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DEVALUATION, THE TRADE BALANCE, AND THE BALANCE OF PAYMENTS

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PREFACE

The current regime of frequently fluctuating exchange rates serves as a focus for renewed discussions over the precise effects of currency depreciation. On one side of the issue are those who feel that currency depreciation provides positive employment effects and eventually improves the trade balance. On the other side are those who feel that currency depreciation has little if any effect on the net production or consumption of goods, but rather causes primarily only portfolio readjustments and increased inflation. Both sides have theoretical arguments to justify their positions. The issue obviously needs to be resolved on empirical grounds.

Since exchange rates were fixed during most of the period over which the necessary data exist, the empirical study of currency depreciation has concentrated on the effects of once-for-all devaluations. However, as one investigates the empirical work on devaluation, one is struck by the lack of an in-depth study of the effects of devaluation on the foreign balances. Studies employing sophisticated statistical techniques concentrate on the effects of devaluation on only exports, imports, market shares, or similar measures, not on the trade balance

itself. Those schooled in general equilibrium theory can appreciate that the behavior of one component may not describe the behavior of the entire account. Furthermore, studies which do evaluate the behavior of the trade balance and/or balance of payments following devaluation fail to separate the effects of devaluation from the effects of other policy tools or economic variables which are also changing at the time. All changes in the accounts are simply ascribed to devaluation. In short, the empirical issue of the effects of devaluation on the foreign balances has barely been scratched.

The purpose of this book is to aid the resolution of this empirical issue. The primary goal is fairly simple: determine the effect of devaluation on the trade balance and balance of payments over as many devaluations as possible, after first standardizing for the effects of other economic policies. Attainment of the goal has required a few restrictions. For example, I was unable to delve into the specific conditions existing within the countries during each of the twenty-six devaluations included in the study. However, the size of the sample does permit me to infer that the results indicate what on average happens to the foreign balances following devaluation. I believe the reader will find the results both revealing and provocative.

I would like to thank especially Arthur Laffer for helpful and incisive comments and discussions throughout the development of this book. He has made available to me a disproportionate amount of his time, not only during the writing of this book, but during all the years of our acquaintance. I am greatly indebted to him for his continued confidence and support. Thanks are also extended to Jacob Frenkel, Stephen Magee, John Bilson, Rudiger Dornbush and the late Harry Johnson for their comments and ideas. Any errors, however, must remain my burden.

Carol Harvey assisted me in the preparation of the index. Betty Hafner and Gerri Dructor typed the manuscript at different stages of production. Each performed proficiently in their assignments, and I thank them for their diligence.

On a more personal note, I would like to thank my wife Manja for the emotional and financial support she has provided me throughout my graduate and professional years. Her insight and frequent advice have helped me to keep sight of my goals even during the toughest periods. Appreciation is also extended to our cat Bayswater who somehow always knew when to provide levity and diversionary relief from long hours of writing.

Marc A. Miles

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Chapter I

INTRODUCTION

The exchange rate has traditionally been considered an important governmental policy instrument. Changes in exchange rates, particularly devaluations, have therefore become the subject of lengthy discussions within the academic, business and government communities. The description of the expected quantitative effects of devaluation in these discussions can be divided into two basic categories. The first concentrates primarily on the income and employment effects of an improved trade balance, while the second concentrates principally on the effect of an increase in the level of international reserves through an improved balance of payments. Historically, the income and employment effects of increased net exports have dominated the analysis. It was not until the last decade with the rediscovery of the Monetary Approach to the Balance of Payments that the second category emerged as a separate, independent method of analyzing the impact of devaluation.

The traditional or popularly held view of the impact of devaluation is therefore centered around potential income and employment effects. This rationale for the use of devaluation as a policy instrument is by now familiar

to anyone who reads the newspaper. Devaluation is viewed as a method of improving a country's "competitiveness", or in other words rendering domestically produced goods more attractive abroad while making foreign produced goods less attractive at home. This shift in the attractiveness of traded goods causes the level of exports to rise, the level of imports to fall, the trade balance to improve and domestic employment to increase. Indeed, this was precisely the justification for the round of "beggar-thy-neighbor" devaluations of the 1930's. Many countries, facing massive domestic unemployment, decided to devalue their currencies in the hope of alleviating these domestic pressures. Not surprisingly, theoretical writings of the 30's reflect this pro-employment belief concerning the effects of devaluation. Writing about possible remedies for the unemployment problem, Joan Robinson states[1]:

> A fall in the exchange rate, or in money wages, causes a primary increase in employment in export industries, and in industries producing goods rival to imports. For a given increase in the value of exports (in terms of home wage units) the increase in employment will be greater the greater is the elasticity of supply, and for a given decrease in the value of imports it will be greater the greater is the elasticity of foreign supply and the greater is the elasticity of supply in the rival home industries.

These same arguments, transmitted into contemporary thought, are still influencing economic policy decision-making. In defending the devaluation of the dollar in 1971 President Nixon stated that[2]:

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[1] Joan Robinson, "Beggar-My-Neighbour Remedies for Unemployment," reprinted in H. Ellis and L. Metzler ed., _Readings in the Theory of International Trade_, Philadelphia: Blakiston, 1949, P. 397.

[2] Richard M. Nixon, "The Challenge of Peace," a radio and television address of August 15, 1971, in _Weekly Compilation of Presidential Documents_ for week ending August 21, 1971.

> .... As a result of these actions, the product of American labor will be more competitive, and the unfair edge that some of our foreign competition has will be removed. This is a major reason why our trade balance has eroded over the past 15 years[3] .... But now that other nations are economically strong, the time has come for them to bear their fair share of the burden of defending freedom around the world. The time has come for exchange rates to be set straight and for the major nations to compete as equals. There is no longer any need for the United States to compete with one hand tied behind her back.

On the other hand, the Monetary Approach concentrates less on the employment effects of devaluation and more on its basic monetary nature. Through its impact on the value of portfolio holdings of money and bonds, devaluation is thought to generate redistribution of assets among countries which in turn leads to an inflow of international reserves. While primary emphasis is placed on the movement of financial assets, the theory can also be utilized to illustrate a variety of possible effects on the trade balance.

Given the sizable amount of effort expended in attempts to explain the effects of devaluation on the trade balance or balance of payments, it is surprising how little time has actually been devoted to empirically analyzing the results of previous devaluations. While some studies indicate whether the trade balance improves or worsens, little if any effort has been made to determine the duration of any improvement (deterioration) or even whether the change can be ascribed solely to devaluation. As a consequence of this dearth of empirical studies, knowledge of

[3] The President was also referring here to reasons for imposing a ten percent surtax on import duties. The traditional argument for tariffs, however, is the same as that for devaluation, i.e., improve the trade balance by making foreign goods more expensive. The fact that both devaluation and a tariff were used as policies therefore only reinforces the point being made.

what to expect on average following devaluation is extremely scanty and incomplete.

This book attempts to eliminate that gap in our knowledge. Starting from a general-equilibrium, theoretical model that includes both goods and financial assets, the possible effects of devaluation under various theoretical assumptions are outlined. These theoretical implications in turn provide hypotheses which are tested in the second part of the book over a sample of twenty-six devaluations. These empirical tests, however, are not performed in a vacuum. The tests are constructed to first remove in each individual country the effects of government policies as well as the impact from other variables which could simultaneously affect the foreign accounts being analyzed. By standardizing for the other exogenous variables in this manner, the effect of devaluation can be isolated to an extent that has not been previously achieved.

The results of the empirical tests are quite informative and interesting. There is little evidence to support the widely held belief that devaluation improves the trade balance. While there appears to be a slight improvement on average in the year following devaluation, this improvement is smaller than the average deterioration that occurs in the year of devaluation. There is no evidence in the year following devaluation of net improvement in the trade balance over the pre-devaluation levels, nor does a net improvement appear within the next two years. In contrast, based on these tests the hypothesis that devaluation causes the balance of payments to improve cannot be rejected. The balance of payments is shown to improve sufficiently in the year following devaluation to become more positive or less negative than in the preceding years. However, there is also some evidence that the improvement is only temporary, lasting about two years and providing a "stock" adjustment of portfolios.

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