Fundaments of Money, Banking and Financial Markets
The AAFM American Academy of Financial Management
Approved Study Guide, Book & Manual

CWM CHARTERED WEALTH MANAGER ™ and MFP ™
MASTER FINANCIAL PLANNER PROGRAM

Prof. George S. Mentz, JD, MBA, CWM™

Formal Economics Study Guide for Executive Courses for Financial and Wealth Management Board Certification and Professional Designation

The Basics of the US Economy

In every economic system, entrepreneurs and managers bring together natural resources, labor, and technology to produce and distribute goods and services. But the way these different elements are organized and used also reflects a nation's political ideals and its culture.

The United States is often described as a "capitalist" economy, a term coined by 19th-century German economist and social theorist Karl Marx to describe a system in which a small group of people who control large amounts of money, or capital, make the most important economic decisions. Marx contrasted capitalist economies to "socialist" ones, which vest more power in the political system. Marx and his followers believed that capitalist economies concentrate power in the hands of wealthy business people, who aim mainly to maximize profits; socialist economies, on the other hand, would be more likely to feature greater control by government, which tends to put political aims -- a more equal distribution of society's resources, for instance -- ahead of profits.

While those categories, though oversimplified, have elements of truth to them, they are far less relevant today. If the pure capitalism described by Marx ever existed, it has long since disappeared, as governments in the United States and many other countries have intervened in their economies to limit concentrations of power and address many of the social problems associated with unchecked private commercial interests. As a result, the American economy is perhaps better described as a "mixed" economy, with government playing an important role along with private enterprise.

Although Americans often disagree about exactly where to draw the line between their beliefs in both free enterprise and government management, the mixed economy they have developed has been remarkably successful.

Basic Ingredients of the U.S. Economy

The first ingredient of a nation's economic system is its natural resources. The United States is rich in mineral resources and fertile farm soil, and it is blessed with a moderate climate. It also has extensive coastlines on both the Atlantic and Pacific Oceans, as well as on the Gulf of Mexico. Rivers flow from far within the continent, and the Great Lakes -- five large, inland lakes along the U.S. border with Canada -- provide additional shipping access. These extensive waterways have helped shape the country's economic growth over the years and helped bind America's 50 individual states together in a single economic unit.

The second ingredient is labor, which converts natural resources into goods. The number of available workers and, more importantly, their productivity help determine the health of an economy. Throughout its history, the United States has experienced steady growth in the labor force, and that, in turn, has helped fuel almost constant economic expansion. Until shortly after World War I, most workers were immigrants from Europe, their immediate descendants, or African-Americans whose ancestors were brought to the Americas as slaves. In the early years of the 20th century, large numbers of Asians immigrated to the United States, while many Latin American immigrants came in later years.

Although the United States has experienced some periods of high unemployment and other times when labor was in short supply, immigrants tended to come when jobs were plentiful. Often willing to work for somewhat lower wages than acculturated workers, they generally prospered, earning far more than they would have in their native lands. The nation prospered as well, so that the economy grew fast enough to absorb even more newcomers.

The quality of available labor -- how hard people are willing to work and how skilled they are -- is at least as important to a country's economic success as the number of workers. In the early days of the United States, frontier life required hard work, and what is known as the Protestant work ethic reinforced that trait. A strong emphasis on education, including technical and vocational training, also contributed to America's economic success, as did a willingness to experiment and to change.

Labor mobility has likewise been important to the capacity of the American economy to adapt to changing conditions. When immigrants flooded labor markets on the East Coast, many workers moved inland, often to farmland waiting to be tilled. Similarly, economic opportunities in industrial, northern cities attracted black Americans from southern farms in the first half of the 20th century.

Labor-force quality continues to be an important issue. Today, Americans consider "human capital" a key to success in numerous modern, high-technology industries. As a result, government leaders and business officials increasingly stress the importance of education and training to develop workers with the kind of nimble minds and adaptable skills needed in new industries such as computers and telecommunications.

But natural resources and labor account for only part of an economic system. These resources must be organized and directed as efficiently as possible. In the American economy, managers, responding to signals from markets, perform this function. The traditional managerial structure in America is based on a top-down chain of command; authority flows from the chief executive in the boardroom, who makes sure that the entire business runs smoothly and efficiently, through various lower levels of management responsible for coordinating different parts of the enterprise, down to the foreman on the shop floor. Numerous tasks are divided among different divisions and workers. In early 20th-century America, this specialization, or division of labor, was said to reflect "scientific management" based on systematic analysis.

Many enterprises continue to operate with this traditional structure, but others have taken changing views on management. Facing heightened global competition, American businesses are seeking more flexible organization structures, especially in high-technology industries that employ skilled workers and must develop, modify, and even customize products rapidly. Excessive hierarchy and division of labor increasingly are thought to inhibit creativity. As a result, many companies have "flattened" their organizational structures, reduced the number of managers, and delegated more authority to interdisciplinary teams of workers.

Before managers or teams of workers can produce anything, of course, they must be organized into business ventures. In the United States, the corporation has proved to be an effective device for accumulating the funds needed to launch a new business or to expand an existing one. The corporation is a voluntary association of owners, known as stockholders, who form a business enterprise governed by a complex set of rules and customs.

Corporations must have financial resources to acquire the resources they need to produce goods or services. They raise the necessary capital largely by selling stock (ownership shares in their assets) or bonds (long-term loans of money) to insurance companies, banks, pension funds, individuals, and other investors. Some institutions, especially banks, also lend money directly to corporations or other business enterprises. Federal and state governments have developed detailed rules and regulations to ensure the safety and soundness of this financial system and to foster the free flow of information so investors can make well-informed decisions.

The gross domestic product measures the total output of goods and services in a given year. In the United States it has been growing steadily, rising from more than $3.4 trillion in 1983 to around $8.5 trillion by 1998. But while these figures help measure the economy's health, they do not gauge every aspect of national well-being. GDP shows the market value of the goods and services an economy produces, but it does not weigh a nation's quality of life. And some important variables -- personal happiness and security, for instance, or a clean environment and good health -- are entirely beyond its scope.

A Mixed Economy: The Role of the Market

The United States is said to have a mixed economy because privately owned businesses and government both play important roles. Indeed, some of the most enduring debates of American economic history focus on the relative roles of the public and private sectors.

The American free enterprise system emphasizes private ownership. Private businesses produce most goods and services, and almost two-thirds of the nation's total economic output goes to individuals for personal use (the remaining one-third is bought by government and business). The consumer role is so great, in fact, that the nation is sometimes characterized as having a "consumer economy."

This emphasis on private ownership arises, in part, from American beliefs about personal freedom. From the time the nation was created, Americans have feared excessive government power, and they have sought to limit government's authority over individuals -- including its role in the economic realm. In addition, Americans generally believe that an economy characterized by private ownership is likely to operate more efficiently than one with substantial government ownership.

Why? When economic forces are unfettered, Americans believe, supply and demand determine the prices of goods and services. Prices, in turn, tell businesses what to produce; if people want more of a particular good than the economy is producing, the price of the good rises. That catches the attention of new or other companies that, sensing an opportunity to earn profits, start producing more of that good. On the other hand, if people want less of the good, prices fall and less competitive producers either go out of business or start producing different goods. Such a system is called a market economy. A socialist economy, in contrast, is characterized by more government ownership and central planning. Most Americans are convinced that socialist economies are inherently less efficient because government, which relies on tax revenues, is far less likely than private businesses to heed price signals or to feel the discipline imposed by market forces.

There are limits to free enterprise, however. Americans have always believed that some services are better performed by public rather than private enterprise. For instance, in the United States, government is primarily responsible for the administration of justice, education (although there are many private schools and training centers), the road system, social statistical reporting, and national defense. In addition, government often is asked to intervene in the economy to correct situations in which the price system does not work. It regulates "natural monopolies," for example, and it uses antitrust laws to control or break up other business combinations that become so powerful that they can surmount market forces. Government also addresses issues beyond the reach of market forces. It provides welfare and unemployment benefits to people who cannot support themselves, either because they encounter problems in their personal lives or lose their jobs as a result of economic upheaval; it pays much of the cost of medical care for the aged and those who live in poverty; it regulates private industry to limit air and water pollution; it provides low-cost loans to people who suffer losses as a result of natural disasters; and it has played the leading role in the exploration of space, which is too expensive for private enterprise to handle.

In this mixed economy, individuals can help guide the economy not only through the choices they make as consumers but through the votes they cast for officials who shape economic policy. In recent years, consumers have voiced concerns about product safety, environmental threats posed by certain industrial practices, and potential health risks citizens may face; government has responded by creating agencies to protect consumer interests and promote the general public welfare.

The U.S. economy has changed in other ways as well. The population and the labor force have shifted dramatically away from farms to cities, from fields to factories, and, above all, to service industries. In today's economy, the providers of personal and public services far outnumber producers of agricultural and manufactured goods. As the economy has grown more complex, statistics also reveal over the last century a sharp long-term trend away from self-employment toward working for others.

Government's Role in the Economy

While consumers and producers make most decisions that mold the economy, government activities have a powerful effect on the U.S. economy in at least four areas.

Stabilization and Growth. Perhaps most importantly, the federal government guides the overall pace of economic activity, attempting to maintain steady growth, high levels of employment, and price stability. By adjusting spending and tax rates (fiscal policy) or managing the money supply and controlling the use of credit (monetary policy), it can slow down or speed up the economy's rate of growth -- in the process, affecting the level of prices and employment.

For many years following the Great Depression of the 1930s, recessions -- periods of slow economic growth and high unemployment -- were viewed as the greatest of economic threats. When the danger of recession appeared most serious, government sought to strengthen the economy by spending heavily itself or cutting taxes so that consumers would spend more, and by fostering rapid growth in the money supply, which also encouraged more spending.

In the 1970s, major price increases, particularly for energy, created a strong fear of inflation -- increases in the overall level of prices. As a result, government leaders came to concentrate more on controlling inflation than on combating recession by limiting spending, resisting tax cuts, and reining in growth in the money supply. Ideas about the best tools for stabilizing the economy changed substantially between the 1960s and the 1990s. In the 1960s, government had great faith in fiscal policy -- manipulation of government revenues to influence the economy. Since spending and taxes are controlled by the president and the Congress, these elected officials played a leading role in directing the economy. A period of high inflation, high unemployment, and huge government deficits weakened confidence in fiscal policy as a tool for regulating the overall pace of economic activity. Instead, monetary policy -- controlling the nation's money supply through such devices as interest rates -- assumed growing prominence. Monetary policy is directed by the nation's central bank, known as the Federal Reserve Board, with considerable independence from the president and the Congress..

Regulation and Control. The U.S. federal government regulates private enterprise in numerous ways. Regulation falls into two general categories. Economic regulation seeks, either directly or indirectly, to control prices. Traditionally, the government has sought to prevent monopolies such as electric utilities from raising prices beyond the level that would ensure them reasonable profits. At times, the government has extended economic control to other kinds of industries as well. In the years following the Great Depression, it devised a complex system to stabilize prices for agricultural goods, which tend to fluctuate wildly in response to rapidly changing supply and demand. A number of other industries -- trucking and, later, airlines -- successfully sought regulation themselves to limit what they considered harmful price-cutting.

Another form of economic regulation, antitrust law, seeks to strengthen market forces so that direct regulation is unnecessary. The government -- and, sometimes, private parties -- have used antitrust law to prohibit practices or mergers that would unduly limit competition.

Government also exercises control over private companies to achieve social goals, such as protecting the public's health and safety or maintaining a clean and healthy environment. The U.S. Food and Drug Administration bans harmful drugs, for example; the Occupational Safety and Health Administration protects workers from hazards they may encounter in their jobs; and the Environmental Protection Agency seeks to control water and air pollution.

American attitudes about regulation changed substantially during the final three decades of the 20th century. Beginning in the 1970s, policy-makers grew increasingly concerned that economic regulation protected inefficient companies at the expense of consumers in industries such as airlines and trucking. At the same time, technological changes spawned new competitors in some industries, such as telecommunications, that once were considered natural monopolies. Both developments led to a succession of laws easing regulation.

While leaders of both political parties generally favored economic deregulation during the 1970s, 1980s, and 1990s, there was less agreement concerning regulations designed to achieve social goals. Social regulation had assumed growing importance in the years following the Depression and World War II, and again in the 1960s and 1970s. But during the presidency of Ronald Reagan in the 1980s, the government relaxed rules to protect workers, consumers, and the environment, arguing that regulation interfered with free enterprise, increased the costs of doing business, and thus contributed to inflation. Still, many Americans continued to voice concerns about specific events or trends, prompting the government to issue new regulations in some areas, including environmental protection.

Some citizens, meanwhile, have turned to the courts when they feel their elected officials are not addressing certain issues quickly or strongly enough. For instance, in the 1990s, individuals, and eventually government itself, sued tobacco companies over the health risks of cigarette smoking. A large financial settlement provided states with long-term payments to cover medical costs to treat smoking-related illnesses.

Direct Services. Each level of government provides many direct services. The federal government, for example, is responsible for national defense, backs research that often leads to the development of new products, conducts space exploration, and runs numerous programs designed to help workers develop workplace skills and find jobs. Government spending has a significant effect on local and regional economies -- and even on the overall pace of economic activity.

State governments, meanwhile, are responsible for the construction and maintenance of most highways. State, county, or city governments play the leading role in financing and operating public schools. Local governments are primarily responsible for police and fire protection. Government spending in each of these areas can also affect local and regional economies, although federal decisions generally have the greatest economic impact.

Overall, federal, state, and local spending accounted for almost 18 percent of gross domestic product in 1997.

Direct Assistance. Government also provides many kinds of help to businesses and individuals. It offers low-interest loans and technical assistance to small businesses, and it provides loans to help students attend college.

Government-sponsored enterprises buy home mortgages from lenders and turn them into securities that can be bought and sold by investors, thereby encouraging home lending. Government also actively promotes exports and seeks to prevent foreign countries from maintaining trade barriers that restrict imports.

Government supports individuals who cannot adequately care for themselves. Social Security, which is financed by a tax on employers and employees, accounts for the largest portion of Americans' retirement income. The Medicare program pays for many of the medical costs of the elderly. The Medicaid program finances medical care for low-income families. In many states, government maintains institutions for the mentally ill or people with severe disabilities. The federal government provides Food Stamps to help poor families obtain food, and the federal and state governments jointly provide welfare grants to support low-income parents with children.

Many of these programs, including Social Security, trace their roots to the "New Deal" programs of Franklin D. Roosevelt, who served as the U.S. president from 1933 to 1945. Key to Roosevelt's reforms was a belief that poverty usually resulted from social and economic causes rather than from failed personal morals. This view repudiated a common notion whose roots lay in New England Puritanism that success was a sign of God's favor and failure a sign of God's displeasure. This was an important transformation in American social and economic thought. Even today, however, echoes of the older notions are still heard in debates around certain issues, especially welfare.

Many other assistance programs for individuals and families, including Medicare and Medicaid, were begun in the 1960s during President Lyndon Johnson's (1963-1969) "War on Poverty." Although some of these programs encountered financial difficulties in the 1990s and various reforms were proposed, they continued to have strong support from both of the United States' major political parties. Critics argued, however, that providing welfare to unemployed but healthy individuals actually created dependency rather than solving problems. Welfare reform legislation enacted in 1996 under President Bill Clinton (1993-2001) requires people to work as a condition of receiving benefits and imposes limits on how long individuals may receive payments.

Poverty and Inequality

Americans are proud of their economic system, believing it provides opportunities for all citizens to have good lives. Their faith is clouded, however, by the fact that poverty persists in many parts of the country. Government anti-poverty efforts have made some progress but have not eradicated the problem. Similarly, periods of strong economic growth, which bring more jobs and higher wages, have helped reduce poverty but have not eliminated it entirely.

The federal government defines a minimum amount of income necessary for basic maintenance of a family of four. This amount may fluctuate depending on the cost of living and the location of the family. In 1998, a family of four with an annual income below $16,530 was classified as living in poverty.

The percentage of people living below the poverty level dropped from 22.4 percent in 1959 to 11.4 percent in 1978. But since then, it has fluctuated in a fairly narrow range. In 1998, it stood at 12.7 percent.

What is more, the overall figures mask much more severe pockets of poverty. In 1998, more than one-quarter of all African-Americans (26.1 percent) lived in poverty; though distressingly high, that figure did represent an improvement from 1979, when 31 percent of blacks were officially classified as poor, and it was the lowest poverty rate for this group since 1959. Families headed by single mothers are particularly susceptible to poverty. Partly as a result of this phenomenon, almost one in five children (18.9 percent) was poor in 1997. The poverty rate was 36.7 percent among African-American children and 34.4 percent among Hispanic children.

Some analysts have suggested that the official poverty figures overstate the real extent of poverty because they measure only cash income and exclude certain government assistance programs such as Food Stamps, health care, and public housing. Others point out, however, that these programs rarely cover all of a family's food or health care needs and that there is a shortage of public housing. Some argue that even families whose incomes are above the official poverty level sometimes go hungry, skimping on food to pay for such things as housing, medical care, and clothing. Still others point out that people at the poverty level sometimes receive cash income from casual work and in the "underground" sector of the economy, which is never recorded in official statistics.

In any event, it is clear that the American economic system does not apportion its rewards equally. In 1997, the wealthiest one-fifth of American families accounted for 47.2 percent of the nation's income, according to the Economic Policy Institute, a Washington-based research organization. In contrast, the poorest one-fifth earned just 4.2 percent of the nation's income, and the poorest 40 percent accounted for only 14 percent of income.

Despite the generally prosperous American economy as a whole, concerns about inequality continued during the 1980s and 1990s. Increasing global competition threatened workers in many traditional manufacturing industries, and their wages stagnated. At the same time, the federal government edged away from tax policies that sought to favor lower-income families at the expense of wealthier ones, and it also cut spending on a number of domestic social programs intended to help the disadvantaged. Meanwhile, wealthier families reaped most of the gains from the booming stock market.

In the late 1990s, there were some signs these patterns were reversing, as wage gains accelerated -- especially among poorer workers. But at the end of the decade, it was still too early to determine whether this trend would continue.

The Growth of Government

The U.S. government grew substantially beginning with President Franklin Roosevelt's administration. In an attempt to end the unemployment and misery of the Great Depression, Roosevelt's New Deal created many new federal programs and expanded many existing ones. The rise of the United States as the world's major military power during and after World War II also fueled government growth. The growth of urban and suburban areas in the postwar period made expanded public services more feasible. Greater educational expectations led to significant government investment in schools and colleges. An enormous national push for scientific and technological advances spawned new agencies and substantial public investment in fields ranging from space exploration to health care in the 1960s. And the growing dependence of many Americans on medical and retirement programs that had not existed at the dawn of the 20th century swelled federal spending further.

While many Americans think that the federal government in Washington has ballooned out of hand, employment figures indicate that this has not been the case. There has been significant growth in government employment, but most of this has been at the state and local levels. From 1960 to 1990, the number of state and local government employees increased from 6.4 million to 15.2 million, while the number of civilian federal employees rose only slightly, from 2.4 million to 3 million. Cutbacks at the federal level saw the federal labor force drop to 2.7 million by 1998, but employment by state and local governments more than offset that decline, reaching almost 16 million in 1998. (The number of Americans in the military declined from almost 3.6 million in 1968, when the United States was embroiled in the war in Vietnam, to 1.4 million in 1998.)

The rising costs of taxes to pay for expanded government services, as well as the general American distaste for "big government" and increasingly powerful public employee unions, led many policy-makers in the 1970s, 1980s, and 1990s to question whether government is the most efficient provider of needed services.

A new word -- "privatization" -- was coined and quickly gained acceptance worldwide to describe the practice of turning certain government functions over to the private sector.

In the United States, privatization has occurred primarily at the municipal and regional levels. Major U.S. cities such as New York, Los Angeles, Philadelphia, Dallas, and Phoenix began to employ private companies or nonprofit organizations to perform a wide variety of activities previously performed by the municipalities themselves, ranging from streetlight repair to solid-waste disposal and from data processing to management of prisons. Some federal agencies, meanwhile, sought to operate more like private enterprises; the United States Postal Service, for instance, largely supports itself from its own revenues rather than relying on general tax dollars.

Privatization of public services remains controversial, however. While advocates insist that it reduces costs and increases productivity, others argue the opposite, noting that private contractors need to make a profit and asserting that they are not necessarily being more productive. Public sector unions, not surprisingly, adamantly oppose most privatization proposals. They contend that private contractors in some cases have submitted very low bids in order to win contracts, but later raised prices substantially. Advocates counter that privatization can be effective if it introduces competition. Sometimes the spur of threatened privatization may even encourage local government workers to become more efficient.

As debates over regulation, government spending, and welfare reform all demonstrate, the proper role of government in the nation's economy remains a hot topic for debate more than 200 years after the United States became an independent nation.

History of the Economy of the United States

The modern American economy traces its roots to the quest of European settlers for economic gain in the 16th, 17th, and 18th centuries. The New World then progressed from a marginally successful colonial economy to a small, independent farming economy and, eventually, to a highly complex industrial economy. During this evolution, the United States developed ever more complex institutions to match its growth. And while government involvement in the economy has been a consistent theme, the extent of that involvement generally has increased.

North America's first inhabitants were Native Americans -- indigenous peoples who are believed to have traveled to America about 20,000 years earlier across a land bridge from Asia, where the Bering Strait is today. (They were mistakenly called "Indians" by European explorers, who thought they had reached India when first landing in the Americas.) These native peoples were organized in tribes and, in some cases, confederations of tribes. While they traded among themselves, they had little contact with peoples on other continents, even with other native peoples in South America, before European settlers began arriving. What economic systems they did develop were destroyed by the Europeans who settled their lands.

Vikings were the first Europeans to "discover" America. But the event, which occurred around the year 1000, went largely unnoticed; at the time, most of European society was still firmly based on agriculture and land ownership. Commerce had not yet assumed the importance that would provide an impetus to the further exploration and settlement of North America.

In 1492, Christopher Columbus, an Italian sailing under the Spanish flag, set out to find a southwest passage to Asia and discovered a "New World." For the next 100 years, English, Spanish, Portuguese, Dutch, and French explorers sailed from Europe for the New World, looking for gold, riches, honor, and glory.

But the North American wilderness offered early explorers little glory and less gold, so most did not stay. The people who eventually did settle North America arrived later. In 1607, a band of Englishmen built the first permanent settlement in what was to become the United States. The settlement, Jamestown, was located in the present-day state of Virginia.

Colonization

Early settlers had a variety of reasons for seeking a new homeland. The Pilgrims of Massachusetts were pious, self-disciplined English people who wanted to escape religious persecution. Other colonies, such as Virginia, were founded principally as business ventures. Often, though, piety and profits went hand-in-hand.

England's success at colonizing what would become the United States was due in large part to its use of charter companies. Charter companies were groups of stockholders (usually merchants and wealthy landowners) who sought personal economic gain and, perhaps, wanted also to advance England's national goals. While the private sector financed the companies, the King provided each project with a charter or grant conferring economic rights as well as political and judicial authority. The colonies generally did not show quick profits, however, and the English investors often turned over their colonial charters to the settlers. The political implications, although not realized at the time, were enormous. The colonists were left to build their own lives, their own communities, and their own economy -- in effect, to start constructing the rudiments of a new nation.

What early colonial prosperity there was resulted from trapping and trading in furs. In addition, fishing was a primary source of wealth in Massachusetts. But throughout the colonies, people lived primarily on small farms and were self-sufficient. In the few small cities and among the larger plantations of North Carolina, South Carolina, and Virginia, some necessities and virtually all luxuries were imported in return for tobacco, rice, and indigo (blue dye) exports.

Supportive industries developed as the colonies grew. A variety of specialized sawmills and gristmills appeared. Colonists established shipyards to build fishing fleets and, in time, trading vessels. The also built small iron forges. By the 18th century, regional patterns of development had become clear: the New England colonies relied on ship-building and sailing to generate wealth; plantations (many using slave labor) in Maryland, Virginia, and the Carolinas grew tobacco, rice, and indigo; and the middle colonies of New York, Pennsylvania, New Jersey, and Delaware shipped general crops and furs. Except for slaves, standards of living were generally high -- higher, in fact, than in England itself. Because English investors had withdrawn, the field was open to entrepreneurs among the colonists.

By 1770, the North American colonies were ready, both economically and politically, to become part of the emerging self-government movement that had dominated English politics since the time of James I (1603-1625). Disputes developed with England over taxation and other matters; Americans hoped for a modification of English taxes and regulations that would satisfy their demand for more self-government. Few thought the mounting quarrel with the English government would lead to all-out war against the British and to independence for the colonies.

Like the English political turmoil of the 17th and 18th centuries, the American Revolution (1775-1783) was both political and economic, bolstered by an emerging middle class with a rallying cry of "unalienable rights to life, liberty, and property" -- a phrase openly borrowed from English philosopher John Locke's *Second Treatise on Civil Government* (1690). The war was triggered by an event in April 1775. British soldiers, intending to capture a colonial arms depot at Concord, Massachusetts, clashed with colonial militiamen. Someone -- no one knows exactly who -- fired a shot, and eight years of fighting began. While political separation from England may not have been the majority of colonists' original goal, independence and the creation of a new nation -- the United States -- was the ultimate result.

The New Nation's Economy

The U.S. Constitution, adopted in 1787 and in effect to this day, was in many ways a work of creative genius. As an economic charter, it established that the entire nation -- stretching then from Maine to Georgia, from the Atlantic Ocean to the Mississippi Valley -- was a unified, or "common," market. There were to be no tariffs or taxes on interstate commerce. The Constitution provided that the federal government could regulate commerce with foreign nations and among the states, establish uniform bankruptcy laws, create money and regulate its value, fix standards of weights and measures, establish post offices and roads, and fix rules governing patents and copyrights. The last-mentioned clause was an early recognition of the importance of "intellectual property," a matter that would assume great importance in trade negotiations in the late 20th century.

Alexander Hamilton, one of the nation's Founding Fathers and its first secretary of the treasury, advocated an economic development strategy in which the federal government would nurture infant industries by providing overt subsidies and imposing protective tariffs on imports. He also urged the federal government to create a national bank and to assume the public debts that the colonies had incurred during the Revolutionary War. The new government dallied over some of Hamilton's proposals, but ultimately it did make tariffs an essential part of American foreign policy -- a position that lasted until almost the middle of the 20th century.

Although early American farmers feared that a national bank would serve the rich at the expense of the poor, the first National Bank of the United States was chartered in 1791; it lasted until 1811, after which a successor bank was chartered.

Hamilton believed the United States should pursue economic growth through diversified shipping, manufacturing, and banking.

Hamilton's political rival, Thomas Jefferson, based his philosophy on protecting the common man from political and economic tyranny. He particularly praised small farmers as "the most valuable citizens." In 1801, Jefferson became president (1801-1809) and turned to promoting a more decentralized, agrarian democracy.

Movement South and Westward

Cotton, at first a small-scale crop in the South, boomed following Eli Whitney's invention in 1793 of the cotton gin, a machine that separated raw cotton from seeds and other waste. Planters in the South bought land from small farmers who frequently moved farther west. Soon, large plantations, supported by slave labor, made some families very wealthy.

It wasn't just southerners who were moving west, however. Whole villages in the East sometimes uprooted and established new settlements in the more fertile farmland of the Midwest. While western settlers are often depicted as fiercely independent and strongly opposed to any kind of government control or interference, they actually received a lot of government help, directly and indirectly. Government-created national roads and waterways, such as the Cumberland Pike (1818) and the Erie Canal (1825), helped new settlers migrate west and later helped move western farm produce to market.

Many Americans, both poor and rich, idealized Andrew Jackson, who became president in 1829, because he had started life in a log cabin in frontier territory. President Jackson (1829-1837) opposed the successor to Hamilton's National Bank, which he believed favored the entrenched interests of the East against the

West. When he was elected for a second term, Jackson opposed renewing the bank's charter, and Congress supported him. Their actions shook confidence in the nation's financial system, and business panics occurred in both 1834 and 1837.

Periodic economic dislocations did not curtail rapid U.S. economic growth during the 19th century. New inventions and capital investment led to the creation of new industries and economic growth. As transportation improved, new markets continuously opened. The steamboat made river traffic faster and cheaper, but development of railroads had an even greater effect, opening up vast stretches of new territory for development. Like canals and roads, railroads received large amounts of government assistance in their early building years in the form of land grants. But unlike other forms of transportation, railroads also attracted a good deal of domestic and European private investment.

In these heady days, get-rich-quick schemes abounded. Financial manipulators made fortunes overnight, but many people lost their savings. Nevertheless, a combination of vision and foreign investment, combined with the discovery of gold and a major commitment of America's public and private wealth, enabled the nation to develop a large-scale railroad system, establishing the base for the country's industrialization.

Industrial Growth

The Industrial Revolution began in Europe in the late 18th and early 19th centuries, and it quickly spread to the United States. By 1860, when Abraham Lincoln was elected president, 16 percent of the U.S. population lived in urban areas, and a third of the nation's income came from manufacturing. Urbanized industry was limited primarily to the Northeast; cotton cloth production was the leading industry, with the manufacture of shoes, woolen clothing, and machinery also expanding. Many new workers were immigrants. Between 1845 and 1855, some 300,000 European immigrants arrived annually. Most were poor and remained in eastern cities, often at ports of arrival.

The South, on the other hand, remained rural and dependent on the North for capital and manufactured goods. Southern economic interests, including slavery, could be protected by political power only as long as the South controlled the federal government. The Republican Party, organized in 1856, represented the industrialized North. In 1860, Republicans and their presidential candidate, Abraham Lincoln were speaking hesitantly on slavery, but they were much clearer on economic policy. In 1861, they successfully pushed adoption of a protective tariff. In 1862, the first Pacific railroad was chartered. In 1863 and 1864, a national bank code was drafted.

Northern victory in the U.S. Civil War (1861-1865), however, sealed the destiny of the nation and its economic system. The slave-labor system was abolished, making the large southern cotton plantations much less profitable. Northern industry, which had expanded rapidly because of the demands of the war, surged ahead. Industrialists came to dominate many aspects of the nation's life, including social and political affairs. The planter aristocracy of the South, portrayed sentimentally 70 years later in the film classic *Gone with the Wind*, disappeared.

Inventions, Development, and Tycoons

The rapid economic development following the Civil War laid the groundwork for the modern U.S. industrial economy. An explosion of new discoveries and inventions took place, causing such profound changes that some termed the results a "second industrial revolution." Oil was discovered in western Pennsylvania. The typewriter was developed. Refrigeration railroad cars came into use. The telephone, phonograph, and electric light were invented. And by the dawn of the 20th century, cars were replacing carriages and people were flying in airplanes.

Parallel to these achievements was the development of the nation's industrial infrastructure. Coal was found in abundance in the Appalachian Mountains from Pennsylvania south to Kentucky. Large iron mines opened in the Lake Superior region of the upper Midwest. Mills thrived in places where these two important raw materials could be brought together to produce steel. Large copper and silver mines opened, followed by lead mines and cement factories.

As industry grew larger, it developed mass-production methods. Frederick W. Taylor pioneered the field of scientific management in the late 19th century, carefully plotting the functions of various workers and then devising new, more efficient ways for them to do their jobs. (True mass production was the inspiration of Henry Ford, who in 1913 adopted the moving assembly line, with each worker doing one simple task in the production of automobiles. In what turned out to be a farsighted action, Ford offered a very generous wage -- $5 a day -- to his workers, enabling many of them to buy the automobiles they made, helping the industry to expand.)

The "Gilded Age" of the second half of the 19th century was the epoch of tycoons. Many Americans came to idealize these businessmen who amassed vast financial empires. Often their success lay in seeing the long-range potential for a new service or product, as John D. Rockefeller did with oil. They were fierce competitors, single-minded in their pursuit of financial success and power. Other giants in addition to Rockefeller and Ford included Jay Gould, who made his money in railroads; J. Pierpont Morgan, banking; and Andrew Carnegie, steel. Some tycoons were honest according to business standards of their day; others, however, used force, bribery, and guile to achieve their wealth and power. For better or worse, business interests acquired significant influence over government.

Morgan, perhaps the most flamboyant of the entrepreneurs, operated on a grand scale in both his private and business life. He and his companions gambled, sailed yachts, gave lavish parties, built palatial homes, and bought

European art treasures. In contrast, men such as Rockefeller and Ford exhibited puritanical qualities. They retained small-town values and lifestyles. As church-goers, they felt a sense of responsibility to others. They believed that personal virtues could bring success; theirs was the gospel of work and thrift. Later their heirs would establish the largest philanthropic foundations in America.

While upper-class European intellectuals generally looked on commerce with disdain, most Americans -- living in a society with a more fluid class structure -- enthusiastically embraced the idea of moneymaking. They enjoyed the risk and excitement of business enterprise, as well as the higher living standards and potential rewards of power and acclaim that business success brought.

As the American economy matured in the 20th century, however, the freewheeling business mogul lost luster as an American ideal. The crucial change came with the emergence of the corporation, which appeared first in the railroad industry and then elsewhere. Business barons were replaced by "technocrats," high-salaried managers who became the heads of corporations. The rise of the corporation triggered, in turn, the rise of an organized labor movement that served as a countervailing force to the power and influence of business.

The technological revolution of the 1980s and 1990s brought a new entrepreneurial culture that echoes of the age of tycoons. Bill Gates, the head of Microsoft, built an immense fortune developing and selling computer software. Gates carved out an empire so profitable that by the late 1990s, his company was taken into court and accused of intimidating rivals and creating a monopoly by the U.S. Justice Department's antitrust division. But Gates also established a charitable foundation that quickly became the largest of its kind. Most American business leaders of today do not lead the high-profile life of Gates. They direct the fate of corporations, but they also serve on boards for charities and schools.

They are concerned about the state of the national economy and America's relationship with other nations, and they are likely to fly to Washington to confer with government officials. While they undoubtedly influence the government, they do not control it -- as some tycoons in the Gilded Age believed they did.

Government Involvement

In the early years of American history, most political leaders were reluctant to involve the federal government too heavily in the private sector, except in the area of transportation. In general, they accepted the concept of laissez-faire, a doctrine opposing government interference in the economy except to maintain law and order. This attitude started to change during the latter part of the 19th century, when small business, farm, and labor movements began asking the government to intercede on their behalf.

By the turn of the century, a middle class had developed that was leery of both the business elite and the somewhat radical political movements of farmers and laborers in the Midwest and West. Known as Progressives, these people favored government regulation of business practices to ensure competition and free enterprise. They also fought corruption in the public sector.

Congress enacted a law regulating railroads in 1887 (the Interstate Commerce Act), and one preventing large firms from controlling a single industry in 1890 (the Sherman Antitrust Act). These laws were not rigorously enforced, however, until the years between 1900 and 1920, when Republican President Theodore Roosevelt (1901-1909), Democratic President Woodrow Wilson (1913-1921), and others sympathetic to the views of the Progressives came to power. Many of today's U.S. regulatory agencies were created during these years, including the Interstate Commerce Commission, the Food and Drug Administration, and the Federal Trade Commission.

Government involvement in the economy increased most significantly during the New Deal of the 1930s. The 1929 stock market crash had initiated the most serious economic dislocation in the nation's history, the Great Depression (1929-1940). President Franklin D. Roosevelt (1933-1945) launched the New Deal to alleviate the emergency.

Many of the most important laws and institutions that define American's modern economy can be traced to the New Deal era. New Deal legislation extended federal authority in banking, agriculture, and public welfare. It established minimum standards for wages and hours on the job, and it served as a catalyst for the expansion of labor unions in such industries as steel, automobiles, and rubber. Programs and agencies that today seem indispensable to the operation of the country's modern economy were created: the Securities and Exchange Commission, which regulates the stock market; the Federal Deposit Insurance Corporation, which guarantees bank deposits; and, perhaps most notably, the Social Security system, which provides pensions to the elderly based on contributions they made when they were part of the work force.

New Deal leaders flirted with the idea of building closer ties between business and government, but some of these efforts did not survive past World War II. The National Industrial Recovery Act, a short-lived New Deal program, sought to encourage business leaders and workers, with government supervision, to resolve conflicts and thereby increase productivity and efficiency. While America never took the turn to fascism that similar business-labor-government arrangements did in Germany and Italy, the New Deal initiatives did point to a new sharing of power among these three key economic players. This confluence of power grew even more during the war, as the U.S. government intervened extensively in the economy. The War Production Board coordinated the nation's productive capabilities so that military priorities would be met. Converted consumer-products plants filled many military orders. Automakers built tanks and aircraft, for example, making the United States the "arsenal of democracy." In an effort to prevent rising national income and scarce consumer products to cause inflation, the newly created Office of Price Administration controlled rents on some dwellings, rationed consumer items ranging from sugar to gasoline, and otherwise tried to restrain price increases.

The Postwar Economy: 1945-1960

Many Americans feared that the end of World War II and the subsequent drop in military spending might bring back the hard times of the Great Depression. But instead, pent-up consumer demand fueled exceptionally strong economic growth in the postwar period. The automobile industry successfully converted back to producing cars, and new industries such as aviation and electronics grew by leaps and bounds. A housing boom, stimulated in part by easily affordable mortgages for returning members of the military, added to the expansion. The nation's gross national product rose from about $200,000 million in 1940 to $300,000 million in 1950 and to more than $500,000 million in 1960. At the same time, the jump in postwar births, known as the "baby boom," increased the number of consumers. More and more Americans joined the middle class.

The need to produce war supplies had given rise to a huge military-industrial complex (a term coined by Dwight D. Eisenhower, who served as the U.S. president from 1953 through 1961). It did not disappear with the war's end. As the Iron Curtain descended across Europe and the United States found itself embroiled in a cold war with the Soviet Union, the government maintained substantial fighting capacity and invested in sophisticated weapons such as the hydrogen bomb. Economic aid flowed to war-ravaged European countries under the Marshall Plan, which also helped maintain markets for numerous U.S. goods. And the government itself recognized its central role in economic affairs. The

Employment Act of 1946 stated as government policy "to promote maximum employment, production, and purchasing power."

The United States also recognized during the postwar period the need to restructure international monetary arrangements, spearheading the creation of the International Monetary Fund and the World Bank -- institutions designed to ensure an open, capitalist international economy.

Business, meanwhile, entered a period marked by consolidation. Firms merged to create huge, diversified conglomerates. International Telephone and Telegraph, for instance, bought Sheraton Hotels, Continental Banking, Hartford Fire Insurance, Avis Rent-a-Car, and other companies.

The American work force also changed significantly. During the 1950s, the number of workers providing services grew until it equaled and then surpassed the number who produced goods. And by 1956, a majority of U.S. workers held white-collar rather than blue-collar jobs. At the same time, labor unions won long-term employment contracts and other benefits for their members.

Farmers, on the other hand, faced tough times. Gains in productivity led to agricultural overproduction, as farming became a big business. Small family farms found it increasingly difficult to compete, and more and more farmers left the land. As a result, the number of people employed in the farm sector, which in 1947 stood at 7.9 million, began a continuing decline; by 1998, U.S. farms employed only 3.4 million people.

Other Americans moved, too. Growing demand for single-family homes and the widespread ownership of cars led many Americans to migrate from central cities to suburbs. Coupled with technological innovations such as the invention of air conditioning, the migration spurred the development of "Sun Belt" cities such as Houston, Atlanta, Miami, and Phoenix in the southern and southwestern states. As new, federally sponsored highways created better access to the suburbs, business patterns began to change as well. Shopping centers multiplied, rising from eight at the end of World War II to 3,840 in 1960. Many industries soon followed, leaving cities for less crowded sites.

Years of Change: The 1960s and 1970s

The 1950s in America are often described as a time of complacency. By contrast, the 1960s and 1970s were a time of great change. New nations emerged around the world, insurgent movements sought to overthrow existing governments, established countries grew to become economic powerhouses that rivaled the United States, and economic relationships came to predominate in a world that increasingly recognized military might could not be the only means of growth and expansion.

President John F. Kennedy (1961-1963) ushered in a more activist approach to governing. During his 1960 presidential campaign, Kennedy said he would ask Americans to meet the challenges of the "New Frontier." As president, he sought to accelerate economic growth by increasing government spending and cutting taxes, and he pressed for medical help for the elderly, aid for inner cities, and increased funds for education. Many of these proposals were not enacted, although Kennedy's vision of sending Americans abroad to help developing nations did materialize with the creation of the Peace Corps. Kennedy also stepped up American space exploration. After his death, the American space program surpassed Soviet achievements and culminated in the landing of American astronauts on the moon in July 1969.

Kennedy's assassination in 1963 spurred Congress to enact much of his legislative agenda. His successor, Lyndon Baines Johnson (1963-1969), sought to build a "Great Society" by spreading benefits of America's successful economy to more citizens. Federal spending increased dramatically, as the government launched such new programs as Medicare (health care for the elderly), Food Stamps (food assistance for the poor), and numerous education initiatives (assistance to students as well as grants to schools and colleges).

Military spending also increased as American's presence in Vietnam grew. What had started as a small military action under Kennedy mushroomed into a major military initiative during Johnson's presidency. Ironically, spending on both wars -- the war on poverty and the fighting war in Vietnam -- contributed to prosperity in the short term. But by the end of the 1960s, the government's failure to raise taxes to pay for these efforts led to accelerating inflation, which eroded this prosperity. The 1973-1974 oil embargo by members of the Organization of Petroleum Exporting Countries (OPEC) pushed energy prices rapidly higher and created shortages. Even after the embargo ended, energy prices stayed high, adding to inflation and eventually causing rising rates of unemployment. Federal budget deficits grew, foreign competition intensified, and the stock market sagged.

The Vietnam War dragged on until 1975, President Richard Nixon (1969-1973) resigned under a cloud of impeachment charges, and a group of Americans were taken hostage at the U.S. embassy in Teheran and held for more than a year. The nation seemed unable to control events, including economic affairs. America's trade deficit swelled as low-priced and frequently high-quality imports of everything from automobiles to steel to semiconductors flooded into the United States.

The term "stagflation" -- an economic condition of both continuing inflation and stagnant business activity, together with an increasing unemployment rate -- described the new economic malaise. Inflation seemed to feed on itself. People began to expect continuous increases in the price of goods, so they bought more. This increased demand pushed up prices, leading to demands for higher wages, which pushed prices higher still in a continuing upward spiral. Labor contracts increasingly came to include automatic cost-of-living clauses, and the government began to peg some payments, such as those for Social Security, to the Consumer Price Index, the best-known gauge of inflation. While these practices helped workers and retirees cope with inflation, they perpetuated inflation.

The government's ever-rising need for funds swelled the budget deficit and led to greater government borrowing, which in turn pushed up interest rates and increased costs for businesses and consumers even further. With energy costs and interest rates high, business investment languished and unemployment rose to uncomfortable levels.

In desperation, President Jimmy Carter (1977-1981) tried to combat economic weakness and unemployment by increasing government spending, and he established voluntary wage and price guidelines to control inflation. Both were largely unsuccessful. A perhaps more successful but less dramatic attack on inflation involved the "deregulation" of numerous industries, including airlines, trucking, and railroads. These industries had been tightly regulated, with government controlling routes and fares. Support for deregulation continued beyond the Carter administration. In the 1980s, the government relaxed controls on bank interest rates and long-distance telephone service, and in the 1990s it moved to ease regulation of local telephone service.

But the most important element in the war against inflation was the Federal Reserve Board, which clamped down hard on the money supply beginning in 1979. By refusing to supply all the money an inflation-ravaged economy wanted, the Fed caused interest rates to rise. As a result, consumer spending and business borrowing slowed abruptly. The economy soon fell into a deep recession.

The Economy in the 1980s

The nation endured a deep recession throughout 1982. Business bankruptcies rose 50 percent over the previous year. Farmers were especially hard hit, as agricultural exports declined, crop prices fell, and interest rates rose. But while the medicine of a sharp slowdown was hard to swallow, it did break the destructive cycle in which the economy had been caught. By 1983, inflation had eased, the economy had rebounded, and the United States began a sustained period of economic growth. The annual inflation rate remained under 5 percent throughout most of the 1980s and into the 1990s.

The economic upheaval of the 1970s had important political consequences. The American people expressed their discontent with federal policies by turning out Carter in 1980 and electing former Hollywood actor and California governor Ronald Reagan as president. Reagan (1981-1989) based his economic program on the theory of supply-side economics, which advocated reducing tax rates so people could keep more of what they earned. The theory was that lower tax rates would induce people to work harder and longer, and that this in turn would lead to more saving and investment, resulting in more production and stimulating overall economic growth. While the Reagan-inspired tax cuts served mainly to benefit wealthier Americans, the economic theory behind the cuts argued that benefits would extend to lower-income people as well because higher investment would lead new job opportunities and higher wages.

The central theme of Reagan's national agenda, however, was his belief that the federal government had become too big and intrusive. In the early 1980s, while he was cutting taxes, Reagan was also slashing social programs. Reagan also undertook a campaign throughout his tenure to reduce or eliminate government regulations affecting the consumer, the workplace, and the environment. At the same time, however, he feared that the United States had neglected its military in the wake of the Vietnam War, so he successfully pushed for big increases in defense spending.

The combination of tax cuts and higher military spending overwhelmed more modest reductions in spending on domestic programs. As a result, the federal budget deficit swelled even beyond the levels it had reached during the recession of the early 1980s. From $74,000 million in 1980, the federal budget deficit rose to $221,000 million in 1986. It fell back to $150,000 million in 1987, but then started growing again. Some economists worried that heavy spending and borrowing by the federal government would re-ignite inflation, but the Federal Reserve remained vigilant about controlling price increases, moving quickly to raise interest rates any time it seemed a threat.

Under chairman Paul Volcker and his successor, Alan Greenspan, the Federal Reserve retained the central role of economic traffic cop, eclipsing Congress and the president in guiding the nation's economy.

The recovery that first built up steam in the early 1980s was not without its problems. Farmers, especially those operating small family farms, continued to face challenges in making a living, especially in 1986 and 1988, when the nation's mid-section was hit by serious droughts, and several years later when it suffered extensive flooding. Some banks faltered from a combination of tight money and unwise lending practices, particularly those known as savings and loan associations, which went on a spree of unwise lending after they were partially deregulated. The federal government had to close many of these institutions and pay off their depositors, at enormous cost to taxpayers.

While Reagan and his successor, George Bush (1989-1992), presided as communist regimes collapsed in the Soviet Union and Eastern Europe, the 1980s did not entirely erase the economic malaise that had gripped the country during the 1970s. The United States posted trade deficits in seven of the 10 years of the 1970s, and the trade deficit swelled throughout the 1980s. Rapidly growing economies in Asia appeared to be challenging America as economic powerhouses; Japan, in particular, with its emphasis on long-term planning and close coordination among corporations, banks, and government, seemed to offer an alternative model for economic growth.

In the United States, meanwhile, "corporate raiders" bought various corporations whose stock prices were depressed and then restructured them, either by selling off some of their operations or by dismantling them piece by piece.

In some cases, companies spent enormous sums to buy up their own stock or pay off raiders. Critics watched such battles with dismay, arguing that raiders were destroying good companies and causing grief for workers, many of whom lost their jobs in corporate restructuring moves. But others said the raiders made a meaningful contribution to the economy, either by taking over poorly managed companies, slimming them down, and making them profitable again, or by selling them off so that investors could take their profits and reinvest them in more productive companies.

The 1990s and Beyond

The 1990s brought a new president, Bill Clinton (1993-2000). A cautious, moderate Democrat, Clinton sounded some of the same themes as his predecessors. After unsuccessfully urging Congress to enact an ambitious proposal to expand health-insurance coverage, Clinton declared that the era of "big government" was over in America. He pushed to strengthen market forces in some sectors, working with Congress to open local telephone service to competition. He also joined Republicans to reduce welfare benefits. Still, although Clinton reduced the size of the federal work force, the government continued to play a crucial role in the nation's economy. Most of the major innovations of the New Deal, and a good many of the Great Society, remained in place. And the Federal Reserve system continued to regulate the overall pace of economic activity, with a watchful eye for any signs of renewed inflation.

The economy, meanwhile, turned in an increasingly healthy performance as the 1990s progressed. With the fall of the Soviet Union and Eastern European communism in the late 1980s, trade opportunities expanded greatly. Technological developments brought a wide range of sophisticated new electronic products. Innovations in telecommunications and computer networking spawned a vast computer hardware and software industry and revolutionized the way many industries operate. The economy grew rapidly, and corporate earnings rose rapidly.

Combined with low inflation and low unemployment, strong profits sent the stock market surging; the Dow Jones Industrial Average, which had stood at just 1,000 in the late 1970s, hit the 11,000 mark in 1999, adding substantially to the wealth of many -- though not all -- Americans.

Japan's economy, often considered a model by Americans in the 1980s, fell into a prolonged recession -- a development that led many economists to conclude that the more flexible, less planned, and more competitive American approach was, in fact, a better strategy for economic growth in the new, globally-integrated environment.

America's labor force changed markedly during the 1990s. Continuing a long-term trend, the number of farmers declined. A small portion of workers had jobs in industry, while a much greater share worked in the service sector, in jobs ranging from store clerks to financial planners. If steel and shoes were no longer American manufacturing mainstays, computers and the software that make them run were.

After peaking at $290,000 million in 1992, the federal budget steadily shrank as economic growth increased tax revenues. In 1998, the government posted its first surplus in 30 years, although a huge debt -- mainly in the form of promised future Social Security payments to the baby boomers -- remained. Economists, surprised at the combination of rapid growth and continued low inflation, debated whether the United States had a "new economy" capable of sustaining a faster growth rate than seemed possible based on the experiences of the previous 40 years.

Finally, the American economy was more closely intertwined with the global economy than it ever had been. Clinton, like his predecessors, had continued to push for elimination of trade barriers. A North American Free Trade Agreement (NAFTA) had further increased economic ties between the United States and its largest trading partners, Canada and Mexico.

Asia, which had grown especially rapidly during the 1980s, joined Europe as a major supplier of finished goods and a market for American exports. Sophisticated worldwide telecommunications systems linked the world's financial markets in a way unimaginable even a few years earlier.

While many Americans remained convinced that global economic integration benefited all nations, the growing interdependence created some dislocations as well. Workers in high-technology industries -- at which the United States excelled -- fared rather well, but competition from many foreign countries that generally had lower labor costs tended to dampen wages in traditional manufacturing industries. Then, when the economies of Japan and other newly industrialized countries in Asia faltered in the late 1990s, shock waves rippled throughout the global financial system. American economic policy-makers found they increasingly had to weigh global economic conditions in charting a course for the domestic economy.

Still, Americans ended the 1990s with a restored sense of confidence. By the end of 1999, the economy had grown continuously since March 1991, the longest peacetime economic expansion in history. Unemployment totaled just 4.1 percent of the labor force in November 1999, the lowest rate in nearly 30 years. And consumer prices, which rose just 1.6 percent in 1998 (the smallest increase except for one year since 1964), climbed only somewhat faster in 1999 (2.4 percent through October). Many challenges lay ahead, but the nation had weathered the 20th century -- and the enormous changes it brought -- in good shape.

The Business Environment for Entrepreneurs and Companies

Americans have always believed they live in a land of opportunity, where anybody who has a good idea, determination, and a willingness to work hard can start a business and prosper. In practice, this belief in entrepreneurship has taken many forms, from the self-employed individual to the global conglomerate.

In the 17th and 18th centuries, the public extolled the pioneer who overcame great hardships to carve a home and a way of life out of the wilderness. In 19th-century America, as small agricultural enterprises rapidly spread across the vast expanse of the American frontier, the homesteading farmer embodied many of the ideals of the economic individualist. But as the nation's population grew and cities assumed increased economic importance, the dream of being in business for oneself evolved to include small merchants, independent craftsmen, and self-reliant professionals as well.

The 20th century, continuing a trend that began in the latter part of the 19th century, brought an enormous leap in the scale and complexity of economic activity. In many industries, small enterprises had trouble raising sufficient funds and operating on a scale large enough to produce most efficiently all of the goods demanded by an increasingly sophisticated and affluent population. In this environment, the modern corporation, often employing hundreds or even thousands of workers, assumed increased importance.

Today, the American economy boasts a wide array of enterprises, ranging from one-person sole proprietorships to some of the world's largest corporations. In 1995, there were 16.4 million non-farm, sole proprietorships, 1.6 million partnerships, and 4.5 million corporations in the United States -- a total of 22.5 million independent enterprises.

Small Business

Many visitors from abroad are surprised to learn that even today, the U.S. economy is by no means dominated by giant corporations. Fully 99 percent of all independent enterprises in the country employ fewer than 500 people. These small enterprises account for 52 percent of all U.S. workers, according to the U.S. Small Business Administration (SBA). Some 19.6 million Americans work for companies employing fewer than 20 workers, 18.4 million work for firms employing between 20 and 99 workers, and 14.6 million work for firms with 100 to 499 workers. By contrast, 47.7 million Americans work for firms with 500 or more employees. Small businesses are a continuing source of dynamism for the American economy. They produced three-fourths of the economy's new jobs between 1990 and 1995, an even larger contribution to employment growth than they made in the 1980s. They also represent an entry point into the economy for new groups. Women, for instance, participate heavily in small businesses. The number of female-owned businesses climbed by 89 percent, to an estimated 8.1 million, between 1987 and 1997, and women-owned sole proprietorships were expected to reach 35 percent of all such ventures by the year 2000. Small firms also tend to hire a greater number of older workers and people who prefer to work part-time.

A particular strength of small businesses is their ability to respond quickly to changing economic conditions. They often know their customers personally and are especially suited to meet local needs. Small businesses -- computer-related ventures in California's "Silicon Valley" and other high-tech enclaves, for instance -- are a source of technical innovation. Many computer-industry innovators began as "tinkerers," working on hand-assembled machines in their garages, and quickly grew into large, powerful corporations. Small companies that rapidly became major players in the national and international economies include the computer software company Microsoft; the package delivery service Federal Express; sports clothing manufacturer Nike; the computer networking firm America OnLine; and ice cream maker Ben & Jerry's.

Of course, many small businesses fail. But in the United States, a business failure does not carry the social stigma it does in some countries. Often, failure is seen as a valuable learning experience for the entrepreneur, who may succeed on a later try. Failures demonstrate how market forces work to foster greater efficiency, economists say.

The high regard that people hold for small business translates into considerable lobbying clout for small firms in the U.S. Congress and state legislatures. Small companies have won exemptions from many federal regulations, such as health and safety rules. Congress also created the Small Business Administration in 1953 to provide professional expertise and financial assistance (35 percent of federal dollars award for contracts is set aside for small businesses) to persons wishing to form or run small businesses. In a typical year, the SBA guarantees $10,000 million in loans to small businesses, usually for working capital or the purchase of buildings, machinery, and equipment. SBA-backed small business investment companies invest another $2,000 million as venture capital.

The SBA seeks to support programs for minorities, especially African, Asian, and Hispanic Americans. It runs an aggressive program to identify markets and joint-venture opportunities for small businesses that have export potential. In addition, the agency sponsors a program in which retired entrepreneurs offer management assistance for new or faltering businesses. Working with individual state agencies and universities, the SBA also operates about 900 Small Business Development Centers that provide technical and management assistance.

In addition, the SBA has made over $26,000 million in low-interest loans to homeowners, renters, and businesses of all sizes suffering losses from floods, hurricanes, tornadoes, and other disasters.

Small-Business Structure

The Sole Proprietor. Most businesses are sole proprietorships -- that is, they are owned and operated by a single person. In a sole proprietorship, the owner is entirely responsible for the business's success or failure. He or she collects any profits, but if the venture loses money and the business cannot cover the loss, the owner is responsible for paying the bills -- even if doing so depletes his or her personal assets.

Sole proprietorships have certain advantages over other forms of business organization. They suit the temperament of people who like to exercise initiative and be their own bosses. They are flexible, since owners can make decisions quickly without having to consult others. By law, individual proprietors pay fewer taxes than corporations. And customers often are attracted to sole proprietorships, believing an individual who is accountable will do a good job.

This form of business organization has some disadvantages, however. A sole proprietorship legally ends when an owner dies or becomes incapacitated, although someone may inherit the assets and continue to operate the business. Also, since sole proprietorships generally are dependent on the amount of money their owners can save or borrow, they usually lack the resources to develop into large-scale enterprises.

The Business Partnership. One way to start or expand a venture is to create a partnership with two or more co-owners. Partnerships enable entrepreneurs to pool their talents; one partner may be qualified in production, while another may excel at marketing, for instance. Partnerships are exempt from most reporting requirements the government imposes on corporations, and they are taxed favorably compared with corporations. Partners pay taxes on their personal share of earnings, but their businesses are not taxed.

States regulate the rights and duties of partnerships. Co-owners generally sign legal agreements specifying each partner's duties. Partnership agreements also may provide for "silent partners," who invest money in a business but do not take part in its management.

A major disadvantage of partnerships is that each member is liable for all of a partnership's debts, and the action of any partner legally binds all the others. If one partner squanders money from the business, for instance, the others must share in paying the debt. Another major disadvantage can arise if partners have serious and constant disagreements.

Franchising and Chain Stores. Successful small businesses sometimes grow through a practice known as franchising. In a typical franchising arrangement, a successful company authorizes an individual or small group of entrepreneurs to use its name and products in exchange for a percentage of the sales revenue. The founding company lends its marketing expertise and reputation, while the entrepreneur who is granted the franchise manages individual outlets and assumes most of the financial liabilities and risks associated with the expansion.

While it is somewhat more expensive to get into the franchise business than to start an enterprise from scratch, franchises are less costly to operate and less likely to fail. That is partly because franchises can take advantage of economies of scale in advertising, distribution, and worker training.

Franchising is so complex and far-flung that no one has a truly accurate idea of its scope. The SBA estimates the United States had about 535,000 franchised establishments in 1992 -- including auto dealers, gasoline stations, restaurants, real estate firms, hotels and motels, and drycleaning stores. That was about 35 percent more than in 1970. Sales increases by retail franchises between 1975 and 1990 far outpaced those of non-franchise retail outlets, and franchise companies were expected to account for about 40 percent of U.S. retail sales by the year 2000.

Franchising probably slowed down in the 1990s, though, as the strong economy created many business opportunities other than franchising. Some franchisors also sought to consolidate, buying out other units of the same business and building their own networks. Company-owned chains of stores such as Sears Roebuck & Co. also provided stiff competition.

By purchasing in large quantities, selling in high volumes, and stressing self-service, these chains often can charge lower prices than small-owner operations. Chain supermarkets like Safeway, for example, which offer lower prices to attract customers, have driven out many independent small grocers.

Nonetheless, many franchise establishments do survive. Some individual proprietors have joined forces with others to form chains of their own or cooperatives. Often, these chains serve specialized, or niche, markets.

Corporations

Although there are many small and medium-sized companies, big business units play a dominant role in the American economy. There are several reasons for this. Large companies can supply goods and services to a greater number of people, and they frequently operate more efficiently than small ones. In addition, they often can sell their products at lower prices because of the large volume and small costs per unit sold. They have an advantage in the marketplace because many consumers are attracted to well-known brand names, which they believe guarantee a certain level of quality.

Large businesses are important to the overall economy because they tend to have more financial resources than small firms to conduct research and develop new goods. And they generally offer more varied job opportunities and greater job stability, higher wages, and better health and retirement benefits.

Nevertheless, Americans have viewed large companies with some ambivalence, recognizing their important contribution to economic well-being but worrying that they could become so powerful as to stifle new enterprises and deprive consumers of choice. What's more, large corporations at times have shown themselves to be inflexible in adapting to changing economic conditions. In the 1970s, for instance, U.S. auto-makers were slow to recognize that rising gasoline prices were creating a demand for smaller, fuel-efficient cars. As a result, they lost a sizable share of the domestic market to foreign manufacturers, mainly from Japan.

In the United States, most large businesses are organized as corporations. A corporation is a specific legal form of business organization, chartered by one of the 50 states and treated under the law like a person. Corporations may own property, sue or be sued in court, and make contracts. Because a corporation has legal standing itself, its owners are partially sheltered from responsibility for its actions. Owners of a corporation also have limited financial liability; they are not responsible for corporate debts, for instance. If a shareholder paid $100 for 10 shares of stock in a corporation and the corporation goes bankrupt, he or she can lose the $100 investment, but that is all. Because corporate stock is transferable, a corporation is not damaged by the death or disinterest of a particular owner. The owner can sell his or her shares at any time, or leave them to heirs.

The corporate form has some disadvantages, though. As distinct legal entities, corporations must pay taxes. The dividends they pay to shareholders, unlike interest on bonds, are not tax-deductible business expenses. And when a corporation distributes these dividends, the stockholders are taxed on the dividends. (Since the corporation already has paid taxes on its earnings, critics say that taxing dividend payments to shareholders amounts to "double taxation" of corporate profits.)

Many large corporations have a great number of owners, or shareholders. A major company may be owned by a million or more people, many of whom hold fewer than 100 shares of stock each. This widespread ownership has given many Americans a direct stake in some of the nation's biggest companies. By the mid-1990s, more than 40 percent of U.S. families owned common stock, directly or through mutual funds or other intermediaries.

But widely dispersed ownership also implies a separation of ownership and control. Because shareholders generally cannot know and manage the full details of a corporation's business, they elect a board of directors to make broad corporate policy.

Typically, even members of a corporation's board of directors and managers own less than 5 percent of the common stock, though some may own far more than that. Individuals, banks, or retirement funds often own blocks of stock, but these holdings generally account for only a small fraction of the total. Usually, only a minority of board members are operating officers of the corporation. Some directors are nominated by the company to give prestige to the board, others to provide certain skills or to represent lending institutions. It is not unusual for one person to serve on several different corporate boards at the same time.

Corporate boards place day-to-day management decisions in the hands of a chief executive officer (CEO), who may also be a board's chairman or president. The CEO supervises other executives, including a number of vice presidents who oversee various corporate functions, as well as the chief financial officer, the chief operating officer, and the chief information officer (CIO). The CIO came onto the corporate scene as high technology became a crucial part of U.S.

business affairs in the late 1990s.

As long as a CEO has the confidence of the board of directors, he or she generally is permitted a great deal of freedom in running a corporation. But sometimes, individual and institutional stockholders, acting in concert and backing dissident candidates for the board, can exert enough power to force a change in management.

Generally, only a few people attend annual shareholder meetings. Most shareholders vote on the election of directors and important policy proposals by "proxy" -- that is, by mailing in election forms. In recent years, however, some annual meetings have seen more shareholders -- perhaps several hundred -- in attendance. The U.S. Securities and Exchange Commission (SEC) requires corporations to give groups challenging management access to mailing lists of stockholders to present their views.

How Corporations Raise Capital

Large corporations could not have grown to their present size without being able to find innovative ways to raise capital to finance expansion. Corporations have five primary methods for obtaining that money.

Issuing Bonds. A bond is a written promise to pay back a specific amount of money at a certain date or dates in the future. In the interim, bondholders receive interest payments at fixed rates on specified dates. Holders can sell bonds to someone else before they are due.

Corporations benefit by issuing bonds because the interest rates they must pay investors are generally lower than rates for most other types of borrowing and because interest paid on bonds is considered to be a tax-deductible business expense. However, corporations must make interest payments even when they are not showing profits. If investors doubt a company's ability to meet its interest obligations, they either will refuse to buy its bonds or will demand a higher rate of interest to compensate them for their increased risk. For this reason, smaller corporations can seldom raise much capital by issuing bonds.

Issuing Preferred Stock. A company may choose to issue new "preferred" stock to raise capital. Buyers of these shares have special status in the event the underlying company encounters financial trouble. If profits are limited, preferred-stock owners will be paid their dividends after bondholders receive their guaranteed interest payments but before any common stock dividends are paid.

Selling Common Stock. If a company is in good financial health, it can raise capital by issuing common stock. Typically, investment banks help companies issue stock, agreeing to buy any new shares issued at a set price if the public refuses to buy the stock at a certain minimum price. Although common shareholders have the exclusive right to elect a corporation's board of directors, they rank behind holders of bonds and preferred stock when it comes to sharing profits.

Investors are attracted to stocks in two ways. Some companies pay large dividends, offering investors a steady income. But others pay little or no dividends, hoping instead to attract shareholders by improving corporate profitability -- and hence, the value of the shares themselves. In general, the value of shares increases as investors come to expect corporate earnings to rise. Companies whose stock prices rise substantially often "split" the shares, paying each holder, say, one additional share for each share held. This does not raise any capital for the corporation, but it makes it easier for stockholders to sell shares on the open market. In a two-for-one split, for instance, the stock's price is initially cut in half, attracting investors.

Borrowing. Companies can also raise short-term capital -- usually to finance inventories -- by getting loans from banks or other lenders.

Using profits. As noted, companies also can finance their operations by retaining their earnings. Strategies concerning retained earnings vary. Some corporations, especially electric, gas, and other utilities, pay out most of their profits as dividends to their stockholders. Others distribute, say, 50 percent of earnings to shareholders in dividends, keeping the rest to pay for operations and expansion. Still other corporations, often the smaller ones, prefer to reinvest most or all of their net income in research and expansion, hoping to reward investors by rapidly increasing the value of their shares.

Monopolies, Mergers, and Restructuring

The corporate form clearly is a key to the successful growth of numerous American businesses. But Americans at times have viewed large corporations with suspicion, and corporate managers themselves have wavered about the value of bigness.

In the late 19th century, many Americans feared that corporations could raise vast amounts of capital to absorb smaller ones or could combine and collude with other firms to inhibit competition. In either case, critics said, business monopolies would force consumers to pay high prices and deprive them of choice. Such concerns gave rise to two major laws aimed at taking apart or preventing monopolies: the Sherman Antitrust Act of 1890 and the Clayton Antitrust Act of 1914. Government continued to use these laws to limit monopolies throughout the 20th century. In 1984, government "trustbusters" broke a near monopoly of telephone service by American Telephone and Telegraph. In the late 1990s, the Justice Department sought to reduce dominance of the burgeoning computer software market by Microsoft Corporation, which in just a few years had grown into a major corporation with assets of $22,357 million. In general, government antitrust officials see a threat of monopoly power when a company gains control of 30 percent of the market for a commodity or service. But that is just a rule of thumb. A lot depends on the size of other competitors in the market. A company can be judged to lack monopolistic power even if it controls more than 30 percent of its market provided other companies have comparable market shares.

While antitrust laws may have increased competition, they have not kept U.S. companies from getting bigger. Seven corporate giants had assets of more than $300,000 million each in 1999, dwarfing the largest corporations of earlier periods. Some critics have voiced concern about the growing control of basic industries by a few large firms, asserting that industries such as automobile manufacture and steel production have been seen as oligopolies dominated by a few major corporations. Others note, however, that many of these large corporations cannot exercise undue power despite their size because they face formidable global competition. If consumers are unhappy with domestic auto-makers, for instance, they can buy cars from foreign companies. In addition, consumers or manufacturers sometimes can thwart would-be monopolies by switching to substitute products; for example, aluminum, glass, plastics, or concrete all can substitute for steel.

Attitudes among business leaders concerning corporate bigness have varied. In the late 1960s and early 1970s, many ambitious companies sought to diversify by acquiring unrelated businesses, at least partly because strict federal antitrust enforcement tended to block mergers within the same field. As business leaders saw it, conglomerates -- a type of business organization usually consisting of a holding company and a group of subsidiary firms engaged in dissimilar activities, such as oil drilling and movie-making -- are inherently more stable. If demand for one product slackens, the theory goes, another line of business can provide balance.

But this advantage sometimes is offset by the difficulty of managing diverse activities rather than specializing in the production of narrowly defined product lines. Many business leaders who engineered the mergers of the 1960s and 1970s, found themselves overextended or unable to manage all of their newly acquired subsidiaries. In many cases, they divested the weaker acquisitions.

The 1980s and 1990s brought new waves of friendly mergers and "hostile" takeovers in some industries, as corporations tried to position themselves to meet changing economic conditions. Mergers were prevalent, for example, in the oil, retail, and railroad industries, all of which were undergoing substantial change. Many airlines sought to combine after deregulation unleashed competition beginning in 1978. Deregulation and technological change helped spur a series of mergers in the telecommunications industry as well. Several companies that provide local telephone service sought to merge after the government moved to require more competition in their markets; on the East Coast, Bell Atlantic absorbed Nynex. SBC Communications joined its Southwestern Bell subsidiary with Pacific Telesis in the West and with Southern New England Group Telecommunications, and then sought to add Ameritech in the Midwest. Meanwhile, long-distance firms MCI Communications and WorldCom merged, while AT&T moved to enter the local telephone business by acquiring two cable television giants: Tele-Communications and MediaOne Group.

The takeovers, which would provide cable-line access to about 60 percent of U.S. households, also offered AT&T a solid grip on the cable TV and high-speed Internet-connection markets.

Also in the late 1990s, Travelers Group merged with Citicorp, forming the world's largest financial services company, while Ford Motor Company bought the car business of Sweden's AB Volvo. Following a wave of Japanese takeovers of U.S. companies in the 1980s, German and British firms grabbed the spotlight in the 1990s, as Chrysler Corporation merged into Germany's Daimler-Benz AG and Deutsche Bank AG took over Bankers Trust. Marking one of business history's high ironies, Exxon Corporation and Mobil Corporation merged, restoring more than half of John D. Rockefeller's industry-dominating Standard Oil Company empire, which was broken up by the Justice Department in 1911. The $81,380 million merger raised concerns among antitrust officials, even though the Federal Trade Commission (FTC) unanimously approved the consolidation.

The Commission did require Exxon and Mobil agreed to sell or sever supply contracts with 2,143 gas stations in the Northeast and mid-Atlantic states, California, and Texas, and to divest a large California refinery, oil terminals, a pipeline, and other assets. That represented one of the largest divestitures ever mandated by antitrust agencies. And FTC Chairman Robert Pitofsky warned that any further petroleum-industry mergers with similar "national reach" could come close to setting off "antitrust alarms." The FTC staff immediately recommended that the agency challenge a proposed purchase by BP Amoco PLC of Atlantic Richfield Company.

Instead of merging, some firms have tried to bolster their business clout through joint ventures with competitors. Because these arrangements eliminate competition in the product areas in which companies agree to cooperate, they can pose the same threat to market disciplines that monopolies do. But federal antitrust agencies have given their blessings to some joint ventures they believe will yield benefits.

Many American companies also have joined in cooperative research and development activities. Traditionally, companies conducted cooperative research mainly through trade organizations -- and only then to meet environmental and health regulations. But as American companies observed foreign manufacturers cooperating in product development and manufacturing, they concluded that they could not afford the time and money to do all the research themselves. Some major research consortiums include Semiconductor Research Corporation and Software Productivity Consortium.

A spectacular example of cooperation among fierce competitors occurred in 1991 when International Business Machines, which was the world's largest computer company, agreed to work with Apple Computer, the pioneer of personal computers, to create a new computer software operating system that could be used by a variety of computers. A similar proposed software operating system arrangement between IBM and Microsoft had fallen apart in the mid-

1980s, and Microsoft then moved ahead with its own market-dominating Windows system. By 1999, IBM also agreed to develop new computer technologies jointly with Dell Computer, a strong new entry into that market.

Just as the merger wave of the 1960s and 1970s led to series of corporate reorganizations and divestitures, the most recent round of mergers also was accompanied by corporate efforts to restructure their operations. Indeed, heightened global competition led American companies to launch major efforts to become leaner and more efficient. Many companies dropped product lines they deemed unpromising, spun off subsidiaries or other units, and consolidated or closed numerous factories, warehouses, and retail outlets. In the midst of this downsizing wave, many companies -- including such giants as Boeing, AT&T, and General Motors -- released numerous managers and lower-level employees.

Despite employment reductions among many manufacturing companies, the economy was resilient enough during the boom of the 1990s to keep unemployment low. Indeed, employers had to scramble to find qualified high-technology workers, and growing service sector employment absorbed labor resources freed by rising manufacturing productivity. Employment at Fortune magazine's top 500 U.S. industrial companies fell from 13.4 million workers in 1986 to 11.6 million in 1994. But when Fortune changed its analysis to focus on the largest 500 corporations of any kind, cranking in service firms, the 1994 figure became 20.2 million -- and it rose to 22.3 million in 1999.

Thanks to the economy's prolonged vigor and all of the mergers and other consolidations that occurred in American business, the size of the average company increased between 1988 and 1996, going from 17,730 employees to 18,654 employees. This was true despite layoffs following mergers and restructurings, as well as the sizable growth in the number and employment of small firms.

The US Stock Markets

Capital markets in the United States provide the lifeblood of capitalism. Companies turn to them to raise funds needed to finance the building of factories, office buildings, airplanes, trains, ships, telephone lines, and other assets; to conduct research and development; and to support a host of other essential corporate activities. Much of the money comes from such major institutions as pension funds, insurance companies, banks, foundations, and colleges and universities. Increasingly, it comes from individuals as well. As noted in chapter 3, more than 40 percent of U.S. families owned common stock in the mid-1990s. Very few investors would be willing to buy shares in a company unless they knew they could sell them later if they needed the funds for some other purpose. The stock market and other capital markets allow investors to buy and sell stocks continuously.

The markets play several other roles in the American economy as well. They are a source of income for investors. When stocks or other financial assets rise in value, investors become wealthier; often they spend some of this additional wealth, bolstering sales and promoting economic growth. Moreover, because investors buy and sell shares daily on the basis of their expectations for how profitable companies will be in the future, stock prices provide instant feedback to corporate executives about how investors judge their performance.

Stock values reflect investor reactions to government policy as well. If the government adopts policies that investors believe will hurt the economy and company profits, the market declines; if investors believe policies will help the economy, the market rises. Critics have sometimes suggested that American investors focus too much on short-term profits; often, these analysts say, companies or policy-makers are discouraged from taking steps that will prove beneficial in the long run because they may require short-term adjustments that will depress stock prices. Because the market reflects the sum of millions of decisions by millions of investors, there is no good way to test this theory.

In any event, Americans pride themselves on the efficiency of their stock market and other capital markets, which enable vast numbers of sellers and buyers to engage in millions of transactions each day. These markets owe their success in part to computers, but they also depend on tradition and trust -- the trust of one broker for another, and the trust of both in the good faith of the customers they represent to deliver securities after a sale or to pay for purchases. Occasionally, this trust is abused. But during the last half century, the federal government has played an increasingly important role in ensuring honest and equitable dealing. As a result, markets have thrived as continuing sources of investment funds that keep the economy growing and as devices for letting many Americans share in the nation's wealth.

To work effectively, markets require the free flow of information. Without it, investors cannot keep abreast of developments or gauge, to the best of their ability, the true value of stocks. Numerous sources of information enable investors to follow the fortunes of the market daily, hourly, or even minute-by-minute. Companies are required by law to issue quarterly earnings reports, more elaborate annual reports, and proxy statments to tell stockholders how they are doing. In addition, investors can read the market pages of daily newspapers to find out the price at which particular stocks were traded during the previous trading session. They can review a variety of indexes that measure the overall pace of market activity; the most notable of these is the Dow Jones Industrial Average (DJIA), which tracks 30 prominent stocks. Investors also can turn to magazines and newsletters devoted to analyzing particular stocks and markets. Certain cable television programs provide a constant flow of news about movements in stock prices. And now, investors can use the Internet to get up-to-the-minute information about individual stocks and even to arrange stock transactions.

The Stock Exchanges

There are thousands of stocks, but shares of the largest, best-known, and most actively traded corporations generally are listed on the New York Stock Exchange (NYSE). The exchange dates its origin back to 1792, when a group of stockbrokers gathered under a buttonwood tree on Wall Street in New York City to make some rules to govern stock buying and selling. By the late 1990s, the NYSE listed some 3,600 different stocks. The exchange has 1,366 members, or "seats," which are bought by brokerage houses at hefty prices and are used for buying and selling stocks for the public. Information travels electronically between brokerage offices and the exchange, which requires 200 miles (320 kilometers) of fiber-optic cable and 8,000 phone connections to handle quotes and orders.

How are stocks traded? Suppose a schoolteacher in California wants to take an ocean cruise. To finance the trip, she decides to sell 100 shares of stock she owns in General Motors Corporation. So she calls her broker and directs him to sell the shares at the best price he can get. At the same time, an engineer in Florida decides to use some of his savings to buy 100 GM shares, so he calls his broker and places a "buy" order for 100 shares at the market price. Both brokers wire their orders to the NYSE, where their representatives negotiate the transaction. All this can occur in less than a minute. In the end, the schoolteacher gets her cash and the engineer gets his stock, and both pay their brokers a commission. The transaction, like all others handled on the exchange, is carried out in public, and the results are sent electronically to every brokerage office in the nation. Stock exchange "specialists" play a crucial role in the process, helping to keep an orderly market by deftly matching buy and sell orders. If necessary, specialists buy or sell stock themselves when there is a paucity of either buyers or sellers.

The smaller American Stock Exchange, which lists numerous energy industry-related stocks, operates in much the same way and is located in the same Wall Street area as the New York exchange. Other large U.S. cities host smaller, regional stock exchanges. The largest number of different stocks and bonds traded are traded on the National Association of Securities Dealers Automated Quotation system, or Nasdaq. This so-called over-the-counter exchange, which handles trading in about 5,240 stocks, is not located in any one place; rather, it is an electronic communications network of stock and bond dealers. The National Association of Securities Dealers, which oversees the over-the-counter market, has the power to expel companies or dealers that it determines are dishonest or insolvent. Because many of the stocks traded in this market are from smaller and less stable companies, the Nasdaq is considered a riskier market than either of the major stock exchanges. But it offers many opportunities for investors. By the 1990s, many of the fastest growing high-technology stocks were traded on the Nasdaq.

A Nation of Investors

An unprecedented boom in the stock market, combined with the ease of investing in stocks, led to a sharp increase in public participation in securities markets during the 1990s. The annual trading volume on the New York Stock Exchange, or "Big Board," soared from 11,400 million shares in 1980 to 169,000 million shares in 1998. Between 1989 and 1995, the portion of all U.S. households owning stocks, directly or through intermediaries like pension funds, rose from 31 percent to 41 percent.

Public participation in the market has been greatly facilitated by mutual funds, which collect money from individuals and invest it on their behalf in varied portfolios of stocks. Mutual funds enable small investors, who may not feel qualified or have the time to choose among thousands of individual stocks, to have their money invested by professionals. And because mutual funds hold diversified groups of stocks, they shelter investors somewhat from the sharp swings that can occur in the value of individual shares.

There are dozens of kinds of mutual funds, each designed to meet the needs and preferences of different kinds of investors. Some funds seek to realize current income, while others aim for long-term capital appreciation. Some invest conservatively, while others take bigger chances in hopes of realizing greater gains. Some deal only with stocks of specific industries or stocks of foreign companies, and others pursue varying market strategies. Overall, the number of funds jumped from 524 in 1980 to 7,300 by late 1998.

Attracted by healthy returns and the wide array of choices, Americans invested substantial sums in mutual funds during the 1980s and 1990s. At the end of the 1990s, they held $5.4 trillion in mutual funds, and the portion of U.S. households holding mutual fund shares had increased to 37 percent in 1997 from 6 percent in 1979.

How Stock Prices Are Determined

Stock prices are set by a combination of factors that no analyst can consistently understand or predict. In general, economists say, they reflect the long-term earnings potential of companies. Investors are attracted to stocks of companies they expect will earn substantial profits in the future; because many people wish to buy stocks of such companies, prices of these stocks tend to rise. On the other hand, investors are reluctant to purchase stocks of companies that face bleak earnings prospects; because fewer people wish to buy and more wish to sell these stocks, prices fall.

When deciding whether to purchase or sell stocks, investors consider the general business climate and outlook, the financial condition and prospects of the individual companies in which they are considering investing, and whether stock prices relative to earnings already are above or below traditional norms. Interest rate trends also influence stock prices significantly. Rising interest rates tend to depress stock prices -- partly because they can foreshadow a general slowdown in economic activity and corporate profits, and partly because they lure investors out of the stock market and into new issues of interest-bearing investments. Falling rates, conversely, often lead to higher stock prices, both because they suggest easier borrowing and faster growth, and because they make new interest-paying investments less attractive to investors.

A number of other factors complicate matters, however. For one thing, investors generally buy stocks according to their expectations about the unpredictable future, not according to current earnings. Expectations can be influenced by a variety of factors, many of them not necessarily rational or justified. As a result, the short-term connection between prices and earnings can be tenuous.

Momentum also can distort stock prices. Rising prices typically woo more buyers into the market, and the increased demand, in turn, drives prices higher still. Speculators often add to this upward pressure by purchasing shares in the expectation they will be able to sell them later to other buyers at even higher prices. Analysts describe a continuous rise in stock prices as a "bull" market. When speculative fever can no longer be sustained, prices start to fall. If enough investors become worried about falling prices, they may rush to sell their shares, adding to downward momentum. This is called a "bear" market.

Market Strategies

During most of the 20th century, investors could earn more by investing in stocks than in other types of financial investments -- provided they were willing to hold stocks for the long term.

In the short term, stock prices can be quite volatile, and impatient investors who sell during periods of market decline easily can suffer losses. Peter Lynch, a renowned former manager of one of America's largest stock mutual funds, noted in 1998, for instance, that U.S. stocks had lost value in 20 of the previous 72 years. According to Lynch, investors had to wait 15 years after the stock market crash of 1929 to see their holdings regain their lost value. But people who held their stock 20 years or more never lost money. In an analysis prepared for the U.S. Congress, the federal government's General Accounting Office said that in the worst 20-year period since 1926, stock prices increased 3 percent. In the best two decades, they rose 17 percent. By contrast, 20-year bond returns, a common investment alternative to stocks, ranged between 1 percent and 10 percent.

Economists conclude from analyses like these that small investors fare best if they can put their money into a diversified portfolio of stocks and hold them for the long term. But some investors are willing to take risks in hopes of realizing bigger gains in the short term. And they have devised a number of strategies for doing this.

Buying on Margin. Americans buy many things on credit, and stocks are no exception. Investors who qualify can buy "on margin," making a stock purchase by paying 50 percent down and getting a loan from their brokers for the remainder. If the price of stock bought on margin rises, these investors can sell the stock, repay their brokers the borrowed amount plus interest and commissions, and still make a profit. If the price goes down, however, brokers issue "margin calls," forcing the investors to pay additional money into their accounts so that their loans still equal no more than half of the value of the stock. If an owner cannot produce cash, the broker can sell some of the stock -- at the investor's loss -- to cover the debt.

Buying stock on margin is one kind of leveraged trading. It gives speculators -

- traders willing to gamble on high-risk situations -- a chance to buy more shares. If their investment decisions are correct, speculators can make a greater profit, but if they are misjudge the market, they can suffer bigger losses.

The Federal Reserve Board (frequently called"the Fed"), the U.S. government's central bank, sets the minimum margin requirements specifying how much cash investors must put down when they buy stock. The Fed can vary margins. If it wishes to stimulate the market, it can set low margins. If it sees a need to curb speculative enthusiasm, it sets high margins. In some years, the Fed has required a full 100 percent payment, but for much of the time during the last decades of the 20th century, it left the margin rate at 50 percent.

Selling Short. Another group of speculators are known as "short sellers." They expect the price of a particular stock to fall, so they sell shares borrowed from their broker, hoping to profit by replacing the stocks later with shares purchased on the open market at a lower price. While this approach offers an opportunity for gains in a bear market, it is one of the riskiest ways to trade stocks. If a short seller guesses wrong, the price of stock he or she has sold short may rise sharply, hitting the investor with large losses.

Options. Another way to leverage a relatively small outlay of cash is to buy "call" options to purchase a particular stock later at close to its current price. If the market price rises, the trader can exercise the option, making a big profit by then selling the shares at the higher market price (alternatively, the trader can sell the option itself, which will have risen in value as the price of the underlying stock has gone up). An option to sell stock, called a "put" option, works in the opposite direction, committing the trader to sell a particular stock later at close to its current price. Much like short selling, put options enable traders to profit from a declining market. But investors also can lose a lot of money if stock prices do not move as they hope.

Commodities and Other Futures

Commodity "futures" are contracts to buy or sell certain certain goods at set prices at a predetermined time in the future. Futures traditionally have been linked to commodities such as wheat, livestock, copper, and gold, but in recent years growing amounts of futures also have been tied to foreign currencies or other financial assets as well. They are traded on about a dozen commodity exchanges in the United States, the most prominent of which include the Chicago Board of Trade, the Chicago Mercantile Exchange, and several exchanges in New York City. Chicago is the historic center of America's agriculture-based industries. Overall, futures activity rose to 417 million contracts in 1997, from 261 million in 1991.

Commodities traders fall into two broad categories: hedgers and speculators. Hedgers are business firms, farmers, or individuals that enter into commodity contracts to be assured access to a commodity, or the ability to sell it, at a guaranteed price. They use futures to protect themselves against unanticipated fluctuations in the commodity's price. Thousands of individuals, willing to absorb that risk, trade in commodity futures as speculators. They are lured to commodity trading by the prospect of making huge profits on small margins (futures contracts, like many stocks, are traded on margin, typically as low as 10 to 20 percent on the value of the contract).

Speculating in commodity futures is not for people who are averse to risk. Unforeseen forces like weather can affect supply and demand, and send commodity prices up or down very rapidly, creating great profits or losses. While professional traders who are well versed in the futures market are most likely to gain in futures trading, it is estimated that as many as 90 percent of small futures traders lose money in this volatile market.

Commodity futures are a form of "derivative" -- complex instruments for financial speculation linked to underlying assets. Derivatives proliferated in the 1990s to cover a wide range of assets, including mortgages and interest rates. This growing trade caught the attention of regulators and members of Congress after some banks, securities firms, and wealthy individuals suffered big losses on financially distressed, highly leveraged funds that bought derivatives, and in some cases avoided regulatory scrutiny by registering outside the United States.

The Regulators

The Securities and Exchange Commission (SEC), which was created in 1934, is the principal regulator of securities markets in the United States. Before 1929, individual states regulated securities activities. But the stock market crash of 1929, which triggered the Great Depression, showed that arrangement to be inadequate. The Securities Act of 1933 and the Securities Exchange Act of 1934 consequently gave the federal government a preeminent role in protecting small investors from fraud and making it easier for them to understand companies' financial reports.

The commission enforces a web of rules to achieve that goal. Companies issuing stocks, bonds, and other securities must file detailed financial registration statements, which are made available to the public. The SEC determines whether these disclosures are full and fair so that investors can make well-informed and realistic evaluations of various securities. The SEC also oversees trading in stocks and administers rules designed to prevent price manipulation; to that end, brokers and dealers in the over-the-counter market and the stock exchanges must register with the SEC.

In addition, the commission requires companies to tell the public when their own officers buy or sell shares of their stock; the commission believes that these "insiders" possess intimate information about their companies and that their trades can indicate to other investors their degree of confidence in their companies' future.

The agency also seeks to prevent insiders from trading in stock based on information that has not yet become public. In the late 1980s, the SEC began to focus not just on officers and directors but on insider trades by lower-level employees or even outsiders like lawyers who may have access to important information about a company before it becomes public.

The SEC has five commissioners who are appointed by the president. No more than three can be members of the same political party; the five-year term of one of the commissioners expires each year.

The Commodity Futures Trading Commission oversees the futures markets. It is particularly zealous in cracking down on many over-the-counter futures transactions, usually confining approved trading to the exchanges. But in general, it is considered a more gentle regulator than the SEC. In 1996, for example, it approved a record 92 new kinds of futures and farm commodity options contracts. From time to time, an especially aggressive SEC chairman asserts a vigorous role for that commission in regulating futures business.

"Black Monday" and the Long Bull Market

On Monday, October 19, 1987, the value of stocks plummeted on markets around the world. The Dow Jones Industrial Average fell 22 percent to close at 1738.42, the largest one-day decline since 1914, eclipsing even the famous October 1929 market crash.

The Brady Commission (a presidential commission set up to investigate the fall) the SEC, and others blamed various factors for the 1987 debacle -- including a negative turn in investor psychology, investors' concerns about the federal government budget deficit and foreign trade deficit, a failure of specialists on the New York Stock Exchange to discharge their duty as buyers of last resort, and "program trading" in which computers are programmed to launch buying or selling of large volumes of stock when certain market triggers occur. The stock exchange subsequently initiated safeguards. It said it would restrict program trading whenever the Dow Jones Industrial Average rose or fell 50 points in a single day, and it created a "circuit-breaker" mechanism to halt all trading temporarily any time the DJIA dropped 250 points. Those emergency mechanisms were later substantially adjusted to reflect the large rise in the DJIA level. In late 1998, one change required program-trading curbs whenever the DJIA rose or fell 2 percent in one day from a certain average recent close; in late 1999, this formula meant that program trading would be halted by a market change of about 210 points. The new rules set also a higher threshold for halting all trading; during the fourth quarter of 1999, that would occur if there was at least a 1,050-point DJIA drop.

Those reforms may have helped restore confidence, but a strong performance by the economy may have been even more important. Unlike its performance in 1929, the Federal Reserve made it clear it would ease credit conditions to ensure that investors could meet their margin calls and could continue operating. Partly as a result, the crash of 1987 was quickly erased as the market surged to new highs. In the early 1990s, the Dow Jones Industrial Average topped 3,000, and in 1999 it topped the 11,000 mark. What's more, the volume of trading rose enormously. While trading of 5 million shares was considered a hectic day on the New York Stock Exchange in the 1960s, more than a thousand-million shares were exchanged on some days in 1997 and 1998. On the Nasdaq, such share days were routine by 1998.

Much of the increased activity was generated by so-called day traders who would typically buy and sell the same stock several times in one day, hoping to make quick profits on short-term swings. These traders were among the growing legions of persons using the Internet to do their trading. In early 1999, 13 percent of all stock trades by individuals and 25 percent of individual transactions in securities of all kinds were occurring over the Internet.

With the greater volume came greater volatility. Swings of more than 100 points a day occurred with increasing frequency, and the circuit-breaker mechanism was triggered on October 27, 1997, when the Dow Jones Industrial Average fell 554.26 points. Another big fall -- 512.61 points -- occurred on August 31, 1998. But by then, the market had climbed so high that the declines amounted to only about 7 percent of the overall value of stocks, and investors stayed in the market, which quickly rebounded.

The Role of the US Government in the Economy

America points to its free enterprise system as a model for other nations. The country's economic success seems to validate the view that the economy operates best when government leaves businesses and individuals to succeed -- or fail -- on their own merits in open, competitive markets. But exactly how "free" is business in America's free enterprise system? The answer is, "not completely." A complex web of government regulations shape many aspects of business operations. Every year, the government produces thousands of pages of new regulations, often spelling out in painstaking detail exactly what businesses can and cannot do.

The American approach to government regulation is far from settled, however. In recent years, regulations have grown tighter in some areas and been relaxed in others. Indeed, one enduring theme of recent American economic history has been a continuous debate about when, and how extensively, government should intervene in business affairs.

Laissez-faire Versus Government Intervention

Historically, the U.S. government policy toward business was summed up by the French term laissez-faire -- "leave it alone." The concept came from the economic theories of Adam Smith, the 18th-century Scot whose writings greatly influenced the growth of American capitalism. Smith believed that private interests should have a free rein. As long as markets were free and competitive, he said, the actions of private individuals, motivated by self-interest, would work together for the greater good of society. Smith did favor some forms of government intervention, mainly to establish the ground rules for free enterprise. But it was his advocacy of laissez-faire practices that earned him favor in America, a country built on faith in the individual and distrust of authority.

Laissez-faire practices have not prevented private interests from turning to the government for help on numerous occasions, however. Railroad companies accepted grants of land and public subsidies in the 19th century. Industries facing strong competition from abroad have long appealed for protections through trade policy. American agriculture, almost totally in private hands, has benefited from government assistance. Many other industries also have sought and received aid ranging from tax breaks to outright subsidies from the government.

Government regulation of private industry can be divided into two categories -- economic regulation and social regulation. Economic regulation seeks, primarily, to control prices. Designed in theory to protect consumers and certain companies (usually small businesses) from more powerful companies, it often is justified on the grounds that fully competitive market conditions do not exist and therefore cannot provide such protections themselves. In many cases, however, economic regulations were developed to protect companies from what they described as destructive competition with each other.

Social regulation, on the other hand, promotes objectives that are not economic -- such as safer workplaces or a cleaner environment. Social regulations seek to discourage or prohibit harmful corporate behavior or to encourage behavior deemed socially desirable. The government controls smokestack emissions from factories, for instance, and it provides tax breaks to companies that offer their employees health and retirement benefits that meet certain standards.

American history has seen the pendulum swing repeatedly between laissez-faire principles and demands for government regulation of both types. For the last 25 years, liberals and conservatives alike have sought to reduce or eliminate some categories of economic regulation, agreeing that the regulations wrongly protected companies from competition at the expense of consumers. Political leaders have had much sharper differences over social regulation, however. Liberals have been much more likely to favor government intervention that promotes a variety of non-economic objectives, while conservatives have been more likely to see it as an intrusion that makes businesses less competitive and less efficient.

Growth of Government Intervention

In the early days of the United States, government leaders largely refrained from regulating business. As the 20th century approached, however, the consolidation of U.S. industry into increasingly powerful corporations spurred government intervention to protect small businesses and consumers. In 1890, Congress enacted the Sherman Antitrust Act, a law designed to restore competition and free enterprise by breaking up monopolies. In 1906, it passed laws to ensure that food and drugs were correctly labeled and that meat was inspected before being sold. In 1913, the government established a new federal banking system, the Federal Reserve, to regulate the nation's money supply and to place some controls on banking activities.

The largest changes in the government's role occurred during the "New Deal," President Franklin D. Roosevelt's response to the Great Depression. During this period in the 1930s, the United States endured the worst business crisis and the highest rate of unemployment in its history. Many Americans concluded that unfettered capitalism had failed. So they looked to government to ease hardships and reduce what appeared to be self-destructive competition. Roosevelt and the

Congress enacted a host of new laws that gave government the power to intervene in the economy. Among other things, these laws regulated sales of stock, recognized the right of workers to form unions, set rules for wages and hours, provided cash benefits to the unemployed and retirement income for the elderly, established farm subsidies, insured bank deposits, and created a massive regional development authority in the Tennessee Valley.

Many more laws and regulations have been enacted since the 1930s to protect workers and consumers further. It is against the law for employers to discriminate in hiring on the basis of age, sex, race, or religious belief. Child labor generally is prohibited. Independent labor unions are guaranteed the right to organize, bargain, and strike. The government issues and enforces workplace safety and health codes. Nearly every product sold in the United States is affected by some kind of government regulation: food manufacturers must tell exactly what is in a can or box or jar; no drug can be sold until it is thoroughly tested; automobiles must be built according to safety standards and must meet pollution standards; prices for goods must be clearly marked; and advertisers cannot mislead consumers.

By the early 1990s, Congress had created more than 100 federal regulatory agencies in fields ranging from trade to communications, from nuclear energy to product safety, and from medicines to employment opportunity. Among the newer ones are the Federal Aviation Administration, which was established in 1966 and enforces safety rules governing airlines, and the National Highway Traffic Safety Administration (NHSTA), which was created in 1971 and oversees automobile and driver safety. Both are part of the federal Department of Transportation.

Many regulatory agencies are structured so as to be insulated from the president and, in theory, from political pressures. They are run by independent boards whose members are appointed by the president and must be confirmed by the Senate. By law, these boards must include commissioners from both political parties who serve for fixed terms, usually of five to seven years. Each agency has a staff, often more than 1,000 persons. Congress appropriates funds to the agencies and oversees their operations. In some ways, regulatory agencies work like courts. They hold hearings that resemble court trials, and their rulings are subject to review by federal courts.

Despite the official independence of regulatory agencies, members of Congress often seek to influence commissioners on behalf of their constituents. Some critics charge that businesses at times have gained undue influence over the agencies that regulate them; agency officials often acquire intimate knowledge of the businesses they regulate, and many are offered high-paying jobs in those industries once their tenure as regulators ends. Companies have their own complaints, however. Among other things, some corporate critics complain that government regulations dealing with business often become obsolete as soon as they are written because business conditions change rapidly.

Federal Efforts to Control Monopoly

Monopolies were among the first business entities the U.S. government attempted to regulate in the public interest. Consolidation of smaller companies into bigger ones enabled some very large corporations to escape market discipline by "fixing" prices or undercutting competitors. Reformers argued that these practices ultimately saddled consumers with higher prices or restricted choices. The Sherman Antitrust Act, passed in 1890, declared that no person or business could monopolize trade or could combine or conspire with someone else to restrict trade. In the early 1900s, the government used the act to break up John D. Rockefeller's Standard Oil Company and several other large firms that it said had abused their economic power.

In 1914, Congress passed two more laws designed to bolster the Sherman Antitrust Act: the Clayton Antitrust Act and the Federal Trade Commission Act. The Clayton Antitrust Act defined more clearly what constituted illegal restraint of trade. The act outlawed price discrimination that gave certain buyers an advantage over others; forbade agreements in which manufacturers sell only to dealers who agree not to sell a rival manufacturer's products; and prohibited some types of mergers and other acts that could decrease competition. The Federal Trade Commission Act established a government commission aimed at preventing unfair and anti-competitive business practices.

Critics believed that even these new anti-monopoly tools were not fully effective. In 1912, the United States Steel Corporation, which controlled more than half of all the steel production in the United States, was accused of being a monopoly. Legal action against the corporation dragged on until 1920 when, in a landmark decision, the Supreme Court ruled that U.S. Steel was not a monopoly because it did not engage in "unreasonable" restraint of trade. The court drew a careful distinction between bigness and monopoly, and suggested that corporate bigness is not necessarily bad.

The government has continued to pursue antitrust prosecutions since World War II. The Federal Trade Commission and the Antitrust Division of the Justice Department watch for potential monopolies or act to prevent mergers that threaten to reduce competition so severely that consumers could suffer. Four cases show the scope of these efforts:

- In 1945, in a case involving the Aluminum Company of America, a federal appeals court considered how large a market share a firm could hold before it should be scrutinized for monopolistic practices. The court settled on 90 percent, noting "it is doubtful whether sixty or sixty-five percent would be enough, and certainly thirty-three percent is not."

- In 1961, a number of companies in the electrical equipment industry were found guilty of fixing prices in restraint of competition. The companies agreed to pay extensive damages to consumers, and some corporate executives went to prison.
- In 1963, the U.S. Supreme Court held that a combination of firms with large market shares could be presumed to be anti-competitive. The case involved Philadelphia National Bank. The court ruled that if a merger would cause a company to control an undue share of the market, and if there was no evidence the merger would not be harmful, then the merger could not take place.
- In 1997, a federal court concluded that even though retailing is generally unconcentrated, certain retailers such as office supply "superstores" compete in distinct economic markets. In those markets, merger of two substantial firms would be anti-competitive, the court said. The case involved a home office supply company, Staples, and a building supply company, Home Depot. The planned merger was dropped.

As these examples demonstrate, it is not always easy to define when a violation of antitrust laws occurs. Interpretations of the laws have varied, and analysts often disagree in assessing whether companies have gained so much power that they can interfere with the workings of the market. What's more, conditions change, and corporate arrangements that appear to pose antitrust threats in one era may appear less threatening in another. Concerns about the enormous power of the Standard Oil monopoly in the early 1900s, for instance, led to the breakup of Rockefeller's petroleum empire into numerous companies, including the companies that became the Exxon and Mobil petroleum companies. But in the late 1990s, when Exxon and Mobil announced that they planned to merge, there was hardly a whimper of public concern, although the government required some concessions before approving the combination. Gas prices were low, and other, powerful oil companies seemed strong enough to ensure competition.

Deregulating Transportation

While antitrust law may have been intended to increase competition, much other regulation had the opposite effect. As Americans grew more concerned about inflation in the 1970s, regulation that reduced price competition came under renewed scrutiny. In a number of cases, government decided to ease controls in cases where regulation shielded companies from market pressures.

Transportation was the first target of deregulation. Under President Jimmy Carter (1977-1981), Congress enacted a series of laws that removed most of the regulatory shields around aviation, trucking, and railroads. Companies were allowed to compete by utilizing any air, road, or rail route they chose, while more freely setting the rates for their services. In the process of transportation deregulation, Congress eventually abolished two major economic regulators: the 109-year-old Interstate Commerce Commission and the 45-year-old Civil Aeronautics Board.

Although the exact impact of deregulation is difficult to assess, it clearly created enormous upheaval in affected industries. Consider airlines. After government controls were lifted, airline companies scrambled to find their way in a new, far less certain environment. New competitors emerged, often employing lower-wage nonunion pilots and workers and offering cheap, "no-frills" services. Large companies, which had grown accustomed to government-set fares that guaranteed they could cover all their costs, found themselves hard-pressed to meet the competition. Some -- including Pan American World Airways, which to many Americans was synonymous with the era of passenger airline travel, and Eastern Airlines, which carried more passengers per year than any other American airline -- failed. United Airlines, the nation's largest single airline, ran into trouble and was rescued when its own workers agreed to buy it.

Customers also were affected. Many found the emergence of new companies and new service options bewildering. Changes in fares also were confusing -- and not always to the liking of some customers. Monopolies and regulated companies generally set rates to ensure that they meet their overall revenue needs, without worrying much about whether each individual service recovers enough revenue to pay for itself. When airlines were regulated, rates for cross-country and other long-distance routes, and for service to large metropolitan areas, generally were set considerably higher than the actual cost of flying those routes, while rates for costlier shorter-distance routes and for flights to less-populated regions were set below the cost of providing the service. With deregulation, such rate schemes fell apart, as small competitors realized they could win business by concentrating on the more lucrative high-volume markets, where rates were artificially high.

As established airlines cut fares to meet this challenge, they often decided to cut back or even drop service to smaller, less-profitable markets. Some of this service later was restored as new "commuter" airlines, often divisions of larger carriers, sprang up. These smaller airlines may have offered less frequent and less convenient service (using older propeller planes instead of jets), but for the most part, markets that feared loss of airline service altogether still had at least some service.

Most transportation companies initially opposed deregulation, but they later came to accept, if not favor, it. For consumers, the record has been mixed. Many of the low-cost airlines that emerged in the early days of deregulation have disappeared, and a wave of mergers among other airlines may have decreased competition in certain markets. Nevertheless, analysts generally agree that air fares are lower than they would have been had regulation continued. And airline travel is booming. In 1978, the year airline deregulation began, passengers flew a total of 226,800 million miles (362,800 million kilometers) on U.S. airlines. By 1997, that figure had nearly tripled, to 605,400 million passenger miles (968,640 kilometers).

Telecommunications

Until the 1980s in the United States, the term "telephone company" was synonymous with American Telephone & Telegraph. AT&T controlled nearly all aspects of the telephone business. Its regional subsidiaries, known as "Baby Bells," were regulated monopolies, holding exclusive rights to operate in specific areas. The Federal Communications Commission regulated rates on long-distance calls between states, while state regulators had to approve rates for local and in-state long-distance calls.

Government regulation was justified on the theory that telephone companies, like electric utilities, were natural monopolies. Competition, which was assumed to require stringing multiple wires across the countryside, was seen as wasteful and inefficient. That thinking changed beginning around the 1970s, as sweeping technological developments promised rapid advances in telecommunications. Independent companies asserted that they could, indeed, compete with AT&T. But they said the telephone monopoly effectively shut them out by refusing to allow them to interconnect with its massive network.

Telecommunications deregulation came in two sweeping stages. In 1984, a court effectively ended AT&T's telephone monopoly, forcing the giant to spin off its regional subsidiaries. AT&T continued to hold a substantial share of the long-distance telephone business, but vigorous competitors such as MCI Communications and Sprint Communications won some of the business, showing in the process that competition could bring lower prices and improved service.

A decade later, pressure grew to break up the Baby Bells' monopoly over local telephone service. New technologies -- including cable television, cellular (or wireless) service, the Internet, and possibly others -- offered alternatives to local telephone companies. But economists said the enormous power of the regional monopolies inhibited the development of these alternatives. In particular, they said, competitors would have no chance of surviving unless they could connect, at least temporarily, to the established companies' networks -- something the Baby Bells resisted in numerous ways.

In 1996, Congress responded by passing the Telecommunications Act of 1996. The law allowed long-distance telephone companies such as AT&T, as well as cable television and other start-up companies, to begin entering the local telephone business. It said the regional monopolies had to allow new competitors to link with their networks. To encourage the regional firms to welcome competition, the law said they could enter the long-distance business once new competition was established in their domains.

At the end of the 1990s, it was still too early to assess the impact of the new law. There were some positive signs. Numerous smaller companies had begun offering local telephone service, especially in urban areas where they could reach large numbers of customers at low cost. The number of cellular telephone subscribers soared. Countless Internet service providers sprung up to link households to the Internet. But there also were developments that Congress had not anticipated or intended. A great number of telephone companies merged, and the Baby Bells mounted numerous barriers to thwart competition. The regional firms, accordingly, were slow to expand into long-distance service.

Meanwhile, for some consumers -- especially residential telephone users and people in rural areas whose service previously had been subsidized by business and urban customers -- deregulation was bringing higher, not lower, prices.

The Special Case of Banking

Banks are a special case when it comes to regulation. On one hand, they are private businesses just like toy manufacturers and steel companies. But they also play a central role in the economy and therefore affect the well-being of everybody, not just their own consumers. Since the 1930s, Americans have devised regulations designed to recognize the unique position banks hold.

One of the most important of these regulations is deposit insurance. During the Great Depression, America's economic decline was seriously aggravated when vast numbers of depositors, concerned that the banks where they had deposited their savings would fail, sought to withdraw their funds all at the same time. In the resulting "runs" on banks, depositors often lined up on the streets in a panicky attempt to get their money. Many banks, including ones that were operated prudently, collapsed because they could not convert all their assets to cash quickly enough to satisfy depositors. As a result, the supply of funds banks could lend to business and industrial enterprise shrank, contributing to the economy's decline.

Deposit insurance was designed to prevent such runs on banks. The government said it would stand behind deposits up to a certain level -- $100,000 currently. Now, if a bank appears to be in financial trouble, depositors no longer have to worry. The government's bank-insurance agency, known as the Federal Deposit Insurance Corporation, pays off the depositors, using funds collected as insurance premiums from the banks themselves. If necessary, the government also will use general tax revenues to protect depositors from losses. To protect the government from undue financial risk, regulators supervise banks and order corrective action if the banks are found to be taking undue risks.

The New Deal of the 1930s era also gave rise to rules preventing banks from engaging in the securities and insurance businesses. Prior to the Depression, many banks ran into trouble because they took excessive risks in the stock market or provided loans to industrial companies in which bank directors or officers had personal investments. Determined to prevent that from happening again, Depression-era politicians enacted the Glass-Steagall Act, which prohibited the mixing of banking, securities, and insurance businesses. Such regulation grew controversial in the 1970s, however, as banks complained that they would lose customers to other financial companies unless they could offer a wider variety of financial services.

The government responded by giving banks greater freedom to offer consumers new types of financial services. Then, in late 1999, Congress enacted the Financial Services Modernization Act of 1999, which repealed the Glass-Steagall Act. The new law went beyond the considerable freedom that banks already were enjoying to offer everything from consumer banking to underwriting securities. It allowed banks, securities, and insurance firms to form financial conglomerates that could market a range of financial products including mutual funds, stocks and bonds, insurance, and automobile loans. As with laws deregulating transportation, telecommunications, and other industries, the new law was expected to generate a wave of mergers among financial institutions.

Generally, the New Deal legislation was successful, and the American banking system returned to health in the years following World War II. But it ran into difficulties again in the 1980s and 1990s -- in part because of social regulation. After the war, the government had been eager to foster home ownership, so it helped create a new banking sector -- the "savings and loan" (S&L) industry -- to concentrate on making long-term home loans, known as mortgages. Savings and loans faced one major problem: mortgages typically ran for 30 years and carried fixed interest rates, while most deposits have much shorter terms. When short-term interest rates rise above the rate on long-term mortgages, savings and loans can lose money. To protect savings and loan associations and banks against this eventuality, regulators decided to control interest rates on deposits.

For a while, the system worked well. In the 1960s and 1970s, almost all Americans got S&L financing for buying their homes. Interest rates paid on deposits at S&Ls were kept low, but millions of Americans put their money in them because deposit insurance made them an extremely safe place to invest. Starting in the 1960s, however, general interest rate levels began rising with inflation. By the 1980s, many depositors started seeking higher returns by putting their savings into money market funds and other non-bank assets. This put banks and savings and loans in a dire financial squeeze, unable to attract new deposits to cover their large portfolios of long-term loans.

Responding to their problems, the government in the 1980s began a gradual phasing out of interest rate ceilings on bank and S&L deposits. But while this helped the institutions attract deposits again, it produced large and widespread losses on S&Ls' mortgage portfolios, which were for the most part earning lower interest rates than S&Ls now were paying depositors. Again responding to complaints, Congress relaxed restrictions on lending so that S&Ls could make higher-earning investments. In particular, Congress allowed S&Ls to engage in consumer, business, and commercial real estate lending. They also liberalized some regulatory procedures governing how much capital S&Ls would have to hold.

Fearful of becoming obsolete, S&Ls expanded into highly risky activities such as speculative real estate ventures. In many cases, these ventures proved to be unprofitable, especially when economic conditions turned unfavorable. Indeed, some S&Ls were taken over by unsavory people who plundered them. Many S&Ls ran up huge losses. Government was slow to detect the unfolding crisis because budgetary stringency and political pressures combined to shrink regulators' staffs. The S&L crisis in a few years mushroomed into the biggest national financial scandal in American history. By the end of the decade, large numbers of S&Ls had tumbled into insolvency; about half of the S&Ls that had been in business in 1970 no longer existed in 1989. The Federal Savings and Loan Insurance Corporation, which insured depositors' money, itself became insolvent. In 1989, Congress and the president agreed on a taxpayer-financed bailout measure known as the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA). This act provided $50 billion to close failed S&Ls, totally changed the regulatory apparatus for savings institutions, and imposed new portfolio constraints. A new government agency called the Resolution Trust Corporation (RTC) was set up to liquidate insolvent institutions. In March 1990, another $78,000 million was pumped into the RTC. But estimates of the total cost of the S&L cleanup continued to mount, topping the $200,000 million mark. Americans have taken a number of lessons away from the post-war experience with banking regulation. First, government deposit insurance protects small savers and helps maintain the stability of the banking system by reducing the danger of runs on banks. Second, interest rate controls do not work. Third, government should not direct what investments banks should make; rather, investments should be determined on the basis of market forces and economic merit. Fourth, bank lending to insiders or to companies affiliated with insiders should be closely watched and limited. Fifth, when banks do become insolvent, they should be closed as quickly as possible, their depositors paid off, and their loans transferred to other, healthier lenders. Keeping insolvent institutions in operation merely freezes lending and can stifle economic activity.

Finally, while banks generally should be allowed to fail when they become insolvent, Americans believe that the government has a continuing responsibility to supervise them and prevent them from engaging in unnecessarily risky lending that could damage the entire economy. In addition to direct supervision, regulators increasingly emphasize the importance of requiring banks to raise a substantial amount of their own capital. Besides giving banks funds that can be used to absorb losses, capital requirements encourage bank owners to operate responsibly since they will lose these funds in the event their banks fail. Regulators also stress the importance of requiring banks to disclose their financial status; banks are likely to behave more responsibly if their activities and conditions are publicly known.

Protecting the Environment

The regulation of practices that affect the environment has been a relatively recent development in the United States, but it is a good example of government intervention in the economy for a social purpose.

Beginning in the 1960s, Americans became increasingly concerned about the environmental impact of industrial growth. Engine exhaust from growing numbers of automobiles, for instance, was blamed for smog and other forms of air pollution in larger cities. Pollution represented what economists call an externality -- a cost the responsible entity can escape but that society as a whole must bear. With market forces unable to address such problems, many environmentalists suggested that government has a moral obligation to protect the earth's fragile ecosystems -- even if doing so requires that some economic growth be sacrificed. A slew of laws were enacted to control pollution, including the 1963 Clean Air Act, the 1972 Clean Water Act, and the 1974 Safe Drinking Water Act.

Environmentalists achieved a major goal in December 1970 with the establishment of the U.S. Environmental Protection Agency (EPA), which brought together in a single agency many federal programs charged with protecting the environment. The EPA sets and enforces tolerable limits of pollution, and it establishes timetables to bring polluters into line with standards; since most of the requirements are of recent origin, industries are given reasonable time, often several years, to conform to standards. The EPA also has the authority to coordinate and support research and anti-pollution efforts of state and local governments, private and public groups, and educational institutions. Regional EPA offices develop, propose, and implement approved regional programs for comprehensive environmental protection activities.

Data collected since the agency began its work show significant improvements in environmental quality; there has been a nationwide decline of virtually all air pollutants, for example. However, in 1990 many Americans believed that still greater efforts to combat air pollution were needed. Congress passed important amendments to the Clean Air Act, and they were signed into law by President George Bush (1989-1993). Among other things, the legislation incorporated an innovative market-based system designed to secure a substantial reduction in sulfur dioxide emissions, which produce what is known as acid rain. This type of pollution is believed to cause serious damage to forests and lakes, particularly in the eastern part of the United States and Canada.

What's Next?

The liberal-conservative split over social regulation is probably deepest in the areas of environmental and workplace health and safety regulation, though it extends to other kinds of regulation as well. The government pursued social regulation with great vigor in the 1970s, but Republican President Ronald Reagan (1981-1989) sought to curb those controls in the 1980s, with some success.

Regulation by agencies such as National Highway Traffic Safety Administration and the Occupational Safety and Health Administration (OSHA) slowed down considerably for several years, marked by episodes such as a dispute over whether NHTSA should proceed with a federal standard that, in effect, required auto-makers to install air bags (safety devices that inflate to protect occupants in many crashes) in new cars. Eventually, the devices were required.

Social regulation began to gain new momentum after the Democratic Clinton administration took over in 1992. But the Republican Party, which took control of

Congress in 1994 for the first time in 40 years, again placed social regulators squarely on the defensive. That produced a new regulatory cautiousness at agencies like OSHA.

The EPA in the 1990s, under considerable legislative pressure, turned toward cajoling business to protect the environment rather than taking a tough regulatory approach. The agency pressed auto-makers and electric utilities to reduce small particles of soot that their operations spewed into the air, and it worked to control water-polluting storm and farm-fertilizer runoffs. Meanwhile, environmentally minded Al Gore, the vice president during President Clinton's two terms, buttressed EPA policies by pushing for reduced air pollution to curb global warming, a super-efficient car that would emit fewer air pollutants, and incentives for workers to use mass transit.

The government, meanwhile, has tried to use price mechanisms to achieve regulatory goals, hoping this would be less disruptive to market forces. It developed a system of air-pollution credits, for example, which allowed companies to sell the credits among themselves. Companies able to meet pollution requirements least expensively could sell credits to other companies. This way, officials hoped, overall pollution-control goals could be achieved in the most efficient way.

Economic deregulation maintained some appeal through the close of the 1990s. Many states moved to end regulatory controls on electric utilities, which proved a very complicated issue because service areas were fragmented. Adding another layer of complexity were the mix of public and private utilities, and massive capital costs incurred during the construction of electric-generating facilities.

Money, Banking, Monetary and Fiscal Policy

The role of government in the American economy extends far beyond its activities as a regulator of specific industries. The government also manages the overall pace of economic activity, seeking to maintain high levels of employment and stable prices. It has two main tools for achieving these objectives: fiscal policy, through which it determines the appropriate level of taxes and spending; and monetary policy, through which it manages the supply of money.

Much of the history of economic policy in the United States since the Great Depression of the 1930s has involved a continuing effort by the government to find a mix of fiscal and monetary policies that will allow sustained growth and stable prices. That is no easy task, and there have been notable failures along the way.

But the government has gotten better at promoting sustainable growth. From 1854 through 1919, the American economy spent almost as much time contracting as it did growing: the average economic expansion (defined as an increase in output of goods and services) lasted 27 months, while the average recession (a period of declining output) lasted 22 months. From 1919 to 1945, the record improved, with the average expansion lasting 35 months and the average recession lasting 18 months. And from 1945 to 1991, things got even better, with the average expansion lasting 50 months and the average recession lasting just 11 months.

Inflation, however, has proven more intractable. Prices were remarkably stable prior to World War II; the consumer price level in 1940, for instance, was no higher than the price level in 1778. But 40 years later, in 1980, the price level was 400 percent above the 1940 level.

In part, the government's relatively poor record on inflation reflects the fact that it put more stress on fighting recessions (and resulting increases in unemployment) during much of the early post-war period. Beginning in 1979, however, the government began paying more attention to inflation, and its record on that score has improved markedly. By the late 1990s, the nation was experiencing a gratifying combination of strong growth, low unemployment, and slow inflation. But while policy-makers were generally optimistic about the future, they admitted to some uncertainties about what the new century would bring.

Fiscal Policy -- Budget and Taxes

The growth of government since the 1930s has been accompanied by steady increases in government spending. In 1930, the federal government accounted for just 3.3 percent of the nation's gross domestic product, or total output of goods and services excluding imports and exports. That figure rose to almost 44 percent of GDP in 1944, at the height of World War II, before falling back to 11.6 percent in 1948. But government spending generally rose as a share of GDP in subsequent years, reaching almost 24 percent in 1983 before falling back somewhat. In 1999 it stood at about 21 percent.

The development of fiscal policy is an elaborate process. Each year, the president proposes a budget, or spending plan, to Congress. Lawmakers consider the president's proposals in several steps. First, they decide on the overall level of spending and taxes. Next, they divide that overall figure into separate categories -- for national defense, health and human services, and transportation, for instance. Finally, Congress considers individual appropriations bills spelling out exactly how the money in each category will be spent. Each appropriations bill ultimately must be signed by the president in order to take effect.

This budget process often takes an entire session of Congress; the president presents his proposals in early February, and Congress often does not finish its work on appropriations bills until September (and sometimes even later).

The federal government's chief source of funds to cover its expenses is the income tax on individuals, which in 1999 brought in about 48 percent of total federal revenues. Payroll taxes, which finance the Social Security and Medicare programs, have become increasingly important as those programs have grown. In 1998, payroll taxes accounted for one-third of all federal revenues; employers and workers each had to pay an amount equal to 7.65 percent of their wages up to $68,400 a year. The federal government raises another 10 percent of its revenue from a tax on corporate profits, while miscellaneous other taxes account for the remainder of its income. (Local governments, in contrast, generally collect most of their tax revenues from property taxes. State governments traditionally have depended on sales and excise taxes, but state income taxes have grown more important since World War II.)

The federal income tax is levied on the worldwide income of U.S. citizens and resident aliens and on certain U.S. income of non-residents. The first U.S. income tax law was enacted in 1862 to support the Civil War. The 1862 tax law also established the Office of the Commissioner of Internal Revenue to collect taxes and enforce tax laws either by seizing the property and income of non-payers or through prosecution. The commissioner's powers and authority remain much the same today.

The income tax was declared unconstitutional by the Supreme Court in 1895 because it was not apportioned among the states in conformity with the Constitution. It was not until the 16th Amendment to the Constitution was adopted in 1913 that Congress was authorized to levy an income tax without apportionment. Still, except during World War I, the income tax system remained a relatively minor source of federal revenue until the 1930s.

During World War II, the modern system for managing federal income taxes was introduced, income tax rates were raised to very high levels, and the levy became the principal sources of federal revenue. Beginning in 1943, the government required employers to collect income taxes from workers by withholding certain sums from their paychecks, a policy that streamlined collection and significantly increased the number of taxpayers.

Most debates about the income tax today revolve around three issues: the appropriate overall level of taxation; how graduated, or "progressive" the tax should be; and the extent to which the tax should be used to promote social objectives.

The overall level of taxation is decided through budget negotiations. Although Americans allowed the government to run up deficits, spending more than it collected in taxes during the 1970s, 1980s, and the part of the 1990s, they generally believe budgets should be balanced. Most Democrats, however, are willing to tolerate a higher level of taxes to support a more active government, while Republicans generally favor lower taxes and smaller government.

From the outset, the income tax has been a progressive levy, meaning that rates are higher for people with more income. Most Democrats favor a high degree of progressivity, arguing that it is only fair to make people with more income pay more in taxes. Many Republicans, however, believe a steeply progressive rate structure discourages people from working and investing, and therefore hurts the overall economy. Accordingly, many Republicans argue for a more uniform rate structure. Some even suggest a uniform, or "flat," tax rate for everybody. (Some economists -- both Democrats and Republicans -- have suggested that the economy would fare better if the government would eliminate the income tax altogether and replace it with a consumption tax, taxing people on what they spend rather than what they earn. Proponents argue that would encourage saving and investment. But as of the end of the 1990s, the idea had not gained enough support to be given much chance of being enacted.)

Over the years, lawmakers have carved out various exemptions and deductions from the income tax to encourage specific kinds of economic activity. Most notably, taxpayers are allowed to subtract from their taxable income any interest they must pay on loans used to buy homes. Similarly, the government allows lower- and middle-income taxpayers to shelter from taxation certain amounts of money that they save in special Individual Retirement Accounts (IRAs) to meet their retirement expenses and to pay for their children's college education.

The Tax Reform Act of 1986, perhaps the most substantial reform of the U.S. tax system since the beginning of the income tax, reduced income tax rates while cutting back many popular income tax deductions (the home mortgage deduction and IRA deductions were preserved, however). The Tax Reform Act replaced the previous law's 15 tax brackets, which had a top tax rate of 50 percent, with a system that had only two tax brackets -- 15 percent and 28 percent. Other provisions reduced, or eliminated, income taxes for millions of low-income Americans.

Fiscal Policy and Economic Stabilization

In the 1930s, with the United States reeling from the Great Depression, the government began to use fiscal policy not just to support itself or pursue social policies but to promote overall economic growth and stability as well. Policy-makers were influenced by John Maynard Keynes, an English economist who argued in *The General Theory of Employment, Interest, and Money* (1936) that the rampant joblessness of his time resulted from inadequate demand for goods and services. According to Keynes, people did not have enough income to buy everything the economy could produce, so prices fell and companies lost money or went bankrupt. Without government intervention, Keynes said, this could become a vicious cycle. As more companies went bankrupt, he argued, more people would lose their jobs, making income fall further and leading yet more companies to fail in a frightening downward spiral.

Keynes argued that government could halt the decline by increasing spending on its own or by cutting taxes. Either way, incomes would rise, people would spend more, and the economy could start growing again. If the government had to run up a deficit to achieve this purpose, so be it, Keynes said. In his view, the alternative -- deepening economic decline -- would be worse.

Keynes's ideas were only partially accepted during the 1930s, but the huge boom in military spending during World War II seemed to confirm his theories. As government spending surged, people's incomes rose, factories again operated at full capacity, and the hardships of the Depression faded into memory. After the war, the economy continued to be fueled by pent-up demand from families who had deferred buying homes and starting families.

By the 1960s, policy-makers seemed wedded to Keynesian theories. But in retrospect, most Americans agree, the government then made a series of mistakes in the economic policy arena that eventually led to a reexamination of fiscal policy. After enacting a tax cut in 1964 to stimulate economic growth and reduce unemployment, President Lyndon B. Johnson (1963-1969) and Congress launched a series of expensive domestic spending programs designed to alleviate poverty. Johnson also increased military spending to pay for American involvement in the Vietnam War. These large government programs, combined with strong consumer spending, pushed the demand for goods and services beyond what the economy could produce. Wages and prices started rising. Soon, rising wages and prices fed each other in an ever-rising cycle. Such an overall increase in prices is known as inflation.

Keynes had argued that during such periods of excess demand, the government should reduce spending or raise taxes to avert inflation. But anti-inflation fiscal policies are difficult to sell politically, and the government resisted shifting to them. Then, in the early 1970s, the nation was hit by a sharp rise in international oil and food prices. This posed an acute dilemma for policy-makers. The conventional anti-inflation strategy would be to restrain demand by cutting federal spending or raising taxes.

But this would have drained income from an economy already suffering from higher oil prices. The result would have been a sharp rise in unemployment. If policy-makers chose to counter the loss of income caused by rising oil prices, however, they would have had to increase spending or cut taxes. Since neither policy could increase the supply of oil or food, however, boosting demand without changing supply would merely mean higher prices.

President Jimmy Carter (1973-1977) sought to resolve the dilemma with a two-pronged strategy. He geared fiscal policy toward fighting unemployment, allowing the federal deficit to swell and establishing countercyclical jobs programs for the unemployed. To fight inflation, he established a program of voluntary wage and price controls. Neither element of this strategy worked well. By the end of the 1970s, the nation suffered both high unemployment and high inflation.

While many Americans saw this "stagflation" as evidence that Keynesian economics did not work, another factor further reduced the government's ability to use fiscal policy to manage the economy. Deficits now seemed to be a permanent part of the fiscal scene. Deficits had emerged as a concern during the stagnant 1970s. Then, in the 1980s, they grew further as President Ronald Reagan (1981-1989) pursued a program of tax cuts and increased military spending. By 1986, the deficit had swelled to $221,000 million, or more than 22 percent of total federal spending. Now, even if the government wanted to pursue spending or tax policies to bolster demand, the deficit made such a strategy unthinkable.

Beginning in the late 1980s, reducing the deficit became the predominant goal of fiscal policy. With foreign trade opportunities expanding rapidly and technology spinning off new products, there seemed to be little need for government policies to stimulate growth. Instead, officials argued, a lower deficit would reduce government borrowing and help bring down interest rates, making it easier for businesses to acquire capital to finance expansion. The government budget finally returned to surplus in 1998.

This led to calls for new tax cuts, but some of the enthusiasm for lower taxes was tempered by the realization that the government would face major budget challenges early in the new century as the enormous post-war baby-boom generation reached retirement and started collecting retirement checks from the Social Security system and medical benefits from the Medicare program.

By the late 1990s, policy-makers were far less likely than their predecessors to use fiscal policy to achieve broad economic goals. Instead, they focused on narrower policy changes designed to strengthen the economy at the margins. President Reagan and his successor, George Bush (1989-1993), sought to reduce taxes on capital gains -- that is, increases in wealth resulting from the appreciation in the value of assets such as property or stocks. They said such a change would increase incentives to save and invest. Democrats resisted, arguing that such a change would overwhelmingly benefit the rich. But as the budget deficit shrank, President Clinton (1993-2001) acquiesced, and the maximum capital gains rate was trimmed to 20 percent from 28 percent in 1996. Clinton, meanwhile, also sought to affect the economy by promoting various education and job-training programs designed to develop a highly skilled -- and hence, more productive and competitive -- labor force.

Money in the U.S. Economy

While the budget remained enormously important, the job of managing the overall economy shifted substantially from fiscal policy to monetary policy during the later years of the 20th century. Monetary policy is the province of the Federal Reserve System, an independent U.S. government agency. "The Fed," as it is commonly known, includes 12 regional Federal Reserve Banks and 25 Federal Reserve Bank branches. All nationally chartered commercial banks are required by law to be members of the Federal Reserve System; membership is optional for state-chartered banks. In general, a bank that is a member of the Federal Reserve System uses the Reserve Bank in its region in the same way that a person uses a bank in his or her community.

The Federal Reserve Board of Governors administers the Federal Reserve System. It has seven members, who are appointed by the president to serve overlapping 14-year terms. Its most important monetary policy decisions are made by the Federal Open Market Committee (FOMC), which consists of the seven governors, the president of the Federal Reserve Bank of New York, and presidents of four other Federal Reserve banks who serve on a rotating basis. Although the Federal Reserve System periodically must report on its actions to Congress, the governors are, by law, independent from Congress and the president. Reinforcing this independence, the Fed conducts its most important policy discussions in private and often discloses them only after a period of time has passed. It also raises all of its own operating expenses from investment income and fees for its own services.

The Federal Reserve has three main tools for maintaining control over the supply of money and credit in the economy. The most important is known as open market operations, or the buying and selling of government securities. To increase the supply of money, the Federal Reserve buys government securities from banks, other businesses, or individuals, paying for them with a check (a new source of money that it prints); when the Fed's checks are deposited in banks, they create new reserves -- a portion of which banks can lend or invest, thereby increasing the amount of money in circulation. On the other hand, if the Fed wishes to reduce the money supply, it sells government securities to banks, collecting reserves from them. Because they have lower reserves, banks must reduce their lending, and the money supply drops accordingly.

The Fed also can control the money supply by specifying what reserves deposit-taking institutions must set aside either as currency in their vaults or as deposits at their regional Reserve Banks. Raising reserve requirements forces banks to withhold a larger portion of their funds, thereby reducing the money supply, while lowering requirements works the opposite way to increase the money supply.

Banks often lend each other money over night to meet their reserve requirements. The rate on such loans, known as the "federal funds rate," is a key gauge of how "tight" or "loose" monetary policy is at a given moment.

The Fed's third tool is the discount rate, or the interest rate that commercial banks pay to borrow funds from Reserve Banks. By raising or lowering the discount rate, the Fed can promote or discourage borrowing and thus alter the amount of revenue available to banks for making loans.

These tools allow the Federal Reserve to expand or contract the amount of money and credit in the U.S. economy. If the money supply rises, credit is said to be loose. In this situation, interest rates tend to drop, business spending and consumer spending tend to rise, and employment increases; if the economy already is operating near its full capacity, too much money can lead to inflation, or a decline in the value of the dollar. When the money supply contracts, on the other hand, credit is tight. In this situation, interest rates tend to rise, spending levels off or declines, and inflation abates; if the economy is operating below its capacity, tight money can lead to rising unemployment.

Many factors complicate the ability of the Federal Reserve to use monetary policy to promote specific goals, however. For one thing, money takes many different forms, and it often is unclear which one to target. In its most basic form, money consists of coins and paper currency. Coins come in various denominations based on the value of a dollar: the penny, which is worth one cent or one-hundredth of a dollar; the nickel, five cents; the dime, 10 cents; the quarter, 25 cents; the half dollar, 50 cents; and the dollar coin. Paper money comes in denominations of $1, $2, $5, $10, $20, $50, and $100.

A more important component of the money supply consists of checking deposits, or bookkeeping entries held in banks and other financial institutions.

Individuals can make payments by writing checks, which essentially instruct their banks to pay given sums to the checks' recipients.

Time deposits are similar to checking deposits except the owner agrees to leave the sum on deposit for a specified period; while depositors generally can withdraw the funds earlier than the maturity date, they generally must pay a penalty and forfeit some interest to do so. Money also includes money market funds, which are shares in pools of short-term securities, as well as a variety of other assets that can be converted easily into currency on short notice.

The amount of money held in different forms can change from time to time, depending on preferences and other factors that may or may not have any importance to the overall economy. Further complicating the Fed's task, changes in the money supply affect the economy only after a lag of uncertain duration.

Monetary Policy and Fiscal Stabilization

The Fed's operation has evolved over time in response to major events. The Congress established the Federal Reserve System in 1913 to strengthen the supervision of the banking system and stop bank panics that had erupted periodically in the previous century. As a result of the Great Depression in the 1930s, Congress gave the Fed authority to vary reserve requirements and to regulate stock market margins (the amount of cash people must put down when buying stock on credit).

Still, the Federal Reserve often tended to defer to the elected officials in matters of overall economic policy. During World War II, for instance, the Fed subordinated its operations to helping the U.S. Treasury borrow money at low interest rates. Later, when the government sold large amounts of Treasury securities to finance the Korean War, the Fed bought heavily to keep the prices of these securities from falling (thereby pumping up the money supply). The Fed reasserted its independence in 1951, reaching an accord with the Treasury that

Federal Reserve policy should not be subordinated to Treasury financing. But the central bank still did not stray too far from the political orthodoxy.

During the fiscally conservative administration of President Dwight D. Eisenhower (1953-1961), for instance, the Fed emphasized price stability and restriction of monetary growth, while under more liberal presidents in the 1960s, it stressed full employment and economic growth.

During much of the 1970s, the Fed allowed rapid credit expansion in keeping with the government's desire to combat unemployment. But with inflation increasingly ravaging the economy, the central bank abruptly tightened monetary policy beginning in 1979. This policy successfully slowed the growth of the money supply, but it helped trigger sharp recessions in 1980 and 1981-1982. The inflation rate did come down, however, and by the middle of the decade the Fed was again able to pursue a cautiously expansionary policy. Interest rates, however, stayed relatively high as the federal government had to borrow heavily to finance its budget deficit. Rates slowly came down, too, as the deficit narrowed and ultimately disappeared in the 1990s.

The growing importance of monetary policy and the diminishing role played by fiscal policy in economic stabilization efforts may reflect both political and economic realities. The experience of the 1960s, 1970s, and 1980s suggests that democratically elected governments may have more trouble using fiscal policy to fight inflation than unemployment. Fighting inflation requires government to take unpopular actions like reducing spending or raising taxes, while traditional fiscal policy solutions to fighting unemployment tend to be more popular since they require increasing spending or cutting taxes. Political realities, in short, may favor a bigger role for monetary policy during times of inflation.

One other reason suggests why fiscal policy may be more suited to fighting unemployment, while monetary policy may be more effective in fighting inflation.

There is a limit to how much monetary policy can do to help the economy during a period of severe economic decline, such as the United States encountered during the 1930s. The monetary policy remedy to economic decline is to increase the amount of money in circulation, thereby cutting interest rates. But once interest rates reach zero, the Fed can do no more.

The United States has not encountered this situation, which economists call the "liquidity trap," in recent years, but Japan did during the late 1990s. With its economy stagnant and interest rates near zero, many economists argued that the Japanese government had to resort to more aggressive fiscal policy, if necessary running up a sizable government deficit to spur renewed spending and economic growth.

A New Economy?

Today, Federal Reserve economists use a number of measures to determine whether monetary policy should be tighter or looser. One approach is to compare the actual and potential growth rates of the economy. Potential growth is presumed to equal the sum of the growth in the labor force plus any gains in productivity, or output per worker. In the late 1990s, the labor force was projected to grow about 1 percent a year, and productivity was thought to be rising somewhere between 1 percent and 1.5 percent. Therefore, the potential growth rate was assumed to be somewhere between 2 percent and 2.5 percent. By this measure, actual growth in excess of the long-term potential growth was seen as raising a danger of inflation, thereby requiring tighter money.

The second gauge is called NAIRU, or the non-accelerating inflation rate of unemployment. Over time, economists have noted that inflation tends to accelerate when joblessness drops below a certain level. In the decade that ended in the early 1990s, economists generally believed NAIRU was around 6 percent. But later in the decade, it appeared to have dropped to about 5.5 percent.

Perhaps even more importantly, a range of new technologies -- the microprocessor, the laser, fiber-optics, and satellite -- appeared in the late 1990s to be making the American economy significantly more productive than economists had thought possible. "The newest innovations, which we label information technologies, have begun to alter the manner in which we do business and create value, often in ways not readily foreseeable even five years ago," Federal Reserve Chairman Alan Greenspan said in mid-1999.

Previously, lack of timely information about customers' needs and the location of raw materials forced businesses to operate with larger inventories and more workers than they otherwise would need, according to Greenspan. But as the quality of information improved, businesses could operate more efficiently. Information technologies also allowed for quicker delivery times, and they accelerated and streamlined the process of innovation. For instance, design times dropped sharply as computer modeling reduced the need for staff in architectural firms, Greenspan noted, and medical diagnoses became faster, more thorough, and more accurate.

Such technological innovations apparently accounted for an unexpected surge in productivity in the late 1990s. After rising at less than a 1 percent annual rate in the early part of the decade, productivity was growing at about a 3 percent rate toward the end of the 1990s -- well ahead of what economists had expected. Higher productivity meant that businesses could grow faster without igniting inflation. Unexpectedly modest demands from workers for wage increases -- a result, possibly, of the fact that workers felt less secure about keeping their jobs in the rapidly changing economy -- also helped subdue inflationary pressures.

Some economists scoffed at the notion American suddenly had developed a "new economy," one that was able to grow much faster without inflation. While there undeniably was increased global competition, they noted, many American industries remained untouched by it. And while computers clearly were changing the way Americans did business, they also were adding new layers of complexity to business operations.

But as economists increasingly came to agree with Greenspan that the economy was in the midst of a significant "structural shift," the debate increasingly came to focus less on whether the economy was changing and more on how long the surprisingly strong performance could continue. The answer appeared to depend, in part, on the oldest of economic ingredients -- labor. With the economy growing strongly, workers displaced by technology easily found jobs in newly emerging industries.

As a result, employment was rising in the late 1990s faster than the overall population. That trend could not continue indefinitely. By mid-1999, the number of "potential workers" aged 16 to 64 -- those who were unemployed but willing to work if they could find jobs -- totaled about 10 million, or about 5.7 percent of the population. That was the lowest percentage since the government began collecting such figures (in 1970). Eventually, economists warned, the United States would face labor shortages, which, in turn, could be expected to drive up wages, trigger inflation, and prompt the Federal Reserve to engineer an economic slowdown.

Still, many things could happen to postpone that seemingly inevitable development. Immigration might increase, thereby enlarging the pool of available workers. That seemed unlikely, however, because the political climate in the United States during the 1990s did not favor increased immigration. More likely, a growing number of analysts believed that a growing number of Americans would work past the traditional retirement age of 65. That also could increase the supply of potential workers. Indeed, in 1999, the Committee on Economic Development (CED), a prestigious business research organization, called on employers to clear away barriers that previously discouraged older workers from staying in the labor force. Current trends suggested that by 2030, there would be fewer than three workers for every person over the age of 65, compared to seven in 1950 -- an unprecedented demographic transformation that the CED predicted would leave businesses scrambling to find workers.

"Businesses have heretofore demonstrated a preference for early retirement to make way for younger workers," the group observed. "But this preference is a relic from an era of labor surpluses; it will not be sustainable when labor becomes scarce." While enjoying remarkable successes, in short, the United States found itself moving into uncharted economic territory as it ended the 1990s. While many saw a new economic era stretching indefinitely into the future, others were less certain.

Weighing the uncertainties, many assumed a stance of cautious optimism. "Regrettably, history is strewn with visions of such `new eras' that, in the end, have proven to be a mirage," Greenspan noted in 1997. "In short, history counsels caution."

Labor and US Economics

The New Work Force

Between 1950 and late 1999, total U.S. non-farm employment grew from 45 million workers to 129.5 million workers. Most of the increase was in computer, health, and other service sectors, as information technology assumed an ever-growing role in the U.S. economy. In the 1980s and 1990s, jobs in the service-producing sector -- which includes services, transportation, utilities, wholesale and retail trade, finance, insurance, real estate, and government -- rose by 35 million, accounting for the entire net gain in jobs during those two decades. The growth in service sector employment absorbed labor resources freed by rising manufacturing productivity.

Service-related industries accounted for 24.4 million jobs, or 59 percent of non-farm employment, in 1946. By late 1999, that sector had grown to 104.3 million jobs, or 81 percent of non-farm employment. Conversely, the goods-producing sector -- which includes manufacturing, construction, and mining -- provided 17.2 million jobs, or 41 percent of non-farm employment in 1946, but grew to just 25.2 million, or 19 percent of non-farm employment, in late 1999. But many of the new service jobs did not pay as highly, nor did they carry the many benefits, as manufacturing jobs. The resulting financial squeeze on many families encouraged large numbers of women to enter the work force.

In the 1980s and 1990s, many employers developed new ways to organize their work forces. In some companies, employees were grouped into small teams and given considerable autonomy to accomplish tasks assigned them. While management set the goals for the work teams and monitored their progress and results, team members decided among themselves how to do their work and how to adjust strategies as customer needs and conditions changed. Many other employers balked at abandoning traditional management-directed work, however, and others found the transition difficult. Rulings by the National Labor Relations Board that many work teams used by nonunion employers were illegal management-dominated "unions" were often a deterrent to change.

Employers also had to manage increasingly diverse work forces in the 1980s and 1990s. New ethnic groups -- especially Hispanics and immigrants from various Asian countries -- joined the labor force in growing numbers, and more and more women entered traditionally male-dominated jobs. A growing number of employees filed lawsuits charging that employers discriminated against them on the basis of race, gender, age, or physical disability. The caseload at the federal Equal Employment Opportunity Commission, where such allegations are first lodged, climbed to more than 16,000 in 1998 from some 6,900 in 1991, and lawsuits clogged the courts. The legal actions had a mixed track record in court. Many cases were rebuffed as frivolous, but courts also recognized a wide range of legal protections against hiring, promotion, demotion, and firing abuses. In 1998, for example, U.S. Supreme Court rulings held that employers must ensure that managers are trained to avoid sexual harassment of workers and to inform workers of their rights.

The issue of "equal pay for equal work" continued to dog the American workplace. While federal and state laws prohibit different pay rates based on sex, American women historically have been paid less than men. In part, this differential arises because relatively more women work in jobs -- many of them in the service sector -- that traditionally have paid less than other jobs.

But union and women's rights organizations say it also reflects outright discrimination. Complicating the issue is a phenomenon in the white-collar workplace called the glass ceiling, an invisible barrier that some women say holds them back from promotion to male-dominated executive or professional ranks. In recent years, women have obtained such jobs in growing numbers, but they still lag significantly considering their proportion of the population.

Similar issues arise with the pay and positions earned by members of various ethnic and racial groups, often referred to as "minorities" since they make up a minority of the general population. (At the end of the 20th century, the majority of Americans were Caucasians of European descent, although their percentage of the population was dropping.) In addition to nondiscrimination laws, the federal government and many states adopted "affirmative action" laws in the 1960s and 1970s that required employers to give a preference in hiring to minorities in certain circumstances. Advocates said minorities should be favored in order to rectify years of past discrimination against them. But the idea proved a contentious way of addressing racial and ethnic problems. Critics complained that "reverse discrimination" was both unfair and counterproductive. Some states, notably California, abandoned affirmative action policies in the 1990s. Still, pay gaps and widely varying unemployment rates between whites and minorities persist. Along with issues about a woman's place in the work force, they remain some of the most troublesome issues facing American employers and workers.

Exacerbating pay gaps between people of different sexes, race, or ethnic backgrounds was the general tension created in the 1980s and 1990s by cost-cutting measures at many companies. Sizable wage increases were no longer considered a given; in fact, workers and their unions at some large, struggling firms felt they had to make wage concessions -- limited increases or even pay cuts -- in hopes of increasing their job security or even saving their employers.

Two-tier wage scales, with new workers getting lower pay than older ones for the same kind of work, appeared for a while at some airlines and other companies. Increasingly, salaries were no longer set to reward employees equally but rather to attract and retain types of workers who were in short supply, such as computer software experts. This helped contribute even more to the widening gap in pay between highly skilled and unskilled workers. No direct measurement of this gap exists, but U.S. Labor Department statistics offer a good indirect gauge. In 1979, median weekly earnings ranged from $215 for workers with less than a secondary school education to $348 for college graduates. In 1998, that range was $337 to $821.

Even as this gap widened, many employers fought increases in the federally imposed minimum wage. They contended that the wage floor actually hurt workers by increasing labor costs and thereby making it harder for small businesses to hire new people. While the minimum wage had increased almost annually in the 1970s, there were few increases during the 1980s and 1990s. As a result, the minimum wage did not keep pace with the cost of living; from 1970 to late 1999, the minimum wage rose 255 percent (from $1.45 per hour to $5.15 per hour), while consumer prices rose 334 percent. Employers also turned increasingly to "pay-for-performance" compensation, basing workers' pay increases on how particular individuals or their units performed rather than providing uniform increases for everyone. One survey in 1999 showed that 51 percent of employers used a pay-for-performance formula, usually to determine wage hikes on top of minimal basic wage increases, for at least some of their workers.

As the skilled-worker shortage continued to mount, employers devoted more time and money to training employees. They also pushed for improvements in education programs in schools to prepare graduates better for modern high-technology workplaces. Regional groups of employers formed to address training needs, working with community and technical colleges to offer courses.

The federal government, meanwhile, enacted the Workplace Investment Act in 1998, which consolidated more than 100 training programs involving federal, state, and business entities. It attempted to link training programs to actual employer needs and give employers more say over how the programs are run.

Meanwhile, employers also sought to respond to workers' desires to reduce conflicts between the demands of their jobs and their personal lives. "Flex-time," which gives employees greater control over the exact hours they work, became more prevalent. Advances in communications technology enabled a growing number of workers to "telecommute" -- that is, to work at home at least part of the time, using computers connected to their workplaces. In response to demands from working mothers and others interested in working less than full time, employers introduced such innovations as job-sharing. The government joined the trend, enacting the Family and Medical Leave Act in 1993, which requires employers to grant employees leaves of absence to attend to family emergencies.

The Decline of Union Power

The changing conditions of the 1980s and 1990s undermined the position of organized labor, which now represented a shrinking share of the work force. While more than one-third of employed people belonged to unions in 1945, union membership fell to 24.1 percent of the U.S. work force in 1979 and to 13.9 percent in 1998. Dues increases, continuing union contributions to political campaigns, and union members' diligent voter-turnout efforts kept unions' political power from ebbing as much as their membership. But court decisions and National Labor Relations Board rulings allowing workers to withhold the portion of their union dues used to back, or oppose, political candidates, undercut unions' influence.

Management, feeling the heat of foreign and domestic competition, is today less willing to accede to union demands for higher wages and benefits than in earlier decades. It also is much more aggressive about fighting unions' attempts to organize workers. Strikes were infrequent in the 1980s and 1990s, as employers became more willing to hire strikebreakers when unions walk out and to keep them on the job when the strike was over. (They were emboldened in that stance when President Ronald Reagan in 1981 fired illegally striking air traffic controllers employed by the Federal Aviation Administration.)

Automation is a continuing challenge for union members. Many older factories have introduced labor-saving automated machinery to perform tasks previously handled by workers. Unions have sought, with limited success, a variety of measures to protect jobs and incomes: free retraining, shorter workweeks to share the available work among employees, and guaranteed annual incomes.

The shift to service industry employment, where unions traditionally have been weaker, also has been a serious problem for labor unions. Women, young people, temporary and part-time workers -- all less receptive to union membership -- hold a large proportion of the new jobs created in recent years. And much American industry has migrated to the southern and western parts of the United States, regions that have a weaker union tradition than do the northern or the eastern regions.

As if these difficulties were not enough, years of negative publicity about corruption in the big Teamsters Union and other unions have hurt the labor movement. Even unions' past successes in boosting wages and benefits and improving the work environment have worked against further gains by making newer, younger workers conclude they no longer need unions to press their causes. Union arguments that they give workers a voice in almost all aspects of their jobs, including work-site safety and work grievances, are often ignored. The kind of independent-minded young workers who sparked the dramatic rise of high-technology computer firms have little interest in belonging to organizations that they believe quash independence.

Perhaps the biggest reason unions faced trouble in recruiting new members in the late 1990s, however, was the surprising strength of the economy. In October and November 1999, the unemployment rate had fallen to 4.1 percent. Economists said only people who were between jobs or chronically unemployed were out of work. For all the uncertainties economic changes had produced, the abundance of jobs restored confidence that America was still a land of opportunity.

Farm Policies and World Trade

The growing interdependence of world markets prompted world leaders to attempt a more systematic approach to regulating agricultural trade among nations in the 1980s and 1990s.

Almost every agriculture-producing country provides some form of government support for farmers. In the late 1970s and early 1980s, as world agricultural market conditions became increasingly variable, most nations with sizable farm sectors instituted programs or strengthened existing ones to shield their own farmers from what was often regarded as foreign disruption. These policies helped shrink international markets for agricultural commodities, reduce international commodity prices, and increase surpluses of agricultural commodities in exporting countries.

In a narrow sense, it is understandable why a country might try to solve an agricultural overproduction problem by seeking to export its surplus freely while restricting imports. In practice, however, such a strategy is not possible; other countries are understandably reluctant to allow imports from countries that do not open their markets in turn.

By the mid-1980s, governments began working to reduce subsidies and allow freer trade for farm goods. In July 1986, the United States announced a new plan to reform international agricultural trade as part of the Uruguay Round of multilateral trade negotiations. The United States asked more than 90 countries that were members of the world's foremost international trade arrangement, known then as the General Agreement on Tariffs and Trade (GATT), to negotiate the gradual elimination of all farm subsidies and other policies that distort farm prices, production, and trade. The United States especially wanted a commitment for eventual elimination of European farm subsidies and the end to Japanese bans on rice imports.

Other countries or groups of countries made varying proposals of their own, mostly agreeing on the idea of moving away from trade-distorting subsidies and toward freer markets. But as with previous attempts to get international agreements on trimming farm subsidies, it initially proved extremely difficult to reach any accord. Nevertheless, the heads of the major Western industrialized nations recommitted themselves to achieving the subsidy-reduction and freer-market goals in 1991. The Uruguay Round was finally completed in 1995, with participants pledging to curb their farm and export subsidies and making some other changes designed to move toward freer trade (such as converting import quotas to more easily reduceable tariffs). They also revisited the issue in a new round of talks (the World Trade Organization Seattle Ministerial in late 1999). While these talks were designed to eliminate export subsidies entirely, the delegates could not agree on going that far. The European Community, meanwhile, moved to cut export subsidies, and trade tensions ebbed by the late

1990s.

Farm trade disputes continued, however. From Americans' point of view, the European Community failed to follow through with its commitment to reduce agricultural subsidies. The United States won favorable decisions from the World Trade Organization, which succeeded GATT in 1995, in several complaints about continuing European subsidies, but the EU refused to accept them. Meanwhile, European countries raised barriers to American foods that were produced with artificial hormones or were genetically altered -- a serious challenge to the American farm sector.

In early 1999, the U.S. Vice President called again for deep cuts in agricultural subsidies and tariffs worldwide. Japan and European nations were likely to resist these proposals, as they had during the Uruguay Round. Meanwhile, efforts to move toward freer world agricultural trade faced an additional obstacle because exports slumped in the late 1990s.

Farming Agriculture and The Economy

American farmers approached the 21st century with some of the same problems they encountered during the 20th century. The most important of these continued to be overproduction. As has been true since the nation's founding, continuing improvements in farm machinery, better seeds, better fertilizers, more irrigation, and effective pest control have made farmers more and more successful in what they do (except for making money). And while farmers generally have favored holding down overall crop output to shore up prices, they have balked at cutting their own production.

Just as an industrial enterprise might seek to boost profits by becoming bigger and more efficient, many American farms have gotten larger and larger and have consolidated their operations to become leaner as well. In fact, American agriculture increasingly has become an "agribusiness," a term created to reflect the big, corporate nature of many farm enterprises in the modern U.S. economy. Agribusiness includes a variety of farm businesses and structures, from small, one-family corporations to huge conglomerates or multinational firms that own large tracts of land or that produce goods and materials used by farmers.

The advent of agribusiness in the late 20th century has meant fewer but much larger farms. Sometimes owned by absentee stockholders, these corporate farms use more machinery and far fewer farm hands. In 1940, there were 6 million farms averaging 67 hectares each. By the late 1990s, there were only about 2.2 million farms averaging 190 hectares in size.

During roughly this same period, farm employment declined dramatically -- from 12.5 million in 1930 to 1.2 million in the 1990s -- even as the total U.S. population more than doubled. In 1900, half of the labor force were farmers, but by the end of the century only 2 percent worked on farms. And nearly 60 percent of the remaining farmers at the end of the century worked only part-time on farms; they held other, non-farm jobs to supplement their farm income. The high cost of capital investment -- in land and equipment -- makes entry into full-time farming extremely difficult for most persons.

As these numbers demonstrate, the American "family farm" -- rooted firmly in the nation's history and celebrated in the myth of the sturdy yeoman -- faces powerful economic challenges. Urban and suburban Americans continue to rhapsodize about the neat barns and cultivated fields of the traditional rural landscape, but it remains uncertain whether they will be willing to pay the price -- either in higher food prices or government subsidies to farmers -- of preserving the family farm.

The Future of US Economics

As the various chapters of this book explain, labor, agriculture, small businesses, large corporations, financial markets, the Federal Reserve System, and government all interact in complex ways to make America's economic system work.

It is a system united by a philosophical commitment to the idea of free markets. But, as noted, the simple market model greatly oversimplifes the actual American experience. In practice, the United States has always relied on government to regulate private business, address needs that are not met by free enterprise, serve as a creative economic agent, and ensure some measure of stability to the overall economy.

This book also demonstrates that the American economic system has been marked by almost continuous change. Its dynamism often has been accompanied by some pain and dislocation -- from the consolidation of the agricultural sector that pushed many farmers off the land to the massive restructuring of the manufacturing sector that saw the number of traditional factory jobs fall sharply in the 1970s and 1980s. As Americans see it, however, the pain also brings substantial gains. Economist Joseph A. Schumpeter said capitalism reinvigorates itself through "creative destruction." After restructuring, companies -- even entire industries -- may be smaller or different, but Americans believe they will be stronger and better equipped to endure the rigors of global competition. Jobs may be lost, but they can be replaced by new ones in industries with greater potential. The decline in jobs in traditional manufacturing industries, for instance, has been offset by rapidly rising employment in high-technology industries such as computers and biotechnology and in rapidly expanding service industries such as health care and computer software.

Economic success breeds other issues, however. One of the most vexing concerns facing the American public today is growth. Economic growth has been central to America's success. As the economic pie has grown, new generations have had a chance to carve a slice for themselves. Indeed, economic growth and the opportunities it brings have helped keep class friction in the United States at a minimum.

But is there a limit to how much growth can -- and should -- be sustained? In many communities across America, citizens' groups find themselves resisting proposed land developments for fear their quality of life will deteriorate. Is growth worthwhile, they ask, if it brings overcrowded highways, air pollution, and overburdened schools? How much pollution is tolerable? How much open space must be sacrificed in the drive to create new jobs? Similar concerns occur on the global level. How can nations deal with environmental challenges such as climate change, ozone depletion, deforestation, and marine pollution? Will countries be able to constrain coal-burning power plants and gasoline-powered automobiles enough to limit emissions of carbon dioxide and other greenhouse gases that are believed to cause global warming?

Because of the huge size of its economy, the United States necessarily will be a major actor in such matters. But its affluence also complicates its role. What right does the United States, which has achieved a high standard of living, have to demand that other countries join in efforts to take actions that might constrain growth in order to protect the environment?

There are no easy answers. But to the extent that America and other nations meet their fundamental economic challenges, these questions will become increasingly important. They remind us that while a strong economy may be a prerequisite to social progress, it is not the ultimate goal.

In numerous ways -- the tradition of public education, environmental regulations, rules prohibiting discrimination, and government programs like Social Security and Medicare, to name just a few -- Americans have always recognized this principle. As the late U.S. Senator Robert Kennedy, the brother of President John F. Kennedy, explained in 1968, economic matters are important, but gross national product "does not include the beauty of our poetry or the strength of our marriages; the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage; neither our wisdom nor our learning; neither our compassion nor our devotion to our country; it measures everything, in short, except that which makes life worthwhile. And it can tell us everything about America except why we are proud to be Americans."

Glossary of Economic Terms

Agribusiness: A term that reflects the large, corporate nature of many farm enterprises in the modern U.S. economy.

American Stock Exchange: One of the key stock exchanges in the United States, it consists mainly of stocks and bonds of companies that are small to medium-sized, compared with the shares of large corporations traded on the New York Stock Exchange.

Antitrust law: A policy or action that seeks to curtail monopolistic powers within a market.

Asset: A possession of value, usually measured in terms of money.

Balance of payments: An accounting statement of the money value of international transactions between one nation and the rest of the world over a specific period of time. The statement shows the sum of transactions of individuals, businesses, and government agencies located in one nation, against those of all other nations.

Balance of trade: That part of a nation's balance of payments dealing with imports and exports -- that is, trade in goods and services -- over a given period. If exports of goods exceed imports, the trade balance is said to be "favorable"; if imports exceed exports, the trade balance is said to be "unfavorable."

Bear market: A market in which, in a time of falling prices, shareholders may rush to sell their stock shares, adding to the downward momentum.

Bond: A certificate reflecting a firm's promise to pay the holder a periodic interest payment until the date of maturity and a fixed sum of money on the designated maturing date.

Budget deficit: The amount each year by which government spending is greater than government income.

Budget surplus: The amount each year by which government income exceeds government spending.

Bull market: A market in which there is a continuous rise in stock prices.

Capital: The physical equipment (buildings, equipment, human skills) used in the production of goods and services. Also used to refer to corporate equity, debt securities, and cash.

Capitalism: An economic system in which the means of production are privately owned and controlled and which is characterized by competition and the profit motive.

Capital market: The market in which corporate equity and longer-term debt securities (those maturing in more than one year) are issued and traded.

Central bank: A country's principal monetary authority, responsible for such key functions as issuing currency and regulating the supply of credit in the economy.

Commercial bank: A bank that offers a broad range of deposit accounts, including checking, savings, and time deposits, and extends loans to individuals and businesses -- in contrast to investment banking firms such as brokerage firms, which generally are involved in arranging for the sale of corporate or municipal securities.

Common market: A group of nations that have eliminated tariffs and sometimes other barriers that impede trade with each other while maintaining a common external tariff on goods imported from outside the union.

Common stock: A share in the ownership of a corporation.

Consumer price index: A measure of the U.S. cost of living as tabulated by the U.S. Bureau of Labor Statistics based on the actual retail prices of a variety of consumer goods and services at a given time and compared to a base period that is changed from time to time.

Consumption tax: A tax on expenditures, rather than on earnings.

Deficiency payment: A government payment to compensate farmers for all or part of the difference between producer prices actually paid for a specific commodity and higher guaranteed target prices.

Demand: The total quantity of goods and services consumers are willing and able to buy at all possible prices during some time period.

Depression: A severe decline in general economic activity in terms of magnitude and/or length.

Deposit insurance: U.S. government backing of bank deposits up to a certain amount -- currently, $100,000.

Deregulation: Lifting of government controls over an industry.

Discount rate: The interest rate paid by commercial banks to borrow funds from Federal Reserve Banks.

Dividend: Money earned on stock holdings; usually, it represents a share of profits paid in proportion to the share of ownership.

Dow Jones Industrial Average: A stock price index, based on 30 prominent stocks, that is a commonly used indicator of general trends in the prices of stocks and bonds in the United States.

Dumping: Under U.S. law, sales or merchandise exported to the United States at "less than fair market value," when such sales materially injure or threaten material injury to producers of like merchandise in the United States.

Economic growth: An increase in a nation's capacity to produce goods and services.

Electronic commerce: Business conducted via the World Wide Web.

Exchange rate: The rate, or price, at which one country's currency is exchanged for the currency of another country.

Exports: Goods and services that are produced domestically and sold to buyers in another country.

Export subsidy: A lump sum given by the government for the purpose of promoting an enterprise considered beneficial to the public welfare.

Fast track: Procedures enacted by the U.S. Congress under which it votes within a fixed period on legislation submitted by the president to approve and implement U.S. international trade agreements.

Federal Reserve Bank: One of the 12 operating arms of the Federal Reserve System, located throughout the United States, that together with their 25 branches carry out various functions of the U.S. central bank system.

Federal Reserve System: The principal monetary authority (central bank) of the United States, which issues currency and regulates the supply of credit in the economy. It is made up of a seven-member Board of Governors in Washington, D.C., 12 regional Federal Reserve Banks, and their 25 branches.

Fiscal policy: The federal government's decisions about the amount of money it spends and collects in taxes to achieve full employment and non-inflationary economy.

Fixed exchange rate system: A system in which exchange rates between currencies are set at a predetermined level and do not move in response to changes in supply and demand.

Floating exchange rate system: A flexible system in which the exchange rate is determined by market forces of supply and demand, without intervention.

Food for Peace: A program that provides for the disposition of U.S. farm products outside the United States.

Free enterprise system: An economic system characterized by private ownership of property and productive resources, the profit motive to stimulate production, competition to ensure efficiency, and the forces of supply and demand to direct the production and distribution of goods and services.

Free trade: The absence of tariffs and regulations designed to curtail or prevent trade among nations.

Fringe benefit: An indirect, non-cash benefit provided to employees by employers in addition to regular wage or salary compensation, such as health insurance, life insurance, profit-sharing, and the like.

Futures: Contracts that require delivery of a commodity of specified quality and quantity, at a specified price, on a specified future date.

Gold standard: A monetary system in which currencies are defined in terms of a given weight of gold.

Gross domestic product: The total value of a nation's output, income, or expenditure produced within its physical boundaries.

Human capital: The health, strength, education, training, and skills that people bring to their jobs.

Imports: Goods or service that are produced in another country and sold domestically.

Income tax: An assessment levied by government on the net income of individuals and businesses.

Industrial Revolution: The emergence of the factory system of production, in which workers were brought together in one plant and supplied with tools, machines, and materials with which they worked in return for wages. The Industrial Revolution was spearheaded by rapid changes in the manufacture of textiles, particularly in England about 1770 and 1830. More broadly, the term applies to continuing structural economic change in the world economy.

Inflation: A rate of increase in the general price level of all goods and services. (This should not be confused with increases in the prices of specific goods relative to the prices of other goods.)

Intellectual property: Ownership, as evidenced by patents, trademarks, and copyrights, conferring the right to possess, use, or dispose of products created by human ingenuity.

Investment: The purchase of a security, such as a stock or bond.

Labor force: As measured in the United States, the total number of people employed or looking for work.

Laissez-faire: French phrase meaning "leave alone." In economics and politics, a doctrine that the economic system functions best when there is no interference by government.

Managed float regime: An exchange rate system in which rates for most currencies float, but central banks still intervene to prevent sharp changes.

Market: A setting in which buyers and sellers establish prices for identical or very similar products, and exchange goods or services.

Market economy: The national economy of a country that relies on market forces to determine levels of production, consumption, investment, and savings without government intervention.

Mixed economy: An economic system in which both the government and private enterprise play important roles with regard to production, consumption, investment, and savings.

Monetary policy: Federal Reserve System actions to influence the availability and cost of money and credit as a means of helping to promote high employment, economic growth, price stability, and a sustainable pattern of international transactions.

Money supply: The amount of money (coins, paper currency, and checking accounts) that is in circulation in the economy.

Monopoly: The sole seller of a good or service in a market.

Mutual fund: An investment company that continually offers new shares and buys existing shares back on demand and uses its capital to invest in diversified securities of other companies. Money is collected from individuals and invested on their behalf in varied portfolios of stocks.

National Association of Securities Dealers Automated Quotation system (Nasdaq): An automated information network that provides brokers and dealers with price quotations on the approximately 5,000 most active securities traded over the counter.

New Deal: U.S. economic reform programs of the 1930s established to help lift the United States out of the Great Depression.

New York Stock Exchange: The world's largest exchange for trading stocks and bonds.

Nontariff barrier: Government measures, such as import monitoring systems and variable levies, other than tariffs that restrict imports or that have the potential for restricting international trade.

Open trading system: A trading system in which countries allow fair and nondiscriminatory access to each other's markets.

Over-the-counter: Figurative term for the means of trading securities that are not listed on an organized stock exchange such as the New York Stock Exchange. Over-the-counter trading is done by broker-dealers who communicate by telephone and computer networks.

Panic: A series of unexpected cash withdrawals from a bank caused by a sudden decline in depositor confidence or fear that the bank will be closed by the chartering agency, i.e. many depositors withdraw cash almost simultaneously. Since the cash reserve a bank keeps on hand is only a small fraction of its deposits, a large number of withdrawals in a short period of time can deplete available cash and force the bank to close and possibly go out of business.

Price discrimination: Actions that give certain buyers advantages over others.

Price fixing: Actions, generally by a several large corporations that dominate in a single market, to escape market discipline by setting prices for goods or services at an agreed-on level.

Price supports: Federal assistance provided to farmers to help them deal with such unfavorable factors as bad weather and overproduction.

Privatization: The act of turning previously government-provided services over to private sector enterprises.

Productivity: The ratio of output (goods and services) produced per unit of input (productive resources) over some period of time.

Protectionism: The deliberate use or encouragement of restrictions on imports to enable relatively inefficient domestic producers to compete successfully with foreign producers.

Recession: A significant decline in general economic activity extending over a period of time.

Regulation: The formulation and issuance by authorized agencies of specific rules or regulations, under governing law, for the conduct and structure of a certain industry or activity.

Revenue: Payments received by businesses from selling goods and services.

Securities: Paper certificates (definitive securities) or electronic records (book-entry securities) evidencing ownership of equity (stocks) or debt obligations (bonds).

Securities and Exchange Commission: An independent, non-partisan, quasi-judicial regulatory agency with responsibility for administering the federal securities laws. The purpose of these laws is to protect investors and to ensure that they have access to disclosure of all material information concerning publicly traded securities. The commission also regulates firms engaged in the purchase or sale of securities, people who provide investment advice, and investment companies.

Services: Economic activities -- such as transportation, banking, insurance, tourism, telecommunications, advertising, entertainment, data processing, and consulting -- that normally are consumed as they are produced, as contrasted with economic goods, which are more tangible.

Socialism: An economic system in which the basic means of production are primarily owned and controlled collectively, usually by government under some system of central planning.

Social regulation: Government-imposed restrictions designed to discourage or prohibit harmful corporate behavior (such as polluting the environment or putting workers in dangerous work situations) or to encourage behavior deemed socially desirable.

Social Security: A U.S. government pension program that provides benefits to retirees based on their own and their employers' contributions to the program while they were working.

Standard of living: A minimum of necessities, comforts, or luxuries considered essential to maintaining a person or group in customary or proper status or circumstances.

Stagflation: An economic condition of both continuing inflation and stagnant business activity.

Stock: Ownership shares in the assets of a corporation.

Stock exchange: An organized market for the buying and selling of stocks and bonds.

Subsidy: An economic benefit, direct or indirect, granted by a government to domestic producers of goods or services, often to strengthen their competitive position against foreign companies.

Supply: A schedule of how much producers are willing and able to sell at all possible prices during some time period.

Tariff: A duty levied on goods transported from one customs area to another either for protective or revenue purposes.

Trade deficit: The amount by which a country's merchandise exports exceed its merchandise imports.

Trade surplus: The amount by which a country's merchandise exports exceed its imports.

Venture capital: Investment in a new, generally possibly risky, enterprise.

This glossary is based principally on-line glossaries developed by the Federal Reserve Bank of San Francisco, the Federal Reserve Bank of Minneapolis, the Virtual Trade Mission, and the Wisconsin Economic Education Council.

AMERICAN ACADEMY OF FINANCIAL MANAGEMENT

Prof. Dr. George S. Mentz, JD, MBA, DSS, CWM ™, CAM ™, CPM, ™, MFP ™ CFC ™ (Licensed Attorney LA EDLA)

- The first person in the United States to achieve "Quad Designation" Status as a Juris Doctorate Holder, MBA, licensed financial planner & wealth manager, and Certified Financial Consultant.
- Featured and quoted in the Wall Street Journal ™, The Hindu National, The Financial Times Asia, Arab Times, and El Norte Latin America.
- The first person in the world to be approved as a Certified Wealth Manager Certified Trainer for AAFM Global.
- Faculty Appointments and Executive Training Appointments for law schools, business schools, and Training companies around the world.
- Prof. Mentz has representative offices in over 10 countries including: Singapore, Hong Kong, Cairo, Beijing, USA, Bahamas, Switzerland, Taiwan and more.
- Prof. Mentz has financed a Global Scholarship program that has helped qualified candidates from Africa, The Middle East, India, Europe, Russia, China, Indonesia, Malaysia, Australia, The USA, Mexico, Latin America and other countries as well.
- Past Senior Wealth Management Advisor for a Wall Street Firm
- Editor and Chief for the Original Tax and Estate Planning Law Review at Loyola University (A Loyola University Chartered Organization).
- Advisory Board of the Global Finance Forum, The Indian Academy, The China Wealth Council, The Latin American Financial Academy Capitulo and the World E-Commerce Forum.
- Author of Several books on Wealth Management, Human Potential & Project Management.
- Licensed Attorney and member of various legal and bar associations.
- Recipient of the International Legal Studies Certificate Diploma from an ABA Law School. And Recipient of several other honorary doctorates for research and publications.
- Author of over 200 Books, Articles and Essays.
- Advisor to Fortune 500 companies in several countries.
- Winner of multiple awards for teaching and charitable service.
- Holds a government license USA LA EDLA to counsel on the law and provide legal advice..

Formal Reference Guide for Executive Notes for Wealth Management Board Certification

AAFM Board Certified Wealth Manager

WWW.AAFM.US

WWW.AAFMGLOBAL.COM

WWW.AAFM.ME

WWW.AAFMINDIA.COM

WWW.AAFMLA.ORG

WWW.AAFMCHINA.COM

WWW.AAFMASIA.COM