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Economic Structure, Policy, and Growth

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Macroeconomic Policy

Chapter One

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 poor countries improve their levels of living is on the short list of international policy goals. The air is full 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 why 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% annual per capita real growth of gross domestic product or GDP. That would stop the gap separating their standards of living from the industrial world's from widening even further, and 3% or more would gradually reduce it. A 2% per capita growth rate can make a big dent in poverty by increasing average income by 22% over 10 years and 49% 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% or higher for long time periods. The quarter century

[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.

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 reasons why, 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 here, 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 but, 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 the post-Second World War 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 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, followed in this book and explained below.

Poverty is central to this distinction. The most widely publicized anti-poverty 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.

Secondly, 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 this chapter, which serves as an introduction to the chapters to come.

Economic Growth

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

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 below, 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; this is the sense in which we will use the term here. 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 US, 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%) 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, entrepreneurship, etc. – 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 about 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% per year, real per capital GDP must be growing at 4% 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.

[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).

Productivity growth is the growth rate of output minus the growth rate of the relevant input. A lot 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 US) or else tends to fall. Four observations follow:

The first is that one can show using simple algebra (see Appendix 3.2) 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% 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 US, or UK 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% 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, urban services providers, etc. Which 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."

[4] The Ramsey and Solow models differ mainly in their hypotheses regarding factors explaining the level of savings.

An alternative view is that, for reasons discussed below, 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 is the typical situation 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 Marx, operates as a sort of "reserve army", but of the under- rather than the un-employed. 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 below, a faster rate in the rate of 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, chapter 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 lead to productivity increases as it incorporates new technologies and product innovations (Kaldor, 1978, chapters 1 and 2). Output expansion generates in turn productivity increases through the exploitation of static and dynamic economies of scale, associated in the latter case to 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 scare.

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 case for the traditional supply-oriented interpretation is not overwhelming 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 US) to 0.01 in Sub-Saharan

Africa.[5] Between 1990 and 2004, energy/labor ratios were growing at rates exceeding 3% per year in the rapidly growing Asian economies. In industrialized countries, the ratio grew at 0.1% after decreasing at -0.3% 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% 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

[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 7700 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).

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.

Among these relationships, some of them have important distributive implications. Structuralists adopt, in this case, the "classical" approach of Smith, Ricardo, Malthus, and 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 sketched above, 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 are their trade and financial linkages with the rest of the world – its "insertion" into the world economy, to use the terminology of Latin American structuralism. This is influenced, in turn, by the structure of the global economy, and the particular "asymmetries" that characterize it – its "center-periphery" dimensions, to again use the terminology from this influential group of structuralists.

Two sorts of asymmetries are particularly important in this regard: (a) the fact that 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 (b) the facts that the world currencies are the currencies of the

major international economic powers, that international financial intermediation is concentrated in those countries, and that 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 which 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. There are immediate policy implications. Because production structure must change if growth and development are to proceed, conscious choice of policies that will

[7] A third asymmetry is the fact that labor, and particularly unskilled labor, is much less mobile internationally than capital, but this is less relevant for the analysis in this book.

drive the transformation of the system towards 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 into decreasing costs per unit of output. This logic underlies Kaldor’s growth model discussed above and in chapter 8.

One key aspect of growth in the poorest countries is that agriculture dominates the economy. Therefore its 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% 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 Chapter 3 herein and a raft of historical studies demonstrate, 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 (India with its information processing boom is an intriguing recent exception), though not job creation. 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 growth richer. Their exports become more technically sophisticated and switch away from raw materials toward manufactured products, especially in the recent period 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. One key question, in this regard, is whether an economy can pass through the raw material and assembly export stages to sell products abroad which 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 back 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' labor surplus model. It says that the economy can usefully be viewed 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 above 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 pro-active developmentalist state intervention in the now-industrialized economies (Chang, 2002) and in twentieth century success cases in the developing world (Amsden, 2003). Consider the

[8] The Kaldor and Rada models are discussed in more detail in Chapter 8. A non-formalized version of these models was presented in Ocampo and Taylor (1998) and Ocampo (2005).

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 Rockefeller to the "Robber Barons"[9] 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 final quarter 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.

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[9] The term "Robber Barons" in the US 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).

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 refer to external and domestic financing.

At 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 and/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 in terms of available instruments when there is no developed domestic capital market. This issue is discussed extensively in Chapter 6.

The 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 swing rapidly up and down, 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.

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[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 discussed above, 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).

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-cyclicality 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 and/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. There can be a spending-led output boom with no expansion of productive capacity. One example is the Ivory Coast, the World Bank’s poster child of the 1970s which 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, 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

[12] In a bit more detail, a flow position is hedged if investment is less than gross profits and speculative if 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.

opinions shift along lines discussed by Keynes (1936) in his famous "beauty context".[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 with reducing inflation and/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

[14] A contest 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 US Treasury bonds.
[16] The significance of parity rates was perhaps first pointed out Keynes (1923).

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 argued above, developmentalist 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 why, 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

[17] See Chapter 7 for more on both 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 noted above, 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. As noted above, an important accounting rule is that net borrowing flows economy-wide must sum to zero. Its implications are developed in Chapters 5 and 7.

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. This is even harder if local authorities were pressed by their lenders to adopt austerity programs during the preceeding 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 which 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

[19] Appendix 7.1 goes into more detail on the failure of the trilemma and models of exchange rate determination more generally.

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 provides 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 there are capital outflows 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

[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 enters the discussion here.

"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 book[21] have to be developed within a given "institutional" framework of laws, political processes, and the general socio-cultural environment.[22] We should start here 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

[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.

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 (subject to indigenous modification) from abroad, 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 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 differs sharply from much recent academic literature in development economics – e.g. Acemoglu and Robinson (2005) on *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 below). They and similar authors focus on the rule of law and efficient private property rights à la 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 noted above, 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, tracing back to 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 why 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 "[t]he 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 outlined above, 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, really putting the Bank closer to the second view outlined above.

Neither Marx nor Coase marks the end of the day in the discussion of capitalism. There are many theories which 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 "over-determined" situation, with too many explanations for a single reality.[24] All we can do here is sketch a few approaches to capitalism which 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 socio-economic 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 which 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

[24] The idea goes back to 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.

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. Barrington Moore (1966) pursues a comparative-historical analysis of how interactions among lords and peasants, bourgeoisie and the state gave rise to nineteenth and twentieth century economic and political structures (bourgeois revolutionary, capitalist reactionary, and communist in his classification) which constrain economic policy.

He has many counterpart sociological historians. Tilly (1992), for example, 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 emphasizes 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 coercion 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 concentrated 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 century. In line with Gerschenkron’s (1962) emphasis on how relative “backwardness” conditions the possibilities for economic development, there was an implicit division of control of the economy between the state and private actors along all these paths. As discussed below, 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 concerns 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 protestant 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 consumption. The entrepreneurial spirit emphasized by the Austrian school is another variation on that theme. There is also the confusing discussion on Confucianism 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) pointed 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 on 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 above, 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, it 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 costs associated. 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 non-capitalists 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 peasant, workers and households as well. The ways the tools can be

[25] Central banks are an interesting example in this regard. 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 US 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.

used will differ across time and space but the examples presented above, and in the chapters that follow, show that they can be effective.