

Nominal and Real Exchange Rate Series for Brazil, 1986-2001

Marc-Andreas Muendler*
University of California, San Diego

November 4, 2003

This report describes the construction of monthly nominal and real exchange rate series for Brazil between 1986 and 1998. The foreign reference currency is US dollar. The respective series are available as file `realexch.csv` at URL <http://econ.ucsd.edu/muendler/brazil>.

1 Nominal Exchange Rate

The predominant currency for both international commercial and international financial transactions in Brazil is the U.S. dollar.

1.1 Data Source

The Brazilian central bank *Banco Central* provides the monthly exchange rate series at its web site (URL: <http://www.bancocentral.gov.br/>). The series applied here is a mid-month U.S. dollar exchange rate *vis á vis* the respective Brazilian currency at the time.

*muendler@ucsd.edu (www.econ.ucsd.edu/muendler). Financial support from the Social Science Research Council and the American Council of Learned Societies with an International Predissertation Fellowship (funds from the Ford Foundation) is gratefully acknowledged.

1.2 Construction

The series “*dolarmedio*” used here is re-based to the current currency *Real* (introduced in August 1994).

2 Real Exchange Rate Series

The real exchange rate reflects the terms of trade between a typical commodity basket of a Brazilian consumer or manufacturer *vis á vis* a similar basket for an international consumer or manufacturer who trades in U.S. dollars.

2.1 Use

The present real exchange rate series is calculated with a typical Brazilian firm in mind, rather than a consumer. Therefore, a U.S. producer price index is applied. Since Brazil disposes of no producer price index for the period 1986-2001, an industry-based wholesale price index is applied for Brazil. The real exchange rate series thus reflects the terms of trade for a typical Brazilian manufacturer *vis á vis* its U.S. counterpart.

The resulting real exchange rate series depends on the base month chosen for the foreign and domestic price index. The base month in the present file is August 1994 which forces the real exchange rate below 1 in August 1994, while the real exchange rate attains levels above 1 before June 1994 and after January 1999. It is in the user’s judgement to re-base the time series accordingly so that a real exchange rate of 1 is reached at other dates of his or her choice.

2.2 Period Covered

The series cover the period 1986-2001.

2.3 Data Sources

The monthly nominal exchange rate series is a mid-month U.S. dollar exchange rate (see section 1). As industry-wide price index on the Brazilian side, *IPA-OG* (*Índice de Preços por Atacado-Oferta Global*) is used. *IPA-OG* is a wholesale price index covering the entire economy and includes imports. It is calculated by *Fundação Getúlio Vargas FGV*, Rio de Janeiro. On the U.S.

side, the economy-wide producer price index, calculated by the U.S. Bureau of the Census, is applied.

2.4 Construction

Both the domestic Brazilian and the U.S. price index are re-based to 1 in August 1994. This yields a real exchange rate of .896 in August 1994. Since the nominal exchange rate stood at .896 [R\$/US\$] in August 1994, this means that a Brazilian manufacturing firm received 1.12 times the equivalent of a domestic commodity basket when importing instead of buying domestic.

3 File Contents

The file `realexch.csv` contains both nominal and real exchange rate series along with the underlying price indices for the years 1986 until 2001. This allows to re-calculate the real exchange rate series with other base months than chosen here (August 1994).

realexch.csv (5 obs.)

	Variable	Description
1.	<code>variable</code> ^a	
2.	<code>jan86</code>	Jan-86
3.	<code>feb86</code>	Feb-86
...		
169.	<code>dec01</code>	Dec-99

^aObservations are: *dolarmedio*, *ipa-og*, *usd-prodpi*, *realexch*, *realex100*.