

# ***ASEAN Exchange Rates***

Reproduced from *ASEAN Exchange Rates: Policies and Trade Effects* by Pradumna B. Ramna (Singapore: Institute of Southeast Asian Studies, 1981). This version was obtained electronically direct from the publisher on condition that copyright is not infringed. No part of this publication may be reproduced without the prior permission of the Institute of Southeast Asian Studies. Individual articles are available at

< <http://bookshop.iseas.edu.sg> >

The Institute of Southeast Asian Studies was established as an autonomous organization in May 1968. It is a regional research centre for scholars and other specialists concerned with modern Southeast Asia. The Institute's research interest is focused on the many-faceted problems of development and modernization, and political and social change in Southeast Asia.

The Institute is governed by a twelve-member Board of Trustees on which are represented the National University of Singapore, appointees from the government, as well as representatives from a broad range of professional and civic organizations. A ten-man Executive Committee oversees day-to-day operations; it is chaired by the Director, the Institute's chief academic and administrative officer.

*The responsibility for facts and figures rests exclusively with the authors and does not reflect the views or the policy of the Institute.*

*Views and opinions expressed in this publication are those of the authors and interpretations do not necessarily reflect those of the Institute or its supporters.*

# ***ASEAN Exchange Rates***

*Policies and Trade Effects*

Pradumna B. Rana



ASEAN ECONOMIC RESEARCH UNIT  
INSTITUTE OF SOUTHEAST ASIAN STUDIES

ISBN 9971-902-36-2  
Published in 1981 by  
Institute of Southeast Asian Studies  
Heng Mui Keng Terrace,  
Pasir Panjang  
Singapore 0511

© Institute of Southeast Asian Studies

---

## Foreword

The ASEAN Economic Research Unit (AERU) was established in 1979 in response to the need to augment the Institute's *ad hoc* studies on ASEAN by a programme of planned incremental research on a longer-term basis. While operating as a fairly independent and self-contained body, AERU is an integral part of the Institute, assisting and participating in the various ISEAS activities already in progress. At the same time, the Unit is in a position to forge close working links with economics graduate centres and other research organizations within and outside Southeast Asia.

In addition to the foregoing, the main objective of AERU is to contribute to a better understanding of the economic and political problems and potentialities of the ASEAN region through the following activities:

- undertaking systematic, incremental research on well-defined topics, involving both the external and internal dimensions and dynamics of ASEAN economic problems and prospects;
- organizing and co-ordinating projects involving participation of scholars from the region and elsewhere;
- exchanging experiences, views, and ideas in workshops and seminars;
- publishing research findings and the results of discussions, and distributing these to all interested.

The Unit is under the overall supervision of the Director of the Institute of Southeast Asian Studies, who is also the Chairman of its Management Committee. A Co-ordinator oversees the day-to-day affairs of the Unit. The staff consists of two senior Research Fellows, supported by three M.A.-level Research Associates. There is also the provision for Visiting Fellows, university staff members, as well as other scholars both from within and from outside the region to be attached to the Unit from

time to time. This arrangement permits the involvement of a wider network of local, regional, and international professional expertise.

A regional advisory committee, consisting of a senior economist from each of the ASEAN countries, has also been established to assist and guide the Unit in its work. This committee enhances the Unit's opportunities for establishing contacts with regional and international economists and organizations, as has been reflected in the number and scope of AERU's projects over the last two years. Of particular significance here has been the work on monetary aspects of the region, including exchange rates. Indeed, the work that follows is one of a series in this specific area. In it Dr. Pradumna Rana focuses on the collapse of the Bretton Woods system of adjustably pegged exchange rates and the subsequent transition to a system where the major OECD currencies are generally floating, albeit with considerable governmental intervention. This change, Dr. Rana feels, has undoubtedly had repercussions on international trading relationships and, as a case study, he examines the impact of this new system on ASEAN's trade. In doing this, he first looks at developments in the exchange rate policies of each of the ASEAN countries, and then analyses the movements of their effective (import-weighted) exchange rates, both over the short-run and the longer term period. This approach would seem necessary since all the ASEAN countries have fairly open economies and diversified trading relations.

Dr. Rana's investigations lead him to conclude that movements in the ASEAN countries' exchange rates have had significant *adverse* effects on both their imports and primary exports. This quite naturally suggests several policy measures including the choice of exchange rate policies that the ASEAN countries may adopt. This could perhaps be the subject of further studies. In the meantime while wishing Dr. Rana and his present work all the best, it is clearly understood that responsibility for the statements made, and for the accuracy of the information provided in the monograph rests exclusively with the author.

**Kernal Singh Sandhu**  
Director

*December 1981*

---

## Preface

The two major topics in the New International Economic Order are trade and finance. On the latter topic, a major concern of less developed countries (LDCs) is the breakdown of the Bretton Woods system of adjustably pegged exchange rates in 1973 and the subsequent emergence of floating exchange rates among the major OECD (Organization for Economic Co-operation and Development) currencies. In the Bretton Woods period, the currency of an LDC altered with its trading partners only when infrequent adjustments were made to par values. In the present system, continuous exchange rate realignments among the major industrial currencies which alter arbitrarily the value of the LDC currency *vis-à-vis* trading partners, can be a significant potential source of external disturbance affecting its trade and domestic economy. Since recent empirical evidences in the industrial countries indicate that, contrary to theoretical expectations, although currency fluctuations have been erratic and “excessive” there have been no signs of decreased instability over time either through “learning by doing” or through development of forward markets, it has become necessary to examine the effects of this exogenous disturbance on LDCs.

The present study considers the experiences of the five member countries of the Association of Southeast Asian Nations (ASEAN) under the generalized floating period. Specifically, the study examines the effects of the movements in the effective (import-weighted) exchange rates (both in the short run and the trend) on ASEAN's international trade. However, the study does not provide a fair test of the pegged versus floating rate regime. No study can make such a claim because given the recent events in the world economy the Bretton Woods system might have led to even greater instability. This study, however, does provide indications about the institutions that the ASEAN countries may develop to lessen the

adverse trade effects of generalized floating. It also provides some indications about the type of exchange rate regimes the ASEAN countries may adopt. A proper choice of exchange rate regime has become crucial because, unlike in the pegged period, pegging to a single currency in the present international monetary system means floating *vis-à-vis* the currencies in other blocs. In this study the sample for the generalized floating period and the discussion of exchange rate policies generally extends through 1979.

My work has benefited from the comments of numerous individuals including participants at the seminars I gave both at the Institute of Southeast Asian Studies and at the National University of Singapore. I must, however, single out Florian Albuero, Heinz Arndt, Dong-se Cha, Ronald Findlay, Basant Kapur and Chris Rieger for their valuable comments and suggestions. Some of the computations would have been more painful than they were if it had not been for the very capable and invaluable support of Aleth Yenko. I must also thank the editor of the *South East Asian Economic Review* for permitting me to borrow heavily from an article of mine published in the journal, and John Wong of the National University of Singapore for allowing me to reproduce a table from his book *ASEAN Economics in Perspective*. I am also indebted to Professor K.S. Sandhu, the Director of the Institute of Southeast Asian Studies, for making this publication possible.

Although these individuals have generously helped me in different ways, the responsibility for any shortcomings or inaccuracies that may remain is solely mine.

Finally, I would like to express my special thanks to my wife not only for her assistance with computational and bibliographical work, but also for her steady encouragement that has ensured the completion of this study.

*Singapore, April 1981*

**Pradumna B. Rana**



---

# Contents

*Foreword* v

*Preface* vii

*Tables* x

*Figures* xii

I.	INTRODUCTION	1
II.	EXCHANGE RATE POLICIES OF ASEAN COUNTRIES	7
	Introduction	7
	Exchange Rate Regimes of Asean Countries	8
	Movements of Nominal and Real Effective Exchange Rates and Relative Prices in ASEAN	17
	Decomposition of Variability of Real Effective Exchange Rates	27
	Summary and Conclusions	29
III.	EFFECTS OF EXCHANGE RATE VARIABILITY ON IMPORT VOLUMES	33
	Introduction	33
	The Model	36
	Specification of Aggregate Import Demand Models	42
	Estimation Results	45
	Summary and Conclusions	50
IV.	EFFECTS OF REAL EXCHANGE RATE CHANGES ON ASEAN'S PRIMARY EXPORTS	51
	Introduction	51
	The Commodity by Commodity Method	54
	Primary Exports of ASEAN and Trade Elasticities	57
	Results of the Simulation	64
	Summary and Conclusions	78
V.	SUMMARY AND CONCLUSIONS	81

## *Appendices*

A	Decomposition of real effective exchange rates	85
B	A method for interpolating quarterly data	95
C	Estimated import demand models	97
D	Available elasticity estimates for various commodities	102

<i>Bibliography</i>	109
---------------------	-----

---

## Tables

1. Official Exchange Rate Regimes of ASEAN Countries During Pegged, Unsettled and Generalized Floating Periods 10
2. Actual Exchange Rate Regimes of ASEAN Countries, 1971-79 14
3. Short-term Variability and Trend of Exchange Rate and Price Variables in ASEAN Countries 25
4. Decomposition of the Variability of Real Effective Exchange Rates in ASEAN Countries, 1972-79: A Summary 30
5. Principal Exports of Four ASEAN Countries, 1970 and 1976 59
6. Major Commodity Exports of ASEAN Countries, 1975 60
7. Price Elasticity Estimates used in the Simulation 63
8. Weighted Average Percentage Change in Importers' and Exporters' Real Exchange Rate in Terms of the U.S. Dollar 66
9. Indonesia: Calculated Effects on the Price, Volume and Value of Major Primary and Total Exports Due to Real Exchange Rate Changes 70
10. Malaysia: Calculated Effects on the Price, Volume and Value of Major Primary and Total Exports Due to Real Exchange Rate Changes 72
11. Philippines: Calculated Effects on the Price, Volume and Value of Major Primary and Total Exports Due to Real Exchange Rate Changes 74
12. Thailand: Calculated Effects on the Price, Volume and Value of Major Primary and Total Exports Due to Real Exchange Rate Changes 76
- A.1 Indonesia: Decomposition of Real Effective Exchange Rates, 1972-79 85

A.2	Indonesia: Decomposition of the Sum of Squares of Trend Errors of the Real Effective Exchange Rate, 1972-78	86
A.3	Malaysia: Decomposition of the Variability of Real Effective Exchange Rates, 1972-79	87
A.4	Malaysia: Decomposition of the Sum of Squares of Trend Errors of the Real Effective Exchange Rate, 1972-78	88
A.5	Philippines: Decomposition of the Variability of Real Effective Exchange Rates, 1972-79	89
A.6	Philippines: Decomposition of the Sum of Squares of Trend Errors of the Real Effective Exchange Rate, 1972-78	90
A.7	Singapore: Decomposition of the Variability of Real Effective Exchange Rates, 1972-79	91
A.8	Singapore: Decomposition of the Sum of Squares of Trend Errors of the Real Effective Exchange Rate, 1972-78	92
A.9	Thailand: Decomposition of the Variability of Real Effective Exchange Rates, 1972-79	93
A.10	Thailand: Decomposition of the Sum of Squares of Trend Errors of the Real Effective Exchange Rate, 1972-78	94
C.1	Import Demand Model I: South Korea, Philippines and Thailand	97
C.2	Import Demand Model II: South Korea, Philippines and Thailand	98
C.3	Import Demand Model III: South Korea, Philippines and Thailand	99
C.4	Import Demand Model II: Taiwan	100
C.5	Import Demand Model III: Taiwan	101
D.1	Available Studies on Natural Rubber	102
D.2	Available Studies on Palm Oil	103
D.3	Available Studies on Rice	104
D.4	Available Studies on Coconut Oil and Copra	105
D.5	Available Studies on Tin	106
D.6	Available Studies on Sugar	107

---

## Figures

1. Exchange Rate Flexibility Scores in ASEAN Countries,  
1974–78 16
2. Indonesia: Movements of Nominal and Real Effective Exchange  
Rates and Relative Prices 19
3. Malaysia: Movements of Nominal and Real Effective Exchange  
Rates and Relative Prices 20
4. Philippines: Movements of Nominal and Real Effective Exchange  
Rates and Relative Prices 21
5. Singapore: Movements of Nominal and Real Effective Exchange  
Rates and Relative Prices 22
6. Thailand: Movements of Nominal and Real Effective Exchange  
Rates and Relative Prices 23