

reader should be warned that, the “new economy” does not replace the macroeconomic structures and behaviors that have existed until now and that will be considered in this book.

Case 1.2

A “New Economy?”

Beginning in the mid-1970s and until quite recently, the advanced economies of Europe and North America grew very slowly. After an initial post-war spurt, output per worker increased at little more than 1% per year. Consequently, living standards showed little improvement. This slow pattern of growth was widely attributed to maturity. The mature economies were losing competitiveness in mass production goods, now increasingly being supplied from East Asia. They were becoming service economies. Most economists thought that because services are labor-intensive, there was little opportunity for improving services productivity and/or for introducing new technology.

The events of the past five years have called this view into question. Suddenly, the US, seen by many as the most mature economy of them all, was growing rapidly. Between 1999 and 2000, GDP grew by almost 5% per year, and output per worker increased at a spectacular 3.5% annual rate. Moreover, this growth record was achieved with very low unemployment, close to 4%, and with modest rates of inflation, between 2 and 3%. Past experience would have suggested slower growth, more unemployment, and much greater inflation at this stage of the business cycle. Have traditional macroeconomic “laws” been suspended? Do we have a “new economy?”

The record of growth on which “new economy” theories are based is very brief. One powerful business recovery does not make a historical trend! Consequently, much effort is going into providing some microeconomic underpinnings to the idea that the observed changes in the economy are real and that they will persist. There has, of course, been a spectacular boom in the use of computers. But, in the mid-1980s, Nobel Laureate Robert Solow said pointedly: “You can see the computer everywhere, but in the productivity statistics.” Since then, Solow has reconsidered this view, but the fact remains

that computers have been around for some time and big productivity gains are very recent. Economic historians like Paul David point out that earlier technological revolutions, like the introduction of electric motors, took many years to produce significant gains in productivity. In that case, the argument goes, electric motors were a flexible power source replacing large centrally located steam engines or water wheels that were linked by belts to individual machines. The electric motor made a difference in overall productivity only after the entire factory had been restructured. Gains in productivity took many years to show up though introduction of the electrical motor was the harbinger of a long period of growth.

This time the new development consists of the information technology (IT) and network capabilities of modern computers. Today's "new economy" theorist hails not just the computer but the importance of the networking of computers, the internet and all of the related e-business possibilities. The computer has been around for some time, but the internet adds a new dimension. It enables computers to communicate with one another, worldwide, regardless of the programming system, regardless of the origin or destination. A central element of the notion of the "new economy" is that the interaction of many computers, tied together into a vast interconnected system, offers positive externalities and vastly increasing returns to scale. It is all about networks and interactions. To illustrate with a related case: one free standing fax machine is worth very little; many fax machines linked together are a way to vastly increase the speed of communication.

As the computer stretches beyond the individual office, it creates new ways to carry on business. Airline reservation networks are an example that has been operational for many years. Now, they are accessible to individual travelers. The internet has made possible connections between separate company systems. It has facilitated business to business (B2B) and business to consumer (B2C) transactions. Many aspects of business can be run electronically — orders, supplies, inventory management, transmission of information, electronic marketplaces and exchanges, etc. Businesses are setting up their entire supply chain systems on computer networks. As communication and order processing speed up, "just in time" inventories are becoming a reality. While in many cases physical delivery of product is still required, in some cases the entire transaction including the delivery of the

book, CD, movie or financial security can be done over the web. For many products, exchanges are being developed in electronic space, allowing transactions to be carried out instantaneously. In 2000, approximately 40% of stock market transactions in the US are already being done on the internet. Banks have also used computers for a long time, but now individuals and businesses are beginning to do their banking on the web, so called e-banking. The point here is that the opportunities for cutting out human intervention and automating transactions on the internet are practically without limit.

Some of the advantages are measured and some are not. Production costs are being reduced and productivity improved as entire layers of clerical workers are eliminated. For many business dealings, the paperless office is arriving at long last. The IT revolution is also producing cost reductions as a result of greater competition. Whereas previously, firms dealt with a small number of suppliers, web-based purchasing has opened the market to many more potential suppliers, often competing with lower costs. In some cases, like writing software for business systems, firms located as far away as India are able to compete. When these gains affect costs, they account for measurable increases in productivity. But there are also important gains that remain unmeasured. The increased availability of information — news, stock market quotes, search facilities, for example — represents an enormous gain. Similarly, web-based ordering of books, records and many other products offers convenience gains that are not measured in GDP.

The IT revolution also means that markets are being expanded on an international scale. The new technologies are likely to accelerate the process of globalization of business, finance and communications. The extension of enterprises across national boundaries will pay off in terms of reduced costs: better use of resources and greater scale of production. These developments promise huge gains in the next few years.

It is clear from the above discussion that great changes are underway. In many cases, only the first phases of these developments have taken place. The revolution is much further along in some countries — in the US based on PCs, in Europe and Japan based on cellular phones — than in others where internet connectivity has only begun to spread. As the penetration of IT proceeds, there will be significant gains in productivity for many years to come.

What is Macroeconomics?

Instead of dealing with the behavior and interaction of the individual units making up the economy, as we do in microeconomics, macroeconomics looks at the economy as an aggregate. The analogy of the forest and the trees is appropriate. The aggregate economy considered in macroeconomics is like the forest, a macro issue — the total timber being grown, the total absorption of moisture, the total quantity of finished lumber being produced, etc. The behavior of the individual trees and the forces influencing their growth, competition for light and moisture in the forest environment, and the management of the lumbering operation are micro questions. Obviously, there are links between the micro and the macro aspects. The aggregate result depends in many ways on what is happening at the micro level. We will also describe how the individual business enterprise is linked to the aggregate economic setting in which it operates.

Macroeconomics is structural

Macroeconomic theory identifies the structural relations of the complex system that makes up the economy. What are the forces that influence demand, income, growth, inflation, interest rates, foreign trade, exchange rates etc. How do these factors interact? What causes boom or recession? What accounts for the very different growth and inflation performance of different parts of the world? As we note above, a “new” economy may involve broad changes in the performance of the economy without undermining its basic behavioral and structural relations.

Macroeconomics is concerned with economic performance

How well is the aggregate economy achieving its objectives? In the US, one task of the Council of Economic Advisers (CEA) in its annual *Economic Report* is to evaluate how well the economy has performed and how it is likely to do in the future. Such evaluation and forecasting, in some countries

“planning,” are the job of central banks, ministries of finance, and economic planning agencies.

Macroeconomics is often quantitative

Economic policy managers are concerned with aggregate measures of GDP, employment and unemployment, inflation, imports and exports, trade balance, interest rates, exchange rate, etc. Their analyses will also make use of more detailed statistics on specific industries and regions, on prices of important products like fuel oil and electricity, on sectoral productivity, income and profits, on advance indicators of the business cycle like new orders and shipments, inventories, stock market indexes, money supply and credit extensions. The economic data from national accounts and other sources are the basis for building models of the economy to be used to forecast or to simulate the effects of alternative policies.

Macroeconomics is concerned with policy

What policies are required to achieve the economy’s objectives? How can we achieve faster economic development? How can we stabilize the economy, avoiding inflation or balance of payments disequilibrium? What will be the impact of fiscal and monetary and exchange rate policies? What should be the responses of policy makers to threatened domestic or international crisis? Some economists are asking whether there is a need for new international economic policy institutions supplementing or replacing the International Monetary Fund or the World Bank.

Macroeconomics has important implications for business

Managers are concerned with how the economic outlook will affect their businesses. This is not so much a concern for the aggregate statistics of the economy, but rather for how these figures break down to reveal information on very detailed aspects of the economy relevant to a particular business.

What will happen to a particular market and the sales of specific products? What is the outlook for wages, for production workers or managers? How much will prices of petroleum go up? What are prospects for financial markets and interest rates? How will the balance of payments deficit affect the exchange rate and international competitiveness of the firm in particular markets? Note, for example, that the answer to the last question depends on information on the exchange rate between the dollar and specific currencies, and on costs in the US and costs in the competing country. The answers to questions like these have their basis in macroeconomics.

Macroeconomics for Developed Countries

For more than two generations, macroeconomics was primarily an economics for developed industrial countries, focused on issues of short-run economic stabilization and full employment. Keynesian macroeconomics, based on the theories of the great British economist John Maynard Keynes, was a response to the problems of the Great Depression. The primary concern was with unemployment. The means was fiscal policy: government spending to stimulate economic activity. The setting was primarily domestic, though international considerations were not disregarded altogether.

Over the years, particularly since the 1960s and 1970s, the scope of the macro approach in the industrial countries has widened. The vogue for demand stabilization using on public spending was already past in 1971, when Richard Nixon was quoted as saying, probably without fully realizing the implications: “We are all Keynesians now.” This approach is still valid and operational in many settings, even today. (Note the emphasis on public works spending to stimulate the economy in Japan, and lately, in China.)

First, was the recognition that macro theory and policy were useful not only to deal with recession and unemployment, but also to deal with problems of inflation. During most of the post-war period, inflation has been as much, if not more, a concern for monetary and fiscal policy than recession.

During the 1960s, came the increased emphasis on monetary policy. “Money matters!” The extreme monetarist view that simple monetary rules can control the entire economy, waxed and then waned. In the early 1990s,

the Federal Reserve recognized that stable relationships between money supply and GDP no longer held. Nevertheless, economists agree that aggregate monetary management is an important dimension of economic policy.

Beginning in the mid-1970s, the increasingly dismal productivity performance of the developed economies began to direct interest toward questions of long-term growth and productivity. In 1976, Nobel Laureate Lawrence Klein's presidential address to the American Economic Association was entitled: "The Supply Side." He spoke about the limits of the economy's capacity and about policies to improve the economy's productive potential. "Supply Side" policies, which were the backbone of President Reagan's politics and took the form of massive tax cuts, will be discussed in greater length below. Regardless of one's political position, there is no denying that greater emphasis on technical change, entrepreneurial effort and privatization have had large benefits toward international economic growth.

The 1980s and 1990s have seen a huge change in macroeconomic theory. Recognition that consumers, workers and business managers are likely to embody expectations about the future in their decision-making has altered the thinking of many economists. Many have returned to the fold of classical economics, arguing that, with flexible prices and wages, things will work out in the long run. Recessions and unemployment are temporary phenomena. In the long run, labor markets may tend toward equilibrium, to full employment. In this context, if consumers take expected public policies into account, only unanticipated macroeconomic policy actions are unlikely to make a real difference. In the eyes of some economists, these notions have undermined traditional Keynesian economics calling into question the effectiveness of macroeconomic policy as a stabilization instrument.

As a consequence, many macroeconomic theorists in the industrial world have swung from the Keynesian consensus in the direction of neoclassical ideas. Modern economic theorists, thus, lack consensus on the business cycle and focus on long-run adjustment. Politicians, business managers and economic policy makers in the industrial world are, of necessity, concerned with stabilization over a relatively short-run horizon to achieve and maintain full employment and to prevent inflation. In this context, the Keynesian approach still appears to have substantial validity.

More recently, economists are augmenting traditional ideas of the theory of production to recognize the contribution to technical change and growth of accumulation of knowledge (technology) and human capital (skills) and their interactions with the traditional production factors: labor and capital. These views, closely tied to the concept of the “new economy,” are leading to very different perspectives on policies for economic development in industrial and developing countries alike.

Finally, in recent years, the internationalization of the economic system led to greater emphasis on international questions: the trade and capital flow linkages between countries, the exchange rate and the policies for international adjustment. Reconciling balance of payments equilibrium and/or exchange rate stability with the other stabilization or growth objectives is an important but difficult challenge, particularly as world trade and capital flows have become more open. Indeed, some economists are beginning to question whether a fully open international regime is consistent with stability.

Macroeconomics for Developing Countries

In the developing world, primary emphasis has always been on economic growth and development. But the thinking about paths toward development and the appropriate policy strategies have undergone considerable change since the early post-World War II years.

At that time, developing countries were generally very poor. Their economies were based largely on subsistence agriculture or the production of primary commodities. Their populations were increasing rapidly while health and education remained at abysmally low levels; a Malthusian vicious circle of rapid population growth was a barrier to development. They also faced well-nigh insurmountable problems with respect to shortages of saving and investment and technology.

Traditional development economics, consequently, had a very different focus from mainstream macroeconomics. The emphasis was on duality and structural disequilibrium. As we will see, developing economies have a dual nature, a large low income rural subsistence economy and a small higher income urban sector. The development process represents a gradual shift from

one of these worlds to the other. While this process is going on, there will be substantial disequilibria, ones that are not easily surmounted by market forces.

With respect to development strategy, the early post-war view was that the world economic system favored the rich industrial countries producing manufactures to the detriment of less developed countries dependent on exporting primary commodities that sold at low prices and had little prospect for market expansion. This accounted for the so-called “dependence” of the developing countries. Third World development, it was widely thought, required stabilization of commodity prices, presumably at high levels, and contributions of aid, sometimes called *Overseas Development Assistance* (ODA), from the industrial world.

Early economic development thinkers shared the belief that industrialization would be the means for achieving rapid growth, in most cases, through a series of centrally coordinated industrial investments. Others emphasized shortfalls of saving, domestically and internationally, as the constraint on developing country growth.

These views led quite naturally in the developing countries to policies of import substitution. Shortages of foreign exchange represented a constraint on the purchase of foreign raw materials, fuels and capital goods. Substituting domestic products for imports was a way of saving foreign exchange and helping to develop domestic industries. But often, these industries were not able to stand on their own two feet. Newly created protected industries did not advance quickly to world technology levels. On the contrary, they tended to remain inefficient, requiring continued protection, and frequently, producing low quality products of static old fashioned design. Professor Anne Krueger, an eminent development economist says: “Little wonder that exports of manufactures and primary commodities grew slowly, if at all, in most countries pursuing import substitution policies.”

Beginning in the 1960s, Japan and the four Asian “Tigers,” Korea, Hong Kong, Taiwan and Singapore, began to achieve striking success with export-oriented development policy. It would be an over-simplification to say that these countries simply encouraged exports by providing favorable exchange rates and other fiscal incentives to locally based exporters and to foreign direct investors. Development strategies in East Asia were holistic; they included

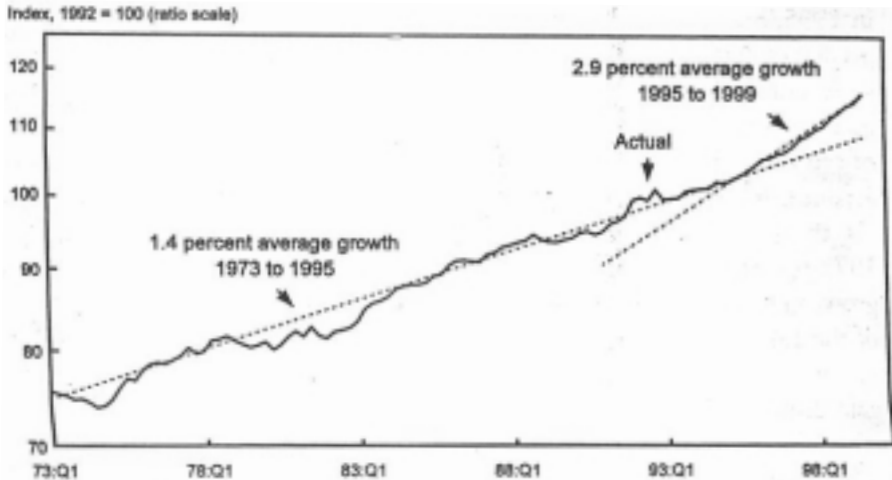
agricultural land reform, industrial policies favoring specific industries such as shipping and steel in Korea and chemicals in Taiwan, vast infrastructure projects, and emphasis on education and technology transfer. They involved a great deal of planning and interaction between the government and business. They included important macro policy considerations, dealing with fiscal, monetary and exchange rate policy.

While the overwhelming emphasis in the developing world is on growth, stabilization is a *sine qua non* for the success of the development effort. Again and again, failures to maintain price stability and exchange rate stability have driven developing countries into crisis and depression. The East Asian crisis in 1997–8 is only the latest example. The difficulty is that the continued growth of developing countries depends greatly on their continued international competitiveness and on foreign capital inflows. In these respects, developing countries operate with smaller margins than many advanced economies, and are frequently victims of their inability to achieve a stable non-inflationary growth path and to maintain, at the same time, a stable competitive exchange rate.

Stabilization and Growth

The distinction between *stabilization* and *growth* is at the heart of the difference between traditional macroeconomics in developed and developing countries.

We have already noted the importance of booms and recession in the industrial world and the consequent pressures for stabilization policy. Figure 1.4, which shows the movement of real GDP in the US from 1966 to 2000, illustrates our point. The line marked “Actual GDP,” shows the actual values of GDP attained. The smooth line marked “Potential GDP” shows the long-term trend of the output potential of the economy. Actual GDP touches potential GDP only at the peaks of the business cycle. After the peak, the economy drops off into a trough at the bottom of the cycle, and then resumes its growth. The periods of recession, for example in 1973–5, in 1981–3, and in 1991–3, are the times when the economy is operating below its full capacity. Profit margins are squeezed. Production activity is depressed.



Note: Productivity is the average of income- and product-side measures. Productivity for 1999 is inferred from the first three-quarters.

Sources: Department of Commerce (Bureau of Economic Analysis) and Department of Labor (Bureau of Labor Statistics).

Fig. 1.4 Trends of US Economic Growth.

There is unemployment, as shown in Fig. 1.5. At peak of the cycle, for example in 1973 and 1979, inflationary pressure builds. The two horns of inflation evident in Fig. 1.6 also reflect the additional pressure from the oil price shocks. The closer the economy is to full employment, i.e. the lower the unemployment rate, the greater the buildup of inflationary pressures. Excessive demand on the available capacity and labor supply leads to increases in wages and prices, rises in interest rates, and balance of payments disequilibrium. As the US economy has become more open to foreign trade, and as it has switched from traditional manufacturing to high-tech and services, some of the regularities of the business cycle may have eased. That accounts for the long period of growth without inflationary pressure that was observed in the 1990s. But it would be hazardous to assume that inflation no longer poses a risk as the economy approaches its full capacity rate of operation.

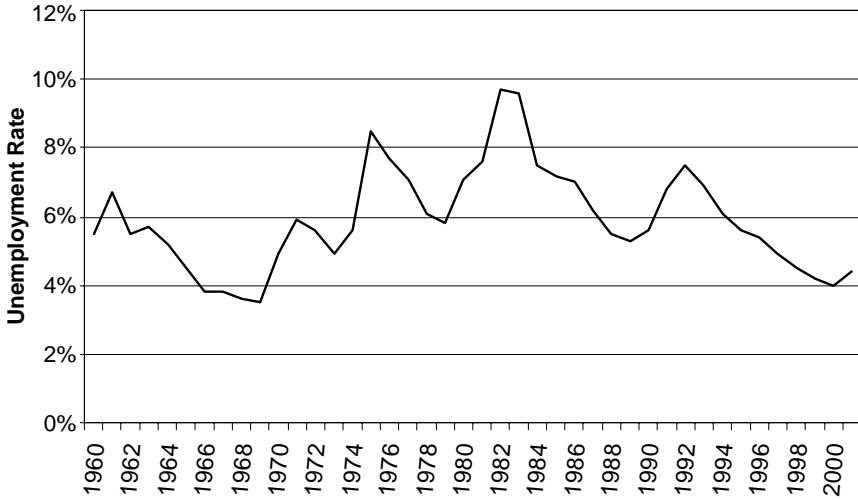


Fig. 1.5 US Unemployment Rate (% of labor force).

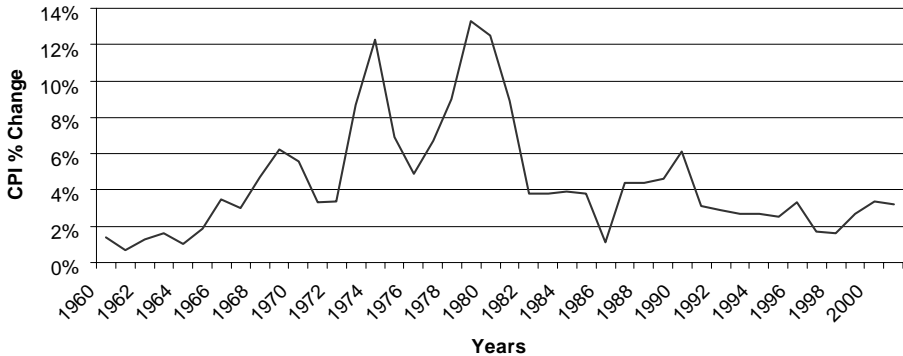


Fig. 1.6 US Inflation Rate (1960–2001).

There is much debate in the economics profession about the sources of business fluctuations. In some cases, the origin is clear, as we have noted above with regard to the recessions of 1974–5 and 1981–2, which were linked to the Middle Eastern “oil shocks.” Other recessions reflect policy — for

example, monetary tightening by the Federal Reserve in an effort to contain inflationary pressures in 1979–82 and in 1990–1. But business cycles may also have their origin in the natural dynamics of the economy. The business cycle is not so much a regularly spaced rhythm, as a tendency for booms to create an environment of inflation and excess inventories that leads to a downturn, and for recessions eventually to fade out as inventories are drawn down and as new industrial and housing capacity is needed. That process seems to have been one of the elements that lies behind the beginning of the East Asian crisis in 1997, unsustainable buildups of investment in real estate and industry, in Thailand and Korea, respectively, funded by unrealistic inflows of foreign capital.

The long boom in the US, from 1991 into 2000, is an example of what might be termed a positive supply shock. The gains in productivity that are part of the “new” economy, have made possible faster growth and a lower unemployment rate without inflation than had earlier been anticipated. At the time, some optimists proclaimed that the business cycle is dead. If so, more recent evidence suggests that it has revived.

Stabilization policy consists of the policy measures used to try to stimulate a weak economy, or alternatively, to slow an economy that has too much inflationary pressure. Public policy makers want to avoid the recession periods on one hand and the excessive demand pressure at the peak of the cycle on the other. The aim is to prevent the adverse economic and social consequences of recession. On the other hand, the peak of the expansion phase, poses dangers of inflation and balance of payments disequilibrium.

Once upon a time, we thought that the economy could be “fine tuned” to a non-inflationary full employment output path, but we have long since learned that macro policy control is difficult. Far from achieving stability, the most we can do is to moderate the cyclical extremes. Public authorities are sometimes said to be “leaning against the wind.”

In a developed country, an example of such a policy was the Federal Reserve’s effort to slow the US economy in 1994–5. Fearing a buildup of inflation — the economy was expanding briskly and prices of primary materials were rising sharply — the Fed raised short-term interest rates from 3% in February 1994 to 6% one year later. The aim was to produce a “soft landing.” There were fears among some economists that tighter monetary

policy actions would drive the country into recession, on the eve of the 1996 election. In retrospect, the Fed's strategy appears to have been successful. Higher interest rates slowed residential construction and consumer durable spending. The growth of GDP slowed and inflationary pressures eased. Fortunately, economic fundamentals like business fixed investment and exports remained strong and growth resumed in 1996 giving the economy a second wind. As we note above, in the late 1990s, economists were surprised by the vigor of the expansion and rapid productivity growth. The Fed, again fearful of inflation, began to intervene forcefully, raising interest rates to ease prospective inflationary pressures. Then, with the prospect of recession in 2001, the Fed cut interest rates vigorously.

The international linkages between countries are an important consideration. It is often said that when the US economy catches cold, neighboring Canada suffers from pneumonia. Developing countries are affected not only through the volume of their exports to the developed world but also through the prices they can get for their products which are often sensitive to market conditions.

The business cycle looks somewhat different in the developing world than in the industrial economies. In some countries, like the rapidly growing economies of Southeast Asia, cyclical fluctuations in the rate of growth are apparent, but until recently there have been few true recessions with negative GDP growth. In the upswing of the cycle, growth is very rapid; in the downswing, growth continues but at a somewhat slower pace. Would that developed countries only had "growth recessions!" In other developing countries, in Argentina or Nigeria, for example, cyclical swings are much wider. Many of these countries have the so-called stop-go economies, often as a result of unsteady economic policies.

Developing economies lack foreign exchange reserves, and thus, are greatly dependent on their foreign markets. Stable exports require competitively low wages, stable domestic prices, and undervalued exchange rates to make products competitive in world markets. Unfortunately, many developing countries have been unable to assure domestic economic stability. Budget deficits, rapidly increasing money supplies, and upward pressures on wages have frequently undermined domestic stability. Speculative excesses in real estate have threatened the solvency of the banking system and caused financial

crises. Balance of payments deficits with vain attempts to maintain overvalued exchange rates have undermined international payments stability as well. Again and again, developing countries face foreign exchange crises, causing massive devaluation. The resulting financial crash leads to severe recession. Such crises call for IMF financial aid and for structural adjustment programs, with tight money and fiscal discipline and much industrial and financial system reorganization. As the cases of Latin America in the 1980s and East Asia in the 1990s demonstrate, the social burdens like unemployment are very high. The business cycle in these countries is, in large part, a financial and balance of payments crisis phenomenon.

Until the early 1990s, the striking contrast between growth in East Asia and in Latin America, that we have noted above, reflects, at least in part, differences between the two regions with respect to economic stabilization. The East Asian countries had been able to avoid runaway budget deficits. They had managed to prevent hyperinflation. Generally they had maintained stability in their balance of payments. In contrast, Latin America's wild swings of inflation, and trade and capital flow disequilibrium resulted in the "lost decade" following the 1982 debt crisis. Macroeconomic stability represents a principal explanation for the contrast between continued progress in East Asia and financial failure and recession in Latin America during the 1980s. The East Asian crisis may be the exception that proves the rule.

Growth and Development

We turn next to the question of growth. A growing GDP, on a per capita basis, means improvement in welfare; the average citizen has increased purchasing power. In Fig. 1.1, growth is shown by the slope of the trend line marked "Potential GDP." This represents the long-run trend of production capacity.

As we discuss in Chapter 4, potential output depends on inputs, usually summarized in terms of the available capital and labor, and on gains in productivity. In the early post-war years, per capita growth in GDP in the US was at rates of 3% per year. This implies a doubling of purchasing power

every 20 to 25 years.¹ Young couples could raise their children with the expectation that the kids would enjoy purchasing power about twice that of the parents. But in more recent years in the industrial countries (with the striking exception of the US in the late 1990s), the growth of productivity has slowed. With growth of per capita GDP of 1% per year, it would take 70 years for incomes to double! Not surprisingly, questions of how to accelerate growth gained priority in the industrial world.

In the developing countries of East Asia, growth of GDP was extremely rapid until 1997, between 7 and 9% annually. Even allowing for more rapid population growth than in the industrial world, this translates into per capita growth of GDP of some 5 to 7% per year. Living standards have doubled in as short a period as ten years in some countries.

It would be good if such a growth pattern applied in all the developing countries. Today, a record of successful development is considerably more widespread than we had once anticipated. Rapid growth is taking place in big countries like China and India and globalization is extending to many peripheral countries as well. However, some of the poor countries in Africa have had very low GDP growth rates, lower than the growth of their populations. This means that this region is sinking further into poverty, per capita income and living standards in these countries have actually been falling.

Questions of growth call for very different theoretical approaches than questions of stabilization. A concern with growth will lead us to the theory of the production function and the concept of total factor productivity (TFP). This has been an area of economics where extraordinary progress is currently being made. Economists are developing new theories that introduce development of human resources, and new technology, increasing returns and externalities, into the growth process. At this juncture, we must also consider the field of economic development theory which has been undergoing change in its own right.

¹The rule of 70 is a convenient way to gauge the effect of a constant geometric growth rate. Suppose you expect GDP to grow at an annual percentage rate of 10%. Divide 70 by 10, to find that GDP will double in approximately seven years. On the other hand, suppose GDP grows only 2% annually, then 70 divided by 2 indicates that income will double only every 35 years.

Growth also calls for very different views of policy. The issues here are those of providing the appropriate infrastructure, public services, education and support for science and technology. Many countries have also sought to promote growth by providing incentives for investment and for the inflow of foreign capital and transfer of technology. Traditionally most countries, developed and developing alike, have assigned major responsibility for growth policy to the public sector. In recent years, however, the trend has been away from government intervention.

There is an ongoing debate among economists concerning the role of government in economic development. Some see East Asian development as the result of concerted government industrial policies while others give priority to the operation of the market unfettered by government intervention. While this argument remains unsettled, outward-oriented policy has gradually been adopted by nearly all developing countries seeking to advance their economic growth. Promotion of exports has included tax incentives to favor exporting industries and to attract foreign investment, favorable treatment under tariff regulations, undervalued exchange rates, creation of special economic zones, and provision for communication and transportation infrastructure. The promotion of more advanced technology has been a key ingredient of the development strategy of many countries.

Should a country have an industrial policy, promoting selected industries or technologies that are thought to be crucial to a modern economy? In most countries, this question goes without asking. The need for an industrial policy is simply accepted. The US has been a striking exception, in this regard, though increasingly other countries as well — the United Kingdom, Germany, New Zealand, Chile and Argentina — have been relying primarily on free market forces, minimizing government intervention. The “new economy” represents an interesting paradox in this regard. On one hand, entrepreneurial private enterprise is undoubtedly the backbone of the IT and dot.com firms that make up the “new economy.” On the other hand, a look back in history will show that many of the technological antecedents of today’s entrepreneurial developments were financed by government research grants.

In the developing world, government policy continues to play an important role in promoting industrial development. Students of economic development speak of the *developmental state* that collaborates with private sector interests

in advancing economic development. Such a strategy appears to have been most successful in the dynamic economies of East Asia. But even in these countries, liberalization and privatization are today the watchwords of development policy.

The Global Environment

Globalization has become a way to describe the broadening of development across the world landscape and the linkages between businesses in the mature developed countries and in the newly developing ones. Globalization is responsible for much of the progress that has been made in recent generations. The developing countries have acquired capital and advanced technology, accelerating some of them along the road to high incomes, as we have noted above. The industrial countries have gained, as well, through low costs for manufactures and through profitable outlets for their capital.

Where, not so long ago, globalization was primarily about manufacturing in low cost countries, today it involves a far broader range of activities. Financial flows have become transnational, feeding money from the surplus countries, like Japan, to East Asia and Latin America. Foreign direct investment (FDI) is a welcome contributor since it represents funds that go into long-term investments, businesses and joint ventures, and is often accompanied by contributions of management skill and technology by the investing enterprise. Multinational corporations have made large contributions to technical and management skills in the host countries.

Globalization also encompasses service flows, trademark and technology licensing, entertainment, and most recently, software programming and data processing. Services provided by international financial institutions and insurance companies are sweeping the world, competing with, and often, supplying skills to domestic partners in many countries. International trademarks like Coca Cola or Mercedes have become global icons. Many disputes still surround the illegal distribution and use of intellectual property and copyrighted entertainment. (Rock music is a surprisingly important element.)

We are learning that globalization does not come without pain or risk. Globalization has meant huge adjustments. We have seen a “hollowing out” of

manufacturing industries in the old industrial countries as their old high cost industries, the US *rustbelt*, for example, have not been able to compete successfully against their younger competitors in the developing world. In turn, we have seen the growth of environmentally damaging industries — steel plants emitting smoke, paper operations denuding the forests and polluting the water — in the developing countries.

Recent developments have raised a further concern, that the financial linkages between the world's economies might not be stable. We have long known that business cycle phenomena transcend national boundaries. The experience of financial crises in Latin America in 1982, in Mexico in 1994, and in East Asia in 1997 is causing some experts, in addition, to question the natural stability of financial flows in the world economy. Is it just a coincidence that some apparently healthy countries were drawn into financial crisis at about the same time? Or does this reflect an innate instability of international short-term capital flows? In recent years, an increasing part of the capital flow has been in the form of "hot money." This is short-term lending, often for six months at a time, offered at favorable interest rates. These funds have often gone into longer term investments on the assumption that they will always be rolled over. That represents a mismatch: short to long. When the creditors want to withdraw their funds, the debtors do not have the liquidity to meet their obligations. This was a familiar situation in East Asia, precipitating the 1997 crisis. There is not yet consensus on how to deal with this issue, nor is there yet agreement on the underlying causes. But it is clear that businesses operating in a global economic environment must be aware of the realities — the world economy remains a very uncertain setting in which modern business managers must find their way.

Nation, Industry and Firm

How does the picture look from the "trenches?" How does the aggregate economy impact on the typical business enterprise? The business firm operates in a broad business environment, the global economy, the nation and the industry. To see more clearly the position of the business in this wider setting, we turn to a "cascade" shown in Fig. 1.7.

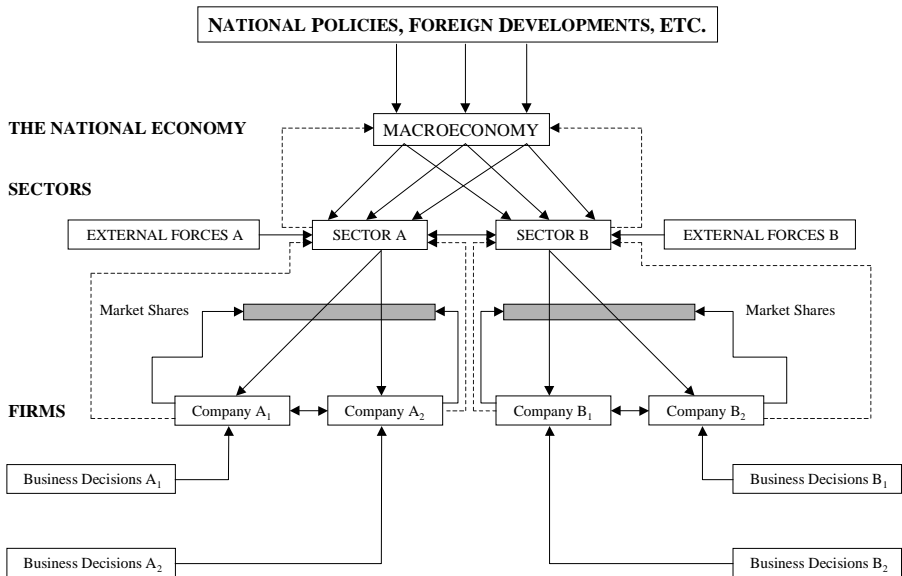


Fig. 1.7 Relations between the Nation, Industries and Firms: A Cascade.

On top of the diagram, we show the national economy. There are many such economies, linked together by trade and financial flows. We concentrate our detailed presentation here on only one country, but we recognize in Chapters 11 to 13 that the interactions between various countries are likely to be important.² Each national economy is affected by numerous external forces. We have noted the effects of other countries on the domestic economy through trade, export markets, the prices of imported materials, and flows of capital.

The national level is also the level where aggregate economic policy applies. For stabilization, government officials make fiscal, monetary and balance of payments policy. For growth, they provide investment incentives, export promotion, infrastructure development, educational programs, etc. Note that the

²We would complicate the figure greatly by showing many interacting countries at the top of our diagram, but that is, in fact, the way in which the real world operates.

objectives of policy are national objectives. In principle, government officials seek to advance the welfare of the nation as a whole, though, realistically in a political world, politicians may want to favor their constituencies or, in some unfortunate cases, may seek personal financial gain.

As we learned again from the effects of weather change, *el nino*, and more recently, *la nina*, accidents of nature — monsoons, droughts or earthquakes — and unfortunately, also wars affect national economic performance, often in serious ways.

The economic performance of each nation is best described by statistics like the GDP, the price indexes, interest rates and balance of payments data. These represent aggregates or averages for the nation as a whole, though in many cases regional breakdowns of this information may be available.

At the next level of the cascade (Fig. 1.7) are the sectors of the economy, traditionally called “industries” even though they include non-industrial activities like agriculture and services. We can break the economy down into many different sectors; sometimes as few as five or six but occasionally as many as the 435 industry breakdown of the US input-output table (only two sectors are shown here). The industries are linked to the national economic scene, in a satellite relationship. Note that the arrows point from the national economy to the industries. This is not meant to imply that there is no backward relation from industries to the nation. In fact, we show dashed arrows leading in the upward direction. But each industry, making up only a relatively small part of the total national economy, can take the national environment largely as given.

There is also an arrow from Industry A to Industry B, a two-headed arrow. This signifies that many industries are linked to other industries, as suppliers. Steel industry output is greatly influenced by the requirements for steel in the auto industry, for example, and in turn, the steel industry draws on the producers of iron ore, scrap and fuel, etc. The relationships between the national demands by industry and among the industries themselves are usually described by economists in terms of the “input-output” system. There are also external forces at the industry level. These include industry-specific regulations such as industrial policies, environmental restrictions, tariffs, foreign competition, technological change, etc.

The third level of the cascade represents the level of the firm. In Fig. 1.7, we show only two firms for each industry though there could obviously be many more. Firms are linked to the market through their market shares. Again the principal relationship is from the industry (market) down to the firm. There are two-headed arrows recognizing that firms have impact on one another.

The picture at the firm level is quite different from that at higher levels of the cascade. By and large, business managers must take the economic environment as given, though the largest or the most technologically advanced firms, like Microsoft or GE, may have substantial market power and may influence the industry or the economy as a whole.

At the firm level, the objectives are different. The business enterprise is seeking to maximize the performance of the firm, usually measured in terms of profits or the value of the owners' equity. In other words, firms seek private rather than social gain. The approach is strategic and entrepreneurial, involving not only questions of managing existing enterprises, but also of promoting new businesses and/or of developing and introducing new technologies.

The actions of one business affect its competitors and the response of competing businesses must be taken into account. A promotional program, advertising or price reductions, for example, by Firm A will have impacts on Firm B, which in turn, may devise a strategy response. At the firm level, the short-run perspective may indeed be from the market to the firm as shown by the downward pointing arrows, but in many ways initiatives at the firm level, the introduction of new products or new production technology, the development of a new marketing system, new pricing policies, for example, are likely to have impact on all the firms in the industry.

The nexus of the "new" economy lies at this level of the cascade. This is where entrepreneurs introduce new technologies. This is where the internet links businesses to consumers and businesses to their suppliers. This is where mergers and acquisitions expand the scale of operations in the home market, and most recently in world markets. The interrelationship of the firm and the industry is a close one. After all, the industry is the sum of the firms that make it up.

The cascade serves as a framework for discussion. We can talk about the nation and the industry. In many respects, they are the setting in which the firm operates. But ultimately, the basic decisions that affect the profitability

and prospects of an enterprise are made at the firm level. A managers' strategy must take the economic setting into account, but managers must also recognize the opportunities for action at the level of the enterprise.

Information for Business

What does this mean for business? During one of my presentations on the macroeconomic outlook, a concerned businessman from a paper company once said to me: "How is this material actionable?" He simply wanted to know how he, as a business executive, could use the material about the growth of GDP, prices and interest rates I had presented. A legitimate question!

For many businesses, a general overview of the economy is only of limited interest. Like the paper company man, business managers want to know what is the outlook for specific variables that directly influence their business. Consumption of paper products fortunately is closely related to economic activity, indeed sales of paper packaging materials are one of the most accurate short-term indicators. So I could tell my questioner to look not only at GDP but to look closely particularly at the markets where orders for paper originate among the industries that use paper for packaging, among printers, in newsprint and magazines, and in consumer products. I could also tell him that the prices of cellulose and newsprint are quite variable, sensitive to the demand and supply balance for these products. These prices would greatly affect his costs and profit margins. I could suggest that he look at the tightness of labor markets to gauge pressures for higher wages and labor costs. Finally, I could direct him toward financial market information to determine the cost and availability of funds.

Macroeconomists do tend to talk in terms of broad economic aggregates and their values. Does it make a difference to business whether the GDP is increasing at 2.5% or at 3.5%? Probably not from one quarter to the next, because from quarter to quarter the figures are very variable. But the growth of GDP as a measure of business conditions does affect financial markets and the outlook for business. Macroeconomics, deals first of all, with the business climate, the environment in which business operates. This environment is described by the measures of economic activity we have noted.

An important consideration is the timeliness of the information. The importance of up-to-date evaluations and forecasts cannot be underestimated. Often, business executives need to know “before it happens.” A turndown in business activity, an unanticipated slack in consumer spending, a rise in interest rates, or depreciation of the exchange rate can turn what seemed like a profitable business opportunity into a disaster.

On the other hand, managers should not take every forecast too seriously. Sometimes forecasts reflect the wishful thinking of an optimist or the fears of a pessimist. This may be particularly true if there are political reasons for projecting the outlook with one way or the other. Sometimes, there is a tendency simply to project the past. If the economy has been growing rapidly, why should it not continue to grow? Could it slow down next year? There may be good reasons. They need to be studied. For the business manager, the best motto is, as for the Boy Scout, “Be Prepared!”

Firms operating internationally require a broad range of international market and country risk information. The problems of obtaining appropriate international information are considerably greater than for the domestic economy since understanding of the investment climate abroad depends not only on evaluation of the economy itself but also on political matters, issues that are often poorly understood by foreign investors. Imagine, for example, the effect of the Thai devaluation crisis in July 1997 on firms that had begun to build plants there. Or visualize the risks of making joint venture agreements in China where property rights and legal procedures are still very badly defined.

Firms operating in international markets need specific information on their markets relevant to proposed business ventures. That may involve data on local costs for materials, for electric power, for office and factory space, or of wages for managerial and production personnel. Promotional privileges, allowing foreign investors tax concessions, are a consideration in international investment decisions in many countries. These may take a specific form depending on the project proposed, how much of the product is intended for export markets, for example. It is wise to call on local expertise or an embassy’s commercial officer to provide the specific information required.

Questions for Discussion

- * Does the contrast in economic performance between developed and developing countries persist? Why? Why do some developing countries lag behind?
- * How can we think about the recent surge of productivity growth? Is there really a “new” economy?
- * How are business cycle forces affecting the industrial countries and the developing countries currently? Are there big differences between various countries? Why?
- * Is monetary and fiscal policy having big impacts on the world economy? Which way?
- * How are various industries and firms affected by the economic situation? Is the business cycle more important for some kinds of business activity than others?
- * What is the impact of the “new” economy at the firm level? How can firms take advantage of the opportunities created by the advent of the “new” economy?
- * How can individual business managers protect their firms against the vagaries of the world business cycle?