

CHAPTER 1

Introduction

1.1 Background

The past ten years have witnessed major changes in the positions of industrial and developing countries in the world economy. Over this period, the developing countries have grown more, and have invested a relatively larger part of their GNP, than have the industrial countries. Developing countries have also increased significantly their role as export markets for the OECD countries, with their share of OECD exports being currently 40% of the total. They have in addition greatly increased trade among themselves. Many factors contributed to these developments, including resource pricing policies and a decline in the competitive position of industrial countries in certain markets. This decline has occurred both in heavy industries such as steel, and also in skill-intensive manufactures such as electronics. The reverse side of this coin is that many developing countries have increased their dependence on food imports from industrial countries.

Financial markets mirror the developments in goods markets. The current strains in the international monetary system reflect the lag with which our institutions adjust to a changing world economy. An example is provided by the genesis of the current debt crisis. Oil surpluses contributed to the growth of developing country borrowing during the past decade. At the end of the 1970s, high interest rates emerged in the United States and the United Kingdom partly as a policy response to concerns about inflation in an era of higher oil prices. Because of the increased interdependence in the world economy, these higher interest rates have had far-reaching international consequences. Their threefold increase in the four years to 1980 raised significantly the costs of servicing the borrowings of developing countries, and added impetus to the international debt crisis. A combination of high interest rates and a high exchange rate for the U.S. dollar has exerted financial pressure on those developing countries that incurred variable-rate, dollar-denominated loans.

Ironically, the debt problems of developing countries are leading to greater reforms of the international financial system than have been produced by many years of negotiations. The possibility of nonrepayment of major loans threatens the stability of some important international

I



2 The evolving international economy

banks. The IMF has responded to this by proposing an increase in its quotas by 47%, a dramatic departure from its previous record. The Inter-American Development Bank also recently voted to increase its lending by one-third. Moving along similar lines, the U.S. banking community has lately allowed a moratorium of principal payments and a reduction in interest payments on the Mexican debt. International debt crises are of course not new¹: What seems to distinguish the current one is the magnitudes involved.

In addition to gaining leverage over the international financial system, the developing countries have also gained in influence and importance because of their growing role in world trade. As already mentioned, they now provide a market for 40% of the OECD's exports. The community of interests between industrial and developing countries has therefore increased sharply. A natural consequence of this would be a revision of the policies of the IMF to take into account these strengthened international linkages. This includes, in particular, the impact that deflationary policies in developing countries have on OECD export markets.²

In a rapidly evolving economic environment, it is inevitable that our analytical tools require revising and adapting. Rather than succumbing to the appeal of familiar but dated concepts, one must move ahead toward a more realistic conceptualization of the problems and a more practical approach to their solutions. This book proposes economic tools for analyzing changes in the world economy. The relationship between domestic and international factors, and their impact on the evolution of the international economy, are its subject matter.

1.2 The main topics: a summary

There is a set of issues that have emerged during the past decade and that are central to an understanding of the international economy. A characteristic of these topics is that they link international and domestic policy areas in so integral a way that neither can be analyzed in isolation. The issues are as follows:

- 1. The recurrence of recession, the persistence and severity of unemployment in many industrial countries, and the emergence of protectionism.
- 2. The emergence in industrial countries of new technologies that lead to structural changes in domestic and international markets,

¹ See, for example, Chapters 7-9 of Arthur Lewis, *The Evolution of the International Economic Order*, Princeton University Press, 1977.

² For a more detailed discussion see John Williamson, *IMF Conditionality* and *The Lending Policies of the IMF*, Institute for International Economics, Washington, D.C.



1. Introduction 3

and that challenge existing institutional arrangements and trading patterns.

- 3. The changing international environment facing the developing countries, and in particular the issues of international debt, of export strategies and of North-South trade in armaments.
- 4. The pricing of exhaustible resources, including oil, as a major issue in North-South trade, and in the international financial system.
- 5. The perceived limitations of the existing international financial institutions and the impact of declining transfers of wealth from industrial to developing countries.

Several factors underlie the rise of protectionism in industrial countries. One is the persistence of unemployment, in the aftermath of two severe recessions: Unemployment has been associated historically with demands for protection. Yet another factor in the rising tide of protectionism is the changing structure of international trade. The emergence of newly industrialized countries in world trade has led to intense competition in fields central to the industrial economies. Examples are the automobile and steel industries. In the industrial countries these industries have traditionally been important sources of employment, and also of demand for the outputs of other industries.

The pressures for protectionism also represent a failure to adjust to changes in the international economic environment. To the extent that it delays much-needed adjustments in industrial structure, protectionism may harm the industrial countries at least as much as it harms the exporting countries. However, an across-the-board liberalization of trade would be neither a likely event nor necessarily a desirable one, even if rapid structural adjustments were possible in the industrial countries. In our evolving world economy, trade policy must be more selective and integrated. This is a point that has certainly been appreciated by some of the most successful and export-oriented newly industrialized countries.

The emergence of new technologies in industrial countries has increased the importance of economies of scale in production. These new technologies may be very rewarding and contribute to higher living standards. However, they change the behavior of markets in a way that makes existing institutions inappropriate. With economies of scale, market price adjustments may not lead to equilibrium and to economic efficiency. International trade may fail to balance without sector-specific policies on the part of the trading partners. There may be no gains from trade on the part of developing countries that export labor-intensive products in exchange for industrial goods. Scale economies may also reduce the stability



4 The evolving international economy

of the economy and make it more vulnerable to external shocks or to changes in other international market conditions. In such cases, new institutional arrangements are required to diffuse the gains from trade and to ensure smooth responses to evolving economic conditions.

The current international environment generates concern about the viability of export concentration on the part of developing countries, especially when based on the exports of traditional raw materials or laborintensive commodities. International organizations have nevertheless emphasized export-led policies in recent years, frequently in response to balance-of-payments deficits in developing countries, but also as an overall recommendation for rapid development. This originated partly from the apparent success of particular developing countries that pursued vigorous export-led strategies in the early 1970s.

The economic basis for export-led strategies arises from particular views of economic development and of the international division of labor, views that rely on external "engines of growth" for developing countries. These views are questioned at present, and alternatives are being suggested. Export strategies require careful consideration of domestic conditions. Successful strategies must be accompanied by an increase in domestic productivity. In addition, correlations have been found between commodity export earnings and armaments imports of developing countries; these also raise doubts about export-led strategies.

We shall analyze the possibilities and the limitations of export-led policies. A general endorsement cannot be given to one of the obvious alternatives, import substitution. Import substitution is too general, as it affects most sectors, and is at the same time too restrictive, as it affects only the supply side of the market. More selective strategies are needed. We analyze the extent to which engines of growth for the developing countries can be provided by domestic markets or by trade among the developing countries themselves.

Following a long period of inexpensive energy, the emergence of energy constraints and of higher oil prices in industrial countries has highlighted the importance of trade in extractive resources. For the past decade, oil pricing policies have been a major concern of industrial and of developing countries. Because of uneven patterns of consumption and of endowments, trade in exhaustible resources has emerged as a central issue in North-South trade.

The pricing of extractive resources has traditionally been a source of North-South conflict, with the exporting South arguing for better prices and the North resisting the South. Changes in the price of oil, however, have forged a strong interdependence between the North and the South, both in real and in financial markets. There is now a common interest



1. Introduction 5

between importers and exporters in keeping oil prices within a reasonable range – not too high, but not too low. Theoretical as well as empirical analysis argues for cooperative pricing policies in extractive resources.

We examine the impact of resource prices on the economies of the importing and the exporting regions. Recent experience of the impact of oil exports on economies such as Mexico, Venezuela, Ecuador, and Nigeria runs counter to conventional wisdom. These and other oil-exporting countries have benefited far less from oil exports than was expected. Similarly, extended periods of low oil prices have been a mixed blessing for importing countries. The evidence from the past decade contains important lessons on the effects of resource exports and their prices.

North – South transfers have been discussed for many years in the international development community. They emerged as the policy of choice in the reduction of North – South wealth differentials. The evidence shows, however, a consistent downward trend in such transfers. Currently they do not meet even half the minimum target proposed by the United Nations in the 1970s.

In the aftermath of the most recent recession in the industrial countries, the issue of North – South transfers has lost immediacy: In most industrial countries aid is no longer a policy priority. We analyze the impact of North – South aid and the conditions under which it is likely to reduce wealth disparities. International transfers are analyzed in the context of international markets. We analyze market responses, which play a large role in determining the final welfare effects of transfers.

Developing countries have on average sustained higher growth rates and savings rates than industrial countries in the past decade. Investment in developing countries has been financed in part by foreign capital flows. Many loans to developing countries originated in OPEC surpluses, which were recycled by Western banks. Short-term commercial debts accumulated rapidly over the past decade. The recent rise in interest rates in the United States and the United Kingdom, and the associated decline in the export markets of developing countries, has greatly increased the burden of this debt since the turn of the decade. Widespread concern exists about the sustainability of the current situation, and this has led to changes in international finance, as well as expectations of further changes in our international financial institutions.

Technological change and unemployment, the effects of exports of raw materials and of labor intensive commodities, the price of oil and the upheavals in the world's financial system – all are part of a gigantic puzzle. The following chapters should offer the reader some clues about how this might be assembled.



6 The evolving international economy

1.3 The structure of the book

The next seven chapters are concerned with analyzing the main issues and deriving conclusions. We begin with an overview of the economic situation of the industrial market economies, as a basis for the analysis of the international economy. We emphasize the relationship between macroeconomic problems and modern industrial structures in the industrial countries. The following chapters are concerned with the growth of protectionism and the emergence of managed trade, and with the main issues in the developing countries: an evaluation of export strategies; armament trade; the role of aid; international lending and international financial institutions; and the issue of international trade in exhaustible resources. Each section contains both an economic analysis and an indication of the policy implications of the analysis. The overall conclusions are drawn together in Part III, where they are also illustrated by reference to particular examples.

Part IV of the book then returns in more technical detail to four of the issues analyzed in the first two parts, and presents in outline the formal models upon which the earlier analysis and conclusions were based. The intention is to provide the reader acquainted with economic theory with an indication of how one proves the main results used in the text. Formal proofs are to be found in the references cited. The results that we select for this treatment are those sharing two characteristics: They are central to our analysis and are generally not well known, except perhaps in technically oriented professional circles. It may be several years before they find their way into textbooks, so it seems useful to make them more widely available here.



PART I

Industrial economies and the international market



CHAPTER 2

Domestic policy issues

2.1 Introduction

There has been a marked decline in the macroeconomic performance of the industrial countries since the early 1970s. This has taken the form of lower growth rates of GNP and of productivity, and of higher levels of inflation and unemployment. During this decade the industrial countries experienced the worst recession since the 1930s, and at the time of writing not all of them have recovered fully from this experience. In many Western European countries unemployment figures are in double digits, and inflation rates are high by historical standards.

There has been an extensive debate about the causes of this poor performance and about the policy measures necessary to remedy it. As yet there is little general agreement on these issues. An explanation that initially was widely canvassed attributed the recession of the 1970s to the increases in oil prices in 1973 and 1978–9. However, there is now general agreement that, although these price increases had some negative consequences for the industrial economies, these consequences were certainly not of the order of magnitude required to explain the recession of the 1970s. The principal causes must be sought elsewhere. We discuss the macroeconomic impact of higher oil prices in Chapter 7.

In this chapter we develop an alternative analysis of the macroeconomic characteristics and performance of advanced industrial economies. A central aspect of this analysis is the emergence of new technologies, which have fundamentally altered the macroeconomic characteristics of certain sectors of industrial economies. New technologies hold great potential for increases in productivity and living standards; however, like many previous technological advances, they require changes in social and economic organization and management if they are to be harnessed effectively. For example, the increased scale of production and the more extensive division of labor associated with the industrial revolution held great potential for increases in living standards; however, these were only realized fully after the development of new institutions as diverse as limited-liability joint stock companies and legislation on children's working conditions.



10 I. Industrial economies, international market

2.2 Macroeconomic performance and new technologies

Adam Smith observed that greater division of labor leads to higher productivity. He also observed that the scope for division of labor depends upon the extent of the market, so that it is more efficient to serve large markets than small ones. This point is central to the concept of economies of scale. "Economies of scale" and "increasing returns to scale" are phrases used to describe economic activities whose efficiency is greater at larger scales of production.

The emergence of new technologies in industrial countries has increased the importance of economies of scale in production. Examples can be found in electronics, telecommunication, transportation, and in many financial activities. In fact, any activity making extensive use of information or of telecommunication activities as an input will be characterized by economies of scale.¹

It is also true that improvements in information technology have removed many of the managerial diseconomies of scale associated with communication and control in large organizations. It is precisely this type of diseconomy that was traditionally offered as a cause of diminishing returns at large scales of activity. Removal of these managerial diseconomies therefore postpones the incidence of decreasing returns to scale and makes increasing returns more likely.

Now, it has been recognized for a very considerable time that economies of scale are a major source of productivity growth. It is, however, generally acknowledged that they have become pervasive only in the postwar period.² The expansion of markets during this period, both through economic growth and through increased international trade, was able to sustain new technologies more effectively when these were oriented to large-scale production. This economic expansion thus provided

- ¹ There is an extensive empirical literature on the extent of economies in a range of manufacturing industries. For example: J. S. McGee, "Economies of Size in Auto Body Manufacture," *The Journal of Law and Economics* 16 (October 1973), 239–73; J. Ayler, "Plant Size and Efficiency in the Steel Industry: An International Comparison," University of Salford, Salford, 1981; C. Pratten and R. M. Dean, *Economies of Large-Scale Production in British Industry: An Introductory Survey*, Cambridge University Department of Applied Economics, Occasional Paper no. 3, Cambridge University Press, 1965; Z. Grilliches, and V. Ringstad, *Economies of Scale and the Form of the Production Function*, Contributions to Economic Analysis, North-Holland Publishing Co., Amsterdam, 1971. The role of information in generating economies of large-scale operation was first noted in R. Wilson, "Informational Economies of Scale," *Bell Journal of Economics* 6(1)(Spring 1975), 184–95.
- ² See, for example, the references cited in Elizabeth Bailey and Anne Friedlander, "Market Structure and Multiproduct Industries," *Journal of Economic Literature*, 20(3) (September 1982), 1024-48. An earlier study emphasizing the growing importance of increasing returns is N. Kaldor, *The Causes of the Slow Rate of Growth of the U.K. Economy*, Cambridge University Press, 1967.



2. Domestic policy issues

11

an incentive for large-scale technologies, which then evolved rapidly. This evolution led to significant macroeconomic changes, which are the subject of this chapter.

We shall argue that scale economies have costs as well as benefits: They make the economy more vulnerable to shocks and reduce its ability to adjust to a changing environment.³ As a matter of fact, an economy with increasing returns behaves very differently from one with diminishing returns and thus requires institutional arrangements and policies that are quite different.

2.3 Stagflation and economies of scale

Scale economies lead to outcomes strikingly different from those predicted by the textbook assumption of diminishing returns to scale. For example, a recession is commonly associated with lower prices, and an expansion with higher prices. With economies of scale these relationships are reversed. The explanation is simple.

In a recession demand and output drop. With diminishing returns, by definition, efficiency increases, so that costs and prices drop as well. This is the "leaner and fitter" view of the benefits of recession. Lower output leads here to more efficiency and to lower prices.

With increasing returns to scale this logic is reversed. Lower output levels lead to less rather than more efficiency, and thus lead to higher rather than lower costs and prices. Therefore with economies of scale a recession leads to inefficiency and to higher prices. This is usually called "stagflation," a phenomenon acknowledged to be difficult to explain in terms of the traditional assumption of diminishing returns.

Economies of scale therefore provide an explanation of stagflation that is not yielded by traditional assumptions. In stagflation we have recession

³ At this point it is important to distinguish between an economy's vulnerability to shocks and the actual degree of cyclical variation that it exhibits. The phrase "increased vulnerability to shocks" means that, other things (including policy responses) being equal, a given shock has a larger impact. Now, there is empirical evidence to suggest that the degree of cyclical variation in the major macroeconomic aggregates of the U.S. economy has fallen over time (see J. B. Delong and L. H. Summers, "The Changing Cyclical Variability of Economic Activity in the United States," National Bureau of Economic Research, March 1984). This empirical evidence is not inconsistent with the argument that the economy is more vulnerable to shocks in the above sense because, over the period studied by Delong and Summers, macroeconomic stabilization policies improved greatly and automatic stabilizers such as unemployment and social security payments became much more widespread. Such institutional and policy reforms could have more than compensated for an increased responsiveness of the underlying economic system to shocks. Indeed, there is some evidence of such an increased underlying responsiveness: Delong and Summers refer to evidence "that the persistence of output shocks actually increased between the pre- and post-war periods."