Part I

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Introductory note

Over four decades of complex American growth and change are encompassed between the early post-World War II years and the time of the final collapse of East European and Soviet communism in the late 1980s and early 1990s. During this extraordinary interval, decisive structural transformations took place in the U.S. economy, along with vast changes and a powerful expansion of the movement of resources in world markets. As the Soviet communist danger was slowly receding, a new kind of challenge to the U.S. started to loom on the horizon, the challenge of powerful and innovative economic competitors.

In order to sketch the directions of change in the 21st century, it is indispensable to take stock of the deep transformations brought about by the entire cold war 1947/48–1989/90 era, and to take a close look at the interconnections it forged at home and abroad between policies, growth, economic fluctuations, structural changes, and the capacity to compete in world markets. The time has come to assess the triumphs and the failures of that period as far as the United States economy is concerned, and to evaluate its legacies on the threshold of a new era.

In the opening chapter of Part I, I first point out that the U.S. economy continued to grow significantly over the entire postwar era under review. It developed an enormous production machine, and its multiple and increasingly complex interindustry flows reached into the trillions of dollars annually from the end of the 1970s on. Its GNP had risen to well over $5 trillion by the end of the 1980s. With respect to rates of growth, of unemployment, of inflation, and of productivity, one can conveniently distinguish two main cycles divided into four sub-periods. In Chapter 1, I map out the structural changes that the economy underwent in each of these four sub-periods vis-à-vis income, employment, and technological changes, particularly in various manufacturing branches, and also examine the role of these branches in foreign trade. After an analysis of the usual measurements of “competitiveness,” I focus on the interactions between the changing structure of imports and exports and the problems concerning the current-account position of the U.S. in relation to the level of national savings and the budget deficit.
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In Chapter 2, I indicate the ways in which the economic policies of successive Democratic and Republican administrations coincided and diverged in their basic approaches to business activity and growth. Afterwards, I discuss the nature and scope of the government’s interventions in the market and examine in detail the government’s regulatory, supervisory, allocative, and promotional measures and processes that in a variety of fashions shaped the growth and development of business. I then turn to the impact on the development of science and technology of the research and development (R&D) outlays of the federal government, industry, the states, and institutions of higher learning.

In the conclusion to Chapter 2, which also concludes Part I, I focus on various transformations that business underwent during the period, considered in terms of (1) adjustments to the spread of technologies; (2) strategies of growth; (3) responses to the globalization of trade; and (4) measures for cross-border integration of formerly separate and competing national firms. I address the other complex issues of the United States’ relationships with its new economic challengers in Part II.
1 Postwar growth and change

1.1 Phases and issues

The postwar years can be conveniently divided into two intervals with distinctly different characteristics. During the first, from 1947 to 1973, the U.S. was successful at home in almost all economic directions, while its military and economic supremacy confronted the then powerful communist military challenge on a world scale. During the second interval, from 1974 through the end of the 1980s – a time of increasing doubt and disappointment – the U.S. economy had to grapple with mounting difficulties at home and with a rising competitive challenge in its domestic as well as its foreign markets. These setbacks became a matter of growing concern and generated all kinds of efforts to chart new paths for the country.

For a close examination of the evolving economic policies, the indicated basic spans of time can each be appropriately subdivided into two phases. During the first postwar phase, from 1947/48 through 1960, the U.S. economy evolved under the combined influence of countercyclical policies at home and policies of “containment” of communism abroad. During the second phase, from 1961 through 1973, the American economy developed powerfully in the early 1960s under the impulse of growth-oriented policies at home, but toward the end of that decade its successes started to be marred both by the consequences of its effort to contain communism territorially in Vietnam and by the beginnings of competitive assertiveness on the international markets by the enemy countries, rehabilitated under the policy of containment.

The second basic span also falls into two clear-cut phases. During the first, a relatively short one from 1974 to 1982, the country faced a critical combination of stagnation and inflation at home, which compared unfavorably with the faster economic growth and increasingly wider participation in the foreign markets of its new and powerful competitors, Japan and Germany. During the second phase, from 1983 through 1989/90, the U.S. economy registered a noteworthy recovery with regard to both output and inflation; but, along with these successes, new problems arose concerning painful readjustments in manufacturing output and employment, widening budgetary and current-accounts
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Table 1.1. U.S. growth, employment, and inflation during main economic phases, 1947–1990

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<tr>
<td>GNP in billions of 1982 dollars</td>
<td>1066.7</td>
<td>1665.3</td>
<td>2744.1</td>
<td>3166.0</td>
<td>4155.8</td>
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<tr>
<td>Index 1982 = 100</td>
<td>33.7</td>
<td>52.6</td>
<td>86.7</td>
<td>100.0</td>
<td>131.3</td>
</tr>
<tr>
<td>Annual Growth Rate</td>
<td>3.5</td>
<td>3.9</td>
<td>1.6</td>
<td>2.8</td>
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<td>Employment:</td>
<td></td>
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<tr>
<td>Civilian Labor Force (millions)</td>
<td>57.0</td>
<td>65.7</td>
<td>85.0</td>
<td>99.5</td>
<td>117.9</td>
</tr>
<tr>
<td>Index 1982 = 100</td>
<td>57.2</td>
<td>66.0</td>
<td>85.4</td>
<td>100.0</td>
<td>118.5</td>
</tr>
<tr>
<td>Annual Growth Rate</td>
<td>1.1</td>
<td>1.9</td>
<td>1.7</td>
<td>2.1</td>
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<tr>
<td>Av. Unemploy. Rate</td>
<td>4.5</td>
<td>4.8</td>
<td>7.1</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td>CPI (1982-84 = 100)</td>
<td>22.3</td>
<td>29.6</td>
<td>44.4</td>
<td>96.5</td>
<td>130.7</td>
</tr>
<tr>
<td>Annual Growth Rate</td>
<td>2.2</td>
<td>3.3</td>
<td>9.0</td>
<td>3.8</td>
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deficits, and massive increases in the national debt. Thus, particularly from the early 1970s on, the U.S. path ceased to be a straightforward and smoothly ascending one, as it had been during the first postwar period. The United States had to cope now with recessions, unemployment, stagnation, inflation, and the needs of uneasy, costly, and complex adjustments to both increasing military expenditures and rising foreign competition at home and abroad.

The key elements defining the economic profile of each of these four phases are presented in Table 1.1.¹ Let us now consider these elements in some detail. From 1947 through the 1960s, the U.S. economy had to cope with the requirements posed by the transition from war to peace and, internationally, with the assertive expansion of Soviet communism. Notwithstanding their philosophical differences, under Democratic and under Republican administrations the focus was kept on full employment and on the moderation of cyclical swings.
Externally, the emphasis was on the building of a credible defense against Soviet international assertiveness. This led, *inter alia*, to the launching of the Marshall Plan, a daring operation aimed at rehabilitating the devastated capitalist economy of Germany, along with other rehabilitation measures in Asia to benefit another former enemy, Japan. As can be seen from Table 1-1, during this phase the average yearly rate of growth in real GNP was on the order of 3.5 percent, a rate significantly above that of the pre-World War II years (1900–38) of 2.3 percent. The average yearly rate of unemployment was 4.5 percent (with the lowest rate registered in the early 1950s and the highest in the late 1950s). The average annual rate of increase in the Consumer Price Index (CPI) remained generally quite low, except for the late 1940s and again for the early 1950s. The policy of active containment of communism brought about not only the indicated rehabilitation of the former enemies – with lasting and multiple economic consequences for decades to come – but also rising U.S. defense expenditures, as well as diplomatic confrontations and ultimately direct military conflict (the Korean War).

In the second phase, 1961–73, governmental policy passed from one of moderation of cyclical swings to one of growth acceleration. This change was due in part to illusions about what the government could effectively do in regard to macroeconomic ‘fine tuning’ and sustained economic growth, and in part came about as a reflex to the increasing growth rates of Japan, of the other industrialized countries, and of the allegedly rapid growth of the Soviet Union and its satellites. The Kennedy and Johnson administrations, and then the Nixon administration, stressed the necessity of increasing the growth rate in order to cope – as Nixon himself put it—“in the deadly competition... not only with the men in the Kremlin, but [also] the men in Peking.” Under the Democratic administrations the economy meandered at first through a peaceful stretch of increasing growth rates, with reasonable monetary stability and slowly falling unemployment rates. But soon afterwards the country got embroiled in the unsettling misfortune of the Vietnam War. Inflationary pressures started to mount, and, along with them, unemployment rates. From 1961 to 1973 the average yearly rate of growth of GNP rose to 3.9 percent, the highest average rate of the entire postwar period under review. The pace of growth of GNP was supported by increases in the net stock of business’s fixed capital at the impressive annual rate of 3.9 percent and of net capital per worker at 2.4 percent. Paralleling these trends, productivity grew at the average yearly rate of 3.3 percent between 1948 and 1966, though the rate fell to 2.1 percent between 1966 and 1973. Moreover, the wide availability of U.S. technological innovations, through assistance programs and through the growth of affiliates, opened up for the United States avenues for both international cooperation and competition with its new challengers. But at the same time, inflation increased its pace to 3.3 percent per year, while unemployment stood at around 4.8 percent
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per annum. U.S. increases in GNP and capital growth were overshadowed in part by the faster growth of the other main industrialized countries, in particular of Japan, and by the latter’s felicitous application of advanced technological discoveries to the production of goods of mass consumption (advances applied in the U.S. mainly to weaponry and other military goods). As noted by the Economic Report of the President (henceforth ERP) of January 1989, between 1950 and 1973 capital per man-hour grew over one and a half times as fast as in the U.S. in the next six largest industrialized nations, while their investment and productivity grew twice as fast.2

During the third phase under review, the U.S. economy was grievously affected by stagnation and inflation. The legacies of the Vietnam War and the fruits of post-Keynesian misconceptions concerning the government’s ability to fine-tune economic processes turned out to be equally bitter. From 1974 through 1982 the economy experienced no fewer than three recessions, two of which were severe. The first recession, which at the time was the longest and deepest since the great depression of the 1930s, started in November 1973 and dragged on for 16 months, until March 1975. A big hike in the price of oil caused by an Arab embargo accelerated the inflation inherited from the preceding phase and precipitated a fall in stock market prices. The second recession unfolded for six months in early 1980, under the Carter administration, against the background of a further increase in inflation stimulated by a new Arab oil price hike. Finally, the third recession, this time engineered by the then new Reagan administration in order to bring down the alarming inflation rate, also dragged on for 16 months – from July 1981 to November 1982. During this entire phase, the average yearly rate of growth of the GNP fell to a low of 1.6 percent, while the average unemployment rate hovered around 7 percent and the average inflation rate reached 9.0 percent per year. (See Table 1-1.) Between the first quarter of 1976 and 1980 the U.S. experienced its highest postwar inflation rates, and the value of the dollar plummeted. As one might have expected in such troubled times, the average yearly rate at which nonfarm businesses acquired new plant and equipment fell from the level of 3.9 percent (reached during 1947 to 1973) to 2.0 percent (between 1973 and 1982). Productivity fell even more sharply. The trends toward price escalation, mounting budget deficits, and expanding money supply for a while seemed unstoppable. The federal budget deficit as a percentage of GNP increased steadily to 6.3 percent per annum, its highest level since World War II. As the value of the dollar fell, the value of U.S. exports increased at a higher rate per year than that of imports – a situation exactly opposite to that which had prevailed in the 1960s. But this success was overshadowed by global current-account deficits: by the end of the 1970s, trade balances in both merchandise (excluding the military) and services were in the red. In addition, while the U.S. was experiencing the combination of miseries that came to be known as stagflation, the
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Economies of Japan and Germany continued to develop at much faster rates and to register huge trade surpluses.

The fourth and last phase of the postwar epoch, ending in 1989/90, exhibited, especially from 1985 on, a noteworthy recovery marked by a quickening pace in growth of the GNP and a significant fall in the average yearly rate of inflation. As can be seen from Table 1-1, the rate of growth of the GNP increased significantly between 1982 and 1990, though at a lower rate than that prevailing before 1973. Nonfarm business acquisitions of plant and equipment expanded at a high rate, namely, at an average of 5.2 percent per year. And while the average yearly rate of unemployment decreased noticeably—still remaining at levels higher than those prevailing from 1947 to 1973—the rate of inflation was brought down sharply, to an average yearly rate of 3.8 percent. Concomitantly, the value of the dollar started to climb, a fact which adversely affected the United States' international transactions. Until 1983, all the measures of external balance (current-account balance and net exports balances, in current and constant dollars) stayed within the ranges which had prevailed throughout the previous postwar years. However, from 1983 on, these accounts changed dramatically. The U.S. began to experience trade deficits of a magnitude not seen since the 19th century. The deficit in real net exports reached its peak (4.1 percent of real GNP) in 1986, and in current prices (at the level of $159 billion) in the last quarter of 1987. As is well known, external trade deficits imply inflows of capital. From the early postwar years up to 1980 the U.S. had built up large international holdings as a counterpart of its annual current-account surpluses. By the beginning of the 1980s, the pattern of international capital flows had reversed. From 1985 on, the United States moved from a net creditor into a net debtor position. The total value of foreign assets in the United States (direct investments and common stock and bonds) exceeded the total value of similar holdings abroad of U.S. citizens. The borrowed resources actually enabled the U.S. to expand its investment, raise its productivity, and increase its future output. But, as we shall see further on, many critics saw in this reversal of position ominous signs for the future.

Notwithstanding the important variations within and between the indicated phases, over the entire period under review, from 1947 to the beginning of the 1990s, the main growth indicators—real GNP, real disposable per capita income, real investment, employment, productivity—showed significant average annual rates of increase. Indeed, between 1947 and the end of the 1980s real GNP (at 1982 prices) increased almost four times, at an average rate of 3.3 percent per year. Real disposable income per capita increased faster: it more than quadrupled during these years, at an average rate of 3.4 percent per annum. (These upward trends are shown [for 1965–1989] in Fig. 1-1.) Total nonfarm business acquisition of new plant and equipment increased at an average annual rate of 3.7 percent. Government investment in physical and
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human-capital infrastructure also increased significantly until 1973 and continued to rise at a somewhat slower pace from then on. Real gross private domestic investment, which had been on the order of 16.7 percent of GNP in 1947 and of 17.4 percent in 1989, moved over the entire period at an average rate of growth of 3.4 percent per year. The employed labor force also increased
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at the moderate average rate of 1.7 percent per year. Finally, notwithstanding wide variations in output per hour in the business sector between the phases considered, the United States’ productivity growth of 2.28 percent per year for the period as a whole remained consistent with its historic labor productivity growth rate.

Significant shifts in industrial structure occurred during the entire postwar epoch. From 1947 to the end of the 1980s, appreciable changes took place in the relative contributions made to real GNP by the economy’s three major components: agriculture; industry – mining, construction, manufacturing, power and light, other utilities, transport, and communications; and nongovernmental services. Used in its broadest sense, this latter term includes distributive services (trade, wholesale and retail); finance/insurance/real estate; business, professional, and technical services; and personal services. As can be seen from Table 1-2, the share of agriculture fell from some 5 percent to less than half that amount; the share of industries contracted from 44 percent to some 40 percent by 1988. Big drops were registered in the shares of mining and construction. While not strictly comparable (because of changes in the underlying statistical methods), the share of manufacturing fluctuated narrowly at around 20 percent of total GNP, while the combined share of utilities and transportation remained close to the 9–10 percent range (except in 1960). On the side of nongovernmental services, the highest relative expansions were registered in the contributions of finance/insurance/real estate and of certain other services, in particular miscellaneous business services and health services. On the other hand, the government’s contribution to the GNP decreased, from over 14 percent to about 10½ percent.

Even broader changes took place within and between the indicated major components of the economy with respect to labor force distribution. The share of civilian employment in agriculture fell from 10.3 million in 1947 to 3.1 million by the end of the 1980s. The combined share of the indicated industries during this time rose from 22.3 million to 30.8 million gainfully employed. However, within this total, significant changes in the pattern of labor force distribution took place, particularly from 1973 on: employment in mining and manufacturing contracted while it expanded in construction, in utilities, and in transport and communications. The share of the heterogeneous conglomerate called services (excluding government) increased dramatically from 17.7 million to 57.4 million, with vast increases particularly in trade (from 9.5 million to 25.1 million) and other services (from 6.3 million to 25.6 million). Government employment also increased, from 5.1 million to 17.3 million.

Output per person employed was markedly higher in some of the so-called goods-producing industries than in services. Productivity was especially high in mining and in manufacturing, for instance – less so in construction and agriculture. On the service side, the highest productivity was registered in