

CHAPTER 1

Economic Structure, Policy, and Growth

ALMOST A DECADE into the twenty-first century, absolute poverty still pervades outside the industrialized world. Helping poor people in developing countries improve their standards of living is on the short list of international policy goals. There are a multitude of ideas about how poverty should be analyzed and attacked. Although there have been some success stories, particularly in East Asia, the unhappy truth is that anti-poverty programs in developing countries have quite often failed or have had limited success.¹

The reason is that they did not enable poor economies to generate long-term growth of real per capita income. A useful rule of thumb is that developing and transition economies should sustain at least 2 percent annual per capita real growth of gross domestic product (GDP). This would stop the gap separating their standards of living from the industrial world's from widening even further, and 3 percent or more would gradually reduce it. A 2 percent per capita growth rate can make a big dent in poverty by increasing average income by 22 percent over 10 years and 49 percent over 20. In addition, growth can only address poverty concerns if it generates new jobs to keep pace with a rising labor force.

Relatively few developing and transition economies have been able to mount steady growth at 2 percent or higher for long time periods. The quarter century or so after the second oil and interest rate shocks of 1979 was particularly critical in this regard, as many developing countries started to face long-term stagnation or even regression. Our task in this book is to ascertain the reasons and to suggest policy initiatives to offset the difficulties that we will uncover. Our focus is the links between economic *structure*, policy, and growth. The emphasis on the term "structure" is essential, as our analysis is deeply embedded in a "structuralist" tradition of development economics, which we view as providing the best way to understand the problems that the people in poor countries have to confront in trying to reshape their national economies.

Since the mid-1970s and, particularly, the 1980s and under the strong influence of the World Bank and the International Monetary Fund, there was a significant change in the overall framework for development policies, from the tradition of strong state intervention that had prevailed after World War II toward what came to be called the “Washington consensus.” This orthodox framework asserts that economic liberalization—that is, letting the market take over from the state—is the answer to speeding up growth in the developing world. This recommendation was followed, to a greater or lesser extent, in developing and transition economies, and they experienced a poor growth record.

Our framework departs from these orthodox views, arguing in particular that there is clearly something missing from mainstream analysis: *it omits structure and structural change*. This argument may sound paradoxical because the main orthodox slogan was “structural reform,” the term frequently used instead of “economic liberalization,” which is what it was meant to imply. The use of the term “structural” in these programs is entirely different from the older usage adhered to in this book and explained later in this chapter.

Poverty is central to this distinction. The most widely publicized antipov-erty program today is the Millennium Development Goals (MDG) effort sponsored by the United Nations. It calls for roughly doubling foreign aid to the poorest economies over the next 10 years. The aims are exemplary. An incomplete list of the MDGs ranges from halving by 2015 the levels of extreme poverty and hunger that developing countries had in 1990, providing universal primary education, sharply reducing infant and maternal mortality, increasing access to water and sanitation, and ensuring environmental sustainability.

We certainly accept these merit social goals, but present two caveats. First, there is a major question about whether foreign aid flows will increase from around \$100 billion per year in 2007 to the levels required to meet the MDGs. This problem is compounded by the fact that the measured aid flows include “debt relief” to the poorest countries, which is not really new aid, as well as technical assistance delivered by professionals from donor countries, which may be useful but is very costly. Such outlays are not really funds available for the recipient countries to spend on achieving the MDGs.

Second, the emphasis on merit social goals hides the fact that the key to reducing poverty is growth of the purchasing power of the poor. As discussed in chapter 7, international aid by itself is unlikely to make sustained growth in the poorest economies come about. Growth accompanied and supported by structural change is what is needed.

How economic policy can be utilized in diverse structural circumstances to generate growth is the question at hand. The complications to be addressed are summarized in this chapter, which serves as an introduction to the chapters to come.

Economic Growth

To begin, we should define the terms “economic structure,” “policy,” and “growth.” The latter is measured in traditional fashion as an increase in real gross domestic product (GDP; either as a level or per capita), both economy-wide and for specific productive sectors.

Measuring Economic Output

The basic idea about GDP measurement comes from John Maynard Keynes (1936). In his *General Theory*, he explicitly embraced double-entry bookkeeping for the entire economy by postulating that national income=national output. As discussed later, in an economy hypothetically closed to foreign trade, an equivalent assertion is that saving=investment. For Keynes, investment was the driving force with saving adjusting to meet it via changes in the level of output.

National accounting had been proposed many times before, but Keynes was the first to adopt income and output as joint measures of economic value (Mirowski 1989). The national income and product accounts—or “national accounts,” for short—can be extended to incorporate mutually offsetting financial transactions in the flows of funds accounts, which add up over time to national financial balance sheets. “National balance sheets” refer only to the assets and liabilities of residents in a country vis-à-vis residents in the rest of the world; it is in this sense that we will use the term. Asset and liability positions do not usually offset each other, giving rise to a situation in which there are either net national foreign assets (the residents of the country are net investors in the rest of the world) or net foreign liabilities, the more common situation in the developing world (and in the United States, with some developing countries now being net lenders).

In the simplest version of the national accounts, the value of output is equal to the sum of all forms of spending: private consumption, investment, government spending, and exports. Producing the output generates income flows which go to workers, recipients of profit incomes, proprietors such as peasant farmers and small merchants, and the rest of the world (via imports into the local economy and transfers such as profit remittances going out). Much of macroeconomics is about rules to determine how the system adjusts to bring equality between income (or output) and spending. Examples are presented throughout this book.

The double entries suggest that GDP can be calculated as a sum of either incomes or spending. Most advanced economies do it both ways and report a “discrepancy” (usually in the neighborhood of 1 percent) between the two sets of estimates. Many poor countries attempt only the output side and compute some component of spending (usually private consumption) as a “residual.”

Sectoral output or “value-added” estimates themselves may be residuals as well, each computed as a total value of gross output minus costs of intermediate inputs.² GDP from the output side is the sum of levels of value-added across economic activities. Value-added in turn should be the sum of payments to “primary factors of production” such as labor, capital, and entrepreneurship—that is, incomes.

GDP estimates are blends of diverse economic indicators of varying reliability mixed into one overall system of accounts. The cooking procedures differ greatly across countries and time. However, for better or worse, economic policy discussion is always framed nowadays in terms of the national accounts.

GDP must be estimated using current market prices. “Real” GDP is such an estimate at current prices divided by some price index,³ in principle constructed in such a way as to be consistent with the overall accounting framework. Numbers on economic growth are always based on real output computed in this fashion. In turn, if total GDP is growing at a rate of, say, 4 percent per year, real per capita GDP must be growing at 4 percent minus the rate of population growth.

A related concept is average “productivity” or real output divided by some real input, say, a measure of labor, capital, or energy employed in production. Estimates of labor come from employment statistics, capital is the sum of levels of real net investment (gross fixed capital formation less depreciation) over time. Productivity growth is the growth rate of output minus the growth rate of the relevant input. Much of the discussion to follow (in chapter 3 in particular) centers on different measures of productivity growth.

Supply-Side Considerations

Growth rates of labor and capital productivity are the numbers most commonly considered. Income per capita cannot increase without rising labor productivity, but what about capital? For most economies, the evidence suggests that the output/capital ratio is fairly stable (as it is across business cycles in the United States) or else tends to fall. Four observations follow:

First, using simple algebra (see appendix 3.2), one can show that the ratio of capital productivity to labor productivity must be equal to the ratio of employed labor to employed capital. During recent economic growth in East Asia, the labor/capital ratio decreased because of the high rate of investment in those economies. With labor productivity growth rates well over 2 percent per year, the equation just mentioned shows that, based on a “theorem of accounting,” capital productivity either had to fall or stagnate. Critics of the East Asian development model stress that it is “inefficient” because of falling capital productivity. The assertion is meaningless, because it turns an algebraic artifact into a diagnosis of economic malaise. The same empty accusations apply to many

developed economies such as Japan, the United States, or the United Kingdom during their years of fast growth, as they all experienced falling or stagnating capital productivity (see table 2.8 in Foley and Michl 1999).

Second, mainstream economists put a great deal of emphasis on “total factor productivity growth” (TFPG) as proposed by Robert Solow (1957). TFPG is a weighted average of labor and capital productivity growth rates, with the weights being the shares in value-added of payments to providers of labor and capital. The problem is that the weights are virtually impossible to compute in developing economies. There the data typically show that labor remunerations may be somewhere around 20–40 percent of GDP in low- to middle-income economies, with recognizable payments to capital in a similar range. The rest, calculated by employing the residual approach, goes to “proprietors” such as peasant farmers and urban service providers. What fractions of their incomes should be attributed to capital (including land) and labor is very difficult to say. It is better to look at trends in labor and capital productivity separately to try to figure things out.

Third, the standard approach, devised by Frank Ramsey (1928) and Solow (1956), is to explain output growth solely from the side of supply, stressing the “contributions” of TFPG plus labor and capital growth rates to the total. The capital stock grows as a result of each year’s flow of investment, assumed to be determined by available saving under conditions of full employment.⁴ Labor supply is supposed to be set by demographic developments. TFPG follows from unspecified “technological factors.”

An alternative view is that, for reasons discussed later in this chapter, labor productivity is likely to grow more rapidly when output growth accelerates (and perhaps when real wages rise, inducing firms to use labor inputs more effectively). Output itself may be driven by increases in demand when labor is not fully employed and, in particular, not fully employed in the “modern” sector of the economy. This situation is typical in developing countries, where a large “subsistence” labor force in “traditional” rural and “informal” urban activities exists alongside the “modern” sectors of the economy, as emphasized by Lewis (1954).

Under these conditions, a demand push generated by external or domestic factors will increase productivity growth, by allowing dynamic modern sectors to draw upon subsistence labor—which, using the analogy proposed by Karl Marx, operates as a sort of “reserve army,” but of the underemployed rather than the unemployed. Shifting labor from low- to high-productivity activities will by itself lead to an increase in labor productivity, but this effect is compounded by the fact that, as we will see later, a faster rate in the growth of production in the modern sector will lead to productivity improvements. Faster productivity growth is therefore the joint effect of the reduction of underemployment and

improvements in productivity generated by dynamic growth in the modern sector. On the other hand, if demand is weak, the economy will adapt through the absorption of the surplus labor by traditional and informal activities, thus generating a reduction in overall labor productivity.

Under these conditions, weak productivity performance is the *result* rather than the *cause* of weak output and demand growth. More generally, output and productivity growth rates are jointly determined. Employment growth then follows as the difference between them. It may fall short of the expansion of the labor force, or even lead to a situation of “jobless growth.”

In a successful development experience, employment growth in the modern sector should exceed the growth of the total labor force, thus allowing increasing absorption of the underemployed into higher productivity activities. But the opposite may also happen, not just because growth is weak but also because the economy is structurally predisposed toward jobless growth. This situation is not uncommon in mineral exporting economies where the most dynamic sectors create very few jobs or during trade liberalization episodes when firms facing rising external competition increase productivity at the micro level basically by shedding workers.

This reading of the evidence, introduced by Nicholas Kaldor (1978, chap. 4 based on a lecture from 1966) is used extensively in chapter 8. According to Kaldor’s analysis, physical capital serves as one of the major vehicles for bringing new technologies into the system with its growth ultimately regulated by the growth rate of investment demand and saving adjusting via change in output as suggested by Keynes. Higher investment leads to productivity increases as it incorporates new technologies and product innovations (Kaldor 1978, chaps. 1 and 2). Output expansion in turn generates productivity increases through the exploitation of static and dynamic economies of scale, associated in the latter case with learning-by-doing and technological innovations induced by production experience.

Labor underemployment thus allows investment dynamics to play the leading role in determining the rate of growth of both GDP and productivity. In open economies, the determining demand factor may be exports or external financing. These two variables play a crucial role in macroeconomic dynamics in developing countries. Interestingly, as we will see, they are also key determinants of aggregate supply when foreign exchange becomes scarce.

As is often the case in macroeconomics, the data do not suffice to distinguish between the theories, but there may be a presumption in favor of the demand-oriented analysis when we see major variations in underemployment. In any case, the traditional supply-oriented interpretation does not seem to hold in developing countries. When supply constraints are important, it is generally foreign exchange rather than the capital stock or the available labor force that plays the crucial role.

What the data can certainly do, as we will see in chapter 3, is rule out any strong association between other supply-side factors, such as increases in average years of schooling (“human capital accumulation”) and high levels of direct foreign investment, with the growth rate of per capita income.

Finally, under the threat of global warming, energy use from fossil fuels is of growing policy concern. As with capital, one can show that the growth rate of labor productivity must be equal to the growth rate of energy productivity plus the growth rate of the energy/labor ratio.

The ratio of fossil fuel energy use to labor ranges from 0.49 terajoules per person-year in industrialized economies (0.61 in the United States) to 0.01 in sub-Saharan Africa (SSA).⁵ Between 1990 and 2004, energy/labor ratios were growing at rates exceeding 3 percent per year in the rapidly growing Asian economies. In industrialized countries, the ratio grew at 0.1 percent after decreasing by -0.3 percent per year between 1970 and 1990 (see full details in chapter 3).

Rough calculations using a study on carbon dioxide emissions by climate experts (Socolow and Pacala 2006) suggest that to hold global greenhouse gas emissions constant, developing country energy/labor ratios might have to *decrease* by 1 percent per year.⁶ Whether such a shift in energy use patterns will be even remotely possible, without seriously undermining efforts to increase productivity, is very much an open question.

Economic Structure

The concept of “economic structure” refers to the composition of production activities, the associated patterns of specialization in international trade, the technological capabilities of the economy, including the educational level of the labor force, the structure of ownership of factors of production, the nature and development of basic state institutions, and the degree of development and constraints under which certain markets operate (the absence of certain segments of the financial market or the presence of a large underemployed labor force, for example).

These basic factors are reflected in relationships among the numbers that appear in the national, trade, fiscal, monetary, and financial accounts along with indicators of employment, educational levels, and energy use. They are also reflected in the network of production and demand linkages among sectors in an economy—both backward and forward linkages in Hirschman’s (1958) well-known terminology—or, indeed, the lack or destruction of them.

Some of these relationships have important distributive implications. In this case, structuralists adopt the “classical” approach of Adam Smith, David Ricardo, Thomas Malthus, and Karl Marx in focusing on collective actors—organized groups or classes such as capitalists, landlords, and peasants. Relationships among collective actors help to determine the way both state and market

institutions are framed, which in turn influence relative prices and the income distribution (think of Malthus's theory of population and Marx's reserve army of the unemployed), as well as technical progress, investment, and aggregate supply. On the other sides of markets are factors that determine the level of effective demand ("animal spirits" of investing firms for Keynes) and also the pace of productivity growth. As in Kaldor's model previously sketched, the economy's position depends on these interacting "supply" and "demand" systems.

Contemporary structuralists also follow Keynes in emphasizing how accounting restrictions among economic actors—essentially, what is bought must be sold (the gist of the national accounts system) or what is borrowed must be lent (the flows of funds accounts)—play a crucial role in determining how aggregate demand and supply forces interact.

Such macroeconomic accounting balances underlie Keynes's basic insight that often, but not always, the level of effective demand determines aggregate supply. As we have pointed out, in a developing country this rule most often breaks down when there are strict limits on available foreign exchange.

Underlying both demand and supply are also shifting financial decisions by collective actors such as the real estate and stock market speculators and hedge funds that can strongly affect the overall outcome. The external crises described in the following sections are telling examples. The economy's financial structure strongly influences the ebb and flow of transactions within it.

As will be clear throughout this book, a critical structural issue for developing countries is their trade and financial linkages with the rest of the world—their "insertion" into the world economy, to use the terminology of Latin American structuralism. This insertion is influenced, in turn, by the structure of the global economy, and the particular "asymmetries" that characterize it—its "center-periphery" dimensions, to use again the terminology from this influential group of structuralists.

Two sorts of asymmetries are particularly important in this regard: (1) most technology generation is concentrated in industrial countries, which determines the direction of technology flows but also the patterns of specialization in the production of goods and services with different technological content; and (2) the world currencies are the currencies of the major international economic powers, international financial intermediation is concentrated in those countries, and developing countries are either cut off entirely from those capital flows or are subject to strong upward and downward swings in the availability and costs of external financing (Ocampo and Martin 2003).⁷

Production Structure and Growth

There are two views regarding the role and implications of production structure for growth. The conventional narrative is that structural change in the

patterns of production, expressed numerically in terms of variations in sectoral contributions to output, employment, investment, and patterns of specialization, is just a side effect of growth. As the economy expands and markets enlarge, new demands require new production processes that come into being by attracting inputs such as labor and capital. The structural configuration adjusts to incorporate novel activities or to enlarge existing ones. Growing economies almost always move from primary to secondary and further toward tertiary sectors.

The alternative view is that these patterns of structural change are not just a byproduct of growth but rather are among the prime movers. This has inherent policy implications. Because production structure must change if growth and development are to proceed, conscious choice of policies that will drive the transformation of the system toward certain sectors is essential for long-term economic expansion.

This insight is ignored by most contemporary economic theory. But it arises from observation and analysis of economic performance of developing countries around the world in the past and present. Economists who have been trained within the structuralist tradition share this perspective, holding that development requires economic transformation or the “ability of an economy to constantly generate new dynamic activities” (Ocampo 2005), particularly those characterized by higher productivity and increasing returns to scale of production as reflected in decreasing costs per unit of output. This logic underlies Kaldor’s growth model, which was previously described and will be discussed further in chapter 8.

One key aspect of growth in the poorest countries is that agriculture dominates the economy. Therefore, agricultural productivity growth is crucial, as in sub-Saharan Africa now. But productivity increases in the sector are significantly constrained by lack of access to modern technology, natural factors such as low fertility land, and mostly by its intrinsic inability to offer increasing returns. Hence, per capita output growth at 2 percent requires even higher growth rates of labor productivity in leading sectors (assuming that the ratio of employed labor to the population is fairly stable).

At higher income levels, the leading sector(s) must offer increasing returns and opportunities for robust output growth in response to demand. As demonstrated in chapter 3 and a raft of historical studies, a clear pattern of structural change emerges from the data for economies (today mostly in East and South Asia) which sustain rapid growth. Historically, manufacturing has almost always served as the engine for productivity growth but not for job creation (India with its information processing boom is an intriguing recent exception). For a sector or the entire economy to generate employment, its per capita growth rate of demand has to exceed its productivity growth. Net job creation usually takes place in services.

As discussed in chapter 4, patterns of international trade also shift as economies grow richer. Their exports become more technically sophisticated and shift from raw materials toward manufactured products, especially in recent decades with the explosion of assembly manufacturing around the world. Import composition also shifts in response to overall changes in the basic structure of the economy. Indeed, those changes in the pattern of specialization in international trade are an essential part of the transformation of production structures, a fact that has been highlighted by the role that the terms “import substitution” and “export diversification” have played in development debates. Concerning these changes, one key question is whether an economy can pass through the raw material and assembly export stages to sell products abroad that have a high value-added content at home.

Development Policy

The links between growth and production and trade structures have profound implications for development policy. There is an insight that was placed at the center of development writing from the 1940s to the 1960s but can be traced to before Adam Smith. It has been recently restated by Reinert (2006) and formalized by Ros (2000) and Rada (2007), following classical development economics and Kaldor, respectively, as well as the essentials of Lewis’s labor surplus model. It says that the economy can be viewed usefully as a combination of increasing returns sectors and more plodding constant or decreasing returns activities.⁸ Dynamics between markets, forces of innovation, finance, and productive sectors can produce virtuous circles of growth and development based on decreasing costs per unit output. Smith realized but did not emphasize that the invisible hand may need assistance in promoting the development of such virtuous circles. As Alexander Hamilton and Friedrich List pointed out explicitly a few years later, the conscious action (the visible hand) of the policy maker is often required.

The goal is to stimulate the sectors with increasing returns while shifting resources from elsewhere in the economy. The patterns of productivity and employment growth sketched previously and presented in detail in chapter 3 precisely represent this sort of structural change. The now-industrialized economies succeeded at this task. The question is how to design policies that will facilitate similar processes elsewhere. Historically, the state has played a crucial role.

For many decades, there was proactive developmentalist state intervention in the now-industrialized economies (Chang 2002) and in twentieth-century success cases in the developing world (Amsden 2003). Consider the United States in the nineteenth century. Booming agricultural exports prevented a

foreign exchange bottleneck. There were enormous public subsidies (with enormous corruption) to support investment in canals and railroads and the highest tariffs in the world to protect industry. Entrepreneurs from John D. Rockefeller to the “Robber Barons” abounded, paying scant heed to conventional property rights (if only because they had well-remunerated judges under their control).

For many developing countries, possibilities of pursuing any such strategy effectively disappeared in the last two decades of the twentieth century with the metastasis of the Washington consensus. Under the tutelage of World Bank and International Monetary Fund, countries moved to liberalize their external current and capital accounts along with domestic financial and (to a lesser extent) labor markets. They also privatized public enterprises, de-emphasized or many times entirely dismantled industrial policy interventions, and allowed a greater private sector role in general. Fiscal austerity figured in many programs sponsored by the Bretton Woods Institutions.

In effect, policy makers in developing countries had their hands tied by the liberalization process—in the areas of macroeconomics and industrial policy among others. In a currently popular phrase, their “policy space” contracted immensely. One task for the future is to devise institutional changes that can open it back up. Suggestions are presented throughout the book.

Foreign Exchange Constraints and Financial Structures

Structural factors relevant to the growth process are not limited to production and the forms of insertion into the global economy. Constraints on macroeconomic policy are also very important. The two most critical constraints relate to external and domestic financing.

As already pointed out, the limited availability of hard currency is perhaps the crucial bottleneck for many developing countries at different stages of their development process because it can hold down both supply and demand. The lack of foreign exchange during economic downturns, due to falling export revenues or reduced access to external financing, forces authorities many times to adopt macroeconomic policies that end up reducing economic activity and employment. On the contrary, if foreign exchange were readily available, effective demand could increase and it would stimulate private sector investment and innovation. How to relax the foreign exchange constraint has therefore been a perennial preoccupation for the economic authorities in developing country capitals almost everywhere.

Domestic finance is needed to support investment in both working and fixed capital. However, commercial banks in many developing countries do not provide even necessary working capital, particularly for small firms, and are particularly bad at providing long-term financing for new fixed capital formation.

For this reason, the state has frequently had to step in to provide financing, often through the vehicle of development banks targeting productive investment.

The development of local financial capital markets—stock and bond markets and associated transactions in derivatives—is also limited in many developing countries, a fact that has major implications for running both fiscal and monetary policy. If there is no adequate way to finance public sector deficits by selling treasury bonds in the domestic capital market, authorities may force commercial banks to buy them or resort directly to central bank financing, thus generating a complex and undesirable interaction between fiscal deficits and money creation.

Furthermore, most advanced forms of monetary policy depend critically on the existence of a domestic capital market in which the central bank can actively sell and buy bonds. Macroeconomic policy is significantly constrained by the availability of instruments when there is no developed domestic capital market. This issue is discussed extensively in chapter 6.

Macroeconomic Environment and Growth

A supportive macroeconomic environment for growth is essential. The details have varied greatly in successful countries, but a few general observations apply. They are developed in more detail in chapter 7. The key point is that there can be structural limitations on policy freedom in developing countries, even before restrictions that donors and international financial institutions may impose.

Supposing that growth of production and employment is the major policy goal, then “macro” prices, in particular the real exchange rate, should not be “too low”¹⁰ and the real interest rate should not be “too high.” Low, positive real interest rates stimulate investment and help balance the financial system. A weak (“high”) exchange rate holds imports down and helps an economy push into new export lines. Stability of macro prices is also desirable. If they fluctuate rapidly, medium-term business planning is impossible. In practice, maintaining a favorable configuration of macro prices is generally not an easy task.

“External balance” is also a key issue. Suppose for concreteness that an economy is running a current account deficit (that is, exports and current payments from abroad such as emigrant remittances are less than imports plus payments such as interest and profit remittances going out). The economy must borrow externally to cover the deficit (even most foreign aid is conventionally treated as loans). Incoming new lending from the rest of the world is positive.¹¹

Moreover, some group(s) within the economy must be doing the counterpart borrowing to match this lending from abroad. The simplest separation is

between the public and private sectors—one or the other or both must be running a deficit to absorb financial capital inflows from abroad. In other words, private expenditure minus income (or investment minus saving) plus the consolidated government deficit must equal the foreign deficit.

Finally, as discussed extensively in the following chapters, unstable external financing plays a crucial role in the determination of macroeconomic balances and dynamics in developing countries. A major challenge is that macroeconomic policies are pushed toward behaving in a “pro-cyclical” way. That is, they reinforce both the boom and the crisis, and thus magnify the effects of external oscillations on the domestic economy. Macroeconomic policy space is limited by one of the very factors that determine the business cycle: unstable capital flows (Stiglitz et al. 2006).

As will be seen, the interplay among macro prices, external balance, and pro-cyclical conditions can be quite complex and strongly conditions possibilities for economic growth. Two illustrative scenarios help to make this point: external shocks and unstable international capital flows.

External Shocks

After an external crisis generated by reduced export earnings or limited external financing (in many cases these two macroeconomic shocks coincide), an economy almost always is forced to cut its external deficit or increase its surplus. Since net borrowing from abroad must fall or even become negative, the domestic private and public sectors have to cut back their borrowing or become net lenders. The private sector can curtail consumption and investment, and the government can slash spending and raise taxes. The economy goes into recession and may take a very long time to recover. The “lost decade” in Latin America after the debt crisis that erupted around 1980 is a striking example, as illustrated in chapter 2. Based on an empirical analysis of net-borrowing flows in chapter 5, a three-gap model devised to analyze such contingencies is presented in chapter 7.

There is also a risk if too much foreign exchange comes in. A spending-led output boom can occur with no expansion of productive capacity. One example is the Ivory Coast, the World Bank’s poster child of the 1970s that thereafter became a disaster. Economists talk about a “Dutch disease” with big drops in domestic productive activity in wake of a foreign exchange bonanza. (The phrase was coined by the *Economist* magazine in 1977 in reference to de-industrialization after natural gas discoveries in The Netherlands in the 1960s. Before the oil price crash late in 2008, Russia’s natural resource windfall over the preceding years was a leading example). The illness may flare up with contemporary efforts to scale up foreign aid to achieve the Millennium Development Goals.

Foreign Capital Flows

The instability of international (primarily financial) capital movements adds to the complications. Financial capital can take the form of both short- and long-term loans from abroad and, more recently, portfolio investments used to acquire domestic assets such as real estate and equity. Local booms in “asset prices” (equity, real estate, and foreign holdings) can be generated by but can also induce such capital flows. National balance sheets develop “maturity mismatches” (the loans are short-term but are being used to acquire long-term assets) and “currency mismatches” (loans are in hard currency, but local assets are valued in local currency). As with the Dutch disease, the local currency tends to get stronger. Chapter 7 goes into detail about linkages between capital flows and the exchange rate.

Internal financial flows can mimic these stock imbalances (Foley 2003). A boom in investment (in real estate, for example) can outrun increases in profits. Firms are forced in the direction of borrowing to cover shortfalls in retained earnings as interest rates may be going up. In Minsky’s (1975) evocative terminology, financial flow positions shift from being “hedged” or rationally “speculative” toward an unstable “Ponzi” situation.¹²

Evidently the stage is being set for a crash—new money will not keep arriving in increasing quantities forever. After a time, speculation against the financial mismatches and the strong exchange rate mounts, and a run follows. There were famous crises in Latin America’s “Southern Cone” (Argentina, Chile, and Uruguay) around 1980, and they continued through Mexico in 1994 and East Asia and Russia in the late 1990s, not to mention many other less publicized cases.¹³ Episodes in Central and Eastern Europe in late 2008 are more recent examples.

This recurring cycle is fed by changing perceptions about “emerging markets” by investors. Alternating bursts of “appetite for risk” (with developing country assets usually viewed as “risky”) and “flight to quality” (reduction in risky investments and increased demand for assets viewed as “safe,” particularly treasury bonds of industrial countries) are common in financial markets as opinions shift along lines discussed by Keynes (1936) in his famous “beauty contest.”¹⁴ When emerging markets are in vogue, money pours in and interest rate “spreads”¹⁵ on borrowing narrow; the reverse happens when there is capital flight. Such volatility is exacerbated by “contagion,” meaning that groups of developing countries are pooled into risk categories in which probable financial returns are perceived (with or without empirical justification) to be strongly correlated.

Exchange rate spreads also complicate monetary policy. If controls over capital movements are absent or weak, the domestic interest rate will tend to equalize with the foreign rate + the spread + expected exchange rate depreciation. This

“parity” rate will exacerbate the cycle, falling in an upswing as capital inflows come in large quantities, and rising in the crisis when capital flows out, in both cases frustrating efforts at counter-cyclical monetary interventions.¹⁶

Macroeconomic Policy Space

Under the Washington consensus, macro policy design centered on reducing inflation or external deficits, leaving aside the old focus of Keynesian policies on full employment and of development policies on investment and growth. “Inflation targeting” as a rationale for interest rate management by central banks is the most recent incantation with regard to the first objective, while a “twin deficit” view of external balance continues to dominate orthodox discourse about the balance of payments.¹⁷ Both lines of argument stress the need for fiscal and monetary austerity. But that can easily run counter to a developmental agenda.

As previously argued, development goals are easier to reach under a favorable configuration of macroeconomic prices, specifically a low and stable real interest rate and a weak and stable real exchange rate. In relation to the level of activity, a stable fiscal position with a deficit (or surplus) consistent with the economy’s overall resource balance is also desirable.¹⁸

Nonetheless, a cyclically stable fiscal position and a favorable macro price constellation are difficult to put into place, let alone maintain. The maintenance problem arises because both private (domestic and foreign) and government economic behavior in developing countries is often pro-cyclical.

A basic reason, as we have already pointed out, is the instability of external financing. Thus, during upswings the private sector or government may increase its spending more rapidly than income—precisely because financing is available. Aggregate demand will go up, feeding back into further output expansion and debt accumulation—evidently an unsustainable situation. When external financing is cut, aggregate demand will tend to decrease more rapidly than income, feeding the downswing.

Fiscal policy has traditionally been used for counter-cyclical purposes in rich countries. In the developing world, the practice can be more difficult. The authorities in an impoverished society cannot easily refuse to spend extra revenues during an upswing. Fiscal restraint is even harder if local authorities were pressed by their lenders to adopt austerity programs during the preceding crisis to generate “credibility” in financial markets. A consequence is that in a subsequent upswing, the authorities face strong political pressure to spend and are only too happy to have breathing space to pursue expansionary policies.

In relation to monetary and exchange rate policies, the authorities are often thought to confront a “trilemma” stating that central bank interventions cannot simultaneously combine (1) full capital mobility, (2) a controlled exchange

rate, and (3) independent monetary policy. Supposedly, only two of these policy lines can be consistently maintained.

The trilemma as just stated is a textbook theorem that is, in fact, invalid.¹⁹ Even with free capital mobility, a central bank can in principle undertake transactions in both foreign exchange and domestic bond markets (not to mention other monetary control maneuvers) targeting both the interest and the exchange rates (Taylor 2004; Frenkel 2007).

Nevertheless, something like a trilemma can exist in the eyes of financial markets. There are practical limits to the volume of interventions that a central bank can practice, along with complicated feedbacks. In particular, central bank interventions to sterilize capital inflows or outflows may change interest rate expectations, whereas interventions in foreign exchange markets affect exchange rate expectations. These feedbacks may run counter to the objectives of monetary and foreign exchange policy.

Overcoming the trilemma and running a truly independent monetary and foreign exchange policy are simpler when there is an excess supply of foreign exchange. When foreign exchange is constraining economic policy and economic activity, international reserves previously accumulated by the central bank also provide some policy space to overcome the trilemma, but such space is more limited, as it depends on external financing being available.

The implication is that if it wishes to target the real exchange and interest rates, the central bank has to maintain tolerable control over the macroeconomic impacts of cross-border financial flows. As described in chapter 7, measures are available for this task. They do not work perfectly but can certainly moderate inflows during a boom and help to avoid an otherwise inevitable crash.²⁰

If capital outflows are too large to manage with normal exchange rate and monetary policies, the authorities certainly do not want to engage in recession-triggering monetary contraction. If the exchange rate has been maintained at a relatively depreciated level, the external deficit is not setting off financial alarm bells, and inflation is under control, then there are no “fundamental” reasons for market participants to expect a maxi-devaluation. Under such circumstances, the way for the authorities to maintain a policy regime consistent with targeted macro prices is to impose exchange controls and restrictions on capital outflows.

Institutions and the State

The development and macroeconomic policies on which we focus in this book²¹ have to be developed within a given “institutional” framework of laws, political processes, and the general sociocultural environment.²² We should start by pointing out that in economic analysis the word “institutions” is used in at

least two senses—as “rules of the game” and “organizations.” Examples are property rights, on the one hand, and a central bank, on the other. Rules may be formalized as in law or be informal.²³ They may or may not support growth and structural change. Similarly, the form of an institution such as an “independent” central bank may or may not lead it to function in a desirable way.

We don’t directly take on the question of how institutions evolve, but in principle they can either be imported from abroad (subject to indigenous modification), as in Japan after its “opening” by Commodore Perry in 1854, or emerge largely subject to domestic forces. Context is of fundamental importance. “Mercantilist” institutions arose in nations seeking to escape the thralls of comparative advantage in producing raw materials. For Marx and Friedrich Engels, technical change drove the transformation of feudalism into a mode of production (a cultural-institutional-technological complex) centered on the bourgeoisie. In macroeconomics, introducing the institution of wage and price indexation to ongoing inflation can lead to explosive price increases later on (an example of an institution with apparently desirable short-run effects on income distribution but having unforeseen, undesirable long-term repercussions).

At any point in time, an economy will operate within an institutional complex having a degree of stability—after all, institutions are supposed to persist, at least for some duration. But to paraphrase Marx, people change institutions although not in an institutional environment of their own choosing. Policy makers can attempt to facilitate useful changes, but institutions themselves make up an important component of the structural limitations within which they must maneuver.

Institutions

Thinking about institutions as factors that must be understood as fencing in available policy choices in differing national contexts diverges sharply from much recent academic literature in development economics, e.g., Acemoglu and Robinson (2005) in *Economic Origins of Dictatorship and Democracy* (a title drawn from that of the classic book by the historical sociologist Barrington Moore Jr., whose own ideas about evolving institutions are discussed later in this chapter). They and other authors focus on the rule of law and efficient private property rights as set forth by North (1990), which are supposed to cut back on “transactions costs” associated with economic activity. Getting rid of corruption and improving quality of “governance” are other favored metrics for a country’s ability to undertake growth-promoting policy changes.

This diagnosis is rooted in an old idea in economics—that “agents” simply maximize their utility or profits subject to a given set of constraints. Causality clearly runs from culture (Confucianism, the Protestant ethic, etc.), natural

endowments—and who controls them, technology, and existing institutions to economic development. That agents themselves may have “agency” in the modification of institutions and that development itself can stimulate institutional and technological change does not always enter the picture. As previously noted, this evolutionary process takes place within an existing historical context. Attempts on the part of international donor and financial organizations to introduce alien (usually ersatz Anglo-Saxon) institutions “as recommended by economic theory” can very easily backfire.

A key version of the mainstream view—originating before Adam Smith, first clearly stated by the “Austrian” school from Vienna in the 1870s, and trumpeted for developing countries in extreme form by de Soto (2000)—asserts that rapid growth can only emerge from *private* entrepreneurship under clear property rights protection. Austrian economists do not recognize the state as a potential entrepreneur or as a supporter of entrepreneurship.

In less strident versions, the Austrian argument dominates much current discussion of aid and development policy, especially among major donors. The Washington consensus, now in remission, strongly emphasized private sector initiatives and strict limits on state guidance of the economy. Over the past two or three decades many foreign aid and development policy packages informed by the consensus did not generate linkages among demand growth, productivity, and employment. In a classic example of “blame the victim,” mainstream economics has recently been hinting that poor institutions and governance are the reasons its own policies over the past two or three decades have not succeeded in stimulating growth. To put the reasoning childishly: “We gave you good policies, they didn’t work, so it’s your fault because of your terrible institutions.”

Theories of Capitalism

This discussion brings us to the broader debate on the role of the state in a market-oriented economy. In this debate, there is a fundamental confusion between theories of capitalism, on the one hand, and analysis of what the state can do and does, on the other. In the *Communist Manifesto*, for example, Marx and Engels tell us that “the executive of the modern state is but a committee for managing the common affairs of the whole bourgeoisie.” This statement may or may not be correct but says nothing about how the executive committee handles its day-to-day operations or even what they are.

At the other end of the political spectrum, the Coase (1960) “theorem” (really an informal statement of principle) claims that, in the absence of transaction costs, all government allocations of property rights are equally efficient, because interested parties will bargain privately to correct any externality. Adherents further believe that transactions are in fact inexpensive or else think

that the state should devote all its efforts to driving the costs down. Coase's ideas strongly influenced North and followers in their emphasis on property rights as the basic institutional foundation of modern capitalism.

Somewhere in the middle, the World Bank at various times has asserted, following dominant institutional analysis as applied to development and previously outlined, that "market friendliness" is the skeleton key to successful economic development. That recommendation is not far from saying that the state should just act to make transactions easier, in effect putting the bank closer to Coase's view.

Neither Marx nor Coase marks the end of the day in the discussion of capitalism. There are many theories that most economists have never encountered, let alone contemplated in a serious way. To have a sensible discussion of the state in a capitalist economy, it is essential to ask what a capitalist economy is. In so doing, we necessarily enter into an "overdetermined" situation, with too many explanations for a single reality.²⁴ Thus all we can do in this discussion is to sketch a few approaches to capitalism that may be of use in dealing with practical policy issues.

Marx and Engels are presumably well enough known not to need discussion. For present purposes, their emphasis on relatively well-defined social groups and on how they limit possibilities for economic change is precisely to the point. Capitalism becomes a system of institutionalized strife among the competing groups (Collins 1980).

This way of looking at the world resonates with a large school of socioeconomic historians. The doyen, Karl Polanyi (1944), emphasized that the state is the central economic actor: "The road to the free market [in Western Europe] was opened and kept open by an enormous increase in continuous, centrally organized and controlled interventionism" (p. 140). In Polanyi's view, the institutions that support capitalism arise from within the society that also defends itself against the worst excesses such as slavery and child labor. A "double movement" of creating and then regulating market institutions occurs system-wide, with the state as the superordinate actor.

States, of course, can fail—in many dimensions. They operate under fundamental uncertainty and may or may not respond to uneven advances in different sectors, disproportionalities, and balance of payments and inflationary pressures, as well as the social tensions that inevitably arise in the development process (Hirschman 1958). They can try to do too much, achieving little. They can become purely predatory, as in countless petty dictatorships around the world. But when backward economies do catch up, the process is mediated by the state, in particular on the basis of administrative guidance practiced by an autonomous bureaucracy accepted by (and embedded in) the society overall.

Power relationships among collective actors are central to the strife. Bar- rington Moore (1966) pursues a comparative-historical analysis of how interactions among lords and peasants, bourgeoisie and the state gave rise to nine- teenth- and twentieth-century economic and political structures (bourgeois revolutionary, capitalist reactionary, and communist, in his classification) that constrain economic policy.

Moore has many counterpart sociological historians. Tilly (1992), for ex- ample, sets up a model involving the degree of coercion imposed by the state and the stock of capital. As in any model, there are oversimplifications. He em- phasizes two: metonymy, through which the actions of the “ruler” summarize all the activities of the state; and reification, meaning that all groups of actors have unitary interests.

From this perspective, there can be an equilibrium between the degree of coercion and the capital stock. There is a long-term reduction in the power to coerce as accumulation proceeds, and there are also decreasing returns to coer- cion itself. There are many possible outcomes: a “capital-intensive” trajectory, a “coercion-intensive” path, and a “capitalized coercion” path in between.

In the history of the European state system, Russia and Poland were coercion-intensive while the Italian city-states and the Netherlands concen- trated on accumulation. The large Western European countries—Britain, France, Spain, and Prussia—practiced capitalized coercion. The Nordics were initially coercive but veered toward capitalized coercion in the eighteenth cen- tury. In line with Gerschenkron’s (1962) emphasis on how relative “backward- ness” conditions the possibilities for economic development, there was an im- plicit division of control of the economy between the state and private actors along all these paths. As discussed later in this chapter, there is always a tension in policy formation between the clumsy thumb of the state with its powers of coercion and the nimble fingers of capitalists who can deal with their own con- cerns but lack power and ignore or, at least, do not fully internalize the need to improve social relationships more generally.

Continuing with the theme of overdetermination, there is a long tradition of seeing the birth of capitalism as the result of certain mental attitudes, with Adam Smith’s “propensity to truck and barter” being an important early entry in the list. Another famous example is Max Weber’s invocation of the Protes- tant ethic, which he said meant that a believer felt the need to *prove* (not earn) his right to eternal salvation through methodical labor and restrained con- sumption. The entrepreneurial spirit emphasized by the Austrian school is an- other variation on that theme. There is also the confusing discussion on Con- fucianism in East Asia. Weber thought that this belief system held back China’s development while recently it has been touted as a major factor underlying the growth of the Tigers.

The French Annales school of historians, with their emphasis on the *histoire des mentalités*, represents the peak of this line of analysis. Fernand Braudel's (1979) fascinating three volumes on *Capitalism and Material Life* go into minute detail on how people made economies work. Braudel mixes more or less standard economics material with much description of the social impact of economic events on everyday life and pays great attention to food, fashion, social customs, and many other themes. Slaves, serfs, and peasants play the major roles in his history, not capitalists and kings.

In yet another line of history, individual actors are overwhelmed by disease, geography, or the environment. On the coercion side of the equation, in an important book, McNeill (1976) points out that disease resistance won and lost wars (recall the effect of smallpox in permitting the conquest of Mexico by Cortes). Populations expanded when they had dealt with epidemic disease either by learning how to prevent it or developing immunity. Epidemics profoundly shaped subsequent economic history, as with the plague in Europe.

The idea that geography and the environment interact in determining economic destiny dates to antiquity (the Greek geographer Strabo wrote that climate influences the psychological disposition of different races) and has cropped up many times since. The latest blockbuster is Jared Diamond's (1999) *Guns, Germs, and Steel*, which makes a strong ecologically based argument for the dominance of Eurasian societies in the world. They pioneered domestication and the use of food grains and therefore reaped the benefits. The unstated message is that sustained economic growth may not be in the cards for the geographically disenfranchised regions of the world—much of Africa, the Americas, and Austronesia. Most economists would beg to differ, but could they be wrong?

Against this bright and varied firmament of ideas, current mainstream economists' views of the factors underlying capitalism do not shine very strongly. Property rights are no doubt an important aspect of capitalist development, but attempting to make them into the central institutional factor is idle if not entirely misplaced.

What the State Can Do

Suppose that the overdetermined socioeconomic system throws up some sort of market economy in a country with a state that has some power of coercion, or "authority," in the usage of Charles Lindblom (1977) in his classic book on *Politics and Markets*. How can it use the authority to guide the economy successfully?

An initial point, already mentioned, is that coercion or authority is all thumbs, perhaps strong ones, but thumbs nevertheless. The state is not as good as the market in terms of economic initiative and resourcefulness. As a

consequence, in growing economies the state delegates some of its authority over the economy to market actors. Perhaps with difficulty, the state always has the power to take it back.²⁵

Market actors, on the other hand, can sustain economic growth if adequately directed and restrained from mere cupidity. But there are associated costs. Standard property rights make capitalists the owners of enterprises, with vast consequences for the distribution of wealth and political power, access to the government, control of the media, job rights, alienation, and social conflict. But if adult noncapitalists can use their own property rights to hold money or physical assets, then they can (to an extent) pay capitalists to use nimble fingers to produce goods and services to satisfy their needs. The market can fulfill this function more effectively than the state. But it cannot deliver many public goods on its own, in which case compulsion, coercion, or guidance may be required.

In practice, then, there are two sets of authorities—government officials and businesspeople. They share an interest in system stability, which in a poor country necessarily requires economic growth per capita. The issue at hand is how growth can be attained. About the only tools available involve cooperation and mutually reinforcing feedback between the two groups of actors, best with a voice for peasants, workers, and households as well. The ways the tools can be used will differ across time and space, but the examples previously presented in this chapter and discussed in the chapters that follow show that they can be effective.

Notes

1. At times we refer to developing and transition economies separately but generally use the terms “developing” countries or economies and “developing world” to refer to both groups.
2. In simple terms, think of the value of bread a baker sells over a year minus costs of inputs for its production (flour, water, electricity, etc.).
3. Again, in simple terms, a “real” economic magnitude means a value (sales of bread, for example) divided by a price (price of bread).
4. The Ramsey and Solow models differ mainly in their hypotheses regarding factors explaining the level of savings.
5. One joule is the energy required to lift a small (100 gram) apple one meter against the earth’s gravity. One terajoule is roughly equivalent to 7,700 gallons of gasoline or 31 tons of coal. Thinking in terms of power, one watt equals one joule of energy use per second. Dividing by the number of seconds in a year shows that an American worker utilizes 19.3 kilowatts of power to produce his or her contribution to real GDP. An African uses 300 watts.
6. For further details on the estimates of energy/labor ratios for developed and developing countries, see Taylor (2008a).
7. A third asymmetry is that labor, particularly unskilled labor, is much less mobile internationally than capital, but this fact is less relevant for the analysis in this book.

8. The Kaldor and Rada models are discussed in more detail in chapter 8. A nonformalized version of these models was presented in Ocampo and Taylor (1998) and Ocampo (2005).
9. The term “Robber Barons” in the United States originated in the second half of the nineteenth century. The idea is that “business leaders in the United States from about 1865 to 1900 were, on the whole, a set of avaricious rascals who habitually cheated and robbed investors and consumers, corrupted government, fought ruthlessly among themselves, and in general carried on predatory activities comparable to those of the robber barons of medieval Europe” (Hal 1958).
10. We express the exchange rate in standard fashion as units of home currency (pesos or rupees, for example) per one unit of foreign currency (dollar or euro). When it is calculated in this fashion, an appreciated or stronger exchange rate has a *lower* value.
11. As previously discussed, when foreign net borrowing is negative, the country actually becomes a net *lender* to other countries (curiously enough, many times to industrial countries, as indeed has been the most common pattern in recent years).
12. In a bit more detail, a flow position is “hedged” when investment is less than gross profits and “speculative” when investment exceeds profits net of interest payments. With high investment, “Ponzi” finance comes in when profits fail to cover interest payments.
13. Writing in draft form before the Southern Cone events, Roberto Frenkel (1983) presciently pointed out how they could come to pass.
14. Keynes contest was not to pick the most beautiful person (or asset) but rather to guess the person that average opinion will choose as the winner.
15. Spreads are the premiums that countries must pay over international interest rates that are used as a reference for “safe” assets, particularly U.S. Treasury bonds.
16. The significance of parity rates was perhaps first pointed out Keynes (1923).
17. See chapter 7 for more on inflation targeting and the theory of twin deficits. The latter says that reducing the fiscal deficit should lead to an improved external position. The data presented in chapter 5 support no such linkage.
18. As previously noted, a convenient way to analyze resource balances is in terms of flows of net borrowing (= investment – saving = income – expenditure) of the public, foreign, and private sectors. Also, an important accounting rule is that net-borrowing flows economy-wide must sum to zero. Its implications are developed in chapters 5 and 7.
19. Appendix 7.1 goes into more detail on the failure of the trilemma and models of exchange rate determination more generally.
20. This danger also exists in poor countries if a “boom” in aid inflows were to be suddenly cut off—by no means a geopolitical impossibility. The familiar Dutch disease analysis of adverse effects of foreign aid applies to this situation.
21. Some attention is also paid to more humanly oriented educational, health, social protection, and distributive activities, although we do not address questions of how to extend “entitlements” or “freedoms” to individuals as emphasized by Sen (2000), in part because their feedback effects on growth appear to be rather weak.
22. The following discussion draws on papers collected in Chang (2007).
23. Local, often tacit agreements governing exploitation of common property resources are important examples of the latter. Property rights in contemporary China (including those for town-and-village enterprises) are a complicated mixture of formal and informal rules and regulations, with a good dose of politics thrown in.
24. The idea goes back to Sigmund Freud, who thought that the content of dreams was shaped by factors ranging from recent events in the dreamer’s life (“the residue of the day”) to repressed traumas and unconscious wishes. It has been influential in fields ranging from literary criticism to Marxist political theory.

25. Central banks are an interesting example of the state and private sector interrelationship. An “independent” central bank is a quasi-market actor because it can set interest rates on its own, in principle without consulting the rest of the government (though of course it is subject to political pressure). But historically central banks were created to manage activities previously exercised by the private sector, e.g., the U.S. Federal Reserve took over the role of lender of last resort played by the banker J. Pierpont Morgan in a series of financial crises around the turn of the twentieth century.