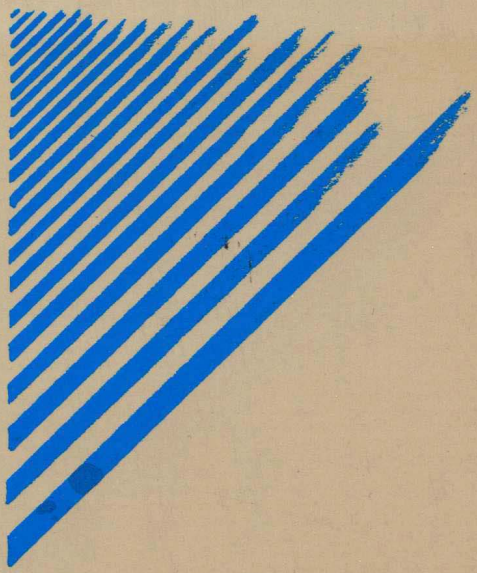

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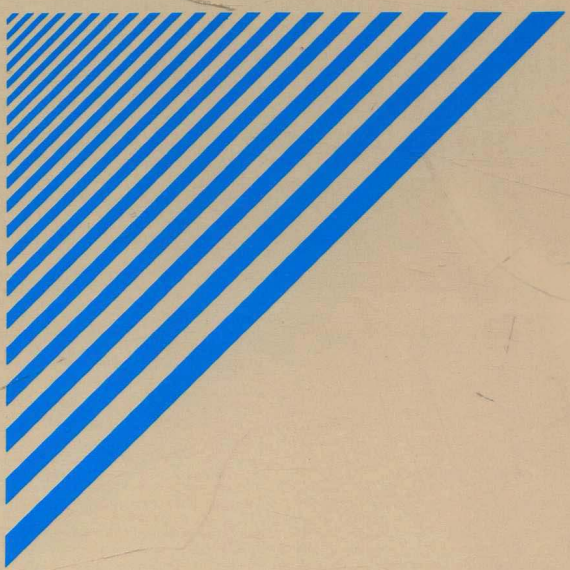

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THE UNITED NATIONS UNIVERSITY

The United Nations University
Toho Seimei Building, 15-1 Shibuya 2-chome, Shibuya-ku,
Tokyo 150, Japan Tel.: (03) 499-2811 Telex: J25442
Cable: UNATUNIV TOKYO

Printed in Hong Kong

DSDB-19/UNUP-675
ISBN 92-808-0675-0
United Nations Sales No. E.88.III. A.8
02000 P

PREFACE

It is now obvious to many economists that since World War II the developing countries that have achieved the highest economic growth rates are those that apparently are not richly endowed with natural resources. A list of the most successful economies, what one may term the high-growth league, will inevitably include countries poor in natural resources such as Japan, Korea, Taiwan, Singapore, and Hong Kong. On the other hand, paradoxically, resource-rich countries as diverse as Ghana and Argentina achieved very low growth rates, and a country like Mexico had a much worse economic performance after it became a major oil producer.

When I came to the United Nations University in 1982, I consulted with various economists on whether there was any literature that explained this peculiar phenomenon and found that, surprisingly, there was a limited bibliography on the subject. I therefore proposed to my colleagues at the University a research project in which we would explore the particular problems of economic policy-making in a set of resource-rich countries, with the hope of identifying, through comparative case-study analysis, some of the common elements that determined the low economic growth record of resource-rich countries.

In choosing the case-studies, Dr. Yukawa and I felt that it would be best to limit our sample to large and middle-sized countries, since the small oil-exporting countries of the gulf were very much a special case. It was also felt that the comparative studies would be more interesting if we included both countries that achieved high growth as well as those that did not, since we then might be able to identify which economic policies seem to be more conducive to growth.

Having excluded the countries where oil is a very large proportion of GNP, it was felt that it would be more interesting to concentrate on land-rich nations, because much of the literature on the Dutch disease refers to countries rich in mineral resources. Often countries that have much agricultural potential also have mineral resources, and these mixed cases are also of interest.

Although it is hard to define which countries are resource rich and which are not, the following countries seemed to fall within the category: Ghana, Thailand, Brazil, Cameroon, Colombia, Malaysia, Indonesia, and Papua New Guinea. Although the case-studies were carried out in these countries, the discussion on the policy problems of resource-rich countries also took into account the experiences of other nations. For example, the cases of Mexico and Venezuela were often discussed, as were those of Nigeria and Côte d'Ivoire.

Professor Setsuko Yukawa and I, with the help of Dwight Perkins of the Harvard Institute for International Development and Professor Ichiro Inukai of the International University of Japan, identified the researchers from the different countries and discussed with them the broad outlines of the project. We then met in Anchorage, Alaska, to discuss the methodology to be followed and the issues we would concentrate our analysis on.

The reason for meeting in Alaska, in addition to the interest of President Olds of Alaska Pacific University in the University and his invitation to host our meeting, was twofold: (1) it seemed a fitting venue for a workshop on the problems of resource-rich territories and (2) Anchorage minimized the travel costs of the participants from three continents. More seriously, the discussions of the development problems of Alaska with staff of Alaska Pacific University was very interesting and suggested that even an "open economy" such as Alaska may have serious dualism problems generated by its rich resource base. Despite extremely high rents from natural resources, important groups of the population of Alaska have not improved their welfare, and there has been little development in the non-mineral sectors. It is therefore not clear that the recommendations that are frequently made to resource-rich developing countries to open up and liberalize their economies following the example of some of the resource-poor NICs take some of these other experiences into account.

After the Anchorage meeting in September 1983, the participants carried out the research in their own countries within the general framework discussed in Alaska. The group met again in Bangkok in December 1985, at the invitation of Juanjai Ajanant, to discuss the case-studies and to attempt to reach some conclusions on the main policy issues faced by policy makers in resource-rich countries.

The participants in this second workshop agreed that the case-studies were very interesting but that, instead of publishing them and allowing the reader to draw his own conclusions from studies that necessarily emphasized quite different aspects of the development experience in these countries, it would be more useful if some of the participants attempted to cover certain issues of importance

brought up by the discussion. The present volume is therefore a collection of essays on some of the major policy problems faced by resource-rich countries.

Copies of the country studies, which are of varying lengths, can be obtained at the United Nations University in Tokyo. The following titles are available:

1. José Marcio Camargo, "NRB Products Boom and Industrial Growth in Brazil, 1967–1980."
2. Thee Kian Wie, "Development Problems of a Resource-Rich Country: The Indonesian Economy since 1966"; "The Effects of the Oil Booms on Indonesian Agriculture and Manufacturing."
3. Juanjai Ajanant, "Problems of and Strategies for Resource-Rich Countries: The Experience of Thailand."
4. Tan Tat Wai, "Lessons from Development Policy of a Resource-Rich Country: Malaysia."
5. Eduardo Sarmiento, "Growth in a Natural-Resource-Rich Country: The Colombian Case within the Latin American Context."
6. J. B. Abban, "Economic Development Strategy for Resource-Rich Countries: A Case Study of Ghana."
7. David Lim, Helen Hughes, Lao Duc Thac, and Samson Polume, "Development Problems of Resource-Rich Countries: A Study of Papua New Guinea."

Unfortunately the Cameroon case-study could not be completed since after the study was well underway, the researcher was unable to continue his participation in the project.

The first chapter of this volume, by Setsuko Yukawa, summarizes the main conclusions of the case-studies and her own work on Mexico with respect to the principal issues faced by resource-rich countries: secular trend in terms of trade, export instability, backwash effects of export booms, government expenditure policies, and the various manifestations of Dutch disease.

Most of the authors make specific reference to the theoretical articles of W. M. Corden on Dutch disease economics. These articles are in fact the most relevant theoretical literature that we found when we started to analyse the development problems of resource-rich countries, but it should also be pointed out that the Dutch disease literature may not be completely relevant for developing countries which are very far from a full employment equilibrium.[1]

Various authors, Tan Tat Wai in particular, analyse how the Corden conclusions can change if one accepts the existence of surplus labour. In chapter 5, he discusses the application of the Corden conclusions under conditions of labour unemployment and underemployment and shows that due to labour surplus, the impact of a relatively large petroleum export boom in Malaysia produced less deindustrialization than the energy booms in the United Kingdom or the Netherlands. He also analyses the bias against industrialization generated by natural resource export booms in open and closed developing economies.

Ichiro Inukai presents (chap. 2) the dissenting view. His paper concludes

that natural resource wealth does not create any special policy issues and that rapid growth can be achieved if countries follow fairly orthodox open-economy policies.

The whole discussion of the problems of Dutch disease and deindustrialization, however, brought the group constantly back to the old issue of the terms of trade and the development constraints imposed by policies which favour natural resource exports as opposed to industrial exports. Eduardo Sarmiento (chap. 4) recasts the Prebisch and ECLA arguments for promotion of industrialization using new arguments and analytical tools derived from the discussion of the problems faced by resource-rich countries.

Another argument used for policies that promote industrialization and export diversification is that commodity exports generate very harmful export instability due to the instability of international prices for these commodities. David Lim (chap. 3) looks at the empirical evidence on the negative relationship between export instability and growth and concludes that such a relationship is not easily confirmed empirically. He notes, however, that most policy makers in developing countries believe strongly that export instability is a barrier to growth. This suggests that, although in theory export instability should not be a barrier to growth, there are very serious political costs to the carrying out of policy changes that adjust the economy to such instability.

In chapter 6, Professor Lim treats another issue related to political economy: tax effort in resource-rich countries. Although in theory many of the undesirable effects of resource booms and export instability can be neutralized through fiscal policy and taxation of natural resource exports, politically it is not easy to follow a "rational" taxation and expenditure policy in countries with large exports of natural resources.

In fact, although this volume shows how difficult it is to industrialize in resource-rich countries, the main barrier to growth might be the inherent political difficulty of taking policy decisions that avoid anti-industrialization biases in these types of economies. The political economy of decision-making is the subject of the last chapter.

I would like to thank Ms. Kumiko Ishikawa and Ms. Noriko Hasegawa of the United Nations University for all their help in the administrative management of this project, as well as Ms. Yoshie Sawada for her invaluable help to Professor Yukawa and myself in the first stages of the project. Although I am not sure she would welcome the responsibility, I should mention that the project and the present publication were finished mainly due to the work and persistence of Professor Yukawa.

Miguel Urrutia
Washington, D. C.
July 1987

Note

1. We also found some interesting articles dealing with the political constraints of policy-making in resource-rich countries that have led to policies which have hindered long-term growth. A good example was Michael Roemer, "Dutch Disease in Developing Countries: Swallowing Bitter Medicine" (Cambridge, Mass., HIID, Oct. 1983, Mimeographed).

CONTENTS

1

CONSTRAINTS ON THE DEVELOPMENT OF RESOURCE-RICH COUNTRIES: A COMPARATIVE ANALYSIS

Setsuko Yukawa

Introduction

The role of international trade in economic development has always been one of the focal points in the literature on development economics. Before the 1950s it was a general view that trade would be an important stimulator of economic growth. This argument is based on the presumption that international trade would increase a country's productive capacity, providing additional markets for its surplus products when there exist surplus land and labour and, by enlarging its markets, would promote division of labour and hence improvement in general productivity.[1] It was suggested that the countries that have comparative advantage in primary production could attain economic growth most effectively by exporting food and raw materials. Experience in the nineteenth century in various countries with rich resource endowments also seemed to reinforce this argument. The United States, Canada, and Australia found part of their bases for economic development in their rich natural resources, and Argentina also, though to a lesser extent, underwent a considerable structural change, taking advantage of increasing world demand for its export commodities. External demand enabled these countries to expand production by more fully employing underutilized land and labour or by attracting foreign investment complementary to their existing factors of production.

In contrast with this view of international trade as the "engine of growth," it has been argued by a group of economists since the 1950s that the secular terms of trade for the less-developed countries (LDCs) had deteriorated, and hence the specialization in primary production would hamper or delay their economic development. Another problem with the export of primary commodities is wide

fluctuations in their world market prices, which have been claimed to be an obstacle to constant progress in structural change necessary for modernization. These propositions have been widely discussed on a theoretical basis and stimulated a production of empirical studies as well, though the results are not necessarily conclusive, as will be seen in the following sections.

In spite of the difference in the views on whether exports can be the "engine of growth," it has been generally accepted that the low capacity to import represents one of the most serious constraints to countries that search for sustained economic growth. During the 1970s, however, quite a few developing countries experienced commodity booms with a substantial increase in export revenues, and the petroleum-exporting countries in particular received huge benefit from the two drastic rises in oil prices. Thus, they appear to have solved a major constraint on development efforts. Yet the performance of the economy of these resource-rich countries has not necessarily been satisfactory as a whole, and during the period of world recession after the second oil crisis, many of them fell into economic stagnation, showing increased deficit in the balance of payments and lack of movement to higher economic diversification. In fact, some of the countries that rank high in the list of countries suffering from debt accumulation are considered to be rich in natural resource endowments, including petroleum. This apparently paradoxical phenomenon in developing countries has often been analysed in relation to the Dutch disease, a phrase coined to describe the perverse impact of North Sea gas production on the Dutch economy, and it is suggested that export booms can actually retard growth in other sectors of the economy.

The objective of this chapter is to analyse, on the basis of the case-studies of selected countries, the specific problems that resource-rich countries might face in the process of economic development and to explore adequate policy measures to better utilize their potentials for developmental purposes.

Secular Trends in Terms of Trade

The view that the primary exporting countries were facing deteriorating terms of trade was first presented by Prebisch and Singer,[2] and it was claimed that as the United Kingdom's net barter terms of trade showed an improvement in the period between 1870 and 1936, the terms of trade must have deteriorated against developing countries. The theoretical explanation for this observation is usually made as follows: First, the world's income elasticity of demand for industrial products as a group is higher than unity, while the income elasticity of demand for agricultural products is below unity. Thus, world production and trade of manufactures grow much faster than that of primary commodities. Secondly, technological progress in manufacturing threatens primary production either by developing synthetic substitutes or by reducing the input of raw

materials required for a given unit of finished products. Consequently, the impact of industrial growth is to weaken the demand for raw materials, and the prices that primary exporters can obtain tend to be depressed. Protectionism in developed countries (DCs) puts even more constraints on the expansion of exports of certain primary commodities. Moreover, the increasing importance of information and services in the production system in the industrial countries is exerting further adverse effects on material imports.

Thirdly, Prebisch stressed the difference in the structure between the agricultural and the manufacturing sectors; that is, while in the former free competition rules, the latter is characterized by the existence of monopolistic powers. This situation is reflected in the different effects of productivity increases on developing economies and industrial countries. In LDCs productivity gains lead to lower prices for primary products under the condition of abundant supply of labour, but in DCs they are translated into higher money wages, thus enabling the industrial economies to obtain the fruits of productivity increases in both groups of countries. In other words, the countries depending on the exports of primary products face secular deterioration in the terms of trade and declining prospects for growth.

These arguments launched a series of analyses of the various components. Apart from the reliability of the statistical data, the main criticisms have been concerned with the following points: (1) whether British net barter terms of trade could be considered as a proxy of those of manufacturing exporters relative to primary commodity exporters; (2) whether inclusion of the primary commodities predominantly produced in developed countries biased the results; (3) whether failure in incorporating the quality improvement of manufactured goods into the price index biased upwards the net barter terms of trade of those products; and (4) to what extent the improvement in the United Kingdom's net barter terms of trade, expressed as a relation between f.o.b. export values and c.i.f. import values, was due to a reduction in transport costs.

Spraos examined these points carefully and reached the conclusion that, although the evidence is not adequate to make a definitive judgement, some deteriorating trend in the relative price of primary commodities can be observed over the period considered by Prebisch. But he also argues that if the record up to the 1970s is taken into account, it is doubtful whether there has been any deterioration.[3]

Indeed, the problem of choosing an appropriate time period is crucial for any analysis of the long-run trend in the terms of trade between primary commodities and manufactures. For example, in connection with the Prebisch evidence, Yasuba indicates that the United Kingdom experienced remarkable improvement in its net barter terms of trade only in two periods, 1913–1921 and 1959–1972, during nearly two centuries after 1796. Moreover, he suggests that — on the basis of IMF statistics and taking 1948–1949 as the base year so as to exclude the influence of the Korean War on the demand for primary commod-

ities — both industrial and non-oil-exporting developing countries improved their terms of trade, largely due to the decline in ocean freight, during the period up to 1973.[4]

The sharp decline of a wide range of primary commodity prices in 1980–1982 and their continuing low level since have stimulated again the discussion on this long-disputed issue of secular trends in terms of trade. Evans has surveyed the results of recent studies on the statistical evidence of the long-run trend in the terms of trade between manufactures and primary commodities, for the period between 1800 and 1983, and concluded that "for the whole of the 20th century, there is evidence of a declining trend in the non-oil primary commodities/manufactures terms of trade" and that "this negative trend would be even stronger for the non-oil and non-metals primary commodities/manufactures terms of trade."[5]

This implies that aside from the general tendency in terms of trade, individual countries may have experienced relatively more favourable or unfavourable trends, depending on their particular basket of export products. Actually, the countries for which case-studies were conducted had varied experiences in this respect during the decades of the 1960s and 1970s.

In the case of Colombia, which greatly depends on a single commodity, coffee, but also exports petroleum, the net barter terms of trade has remained rather stable since 1960, but during the commodity boom periods in the early 1970s and 1977–1978, they showed significant improvement. In Papua New Guinea no downward trend in the net terms of trade could be observed during the period between 1969 and 1983, although a new declining trend might have begun in 1979 for agricultural commodities.[6]

On the other hand, Thailand experienced declining net barter terms of trade, especially after the mid-1970s, and by 1982 they had deteriorated by more than 30 per cent since 1961, the base year. This trend is attributed largely to the unfavourable movement in the relative prices of the agricultural products that still represented 64 per cent of the total exports in 1982 after the continuing diversification of exports, including exports of manufactures. The relative prices of another important group of export commodities, mineral products, which accounted for 7 per cent of the total in 1982, showed a sporadic movement and could not offset the declining trend in those of the agricultural products. Since 1982 deterioration in the net barter terms of trade has been even more serious.

In spite of the decline in the net barter terms of trade, however, due to the rapid increase in world trade, the income terms of trade, which measures the capacity to import by comparing an index of export revenues to an index of import prices, has shown a significant improvement in many cases, and Thailand was not an exception. Its income terms of trade improved considerably, reaching a level 3.9 times higher in 1982 than that of 1961.[7] In fact, the merchandise exports of Thailand increased steadily during the period in question and more than doubled from 1970 to 1985.

Malaysia is another example of a country that has succeeded in accelerating economic growth by increasing exports of primary products. The export structure went through a rapid transformation. In 1960 rubber was the most important item, contributing 55 per cent to total exports, followed by tin, but these products lost their share as a result of the rise of new major exports: first timber, then palm-oil and manufactures, and after the late 1970s, petroleum. Thus, although agricultural and mineral products, excluding oil, still accounted for more than 50 per cent of the commodity exports in 1980, the structure of exports was much more diversified than in 1960, and since then the export of manufactures has been gaining momentum.[8]

Diversification among the major export commodities enabled the country to reduce dependence on the products for which world prices and demand had an unfavourable impact for the exporters and to take advantage of the rapidly increasing demand for new products such as timber and palm-oil. It also meant turning the declining net barter terms of trade in the 1960s to an upward trend in the 1970s, though the virtual collapse of a wide range of primary commodity prices in the 1980s has caused serious deterioration in the country's terms of trade.

These experiences suggest that the pessimistic prospects about the sluggish world demand for primary commodities, in general, do not provide an individual country with useful guidelines, and each country should adequately evaluate the demand prospects for actual and possible export products. For most food staples and beverages, Engel's law is a serious constraint, and technological change has been increasingly oriented toward reducing the requirements of energy and raw materials per unit of output. However, new industrial technology has also given rise to demands for raw materials that were not fully utilized before. Income elasticities of demand are not necessarily low for all primary commodities.

In this regard, Bond argues, on the basis of empirical results obtained in various studies, that income elasticities of demand for developing country commodity exports range from 0.3 to 3.5 and that, although the elasticity of demand tends to be higher for fuel and minerals than for agricultural products, exports of non-traditional crops performed well between 1965 and 1980.[9]

In fact, products such as vegetable oil, prawns, fruits, and timber have made an important contribution to the export expansion of the countries producing these commodities in the last decades. Therefore, for the developing countries success or a lack of success in exporting depends considerably on the types of commodities exported, and diversification of export products is crucial for them to increase their participation in world trade.

Given the structural change going on in the world economy, it is difficult to predict the movement of commodity prices in the future. But past experience shows that LDCs, even if they are richly endowed with natural resources, would not be able to attain rapid economic development based only on the export of

traditional commodities and that ever greater importance should be attached to diversification of export products, including manufactures, to cope with the severe difficulties now prevailing in world commodity trade. Equally important, of course, would be for each individual country to improve its productivity in primary production, whether traditional or newly exploited, in which it has comparative advantage.

Export Instability

Export instability is another factor that has been considered to be harmful to economic development in primary-commodity exporters. Although this issue is analysed in greater detail in chapter 3, a brief discussion on this problem is in order.

Apart from the long-term trend in the net barter terms of trade, export prices of primary commodities fluctuate considerably in the short term. Since both supply and demand of these products tend to be inelastic with respect to prices in the short run, fluctuations in export prices are translated into unstable export earnings. The LDCs whose exports consist mainly of primary commodities inevitably face greater instability in export earnings than do DCs.

The conventional hypothesis is that export instability has detrimental effects on efforts to promote economic growth in both direct and indirect ways. On the external front, shortfalls in export revenues would stimulate restrictive measures on imports, given the balance-of-payments constraints, and these restrictions would make it difficult for the industries dependent on imported goods and materials to operate at full capacity, with the result of a lowering of the level of production in the national economy. The extreme fluctuations in capacity utilization and the high risks involved in having to depend on imported capital goods reduce the incentive to invest. Fluctuations in the prices of export commodities would also induce the risk-averse subsistence farmers to minimize investment in the export cash crops, thus lowering growth rates of exports of LDCs.

Another way the instability in export proceeds is transmitted to the rest of the economy is through fiscal expenditure. Since the fiscal revenues of LDCs usually rely on tariffs and other taxes imposed on export commodities, fluctuations in exports are translated into fluctuations in government revenues and hence expenditures. The reduction of government spending is met in many cases by cutting capital expenditures more than current expenditures because of higher rigidity of the latter. In consequence continuity in planning investment projects is lost, and their delays or set-backs reduce the rate of return in the long run. The result is that efficiency in capital utilization is diminished, and new investments are hindered, forcing adverse effects on the growth of the economy concerned and the welfare of the people, especially those whose cash earnings fluctuate immediately along with exports.