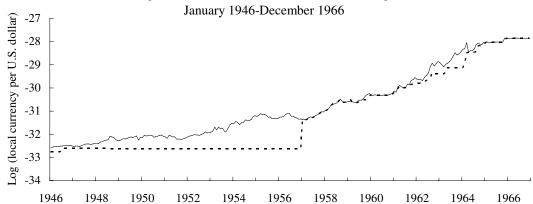


Sources: Pick and Sedillot (1971), International Currency Analysis, *World Currency Report*, various issues.

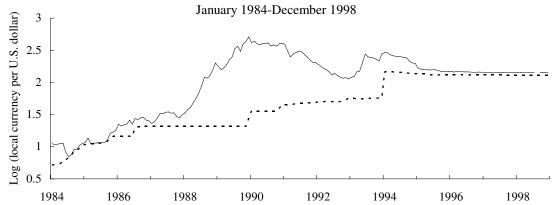
Chart A2. Official Exchange Rates Typically Validate the Changes in The Market Rates

**— — —** Official — Market-Determined

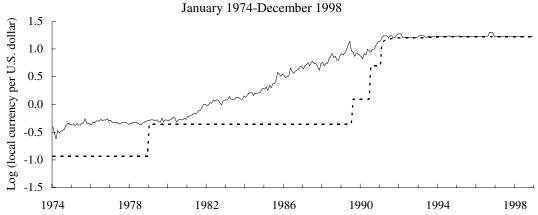
Brazil: Log of Offical and Market-Determined Exchange Rates:



China: Log of Official and Market-Determined Exchange Rates:

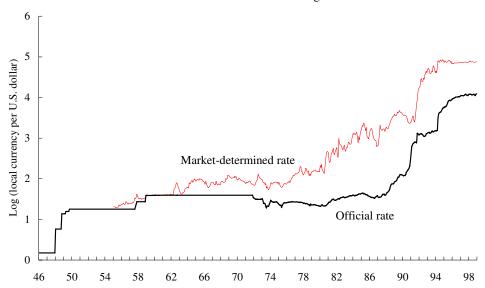


Egypt: Log of Official and Market-Determined Exchange Rates:

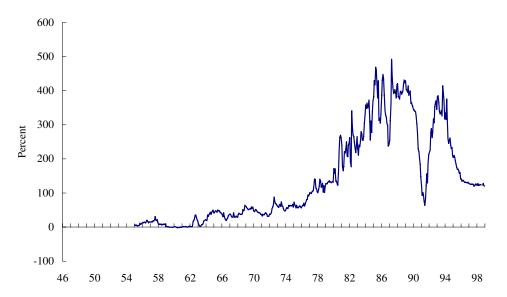


Sources: Pick and Sedillot (1971), International Currency Analysis, *World Currency Report*, various issues.

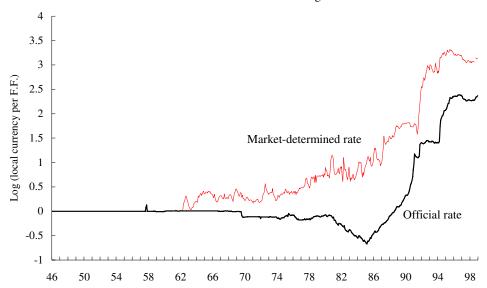
Algeria: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



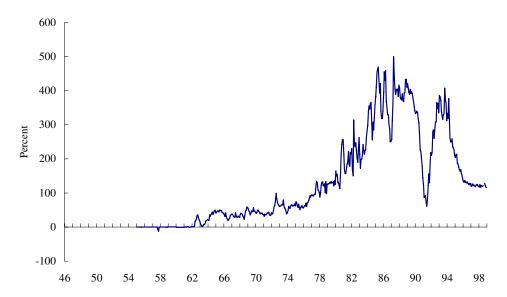
## Parallel Market Premium



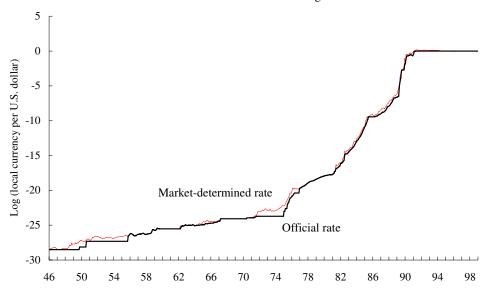
Algeria: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



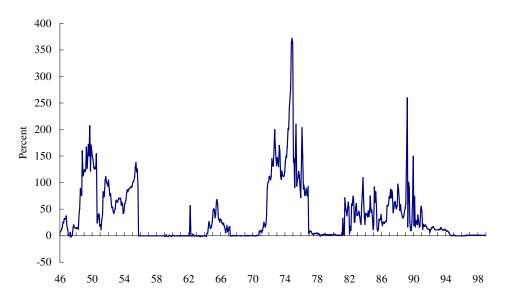
#### Parallel Market Premium



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

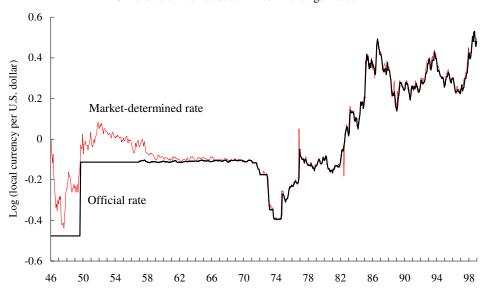


## Parallel Market Premium

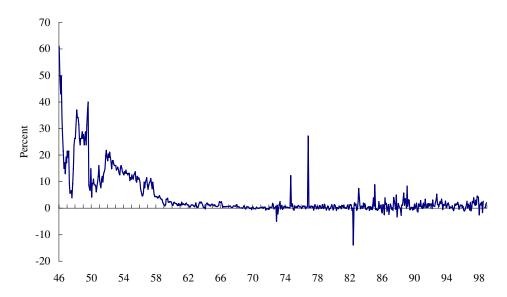


## Australia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

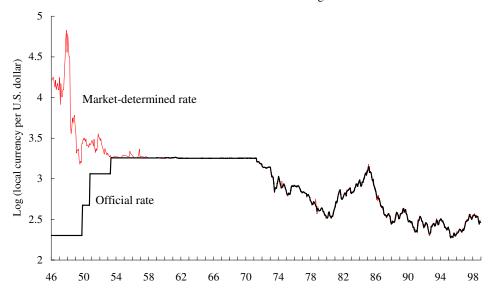


## Parallel Market Premium

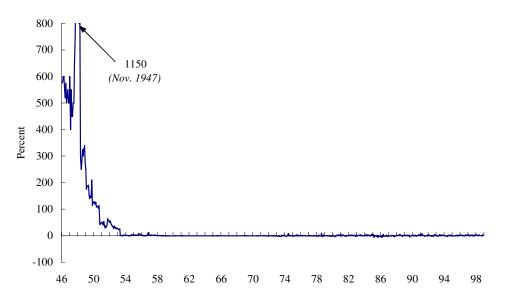


## Austria: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

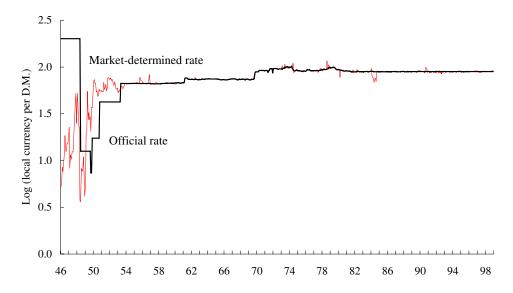


#### Parallel Market Premium

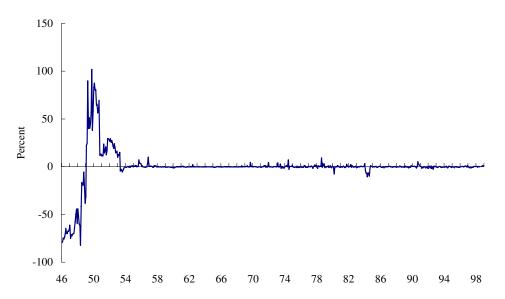


## Austria: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

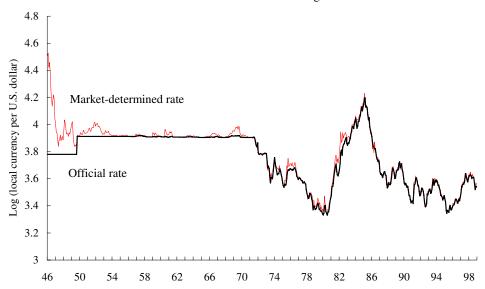
## Official and Market-determined Exchange Rates



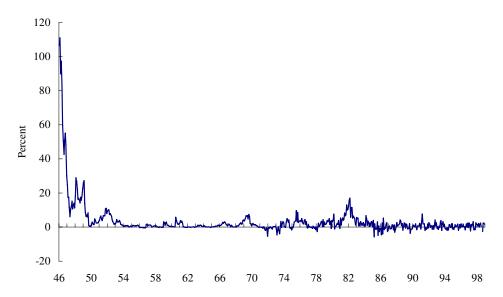
#### Parallel Market Premium



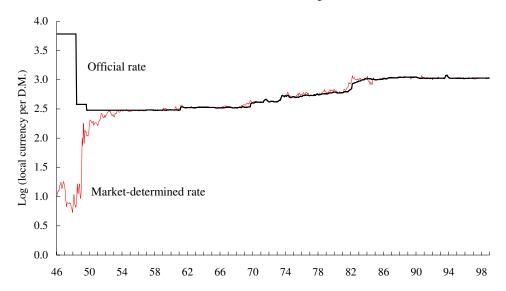
Belgium: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



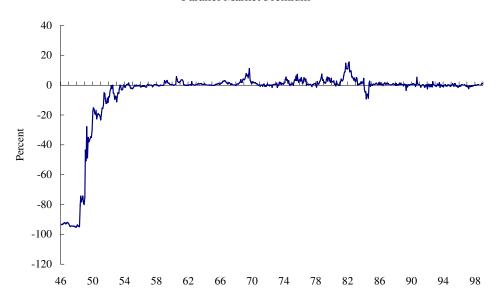
#### Parallel Market Premium



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

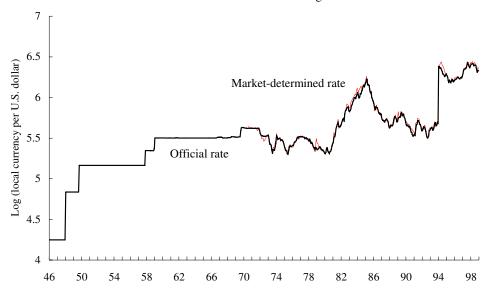


#### Parallel Market Premium

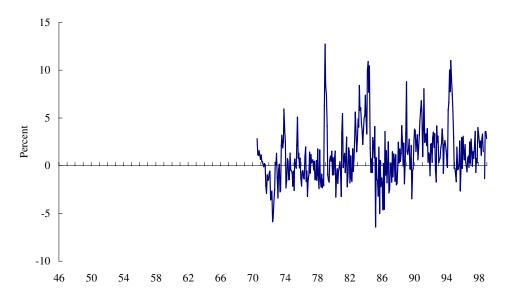


## Benin: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

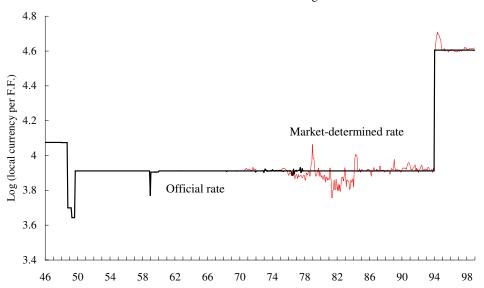


## Parallel Market Premium

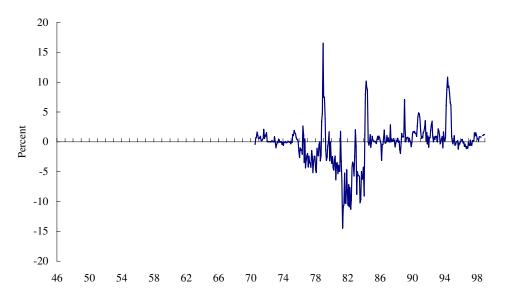


## Benin: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

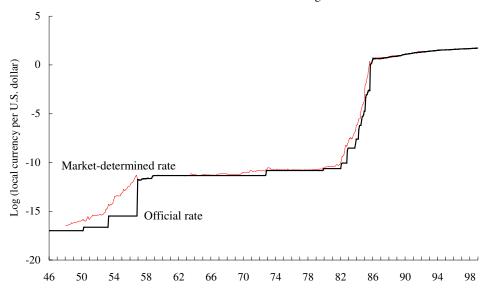


## Parallel Market Premium

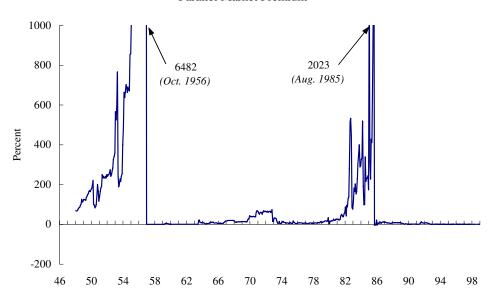


## Bolivia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

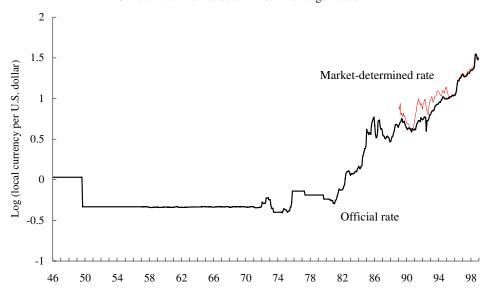


#### Parallel Market Premium

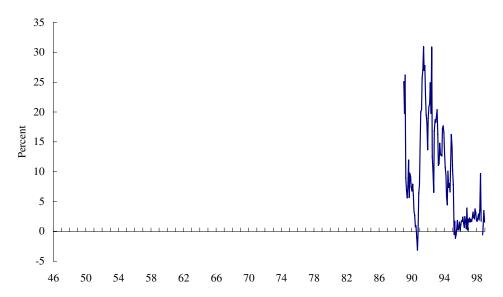


## Botswana: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

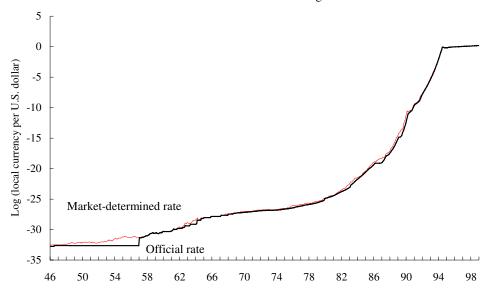
## Official and Market-determined Exchange Rates



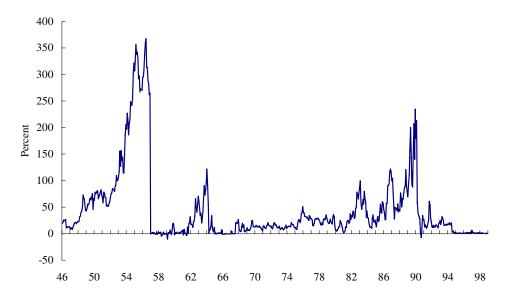
#### Parallel Market Premium



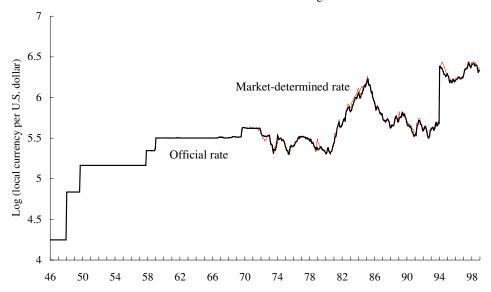
Brazil: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



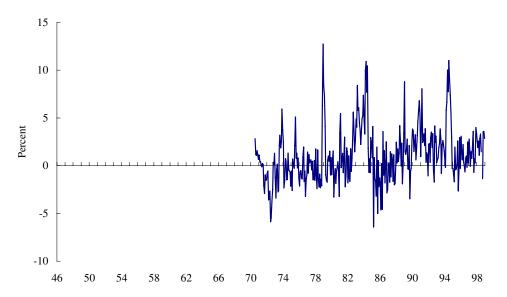
## Parallel Market Premium



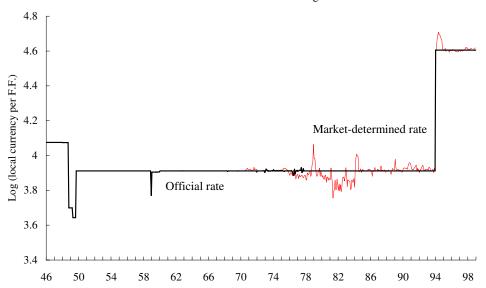
Burkina Faso: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



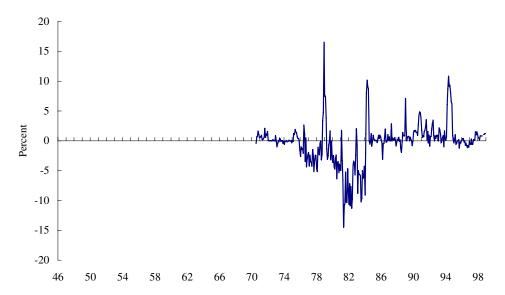
## Parallel Market Premium



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

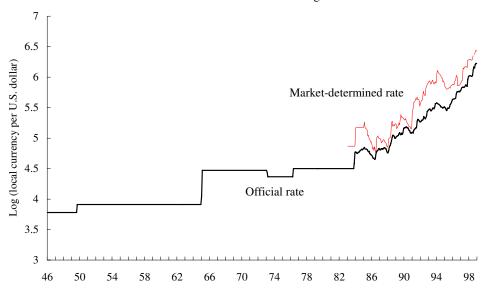


#### Parallel Market Premium

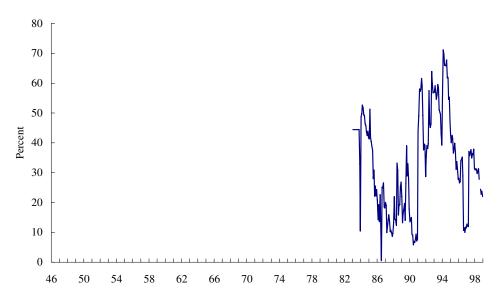


## Burundi: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

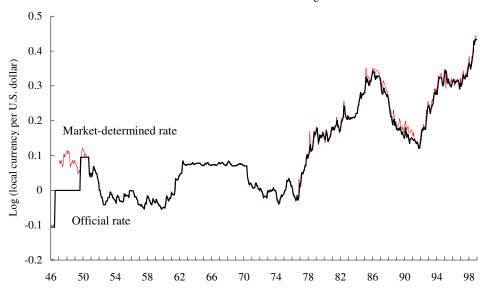


#### Parallel Market Premium

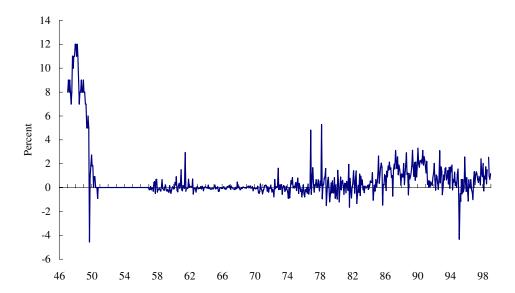


## Canada: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

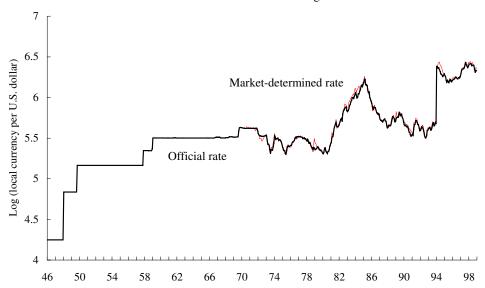


## Parallel Market Premium

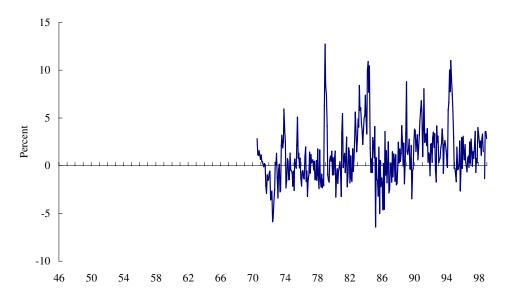


## Central African Republic: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

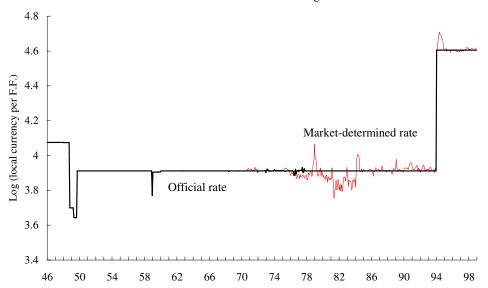


## Parallel Market Premium

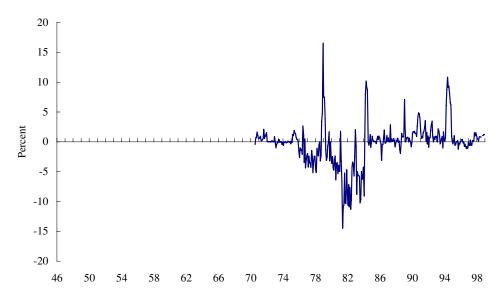


## Central African Republic: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

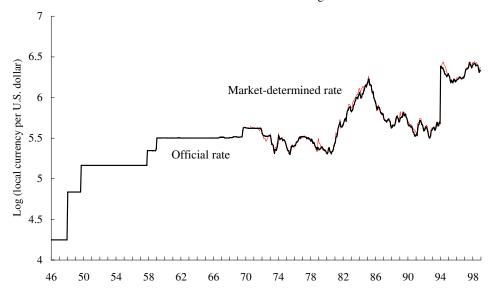


#### Parallel Market Premium

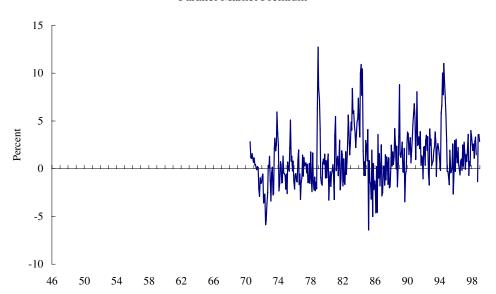


## Chad: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

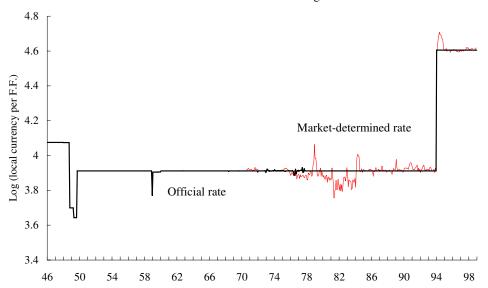


## Parallel Market Premium

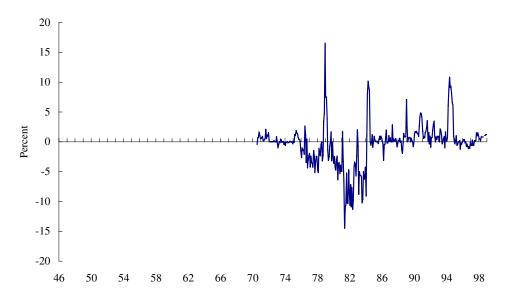


## Chad: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

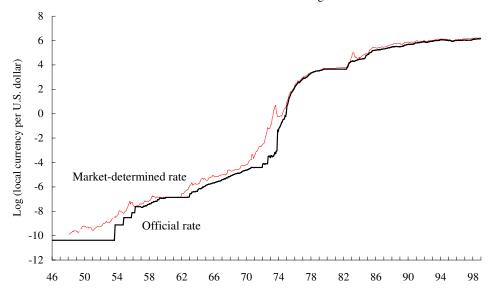
## Official and Market-determined Exchange Rates



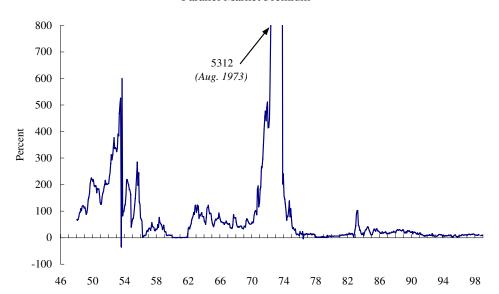
#### Parallel Market Premium



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

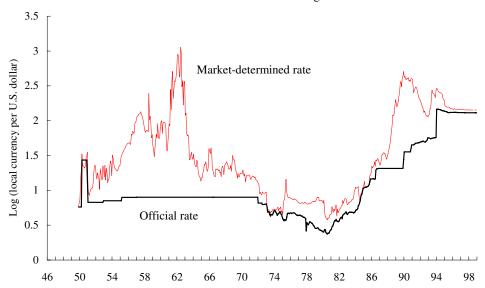


#### Parallel Market Premium

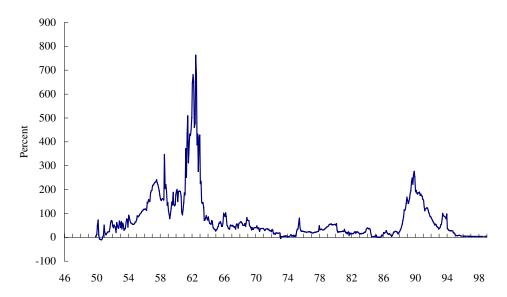


## China: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

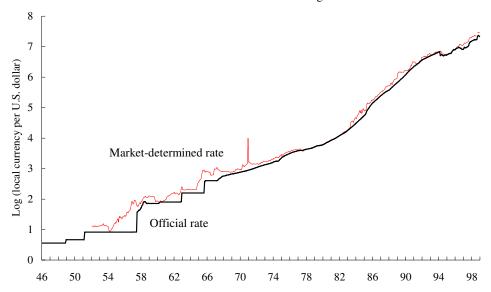


## Parallel Market Premium

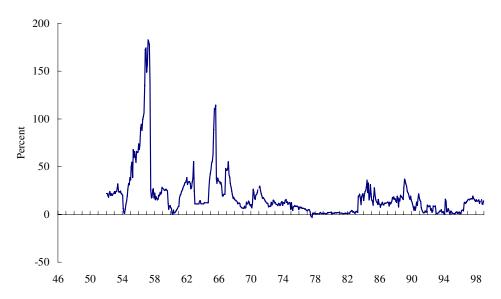


## Colombia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

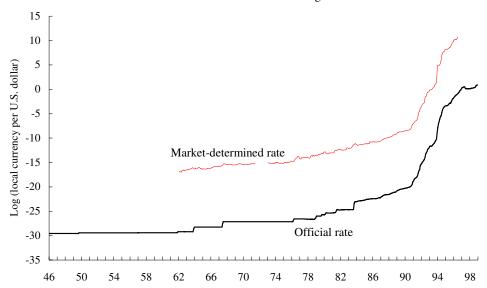
## Official and Market-determined Exchange Rates



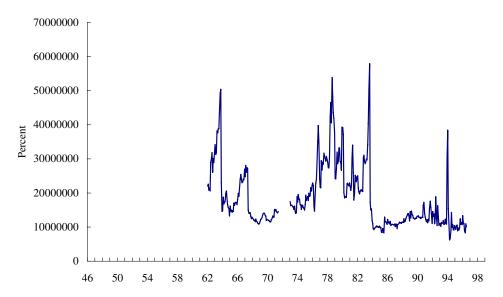
#### Parallel Market Premium



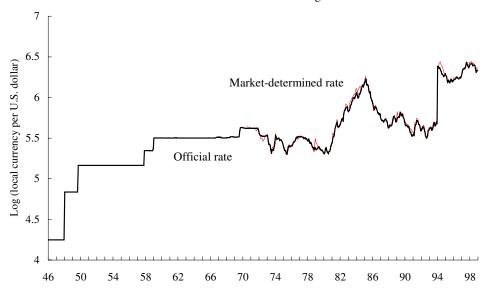
Congo, Dem. Rep. Of: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



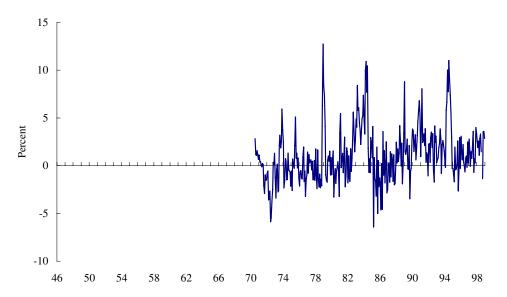
#### Parallel Market Premium



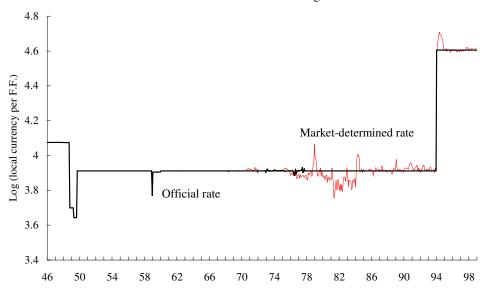
Congo (Republic of): Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



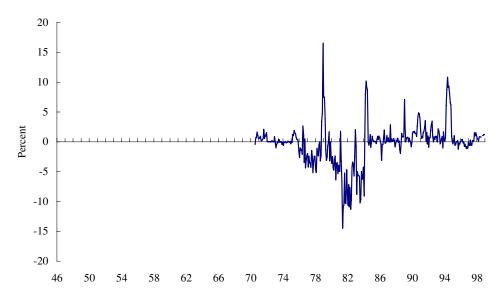
## Parallel Market Premium



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

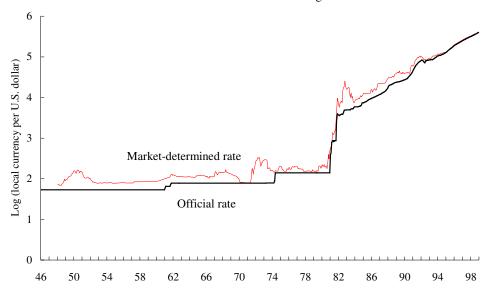


#### Parallel Market Premium

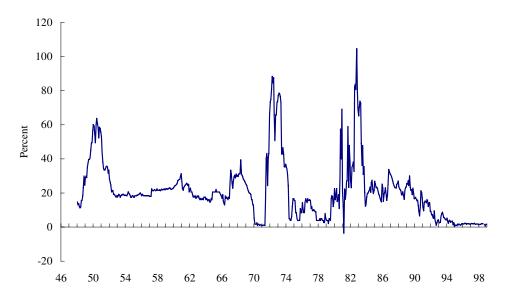


# Costa Rica: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

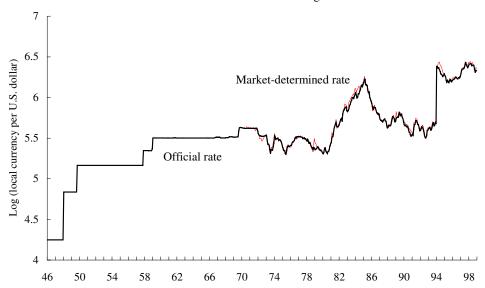


## Parallel Market Premium

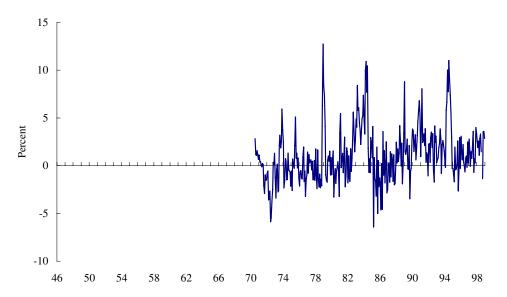


## Cote D'Ivoire: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

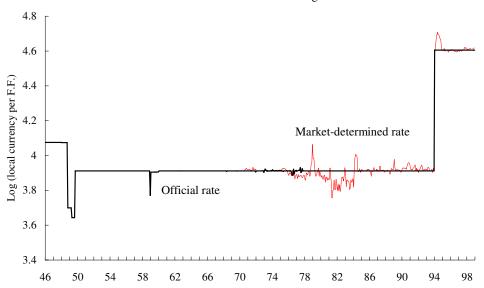


## Parallel Market Premium

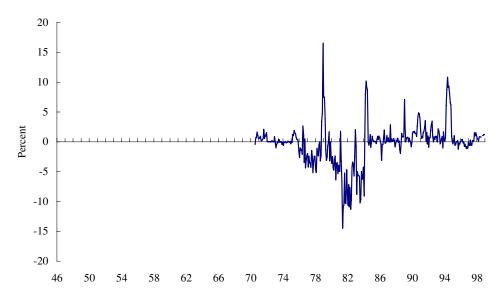


## Cote D'Ivoire: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

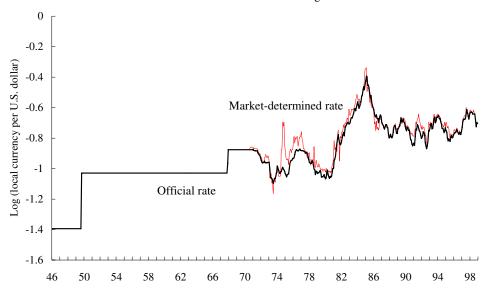
## Official and Market-determined Exchange Rates



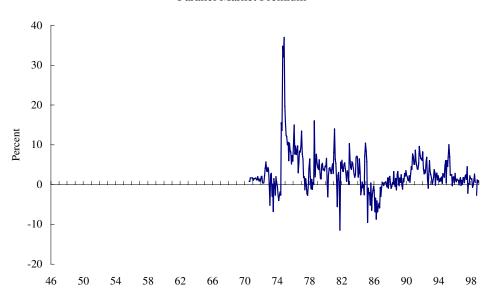
#### Parallel Market Premium



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

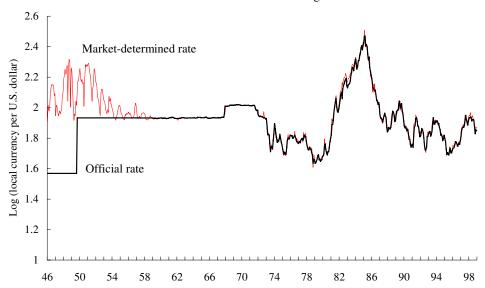


### Parallel Market Premium

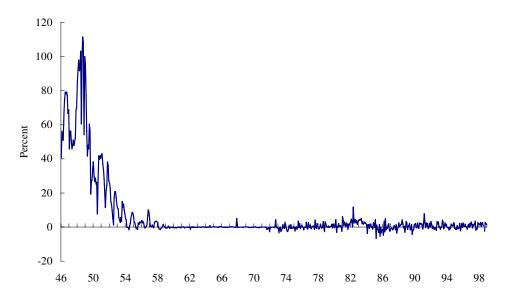


# Denmark: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

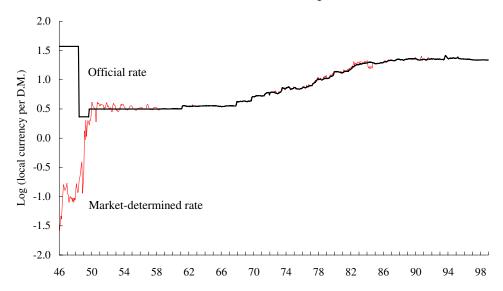


### Parallel Market Premium

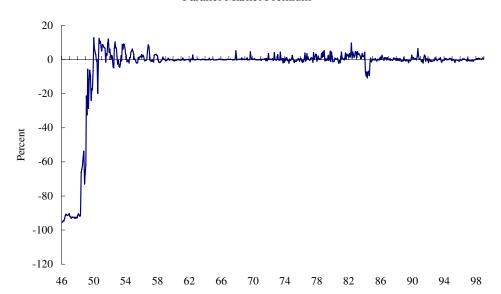


# Denmark: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

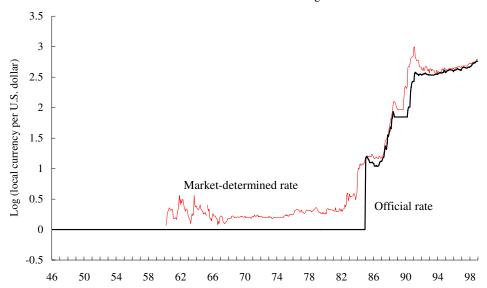


### Parallel Market Premium

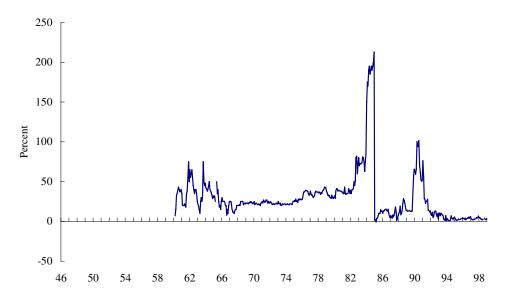


# Dominican Republic: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

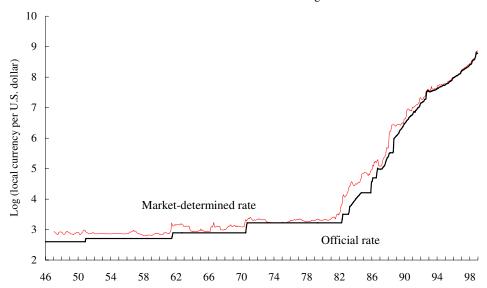


### Parallel Market Premium

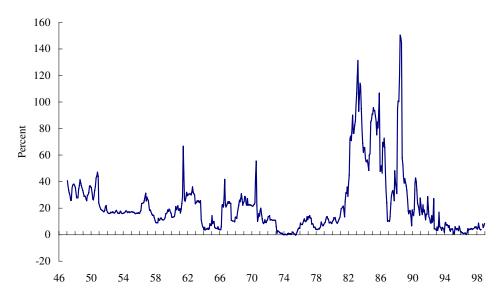


# Ecuador: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates



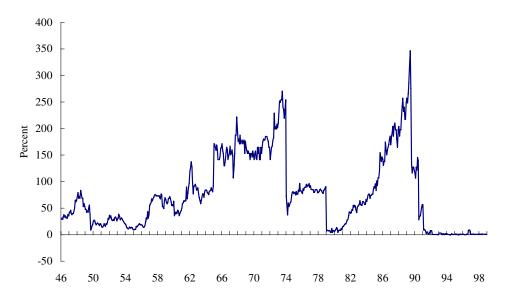
### Parallel Market Premium



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

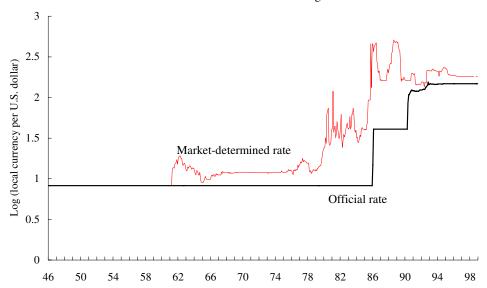


## Parallel Market Premium

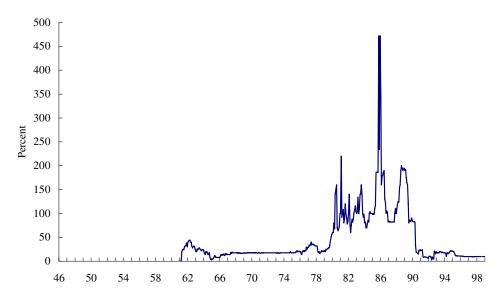


# El Salvador: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

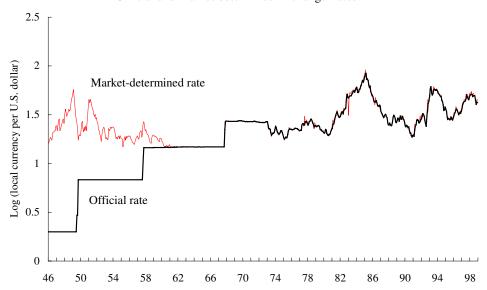
## Official and Market-determined Exchange Rates



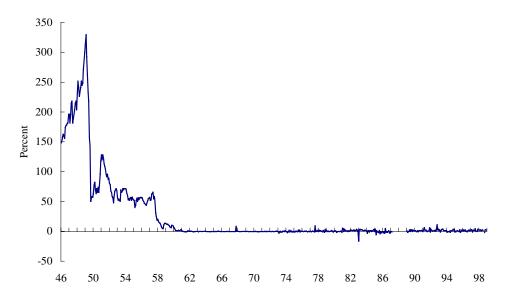
### Parallel Market Premium



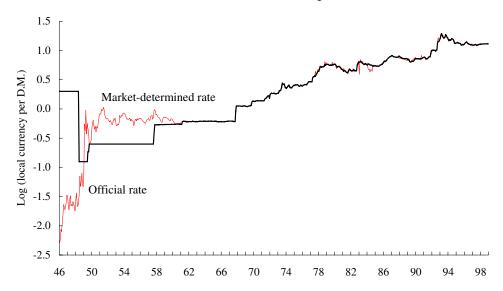
Finland: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



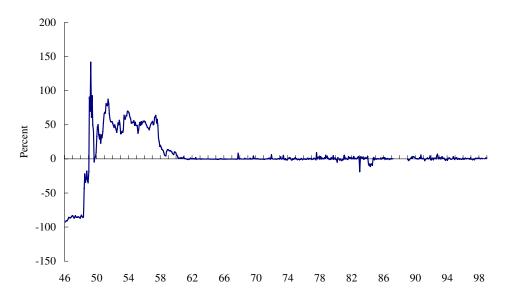
### Parallel Market Premium



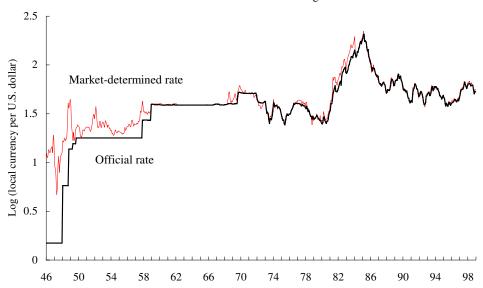
Finland: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



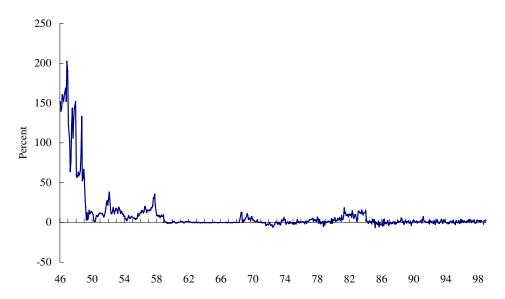
### Parallel Market Premium



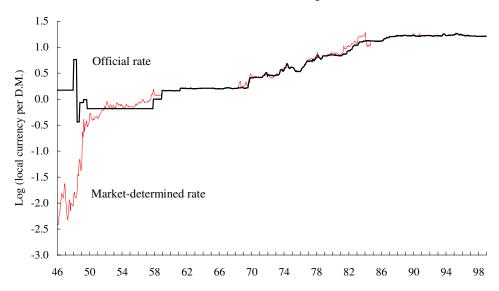
France: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



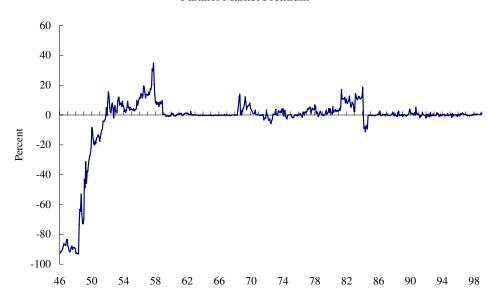
### Parallel Market Premium



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

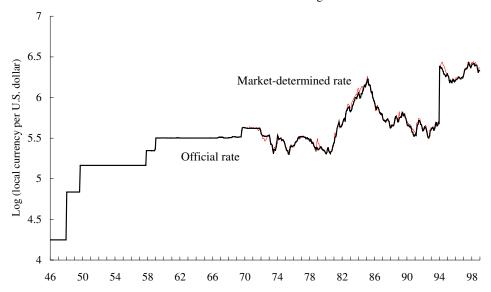


## Parallel Market Premium

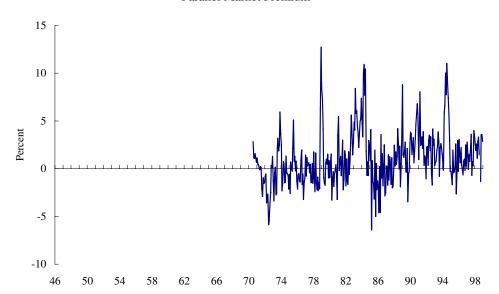


# Gabon: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

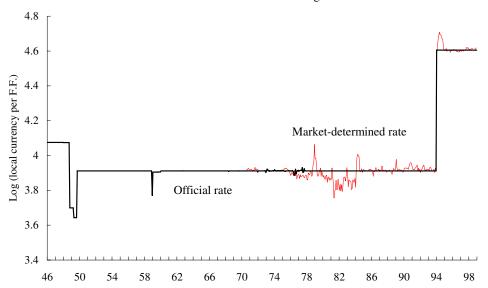


## Parallel Market Premium

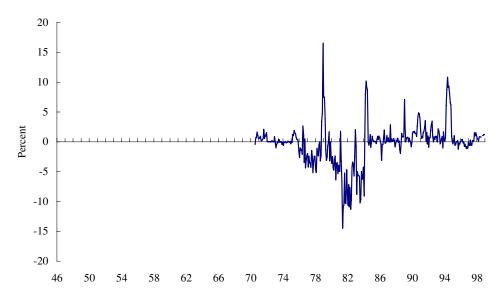


# Gabon: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

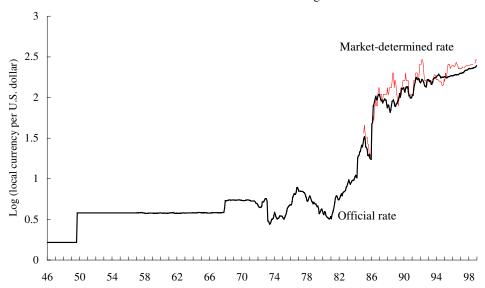


### Parallel Market Premium

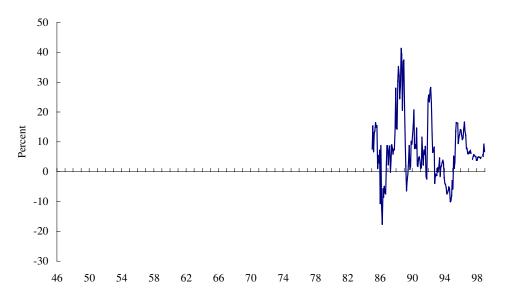


# Gambia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

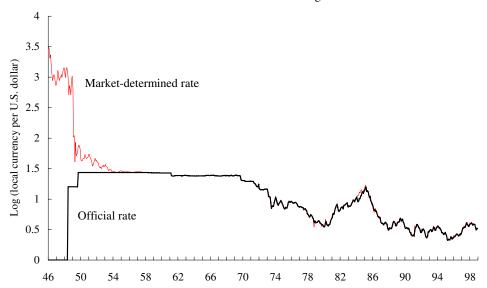


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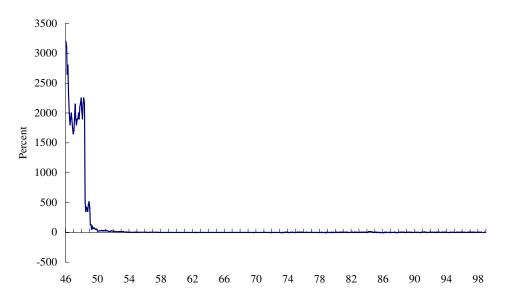


## Germany: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

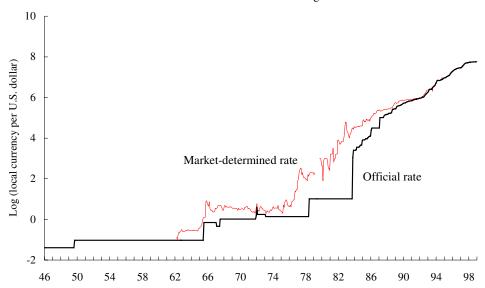


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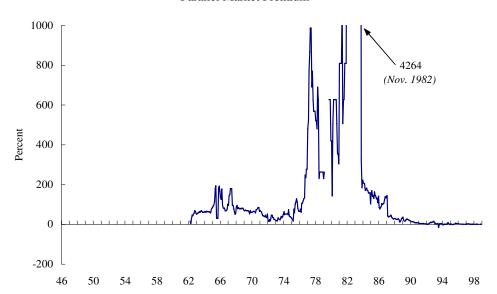


# Ghana: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

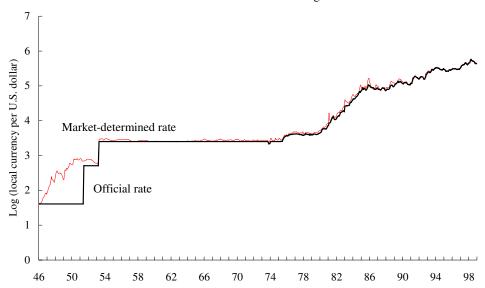


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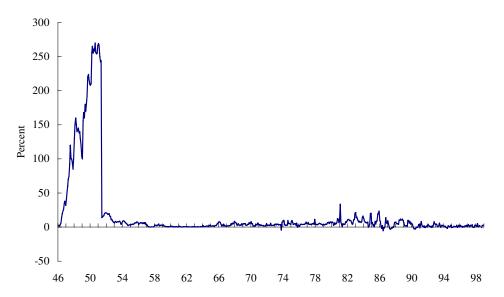


# Greece: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

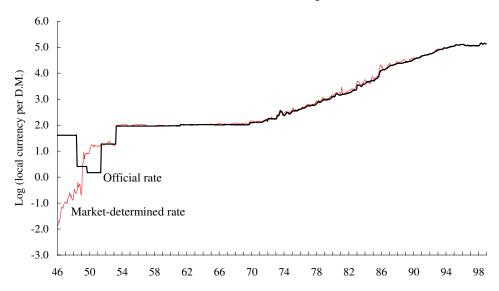


### Parallel Market Premium

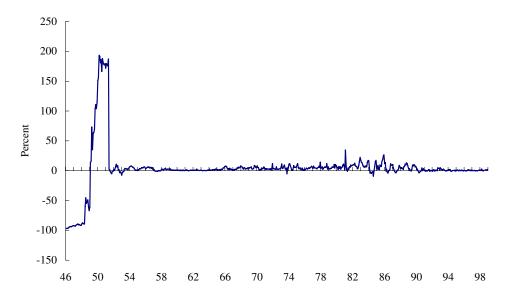


## Greece: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

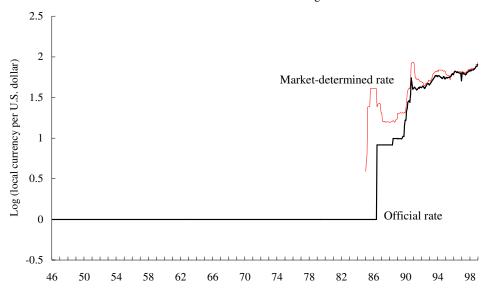


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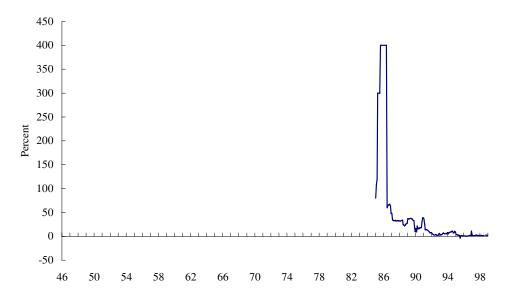


# Guatemala: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

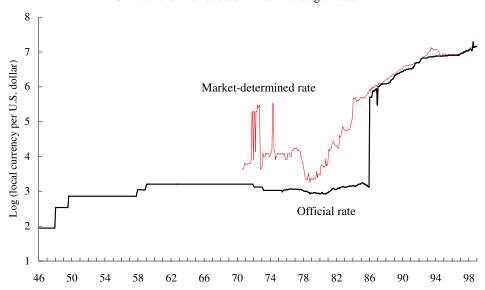


### Parallel Market Premium

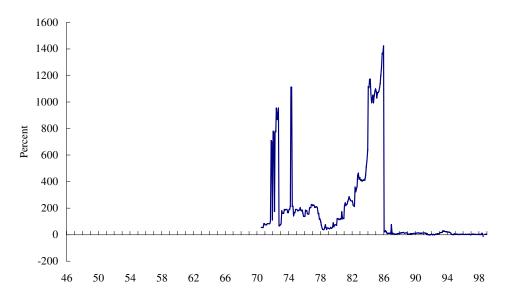


## Guinea: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

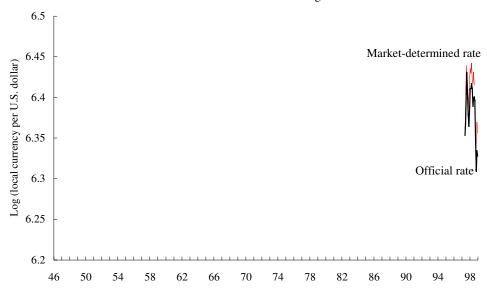


### Parallel Market Premium

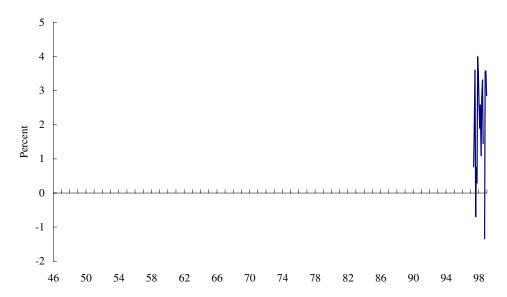


# Guinea Bissau: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates



### Parallel Market Premium

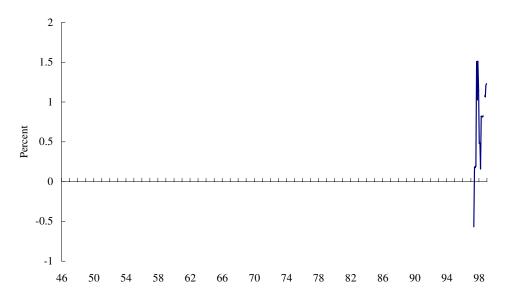


# Guinea Bissau: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

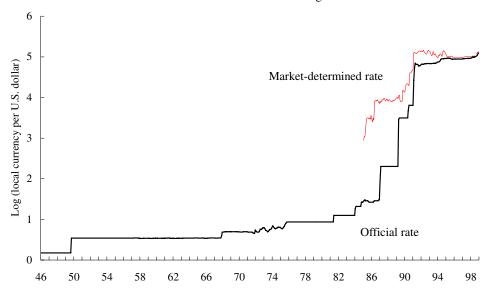
## Official and Market-determined Exchange Rates



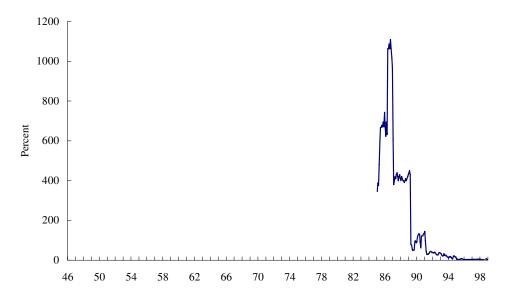
### Parallel Market Premium



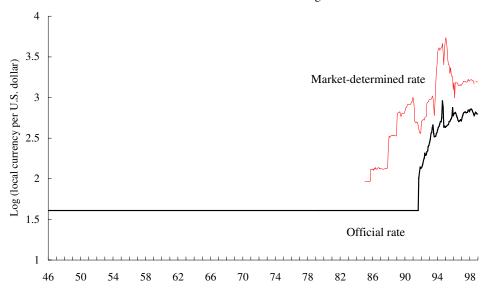
Guyana: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



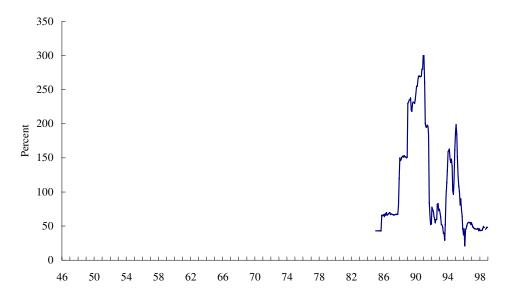
### Parallel Market Premium



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

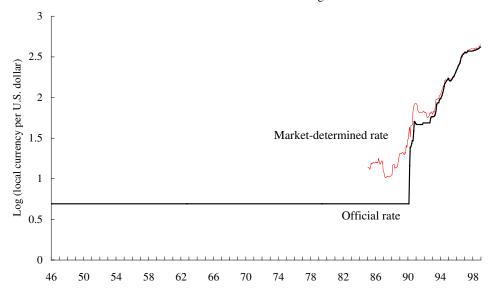


### Parallel Market Premium

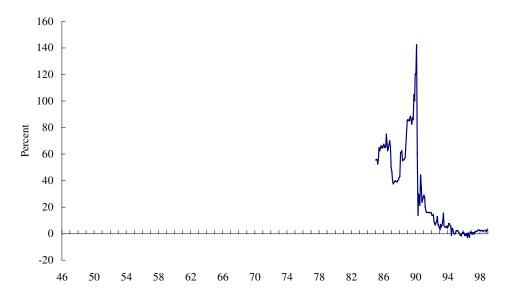


# Honduras: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates



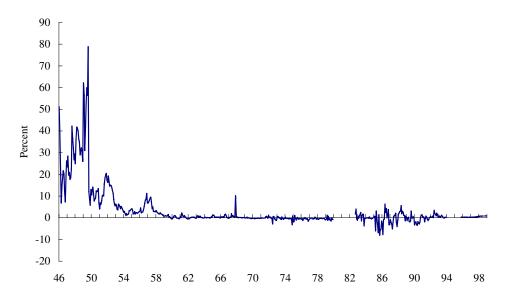
### Parallel Market Premium



Hong Kong, SAR: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

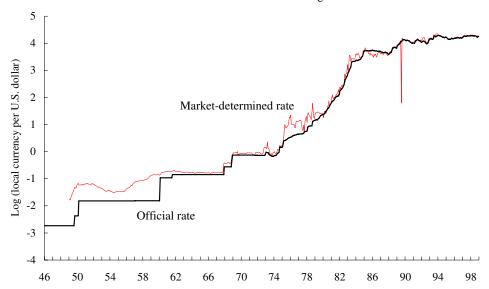


### Parallel Market Premium

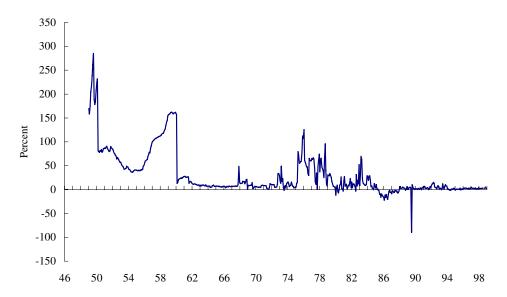


## Iceland: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

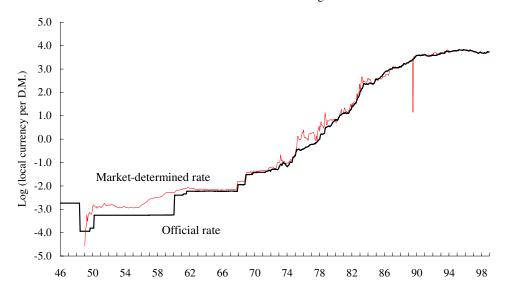
## Official and Market-determined Exchange Rates



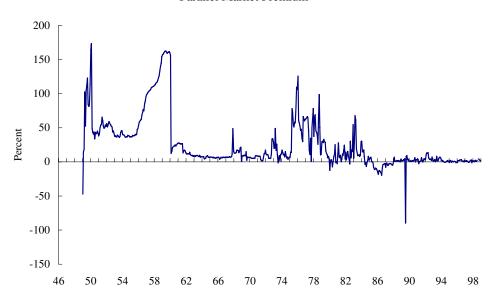
### Parallel Market Premium



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

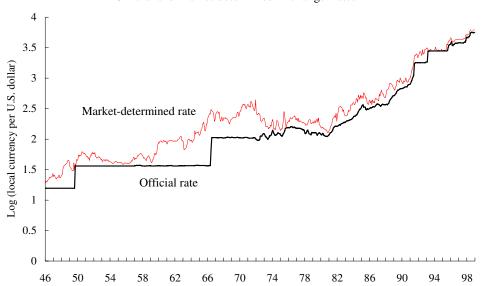


### Parallel Market Premium

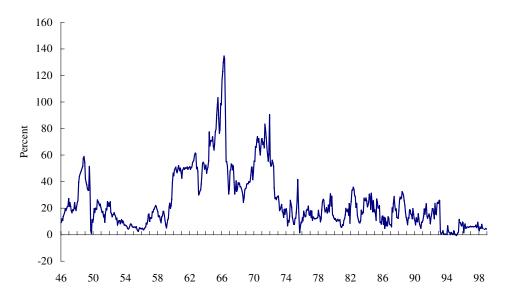


# India: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

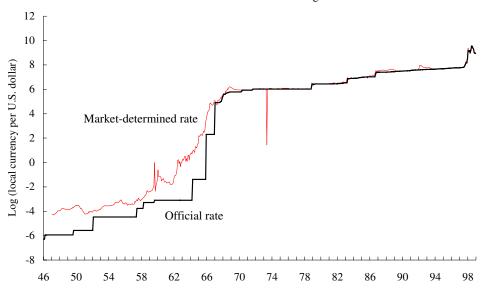


## Parallel Market Premium

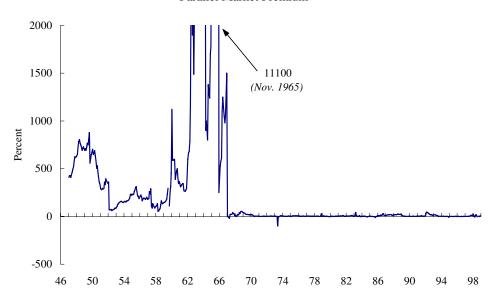


# Indonesia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

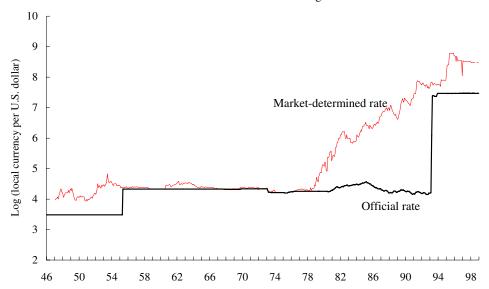


### Parallel Market Premium

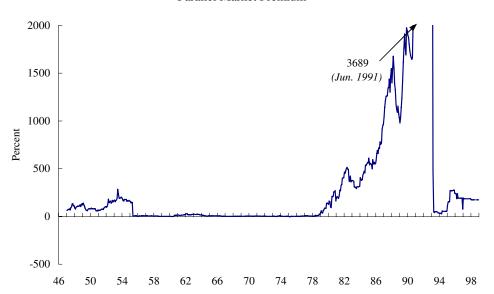


# Iran: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

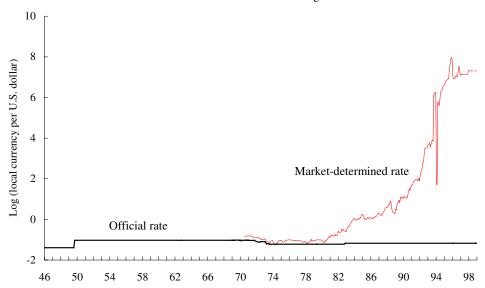
## Official and Market-determined Exchange Rates



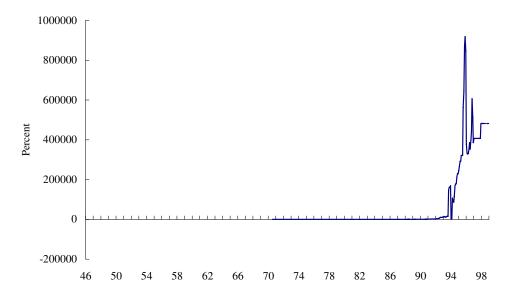
### Parallel Market Premium



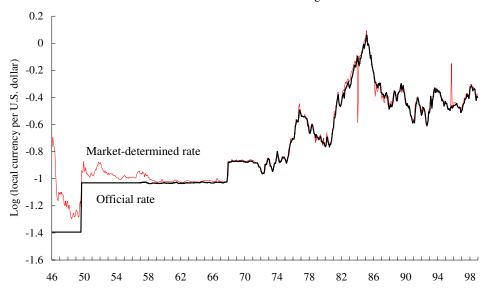
Iraq: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



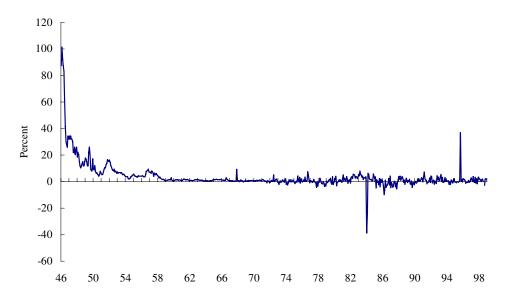
### Parallel Market Premium



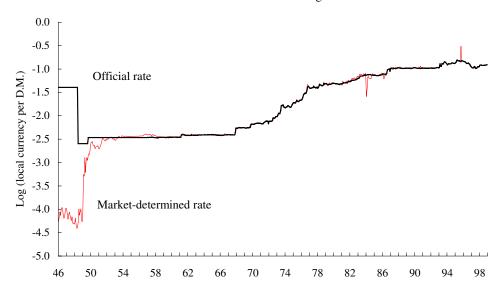
Ireland: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



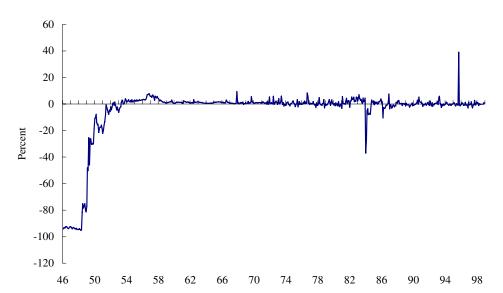
### Parallel Market Premium



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

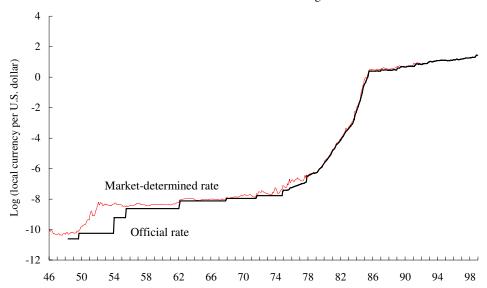


### Parallel Market Premium

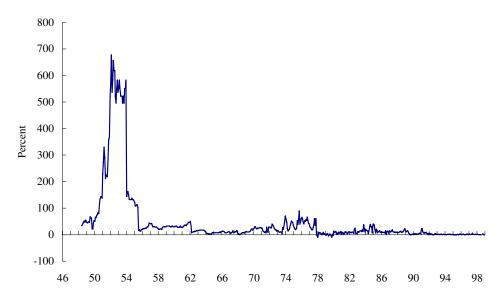


# Israel: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

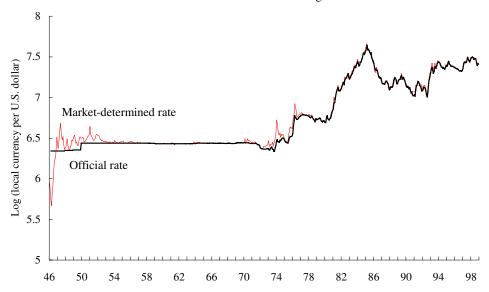
## Official and Market-determined Exchange Rates



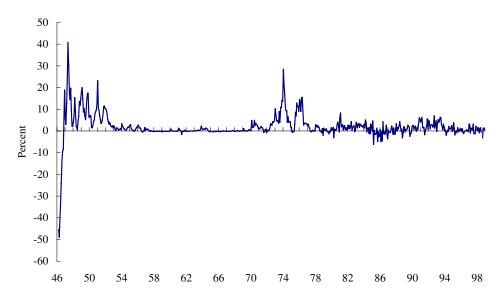
### Parallel Market Premium



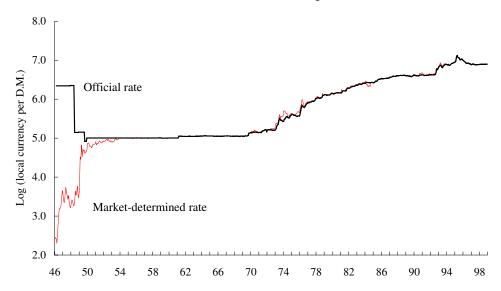
Italy: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



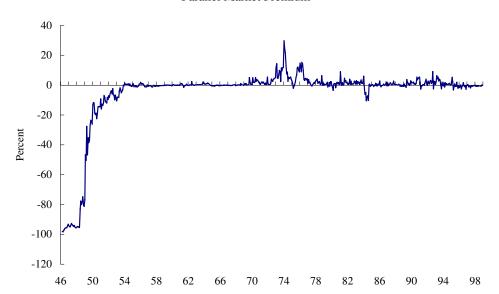
### Parallel Market Premium



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

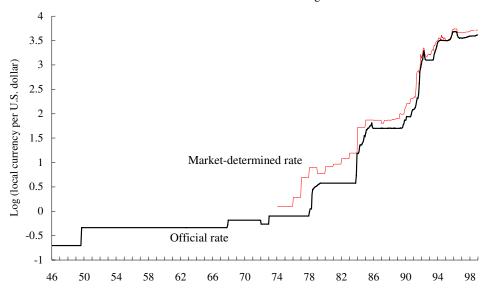


## Parallel Market Premium

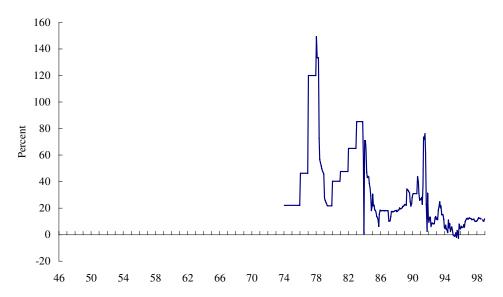


# Jamaica: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

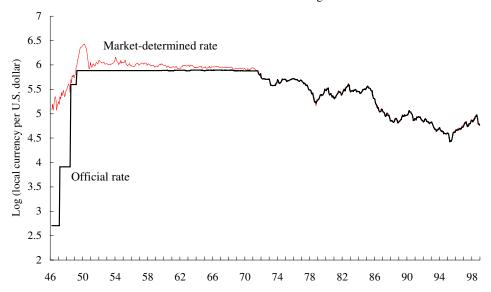
## Official and Market-determined Exchange Rates



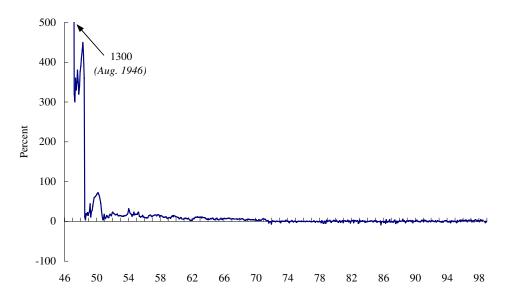
### Parallel Market Premium



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

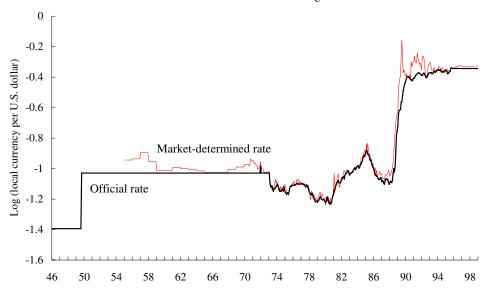


### Parallel Market Premium

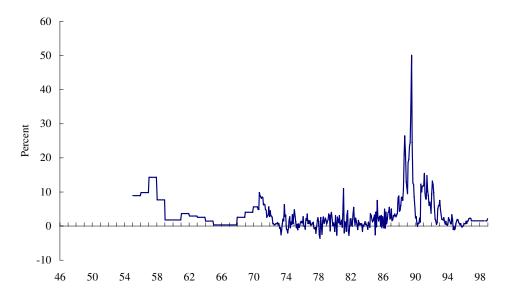


# Jordan: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

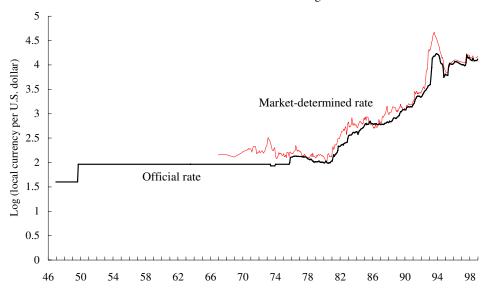


### Parallel Market Premium

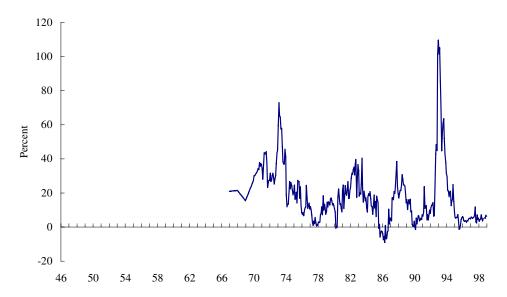


# Kenya: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

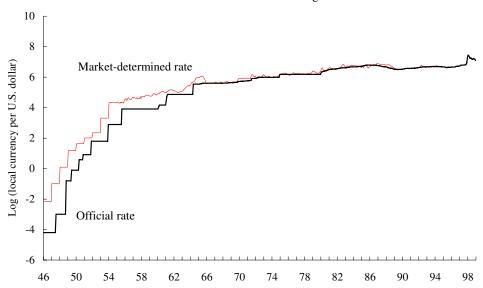


### Parallel Market Premium

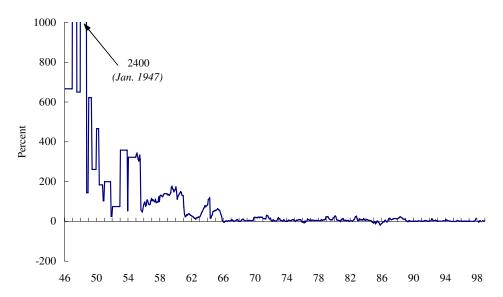


# Korea: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

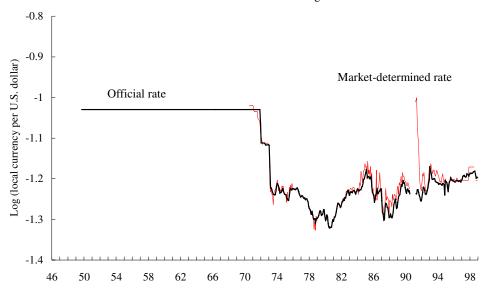


### Parallel Market Premium

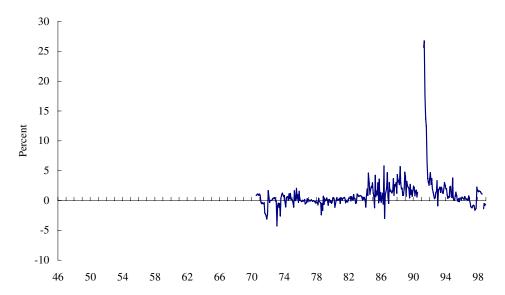


# Kuwait: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

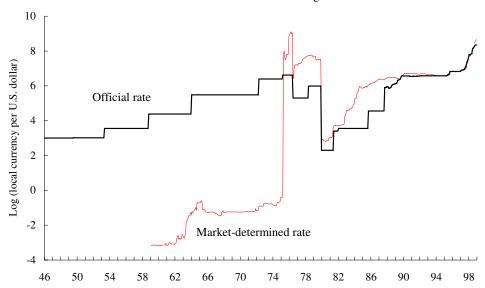
## Official and Market-determined Exchange Rates



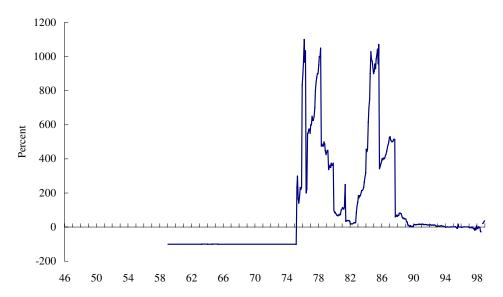
### Parallel Market Premium



Lao Peo. Dem. Of: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

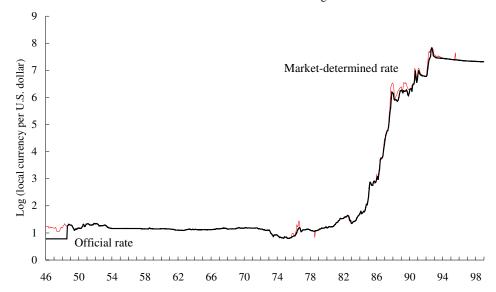


### Parallel Market Premium

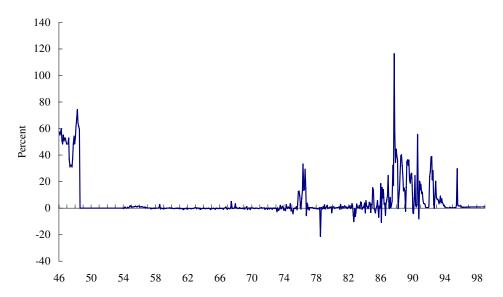


# Lebanon: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

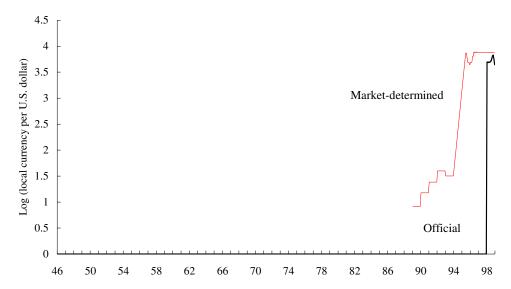


### Parallel Market Premium

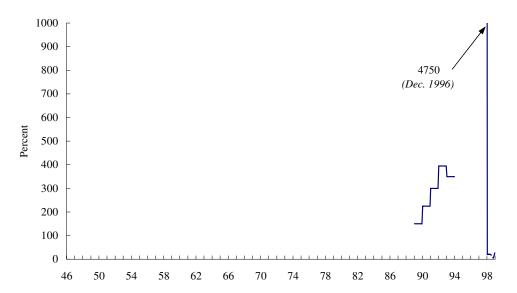


## Liberia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

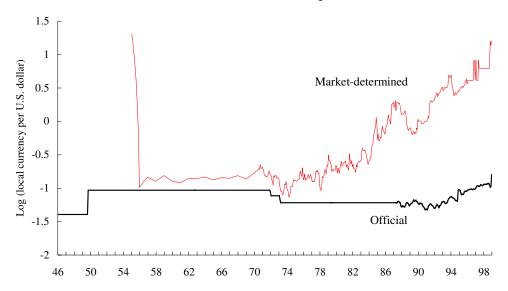


### Parallel Market Premium

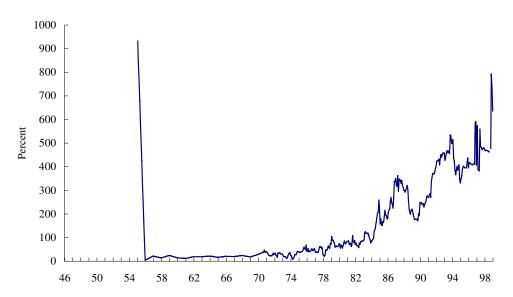


## Libya: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

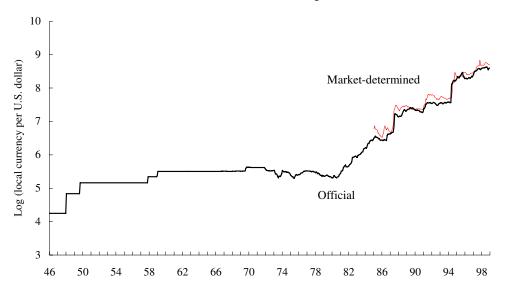


### Parallel Market Premium

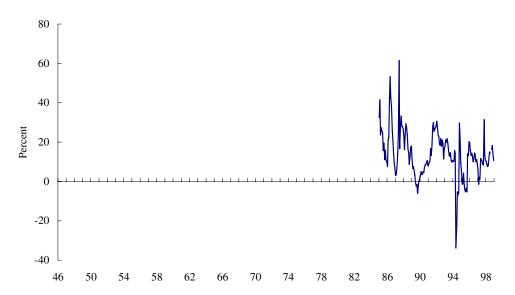


# Madagascar: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

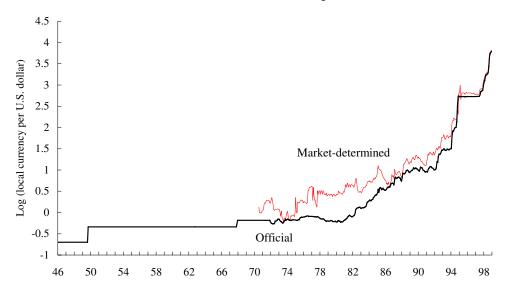


### Parallel Market Premium

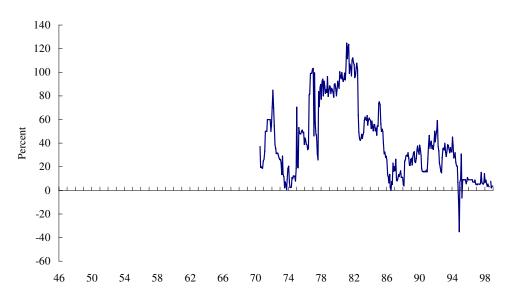


# Malawi: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

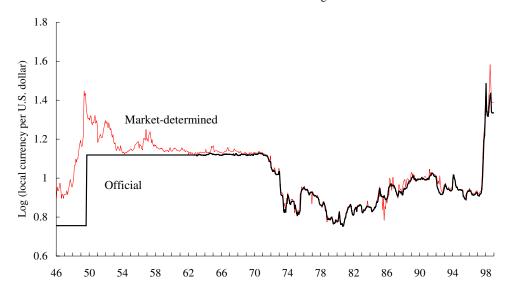


## Parallel Market Premium

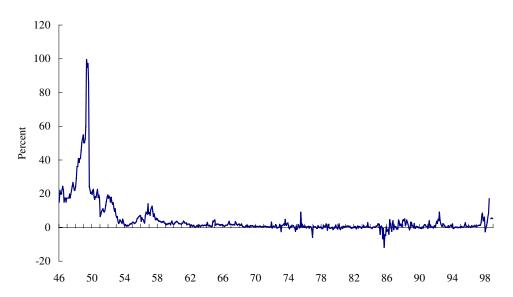


## Malaysia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

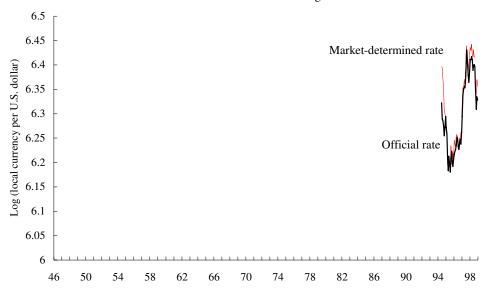
## Official and Market-determined Exchange Rates



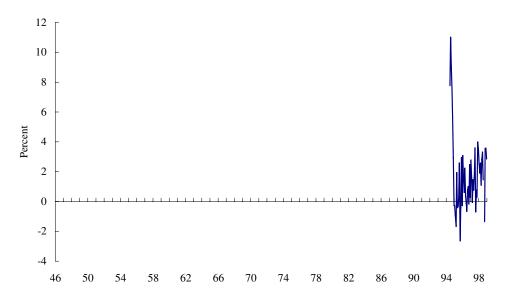
### Parallel Market Premium



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

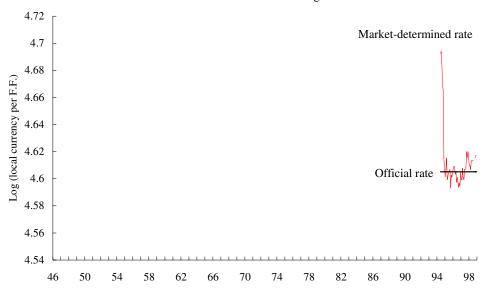


### Parallel Market Premium

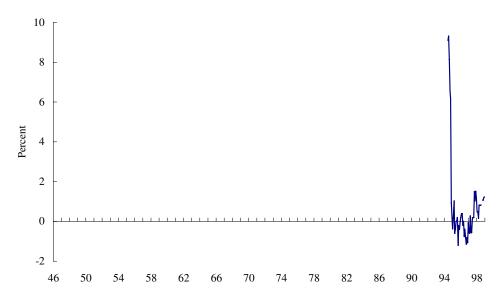


# Mali: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

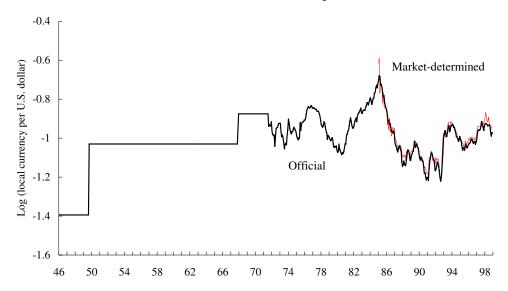


### Parallel Market Premium

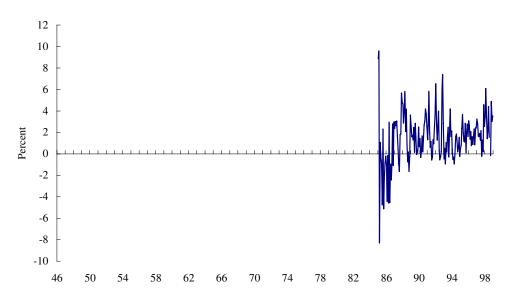


# Malta: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

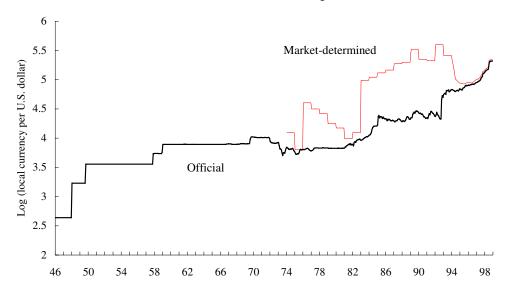


### Parallel Market Premium

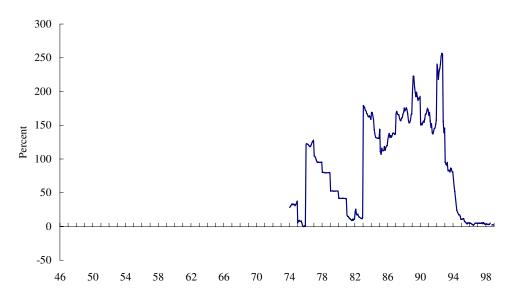


# Mauritania: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

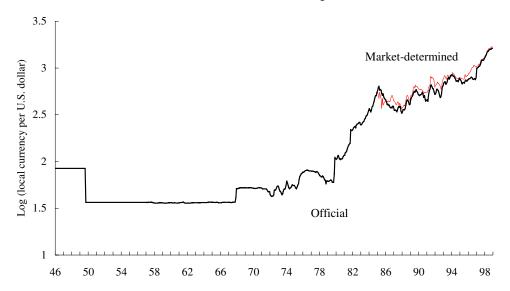


### Parallel Market Premium

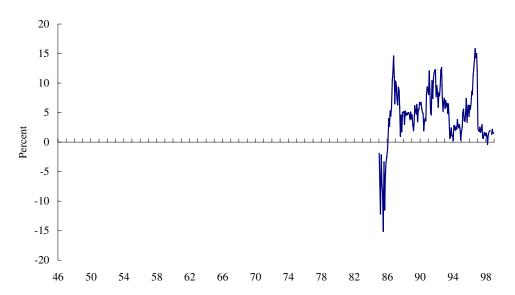


# Mauritius: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

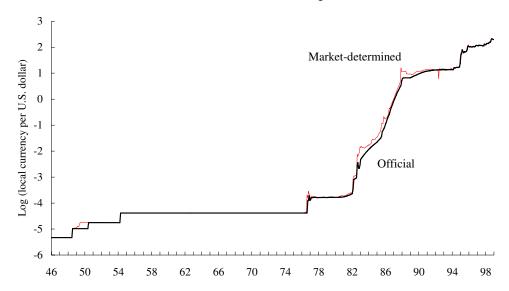


### Parallel Market Premium

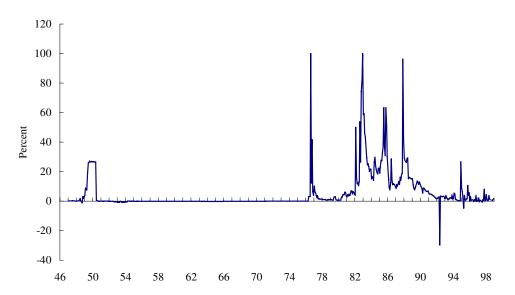


# Mexico: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

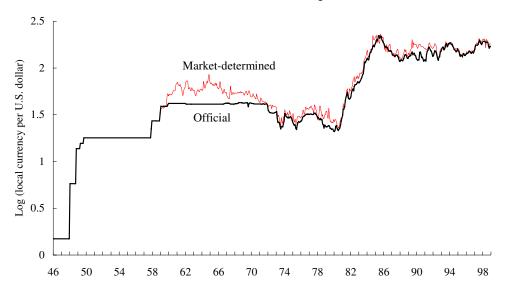


### Parallel Market Premium

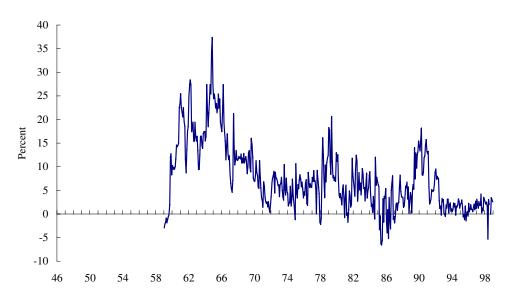


# Morocco: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

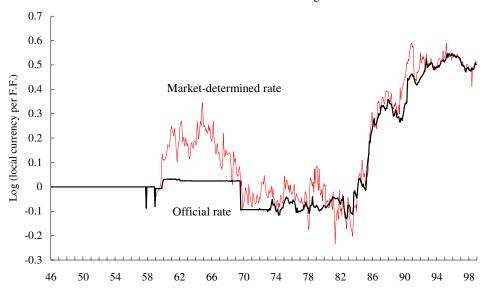


### Parallel Market Premium

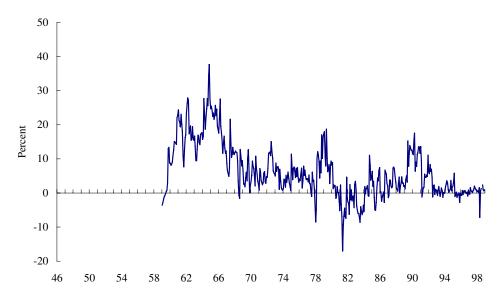


# Morocco: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

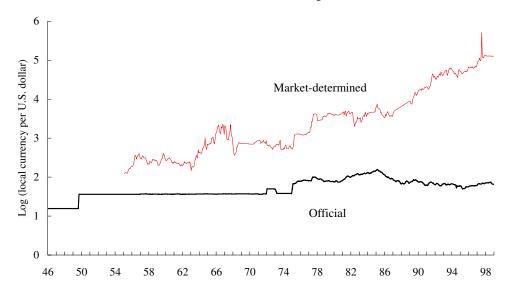


## Parallel Market Premium

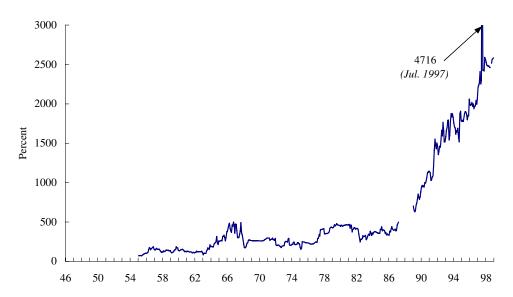


## Myanmar: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

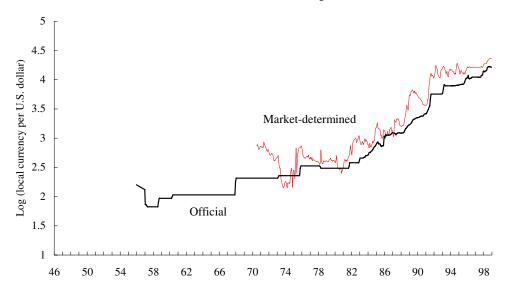
### Official and Market-determined Exchange Rates



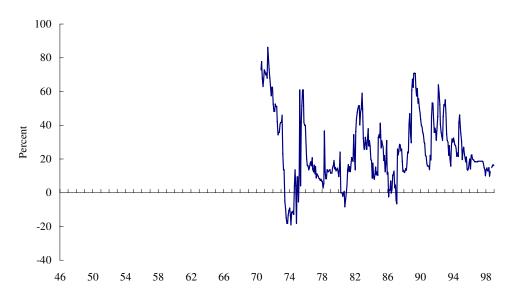
### Parallel Market Premium



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

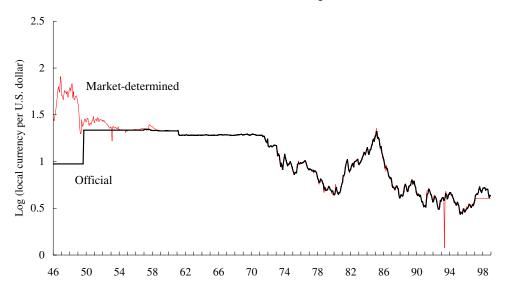


## Parallel Market Premium

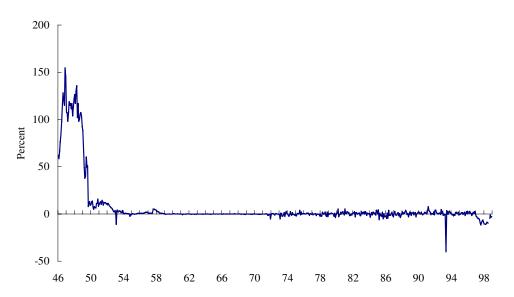


# Netherlands: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

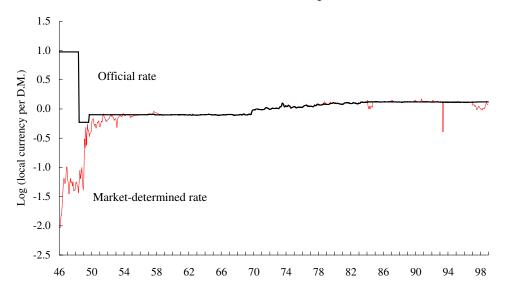


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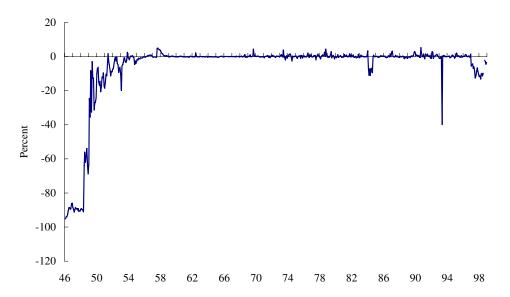


# Netherlands: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

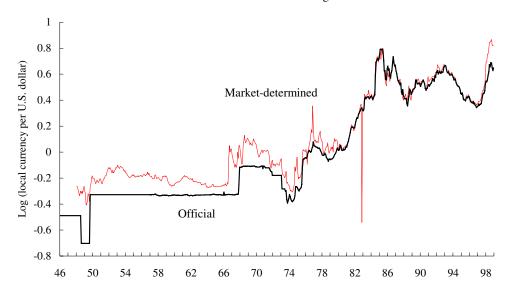


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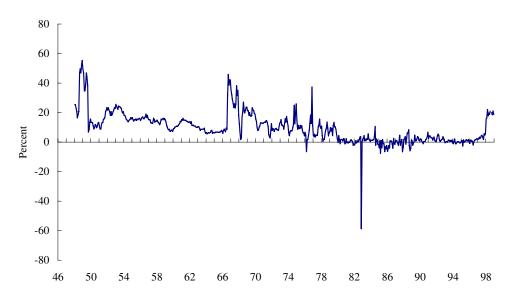


# New Zealand: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

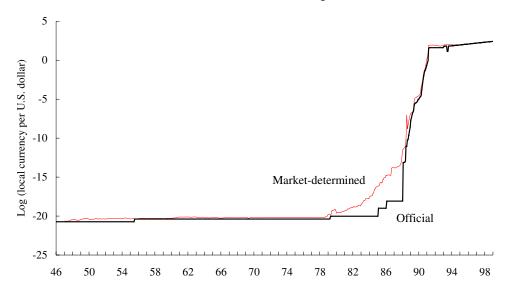


## Parallel Market Premium

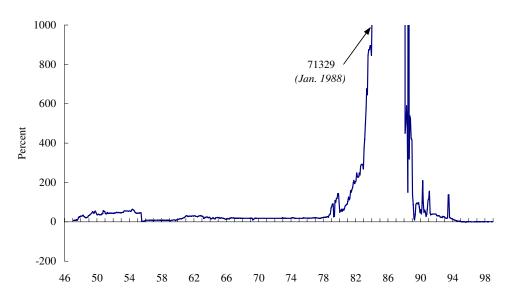


# Nicaragua: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

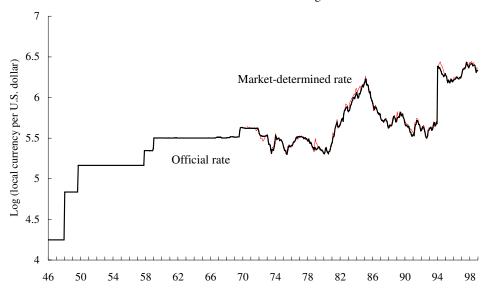
## Official and Market-determined Exchange Rates



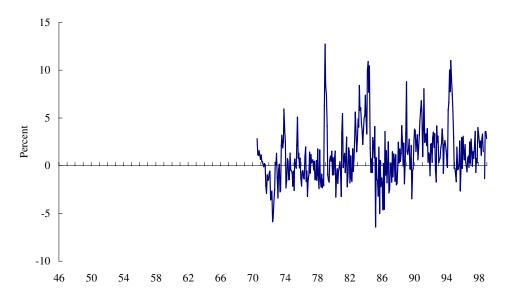
### Parallel Market Premium



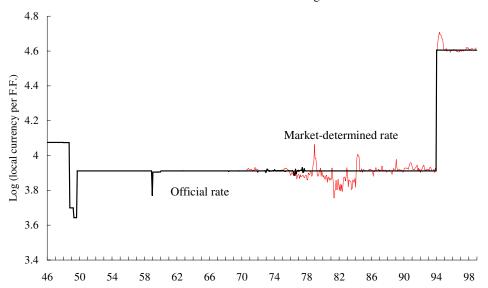
Niger: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



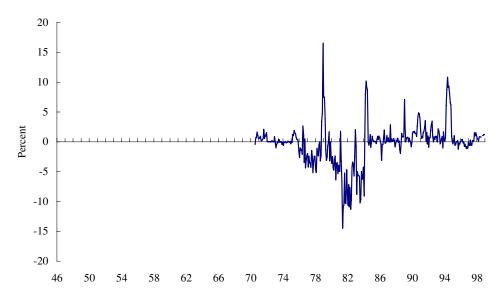
## Parallel Market Premium



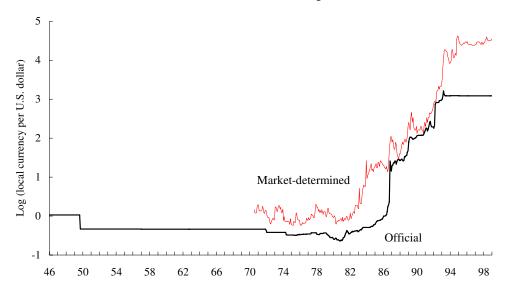
Niger: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



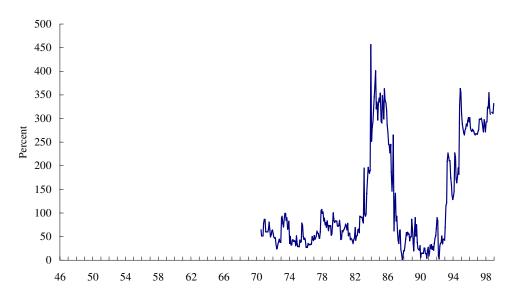
### Parallel Market Premium



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

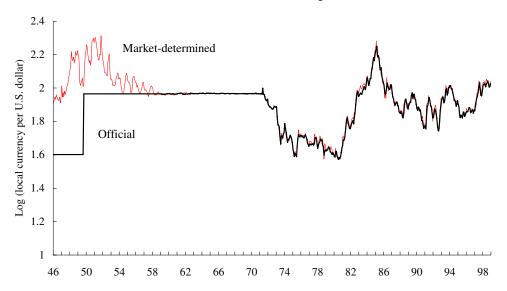


### Parallel Market Premium

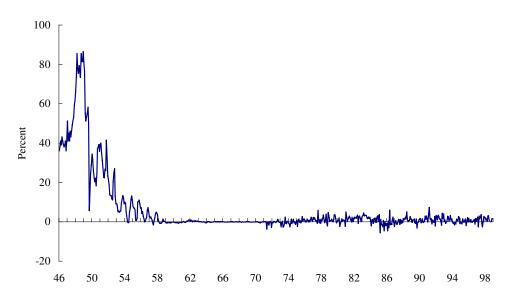


# Norway: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

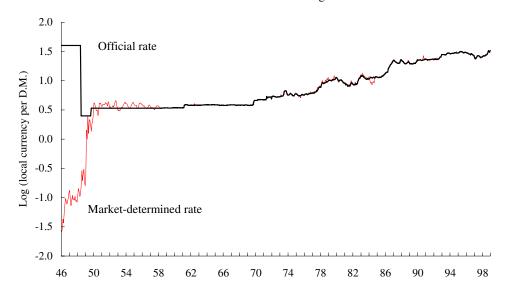


### Parallel Market Premium

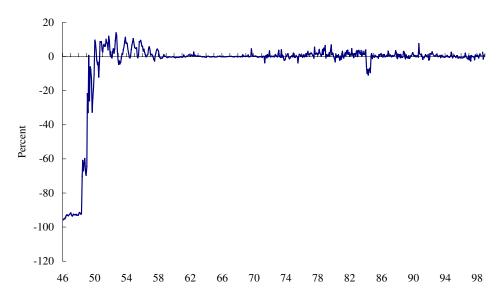


# Norway: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

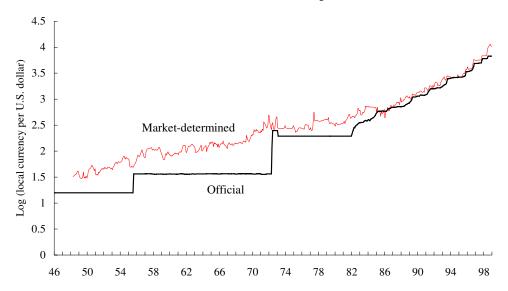


### Parallel Market Premium

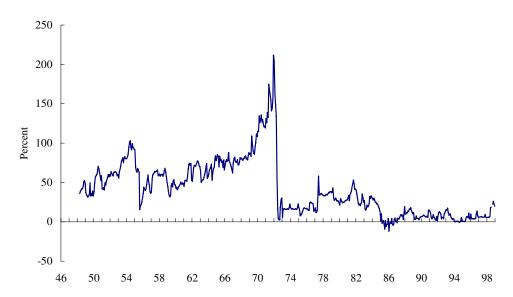


# Pakistan: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

### Official and Market-determined Exchange Rates

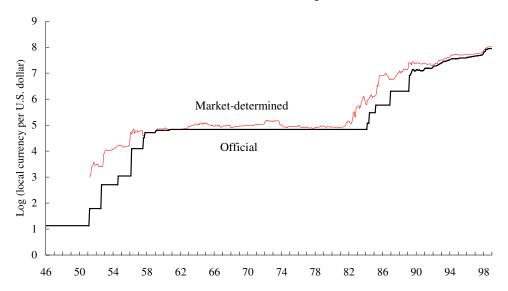


## Parallel Market Premium

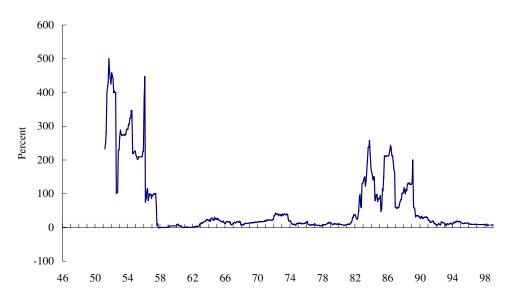


## Paraguay: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

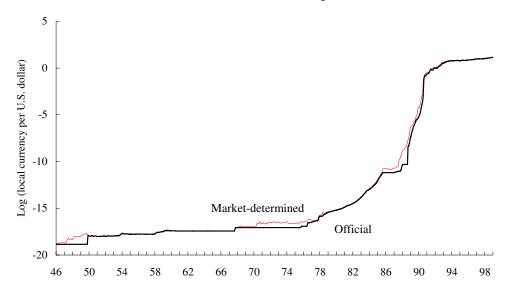


### Parallel Market Premium

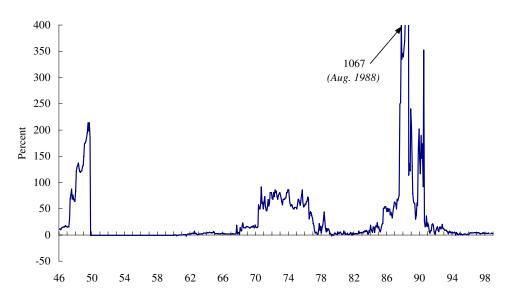


# Peru: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

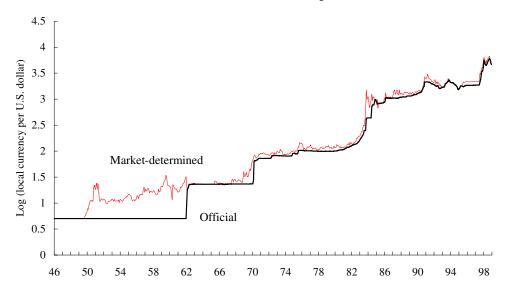


### Parallel Market Premium

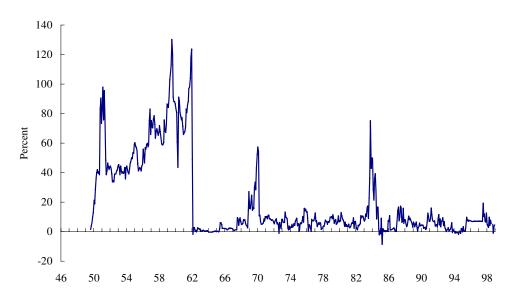


# Philippines: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

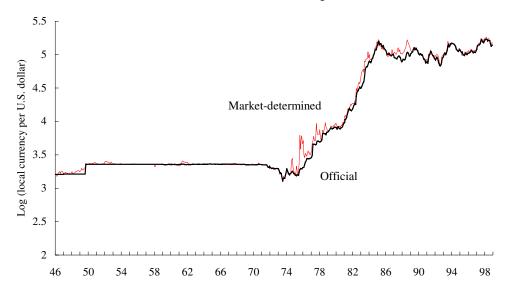
#### Official and Market-determined Exchange Rates



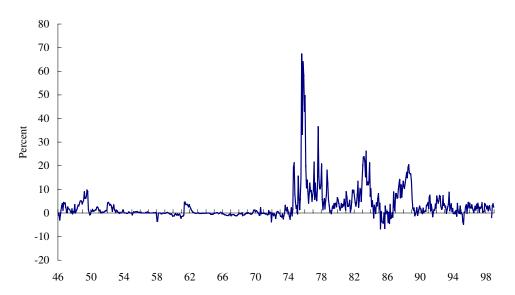
#### Parallel Market Premium



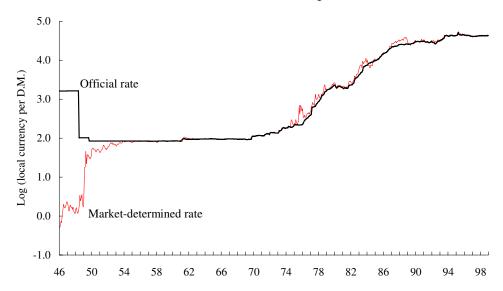
Portugal: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



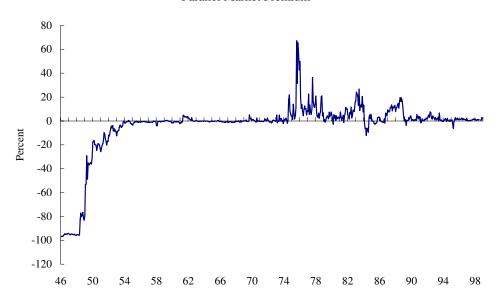
#### Parallel Market Premium



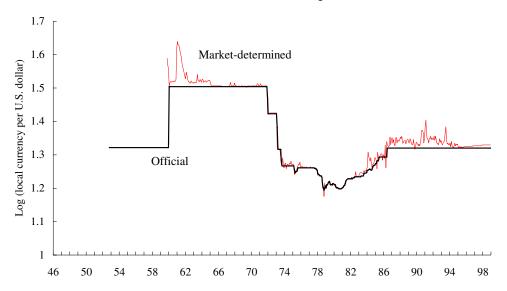
Portugal: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



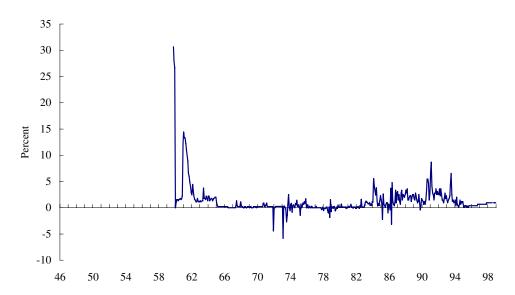
## Parallel Market Premium



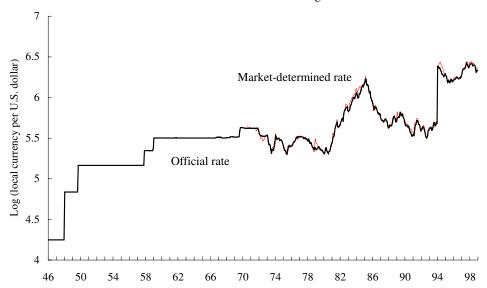
Saudi Arabia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



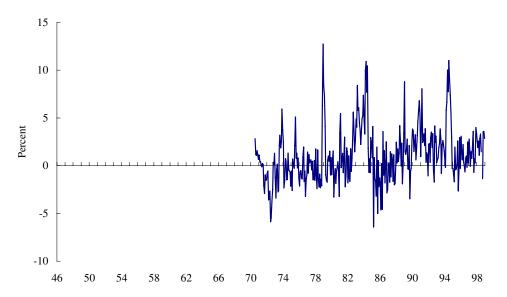
#### Parallel Market Premium



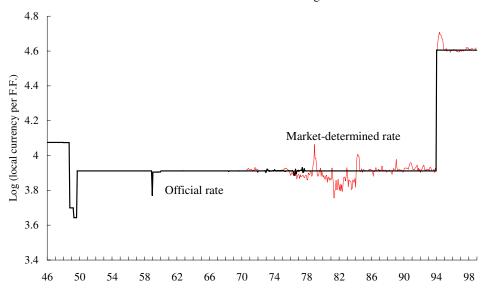
Senegal: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



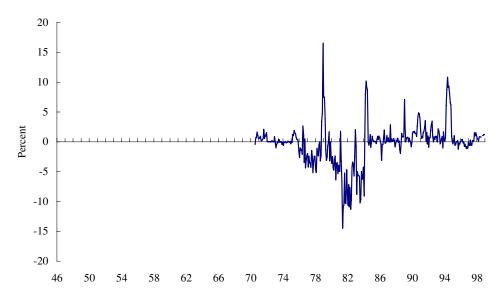
## Parallel Market Premium



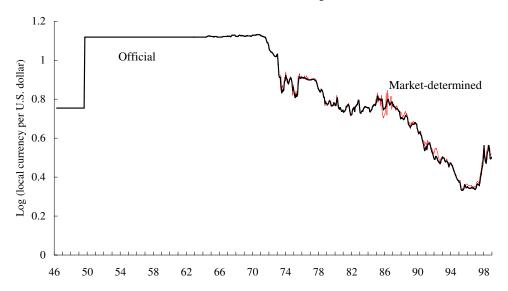
Senegal: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



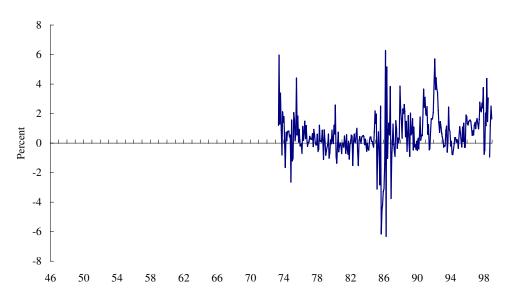
#### Parallel Market Premium



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

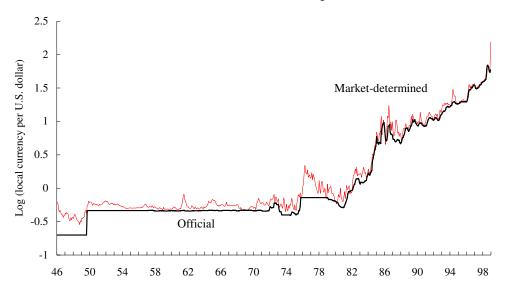


## Parallel Market Premium

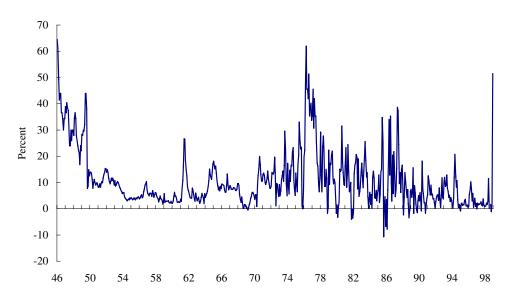


# South Africa: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

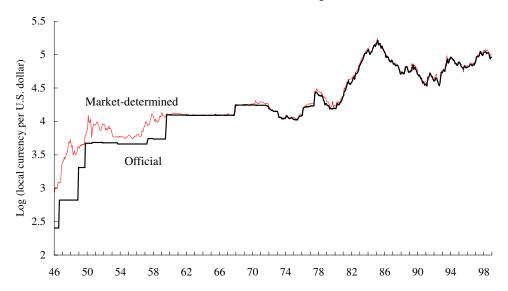
#### Official and Market-determined Exchange Rates



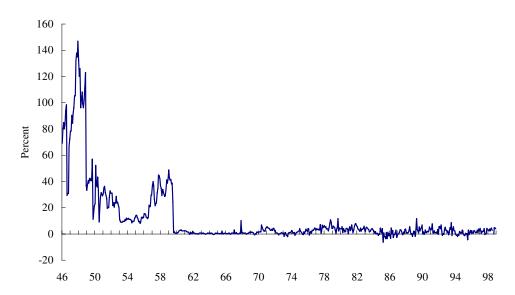
#### Parallel Market Premium



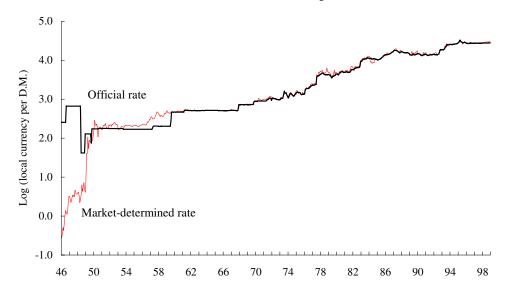
Spain: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



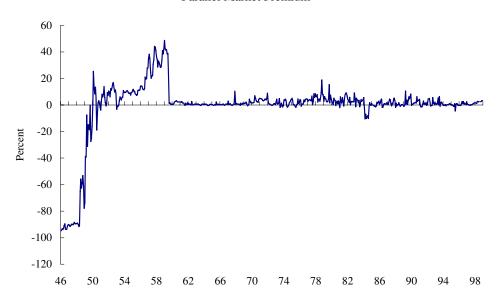
#### Parallel Market Premium



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

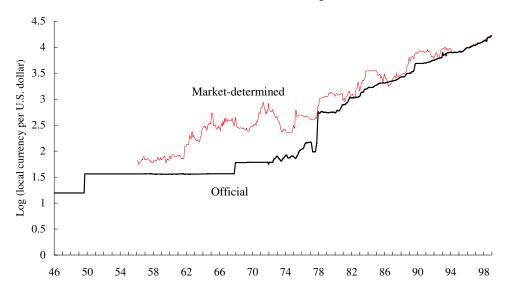


#### Parallel Market Premium

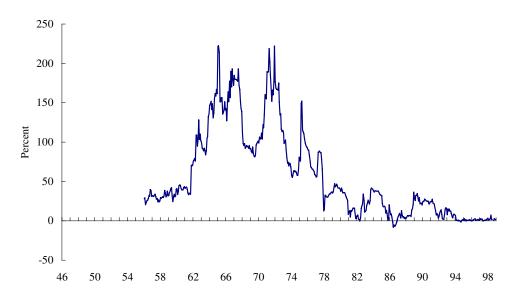


# Sri Lanka: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

#### Official and Market-determined Exchange Rates

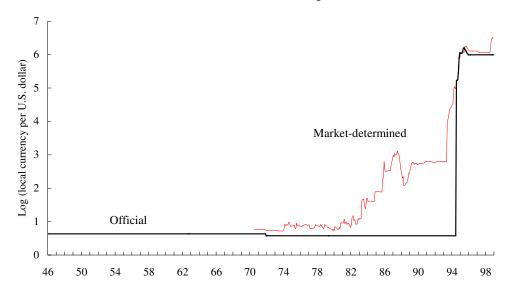


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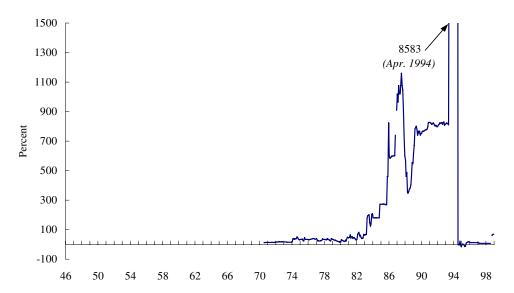


## Suriname Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

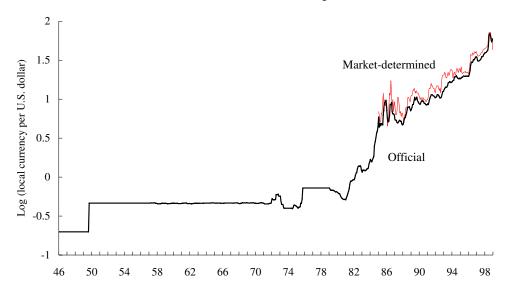


#### Parallel Market Premium

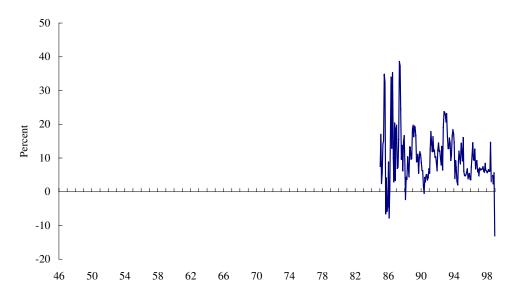


# Swaziland: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

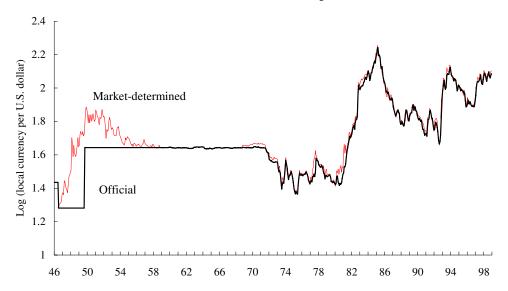
## Official and Market-determined Exchange Rates



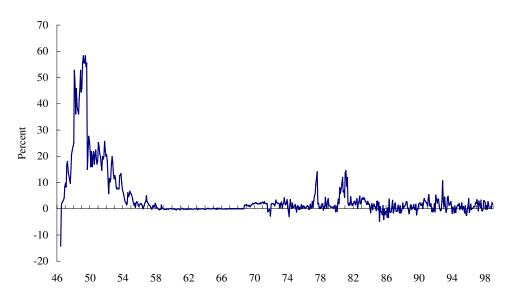
#### Parallel Market Premium



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

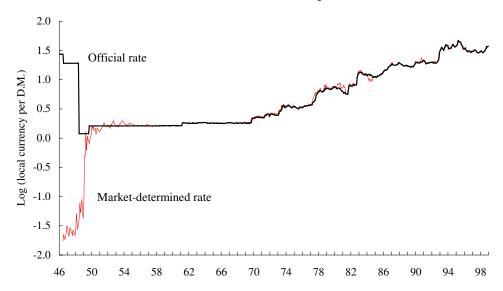


#### Parallel Market Premium

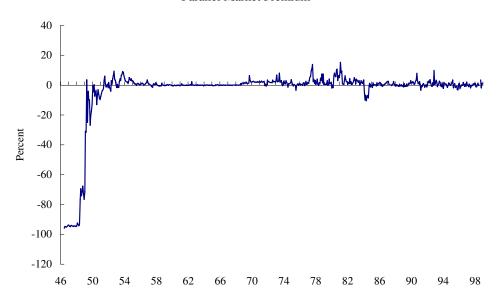


# Sweden: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

#### Official and Market-determined Exchange Rates



#### Parallel Market Premium

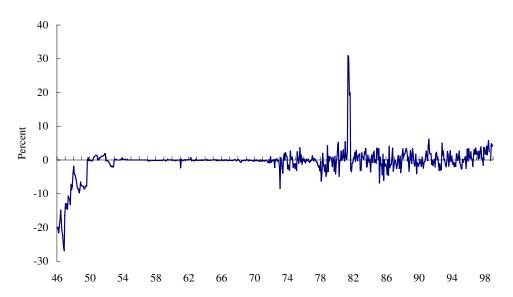


# Switzerland: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

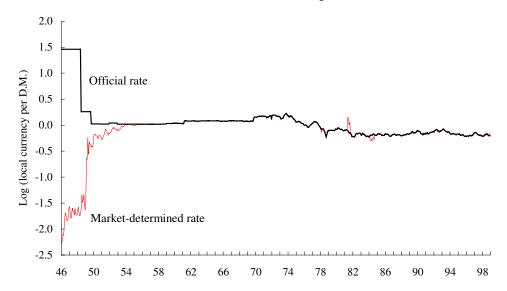
## Official and Market-determined Exchange Rates



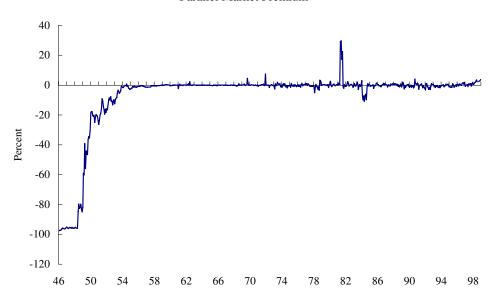
## Parallel Market Premium



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

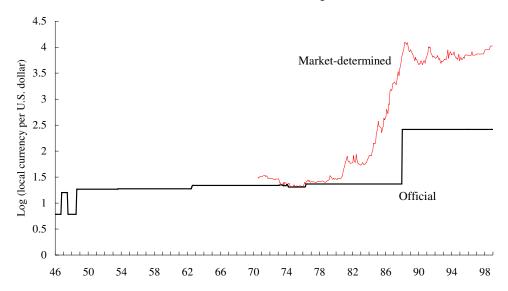


#### Parallel Market Premium

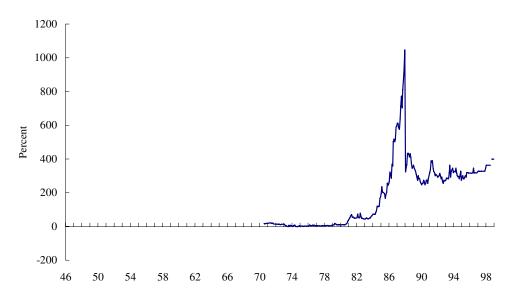


## Syrian Arab Republic: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

#### Official and Market-determined Exchange Rates

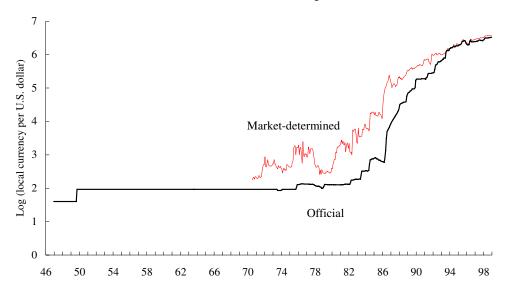


#### Parallel Market Premium

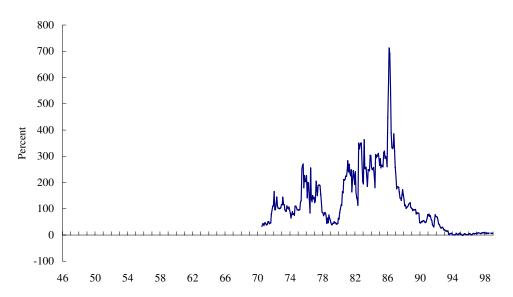


# Tanzania: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

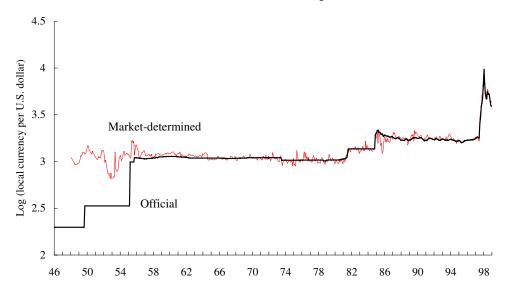
#### Official and Market-determined Exchange Rates



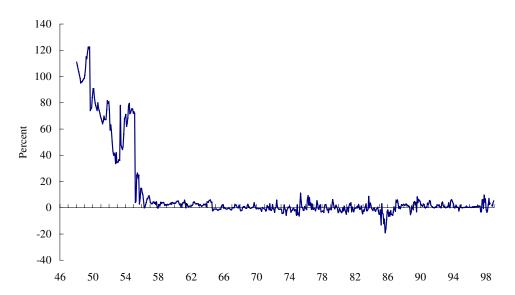
#### Parallel Market Premium



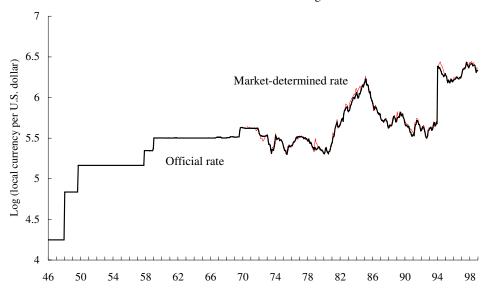
Thailand: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



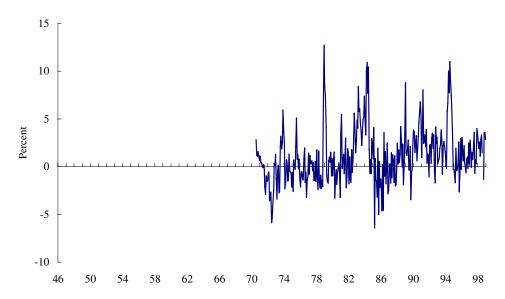
#### Parallel Market Premium



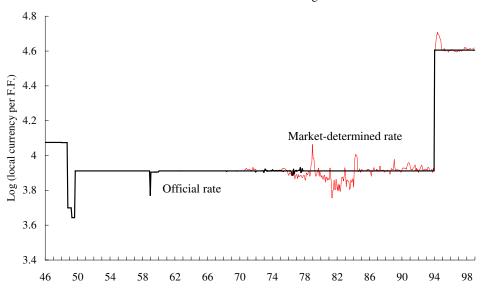
Togo: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



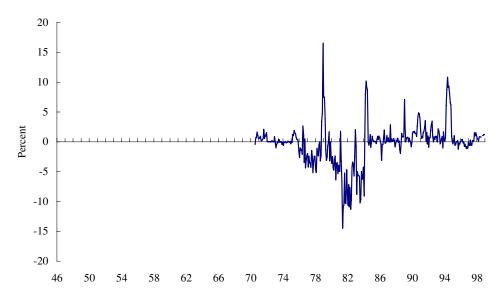
## Parallel Market Premium



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

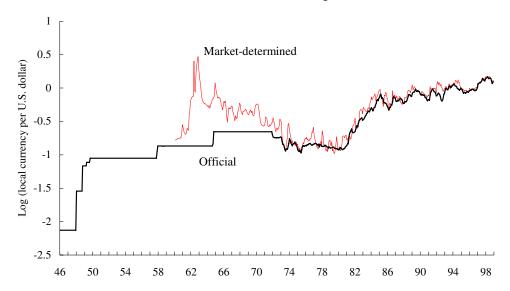


## Parallel Market Premium

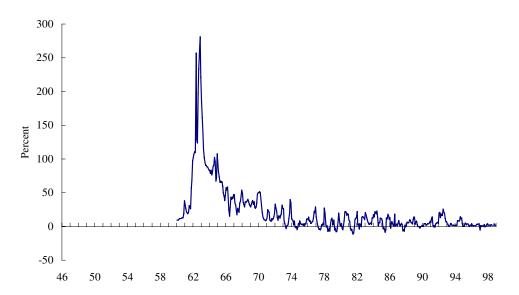


# Tunisia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

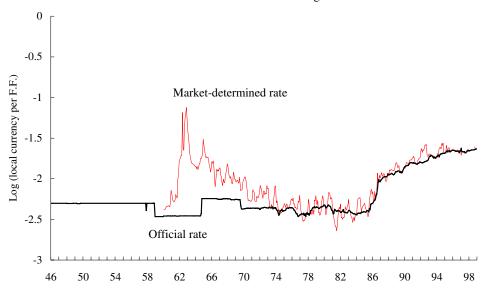
## Official and Market-determined Exchange Rates



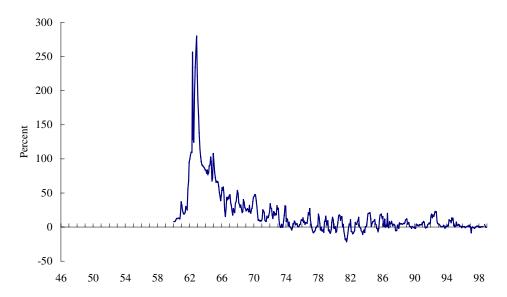
#### Parallel Market Premium



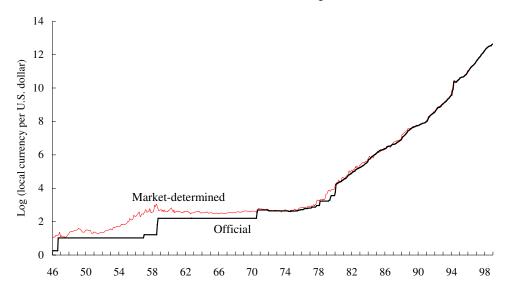
Tunisia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



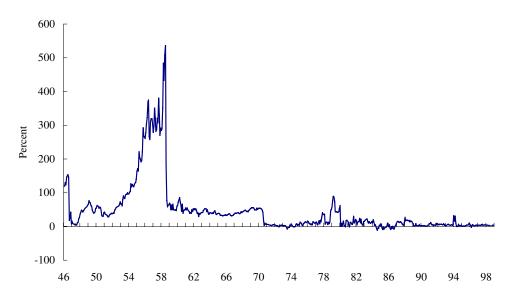
#### Parallel Market Premium



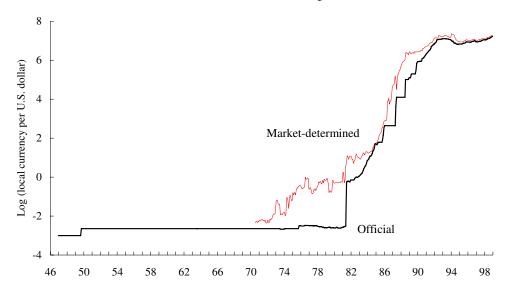
Turkey: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



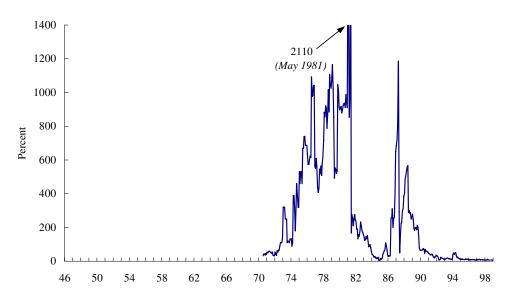
#### Parallel Market Premium



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

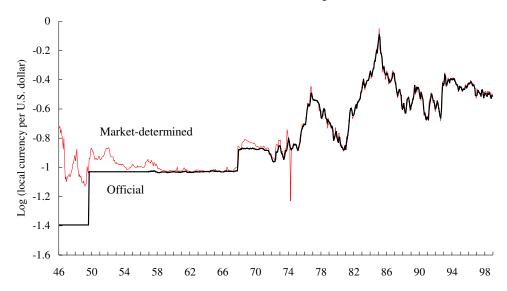


## Parallel Market Premium

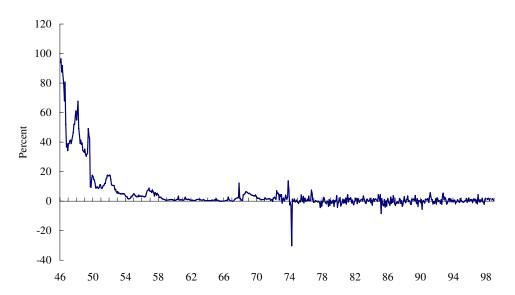


# United Kingdom: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

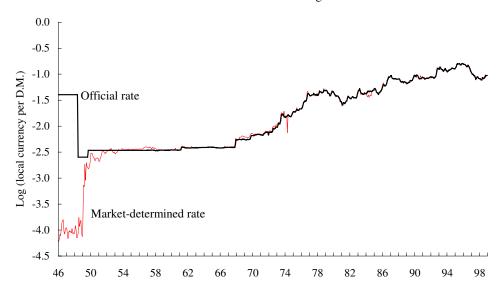
#### Official and Market-determined Exchange Rates



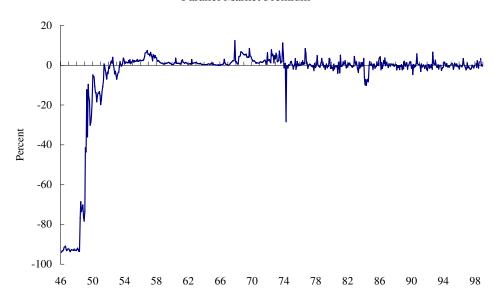
#### Parallel Market Premium



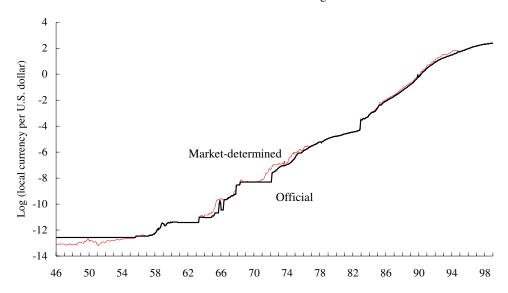
United Kingdom: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998



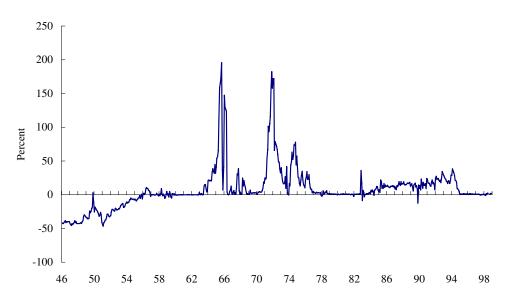
#### Parallel Market Premium



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

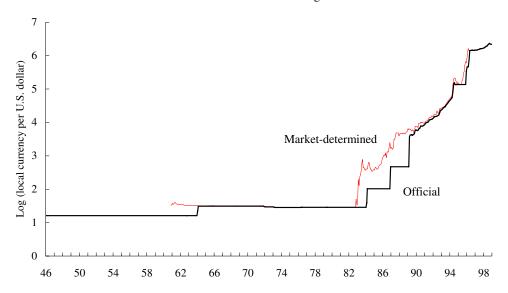


#### Parallel Market Premium

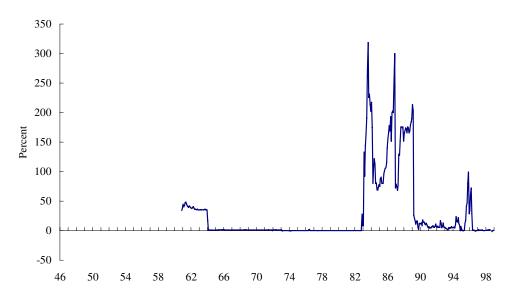


# Venezuela: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

## Official and Market-determined Exchange Rates

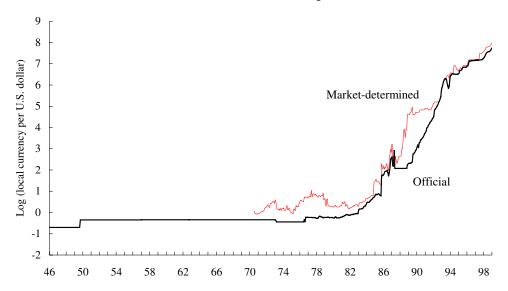


#### Parallel Market Premium

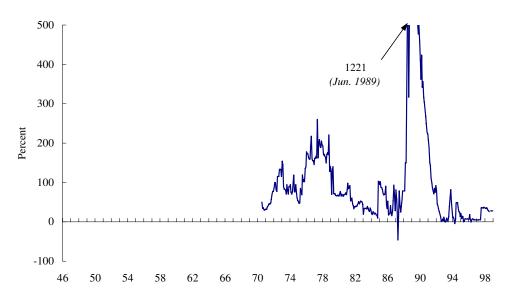


# Zambia: Official and Market-determined Exchange Rates and the Parallel Market Premium: January 1946 - December 1998

#### Official and Market-determined Exchange Rates

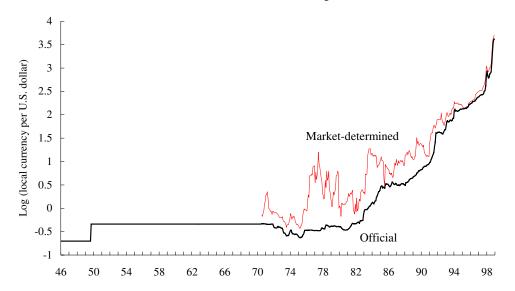


#### Parallel Market Premium



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

## Official and Market-determined Exchange Rates



## Parallel Market Premium

