HOW ECONOMIES GROW:

The CED Perspective on Raising the Long-Term Standard of Living

A Statement by the Research and Policy Committee of the Committee for Economic Development

May 2003

CED is a nonprofit, nonpartisan organization of business leaders and educators that has worked for sixty years to address the critical economic and social issues facing American society.

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The Committee for Economic Development is an independent research and policy organization of some 250 business leaders and educators. CED is nonprofit, nonpartisan, and nonpolitical. Its purpose is to propose policies that bring about steady economic growth at high employment and reasonably stable prices, increased productivity and living standards, greater and more equal opportunity for every citizen, and an improved quality of life for all.

All CED policy recommendations must have the approval of Trustees on the Research and Policy Committee. This committee is directed under the bylaws, which emphasize that "all research is to be thoroughly objective in character, and the approach in each instance is to be from the standpoint of the general welfare and not from that of any special political or economic group." The committee is aided by a Research Advisory Board of leading social scientists and by a small permanent professional staff.

The Research and Policy Committee does not attempt to pass judgment on any pending specific legislative proposals; its purpose is to urge careful consideration of the objectives set forth in this statement and of the best means of accomplishing those objectives.

Each statement is preceded by extensive discussions, meetings, and exchange of memoranda. The research is undertaken by a subcommittee, assisted by advisors chosen for their competence in the field under study.

The full Research and Policy Committee participates in the drafting of recommendations. Likewise, the trustees on the drafting subcommittee vote to approve or disapprove a policy statement, and they share with the Research and Policy Committee the privilege of submitting individual comments for publication.

The recommendations presented herein are those of the Trustee members of the Research and Policy Committee and the responsible subcommittee. They are not necessarily endorsed by other Trustees or by nontrustee subcommittee members, advisors, contributors, staff members, or others associated with CED.

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A NOTE ON THIS STATEMENT

This Statement, approved by the Committee for Economic Development's Research and Policy Committee, is drawn from previous CED policy statements on a variety of topics. These include:

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THE PURPOSE OF THIS STATEMENT

CED has, over the six decades of its existence, commented frequently and forcefully on various policies that concern the nation's prospects for economic growth. But it has never tied together these efforts into a single volume regarding how the economy grows and, more generally, what must be done to improve its long-term prospects.

Understanding how the economy grows and how it raises our standard of living has never been more important. Our nation now debates a range of issues related to growth — from the fiscal deficit to corporate governance, to the influence of trade, technology, and immigration. How do all these issues fit together? How do they influence future generations' prospects for success?

This document seeks to link these issues together — to provide that "story of growth" — built on the three themes of *invention*, *investment*, and *reorganization* — in a fashion the average, non-technical reader will find convenient and accessible. It refers, when relevant, to previous CED work and recommendations on the topics it presents. The reader is encouraged to consult these statements for more detailed analysis and discussion of these issues.

ACKNOWLEDGEMENTS

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Chapter 1

On Economic Growth

Economic growth is the force that drives almost all aspects of American society. Beyond its contribution to higher standards of living, economic growth enables the nation to accommodate change more readily, to be more tolerant and inclusive, to feel more confident playing a leadership role in the world, to invest in the future, and to achieve a variety of other goals. Moreover, the expectation of sustained growth is built into our institutions and beliefs; our society is premised in many regards on the assumption that growth will allow personal and intergenerational mobility and will support a meritocratic and entrepreneurial society. This, in turn, will encourage the investment, risk-taking, and values that reinforce growth.

In the sixty years of its existence, the Committee for Economic Development (CED) has been primarily concerned with promoting the institutions and policies that will support economic growth and equitably distribute its gains. This central goal has led it into many different policy areas, from the initial formulation of the Marshall Plan, to its ongoing support for expanded world trade, to its commitment to quality education for all, to its leading role in campaign finance reform.

CED'S MISSION

The purpose of CED "…is to develop, through objective research and informed discussions, findings and recommendations for private and public policy that will contribute to preserving and strengthening our free society, achieving steady economic growth at high employment and reasonably stable prices, increasing productivity and living standards, providing greater and more equal opportunity for every citizen, and improving the quality of life for all."

SOURCE: Committee for Economic Development, By-Laws, revised 1999, p. 8

THE MARSHALL PLAN

"We…recommend that the United States should undertake a broad program of economic cooperation with Western Europe. We believe that American cooperation is needed to accomplish two things: 1) Relief to tide Western Europe over its present distress and allow it time to accomplish the necessary expansion of production; 2) Help in the rebuilding and development necessary to reknit the economic fabric of Europe.…"

SOURCE: Committee for Economic Development, *An American Program of European Economic Cooperation* (New York, NY: Committee for Economic Development, 1948), pp.10-11

The breadth of CED's agenda reflects, in turn, the diverse origins of economic growth. The sources of American economic growth have varied with the economy's stage of development and historical setting. Yet there are important common themes across all these periods. Indeed, this report argues that economic growth has its roots in indentifiable factors, most of which are long-term in nature; a faster rate of long-term economic growth is the result of specific aspects of the economy and society working well over sustained periods of time.

Economists have developed many insights into the process of economic growth, but their understandings do not inform the public debate. The focus of the nation's economic policy debate is too often placed on short-term phenomena. The Federal Reserve's monetary policy takes effect by changing short-term market conditions. Budget and tax policy changes are too often implemented without consideration of their long-term effects. Trade policy, while theoretically geared to long-term liberalization, is often intended to ameliorate short-term adjustment effects. Public-sector investments are often underfunded due to the mismatch between the short-term nature of their costs and the longer-term nature of their payoffs. In all of these cases, when seen from the perspective of long-term growth, the horizons of the economic policy debate are unduly and often counterproductively short.

This policy myopia is widely shared. Households continually demonstrate short-sightedness by undersaving. The financial media find short-term policy stories and anecdotes more dramatic than far more important long-term trends. CEOs focus on the next quarter's "bottom line," and investors look to quarterly results to allocate their stock portfolios. The political process is too often caught in an endless cycle of fund-raising and campaigning that makes long-term considerations a casualty. Moreover, growth is hard to "appropriate;" a higher rate of growth will create benefits, but they will be broadly dispersed in the future, and we cannot know today who will receive them. And policies that foster growth may impose short-term transition costs on specific groups that lead them to obstruct those policies politically (trade liberalization is a frequent example). Thus, even though the benefits of growth will be widely shared, there is no dedicated "interest group" that speaks on behalf of this broad economic future.

The Committee for Economic Development (CED), therefore, has produced this volume to be such a "voice for growth" and to provide the public with a coherent description of the process that leads to economic growth. As the paper lays out this story, it will recap relevant positions CED has taken over the years. Its purpose is to bring CED's views on the "story of economic growth" into a single volume that will enable the public to better understand many of today's critical economic policy issues.

CONCEPTS OF GROWTH

When discussing "economic growth," some important distinctions must be made at the outset.

Increasing Long-Term Productive Capacity Versus Using More of Existing Capacity

"Economic growth" as commonly used can mean either of two very different things. It can mean increases in the productive *capacity* of the economy, which occur gradually over many years. Or it can mean increases in the *actual level* of economic activity, such as sharp rebound from a recession or the slowing of activity near a business cycle peak, which are generally viewed in a shorter time frame. In this discussion of the sources of long-term living standards, we are concerned with the first concept and use the term "growth" to discuss the economy's long-term potential.

Economists take the economy's "potential" rate of growth to mean a rate roughly equivalent to the maximum rate at which the economy can grow without producing significant inflation. The economy's actual growth record reflects both its potential and the extent to which that potential has been realized. An economy may fall short of its potential for significant periods of time because of "negative shocks" such as oil price spikes or natural disasters, because its fiscal or monetary policies are flawed, or because it has regulations, business practices, or traditions that encumber its performance.

An economy's ability to operate near its potential is obviously important. The prob-

lems created by inappropriate fiscal or monetary policies can be catastrophic; the Great Depression is an example of the failure of economic policy rather than a collapse of the economy's potential to grow. The quality of fiscal, monetary, or regulatory policies has an obvious impact on the long-term standard of living. But how do these policies promote or inhibit increases in productivity? What are the intervening or underlying steps? These are the subject of this report.

Total Income, "Per Capita" Income, and Productivity

There are two ways to measure economic growth — as growth in aggregate output, or on a per capita basis. Aggregate growth is helpful in its own right; even if economic output grows only as fast as the population, it allows growing human needs to be met. But a higher standard of living and all it entails requires more income and output *per capita*.

Per capita income can grow for various reasons. For example, if a larger proportion of the adult population were to take jobs, output would grow faster than population. And, in fact, per capita income would rise, as more families would add a second income-earner, for example. This is precisely what happened in the late 1970s and 1980s, when many of the baby boom age group and female workers entered the labor force.

But this kind of improvement is bounded — only so many people, to use the example, will be able to work. The real key to long-term growth is *productivity*, or output per worker. Only higher levels of activity per worker can sustain long-term improvements in the standard of living.

Measured Growth Versus "Welfare"

Another important distinction to be made is between growth and human welfare, or well-being. For example, many activities that contribute to people's well-being — from homemaking and parenting work to knowing that the environment or species diversity has been preserved for future generations — are not included in market-based measures such as Gross Domestic Product. Moreover, while growth is "good" for all of the reasons cited above, it can also have negative consequences — such as environmental degradation, social inequality, sprawl, or reduced public amenities — if it is not accomplished on the right terms. And, as Robert Kennedy once famously counseled, measures such as Gross Domestic Product do not allow for the health of our children or the joy of their play, but do count the locks we place on our doors and the jails we build for those who break those locks.[1] Thus, while growth is to be desired, it must always be evaluated in a fuller context.

Chapter 2

The Fundamentals of Growth

One way to understand how economies grow is to consider them on their simplest terms. For example, consider an economy in which there are only a few activities: people can either dig ditches (say, for purposes of irrigation), haul water out of the ditches, or plant food trees that are irrigated by the ditches. The ditch-diggers each have a shovel, the water-haulers a bucket, and the tree planters a shoulder bag for seeds. On their way home, people pick food from the trees, eat it contentedly, and rise the next day to return to work.

How does such a society become "better off," that is, become more productive? The ditch diggers can learn how to configure the ditch, the water-bearers can determine the fastest rate at which they can haul water without fatiguing, and the tree planters how to best space the seedlings to get them to grow. But sooner or later, these "tricks" will be mastered and these sources of improvement tapped out.†

There is, however, one way a sustainable improvement could be readily obtained — by using a backhoe. But in order for a backhoe to raise the standard of living of our simple economy, several things have to happen. First, somebody must *invent* it. Second, somebody must be willing to put the backhoe in place — there must be *investment* accompanying the invention. Third and finally, there must be *reorganization* once the backhoe is put to use — the ditch diggers must be replaced and the way ditch-digging is organized must change. **In fact, these three steps summarize the growth process: *invention*, *investment*, and *reorganization*. Taken together, they are the central elements of the process by which long-term improvements in the standard of living occur**. Moreover, these three elements are all *interdependent*, in that each strand of the process depends on the others — the presence of invention creates opportunities for investment and reorganization just as the ability to invest and reorganize affects the incentives to invent. And they are all *endogenous*, in that none is a "given" in the economy.‡

INVENTION

Technological change lies at the heart of a sustained rise in the long-term standard of living. Absent changing technology, America would still be a nation of artisans and mule-drivers, with a standard of living to match. New ideas — inventions — are the wellspring of that progress.

A member of the ditch economy inventing a backhoe *de novo* would be nothing short of miraculous, but its unlikelihood is instructive. Inventing a backhoe requires a basis in metallurgy, mechanical engineering, energy trans-

† This is as described in the renowned growth model developed by Robert Solow in the 1950s. Solow found that capital accumulation was far less important than technical progress in long-term growth. Capital has "diminishing marginal returns," and so capital accumulation alone — in this case, buying more trees, making more buckets, etc. — can only get the society in the example so far.

‡ In this sense, the growth process described here is similar to the "endogenous" growth models pioneered by Paul Romer in the 1980s. In these models, technological progress was the product of decisions made by economic actors, as opposed to a pre-ordained given.

"It is widely recognized that economic growth depends upon investments in research and technology…."

SOURCE: Committee for Economic Development, *Restoring Prosperity: Budget Choices for Economic Growth* (New York, NY: Committee for Economic Development, 1992), p. 8.

fer, and a variety of other areas. In fact, rather than a stand-alone invention, a backhoe, like any other advance, is a synthesis of previous inventions and advances; most innovations occur because inventors take existing components or previous inventions and rearrange them or add some element to produce a new breakthrough. The automobile is a good example of such a breakthrough, which explains why several inventors (such as Daimler, Benz, and Olds, and later Ford) independently achieved it within a short period of time. This is one of the reasons why the *social* benefits of innovation exceed the *private* or *personal* gains realized by the inventor — because each new invention becomes part of the mass of "components" that allow for subsequent inventions. In fact, economists widely accept the idea that society undervalues invention because of widely-cast benefits that inventors can not capture.[2]

The process of invention is based on experimentation, tinkering, and incremental effort. These require inventors to spend time and resources on their pursuits, meaning that they must have some incentive or compulsion to do their work, as well as the skills and training needed. This raises a host of issues, all of which will play some role in the economy's rate of technological progress, including the system of intellectual property protection, the incentives offered to researchers, the rationality with which investment in research and development are financed, the level of scientific skills in society (and, therefore, the quality of math and science education), and other issues.

CED has been a long-standing advocate of investments in science and technology on a variety of fronts. It has often discussed how "…technology plays a critical role in productivity growth,"[3] and stressed the importance of public and private investments in technology.[4] It has noted that the large social returns to innovation make it an "extremely productive use of taxpayers' money."[5] But as CED has also noted, America's success in science and technology stems not just from spending, but from other factors as well. These include the quality of the entrepreneurial and competitive environment offered to American innovators and the availability of scientific skills in the labor force.[6] CED has also noted that the economy's innovative track record relies on an intellectual property system that balances the ability of innovators to profit from their work with the ability of others to use their innovations.[7]

"A principal component of the system that supports innovation…is protection of intellectual property, including copyrights, patents and trademarks."

SOURCE: Committee for Economic Development, *The Digital Economy: Promoting Competition, Innovation, and Opportunity* (New York, NY: Committee for Economic Development, 2001), p. 23.

INVESTMENT

If invention and new ideas alone were to determine economic success, then nations' standards of living could be predicted with confidence by the number of patents or scientific Nobel Prizes they have won. But that is not the case. The step after invention is often

"Investment is necessary for economic growth; countries that have grown most rapidly over long periods have devoted a high percentage of GDP to investment in human and physical capital."

Source: Committee for Economic Development, *Improving Global Financial Stability* (New York, NY: Committee for Economic Development, 2000), p. 7.

called innovation or dissemination — spreading the results of inventions through the economy, or, in other words, putting inventions to use. And the most important way this occurs is through *investment*.

Economists define investment as the acquisition of "goods that help us make other goods," such as machine tools, computers, or transportation or energy equipment. That definition, albeit entirely appropriate, leads us to think about investment solely as a way to accumulate wealth.

But investment is also the primary vehicle through which inventions or new ideas enter the economy, because new investment generally embodies new technology. When an old machine wears out or is ready to be scrapped, the new one that replaces it is usually far more advanced.[8] Today's backhoe, for example, is more powerful, flexible, and lighter-weight than its predecessor, with better hydraulics than it had a decade ago. Improved quality frequently means some kind of intelligence by way of microelectronics — equipment such as machine tools, material handling equipment, or even construction equipment has sensors and electronic controls that make the current generation far superior to its predecessors.

But this is only one kind of investment — *physical* investment. Focusing only on this kind of investment leads us to overlook a second and equally important form of investment — investment in *human capital*, the abilities and skills of our people. If the ditch-digging economy were to switch to backhoes, its workers would be challenged to learn many new skills — starting with machine operation and machine construction — in order to make the investment work. Thus, *physical investment* and *investment in human capital* are tied together, even if the way they occur is different.

Economists have long debated the determinants of physical investment. Most simply, firms invest in search of profit, usually because they anticipate growth, or to respond to innovation among their competitors. The decision to invest, therefore, is a combination of economic calculation and the "animal spirits" (as Keynes termed it) of firms. But CED has repeatedly pointed out steps that government could take to promote investment. The right combination of fiscal and monetary policies can produce such incentives. This can be achieved by a prudent fiscal policy — one that aims to achieve a balanced budget over the entire business cycle — with an accommodating monetary policy — one that encourages credit to be gradually expanded.† Together, these can produce what economists call "crowding in," that is, reducing government's borrowing requirements and making the funds it frees up available at a lower cost for business purposes. This strategy was followed to great success in the expansion of the 1990s.

CED's support for such a policy mix is based on its recognition of the importance of a high rate of national saving. Saving creates the wherewithal to finance investment. Domestic saving can come from one of three sources — from household saving, from business profits, or from government surpluses. Several years ago, CED advocated raising the net national savings rate (combined public and private) to its pre-1980s level of 10 percent of net national product.[9] Shortly thereafter, national saving rose sharply as the federal budget was briefly brought into surplus, as seen in Figure 1. However, in 2001-2002, the societal savings rate has declined again to a historically low level, as Figure 1 illustrates, of less than 3 percent. Many households apparently felt that a rising stock market made it possible not to save for retirement or other needs. The market has now fallen, but saving has yet to rise substantially.

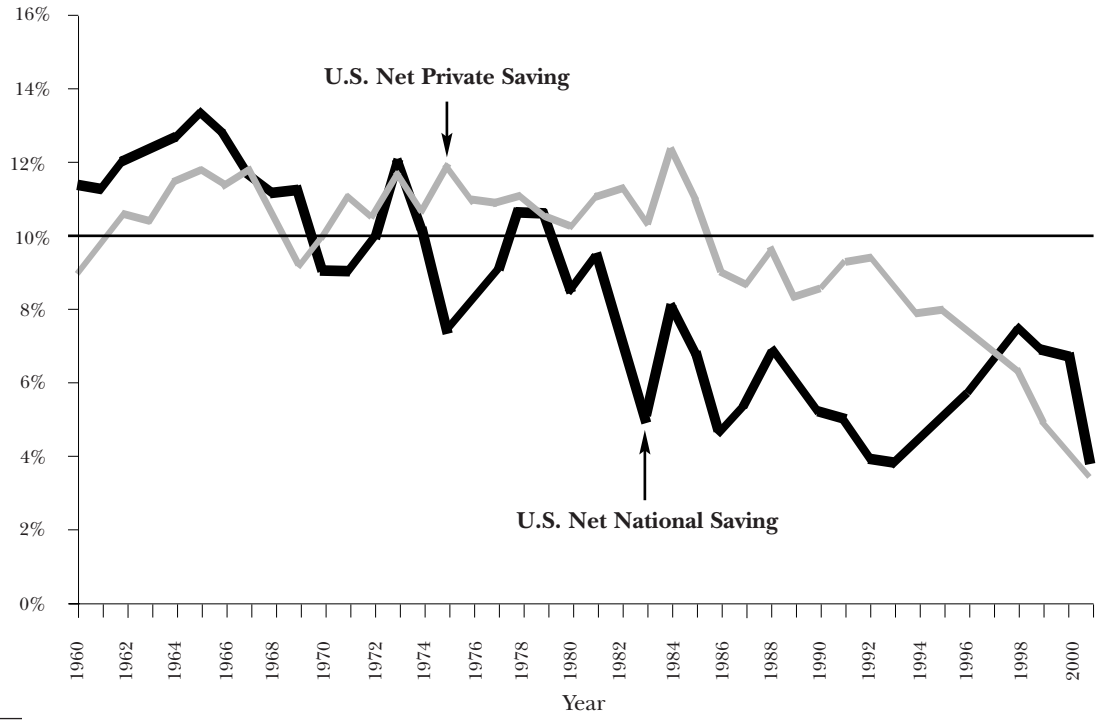
Corporate profits peaked as a share of economic activity in 1997 and have been revised downward in recent years as additional infor-

† A "balanced budget over the business cycle" implies deficits at the bottom of the cycle and surpluses at the top. Some economists believe, however, that this rule is not prudent enough in the current budget content, due to large and unfunded future obligations related to Social Security and Medicare. Putting away resources for these needs in the next several decades would require fiscal surpluses over the course of the business cycle.

FIGURE 1

The Erosion of U.S. Net National Saving

(Percent of Net National Product)



SOURCE: Bureau of Economic Analysis, National Income and Product Account Tables 1.9 and 5.1, available at <http://www.bea.gov/bea/dn/nipaweb> Accessed March 15, 2003.

mation has come to light — it turns out business was less profitable than first thought during those years. And projections of federal deficits have changed dramatically in recent years as well; in the late 1990s, economists spoke of eliminating public debt sometime in the next few decades. Since then, anticipated surpluses have failed to materialize. Official projections now call for the economy to "grow out" of its deficits later in the decade. But this estimate does not accommodate added spending on security or homeland defense, prescription drugs or other new medical care benefits, the need to reform the alternative minimum tax, financing universal pre-school and education reform, and other critical needs. Moreover, beginning at the end of this decade, the retirement of the baby boomers will create new spending obligations for Social Security and government-provided health care. Thus, there is a reasonable expectation for sustained deficits for decades to come.

Saving alone cannot guarantee high levels of investment, but sustained investment cannot take place without it. In the short run, we can borrow from foreigners, but the resulting liabilities pose their own longer-term risks. While a variety of specific incentives could help spur investment, these will run at cross purposes so long as the economy does not generate adequate saving in the long term.

Beyond the *level* of investment, there is the question of its composition. In both Japan in the 1990s and in the U.S. telecommunications sector today, there are signs of *overinvestment*, which poses economic costs different from those of underinvestment but nonetheless real. The telecommunications sector boom

and bust was largely investor-driven, as investment in this sector became a mania that subsequently lost its luster. But investment also can be misallocated by tax incentives or other policies that distort resource allocation. Poor regulatory policies led to unsound lending practices by the savings and loan (S&L) institutions in the late 1980s, and a $124 billion S&L bailout was the result.[10] CED has also argued that the U.S. economy overinvests in residential housing due to its tax treatment and has called for limitations such as eliminating the favorable tax treatment for second homes.[11]

The way investment in human capital is determined is rooted in many of the same incentives, but has critical differences. When firms appraise investments in physical capital, they do so knowing that it will always be theirs. But if firms invest in the human capital of their workers, there is always the reality that those workers will one day depart for other firms and occupations, taking their new-found skills with them.

Thus, workers must invest in their own skills. But given that workers often begin in marginal economic circumstances, and that skills, being non-transferrable and intangible, make a poorer collateral than a physical asset, investments in skill-building are harder to finance than investments in physical capital. Moreover, a higher level of human capital creates a more productive environment for physical capital, hastens the development of inventions, and allows greater social mobility. For all of these reasons, human capital has an element of social benefit as well as the individual benefits it generates. Thus, government has historically played an important role in building human capital, from providing a public school system to subsidizing loans for college students.

REORGANIZATION

The organization of production is often not considered an element of the growth process, but it is in fact an essential one. This is particularly true when reorganization is considered together with invention and investment.

For example, return to the idea of a ditch-digging economy. If someone were to invent a backhoe and invest in one, its benefits couldn't be fully realized — or realized at all — unless the ditch diggers were replaced by the equipment. Otherwise, the economy would carry the burden of a large, unproductive segment of its labor force — the ditch-diggers would sit around and do nothing. Moreover, there is now something new and more productive for them to do — they need to make the backhoes that will revolutionize ditch-digging. Thus, the economy's ability to reorganize itself will determine whether the invention and investment it has undertaken will bear fruit.

"…We must not resist economic change…. Our only sensible course is to embrace change and adapt to it with public and private policies that secure its benefits while mitigating its costs."

SOURCE: Committee for Economic Development, *American Workers and Economic Change* (New York, NY: Committee for Economic Development, 1996), p. 3.

Reorganization takes place on other levels as well. For example, let's presume our economy has "firms" — companies that dig, haul, or plant. If so, the companies that dig ditches will now be larger, because it's easier to coordinate the work of a few backhoes than of hundreds of diggers. And if there are ditch-digging companies, then the terms on which they compete will change. The most successful companies once were those that coordinated their diggers. Now, they will be the ones who most quickly bring backhoes into production.

In fact, economic research provides compelling evidence that these effects occur. Using a data set compiled by the Census Bureau in which thousands of plants were tracked over two decades, researchers have noticed that innovation, reorganization, and

growth are closely linked. Firms that bring new technologies into production, for example, were found to grow faster, be more profitable, and have faster growing employment than those that don't.[12] Moreover, researchers discovered that two-thirds of the productivity gains in manufacturing experienced over long periods of time occurred not because individual firms became more productive, but because higher-productivity firms grew faster and took market share away from lower-productivity firms.[13] Taken together, these results show that economic growth, on the one hand, and change and displacement, on the other, are inseparable — an economy grows when new activities supplant old ones and more productive, innovative firms out-compete their rivals.

"…[The] process of resource redeployment is essential to economic growth. In the end, it leads to better jobs in more successful industries and higher incomes with better standards of living. These gains for the society at large make it both equitable and possible to assist those displaced by economic change."

SOURCE: Committee for Economic Development, *From Protest to Progress: Addressing Labor and Environmental Conditions Through Freer Trade* (New York, NY: Committee for Economic Development, 2001), p. 6.

The same holds true in the labor market. The economy becomes more productive when new occupations and skills supplant old ones. The more rigid labor markets of continental Europe and Japan are often criticized on precisely this score. By making it difficult to move workers from old jobs to new ones, these economies choke off the very process of change that allows new jobs and activities to supplant the old.

Displacing workers and jobs is clearly a problem that requires a response. CED has advocated a series of measures to facilitate economic change by alleviating the burden on those unprepared to respond to change and seeking trade protection. It has called for restructuring the unemployment insurance program to increase coverage and long-term benefits and for "wage insurance" that would give interim income relief to workers whose incomes were reduced by economic change.[14] These measures respond to the need to enfranchise all workers in the face of economic change, regardless of its source. But they are also driven by the realization that if society protects those who hold "old" jobs from the forces of change, those same forces will be unable to create "new" jobs, and the economy will be poorer as a result.

A NOTE ON MARKETS

One problem with the ditch-digging economy model is that it fails to emphasize the central role of markets. From Egyptian pyramids to Roman aqueducts to Gothic cathedrals, centrally-planned (non-market) economies have produced isolated and individual successes (usually at a social cost borne elsewhere in their economies). But as did the Soviet Union, they have proven themselves unable to maintain this record of success over the long-term. In fact, as economic activity becomes more complex, markets become evermore essential to the growth process.

Markets are an ingeniously efficient way to organize economic activity. By providing information, through prices, to all an economy's participants, they allow each of those participants to make plans and choices that best suit their needs and abilities, and by doing so, have the potential to lead them to increase the output and well-being society can derive from its resources; this is the essence of Adam Smith's "invisible hand." When they do so, they also lead competitors to innovate in order to compete with each other, and supplant less productive firms and activities with more productive ones.

The theoretical perfection this theory describes is impossible to achieve. In fact, markets can experience a host of problems — an undesirable distribution of income, imperfect

information, monopoly, misattribution of such effects as pollution, so-called "public goods," and crime or fraud. Focused efforts by government can often correct many of these "market failures," although such focused and intelligent efforts cannot be presumed. We address some of these issues later in this report.

Still, the underlying ability of markets to direct resources is widely accepted throughout economics. The deregulation of industries such as transportation (both air and trucking), telecommunications, and finance, for example, has brought tumultuous change, and in some ways might have been managed somewhat differently (a statement we might yet make regarding electricity deregulation). But the contribution of these market deregulations to the long-term growth of output by lowering the cost of doing business and expanding the range of consumer choice is undeniable. In essence, deregulation allowed markets to reorganize those activities in order to produce more and get more out of our resources.

But beyond providing society with a system for economic organization, markets are themselves a set of social relationships. Efficient markets are premised on honest representations and the free flow of information. When this assumption is violated, markets can produce undesirable results. When buyer and seller lack the same information, for example, the potential for exploitation exists: indeed, some economists identify uneven information as a cause of the persistence of poverty.[15] The consequences of the breakdown of information flows and deviations from an underlying culture of honesty are also seen in the effects of the recent corporate reporting scandals. The misstatement of corporate reports and the underlying culture of corruption that accompanied many of these misstatements led investors to allocate investment funds on false premises and left the economy worse off. All this suggests that markets require some underlying regulatory structure to function effectively. We will return to this topic in a later section.

INVENT, INVEST, REORGANIZE: THE PROCESS IN ACTION

When explained against the simple backdrop of a ditch-digging economy, the way invention, investment, and reorganization lead to economic growth is easy to see. But in the real world, the process occurs in an historical context and is filled with the details of the moment — the specifics of the technology, the form investment takes, the way the economy is currently organized, or the specific changes that occur. But when these details are stripped away, the underlying process can again be seen.

Consider two examples from U.S. history. One is the period of industrialization in the late 19th and early 20th century, when large industrial combines were being formed in most of the day's manufacturing industries

A good example is steel. In the late 19th century, there were many producers. But at the turn of the century, about forty of them were rolled up by Judge Gary and financed by J. P. Morgan, to form the nation's first billion dollar corporation, U.S. Steel, of which Gary became chief executive.

U.S. Steel did not come into being simply because Morgan and Gary were more avaricious or ruthless than any preceding businessmen (although their avariciousness and ruthlessness were no doubt formidable). Rather, technologies, beginning with the Bessemer furnace, had come into being, allowing much more steel to be made in one location, and requiring larger production volumes to justify the investments. As more and more firms leapt to embrace this technology and expanded capacity, substantial overcapacity resulted. This gave U.S. Steel's founders their opportunity. In essence, there was invention and investment, but there needed to be reorganization before the benefits of more efficient steel-making technology could be fully realized. The result of that reorganization was U.S. Steel, and subsequently, the other large, integrated steel producers, who monopolized

the industry for most of the following century.

The creation of U.S. Steel was not without problems. It raised the question of market power and monopoly (indeed, this era gave rise to the development of anti-trust law), of workers' safety and pay (although Judge Gary was fairly progressive in these regards), and of union representation (where he was not). These issues reiterate a point made elsewhere in this paper — that economic growth itself is not the only goal, and that the failure to distribute that growth equitably may require a policy response. But U.S. Steel was a good example of how invention, investment, and reorganization come together to grow the economy. In fact, it is both a good example and an ironic one, insofar as new technologies for directly reducing steel from scrap metal have given rise in recent decades to so-called "minimills" (such as Nucor Steel) that have reduced significantly the market share of the "integrated" steel producers, such as U.S. Steel. Thus, technological progress has dramatically and continually changed the structure of the steel industry.

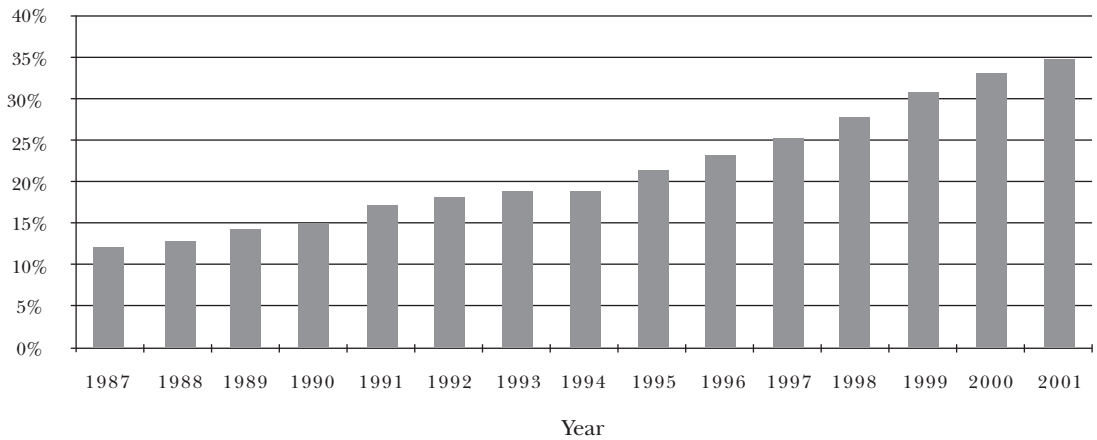
A comparable example of the growth process can be found in the current economy. Digital technology is providing the economy with a strong stream of inventions, the effects of which cannot be overstated. For example, when James Watt invented the steam engine in the 18th century, he cut the price of mechanical work in half. Today, the price of information processing effectively is cut in half every five years.

As is obvious, those inventions are spreading through the economy in the form of new investment. The bursting of the technology stock bubble has slowed the investment process, but the shifting composition of investment underscores the importance of investment as a means of spreading new inventions through the economy. As shown in Figure 2, as recently as 1990, private investment in computers and other information processing equipment was only 15 percent of the econo-

FIGURE 2

The Computer Age and Investment: Private Investment in Information-Processing Equipment and Software

(Relative to Total Private Investment in Real Terms)



SOURCE: Bureau of Economic Analysis, National Income and Product Account Tables 5.3 and 5.5, available at <http://www.bea.gov/bea/dn/nipaweb> Accessed March 15, 2003.

my's new private investment in real terms. By 2001, however, that proportion had shifted to 35 percent.† Again, we think of investment as a way to accumulate wealth and to give workers more tools to do their jobs. But this growing importance of information technology investment demonstrates that investment is the economy's central means of disseminating tools that embody new technology.

And, again, the gains from the new technology cannot be realized without reorganization. One effect we associate with new information technology is the downsizing of middle management inside large organizations. These organizational information "pyramids" were formed a century ago in order to manage the information flows associated with large-scale production; General Motors was a pioneer in creating this kind of organization. But computers can now process, verify, and share information far more cheaply than large numbers of bureaucrats inside companies. Thus, modern companies have adopted a "flatter" and more "networked" organizational chart, as information technology allows them to get by with a smaller internal staff. The "middle-management" layer of the corporation has become like the ditch-diggers confronted with a backhoe.

Other less obvious but equally compelling organizational changes in the economy have also been triggered by information technology. For example, U.S. manufacturing traditionally had a very high level of vertical integration; an individual firm made its parts and components as well as its finished products (as did, for example, firms in the automobile and computer industries). Why did that high level of integration persist throughout American industry? At root, it was because it was more efficient for one company's bureaucracy (organizational "pyramid") to coordinate those various activities through memos and planning meetings than a string of different companies acting together, coordinated by markets. But as the price of information processing falls, it becomes easier for different firms to coordinate their activities using computer networks and video conferencing. Today, automobile and computer companies design, assemble, and sell their products, but the components of those products — be they transmissions or printed circuit boards — are generally made elsewhere. Thus, the manufacturing sector has become far less integrated — it's now common for firms who supply each other to share production information, design specifications, and other information via information technology networks. As a result, the information revolution has allowed for more specialization in the economy, and therefore productivity, because the economy has reorganized itself to accommodate it.[16]

Other inventions and periods in U.S. economic history also display this pattern — be they related to interchangeable parts and the cotton gin, electricity and the electric motor, or the current promise of biotechnology. Inventions such as these have fed the growth process and raised the U.S. standard of living. And yet, U.S. economic history is usually recalled in terms of other events, whether policy failures such as the Great Depression and Smoot-Hawley tariffs, or successes such as the rise of public education, the interstate highway system, and the Marshall Plan. If growth is about innovation, investment, and reorganization, how do these economic policy issues relate to the growth process?

† Strictly, these proportions cannot be thought-of as "shares," since they use chain-weighted, "real" dollar values. The chain-weighted components of investment do not necessarily add-up to total real investment. Nevertheless, real values most accurately show the increasing importance of information technology investment at a time when the relative price of information technology was falling rapidly. For further information on the use of chain-weighted dollar values, see **http://www.bea.gov/bea/dn/nipaweb/NIPAHelp.htm#Chain.**

Chapter 3

"Stage Setting" Policies

Economic growth stems from society's ability to invent, invest, and reorganize, a process centered in the private sector. But at the same time, a variety of other public policies influence the growth process, from fiscal and monetary policies to policies governing trade, regulation, corporate governance, investments in education, and the like. How do these policies relate to the growth process? How can they best be managed to promote it?

This chapter discusses policies such as: sound macroeconomic policy; policies that produce "openness," such as trade, cross-border investment, and immigration; corporate governance and financial market structure; business "culture;" and public investments. These policies cannot produce sustained, long-term growth in the standard of living on their own, but they can enable it, by allowing society to use its assets wisely and positioning the economy to capture the full benefits of invention, investment, and reorganization. In essence, these policies "set the stage" — they create an environment that leads to better technological change and investment (in terms of both their level and composition) and more appropriate organization, at the level of both society and the individual firm. The links between these policies and the growth process will be discussed below.

These stage-setting policies take on even greater significance in the modern economy due to the importance of global economic integration. In earlier times, the natural resource and other endowments of individual nations were more important in determining what they produced and exported. The English had wool and made cloth; the Portuguese had grapes and made wine. These resource endowments played a large and obvious role in determining the way these economies produced, traded, and grew.

But as modern economies have evolved, they have come to depend less on natural resources (such as farm or energy production) for their wealth. And a similar transition is now underway regarding physical capital itself. As Federal Reserve Chairman Alan Greenspan has famously noted, total economic output "weighs less" — it has fewer goods and more services and intangibles, from finance to software to professional services, which are not inherently tied to a particular climate or terrain.[17]

The decline in the importance of natural resources, the rise in intangible assets and products, and the international flows of information and technology have changed the nature of international exchange. Fueled by virtually free sharing of information, companies around the world are capable of forming relationships that allow them access to almost any resource or technology, through joint ventures, research consortia, out-sourcing or co-production arrangements, mergers or marketing arrangements, electronic markets, or any of a number of other relationships. While national preferences still exist — capital, for example, does not move across national boundaries with the ease it does internally — global production is being reshaped into a latticework of relationships that allows almost any firm to secure access to almost any productive resource.

This development challenges our views of trade and, more importantly, of growth. With such enormous mobility of resources of all kinds, how does a nation now find its role in the international economy?

Certainly, differences do exist between high-wage and low-wage countries, differences that can readily be attributed to differences in the abundance of labor, capital, human capital, and resulting worker productivity. But, while very important for many low-income developing countries, wage differences do not explain large parts of the pattern of global trade, especially among industrialized economies.

If most resources are mobile around the world and, therefore, are available everywhere, then a nation's economic success will have more to do with how its business organizations put those resources together. Anyone, for example, can gain access to sugar, cocoa, and milk on world commodity markets, but only a few companies produce commercially successful candy bars. The same is now true in such products as computers, automobiles, pharmaceuticals, and others, but in these examples, instead of cocoa, milk, and sugar, the inputs are components, engineering, and technology. The question becomes: what are the characteristics of an environment that lead a nation's firms to enjoy this success?

In one sense, there are few characteristics of a nation's environment that do *not* affect this outcome. Consider, for example, the delivery of health care. This is a fundamental domestic policy issue for all the leading economies. But reducing the great inefficiencies in health care delivery in the U.S. would change our economic opportunities in important ways. Given that health care accounts for 14 percent of GDP, an efficient system would both improve the quality of care and free up significant amounts of resources for other productive uses.[18] Insofar as most health care coverage is provided by employers, reform would lower business costs or raise employee compensation. Viable reform would also make workers less dependent for health coverage on their ties to a specific workplace, and therefore allow greater labor force mobility. And improvements in public health would allow the workforce to be more productive. Thus, a more efficient health care sector would lower business costs and raise incomes, improve productivity, and allow more mobility in the workforce (as fewer people remained in specific jobs solely to obtain benefits). In short, all of these effects would help to create an environment in which firms could better invent, invest, and reorganize. A comparable example of a "domestic" policy with broad-ranging effects is Japanese land use policy (zoning), which affects the structure of the retail industry and, in turn, the penetration of foreign goods.

Thus, the level of integration in the world is such that there are few if any truly "domestic" policies in the world. In fact, given the reality that trade is a "positive sum" game — that it makes both countries better off — significant policy reform in one nation has the potential to lead to economic gains around the world.

With that caution expressed, there are several realms of economic policy that are particularly important in "setting the stage" for growth, that is, in creating an environment in which firms can best invent, invest, and reorganize. These include: macroeconomic policy, economic "openness," corporate governance and the quality of capital markets, culture, and public investment.

MACROECONOMIC POLICY

Fiscal policy moved straightforwardly into the area of economic "stage-setting" with the advent of John Maynard Keynes and the subsequent post-war view that government could "fine tune" the economy's cycles, or as the late Arthur Okun put it, that the economy's downturns were more like plane crashes than hurricanes — fundamentally preventable.[19] Much has occurred to change this view, including the OPEC price shocks, a finer understanding of the role of expectations, and the apparent inability of the political system to carry out these policies in a timely and efficient manner.

"The federal government should adopt an investment-oriented federal budget and investment-oriented deficit reduction program that will build capital…and enhance productivity growth."

SOURCE: Committee for Economic Development, *Growth with Opportunity* (New York, NY: Committee for Economic Development, 1997), p. 13.

Fiscal policy, in particular, has been an ineffective tool for "fine-tuning" short-term fluctuations and has instead become an important determinant of long-term growth, as will be discussed below. Economists have waged similar theoretical debates over the efficacy of monetary policy, but it has nonetheless proved an effective (albeit rather blunt) tool in practice.

Macroeconomic policy — primarily fiscal policy — affects long-term growth in many ways. One of these is the phenomenon of "crowding out." In an economy unaffected by the rest of the world, government borrowing to finance deficits will divert capital from other uses, thus "crowding out" private investment. If the economy is more open, then it can borrow from abroad to make up the difference, but this creates obligations to foreigners that must be serviced from future income. This not only mortgages future income, but it creates a new source of potential instability in international capital flows. Second, when foreigners buy U.S. assets, they have to buy dollars to get them. This "bids up" the dollar relative to other currencies (the exchange rate). This harms U.S. exports, which are the very industries in which the U.S. has an international advantage. Thus, by inhibiting exports, deficits restructure the economy towards untraded, and generally less productive, goods and services — less high-tech output, more haircuts and restaurants.

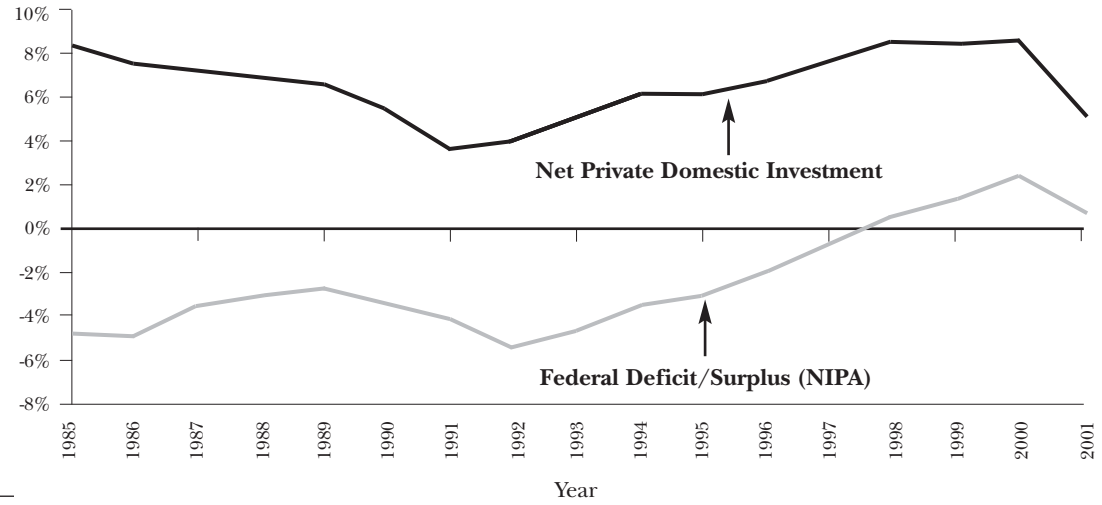
As Figure 3 illustrates, recent experience shows that private investment in the economy has moved in line with federal budget deficits, or reductions thereof. But some of this correlation is no doubt due to the larger macroeconomic backdrop of the period, which affects both.

No discussion of deficits can be divorced

FIGURE 3

Crowding-Out and Crowding-In: Federal Deficit/Surplus and Net Private Domestic Investment

(Percent of Net National Product)



SOURCE: Bureau of Economic Analysis, National Income and Product Account Tables 1.9 and 5.1, available at <http://www.bea.gov/bea/dn/nipaweb> Accessed March 15, 2003.

from a discussion of tax policy. Recent tax cuts have changed the long-term direction of fiscal policy, particularly when coupled with likely long-term spending increases for national and homeland security. These cuts are often defended as part of a "pro-growth" strategy in which lower tax rates, by encouraging individuals to provide more labor, increase future economic capacity and incomes by enough to offset the anti-growth effects of "crowding out."

However, the available evidence does not support this view. While some "second earners" such as married women, and low-income single workers, appear to seek jobs or work longer hours at lower tax rates, economists find little such "elasticity" in labor supply among male heads of households or middle-to-high income single workers.[20] As a result, any effect on total labor supply is likely to be modest and too small to offset the anti-growth effects of the larger deficits associated with the tax cuts.[21] Of course, tax cuts, like spending increases, may provide a short-term boost to the economy by raising short-term demand for goods and services, but such demand increases do not enhance long-term growth.

Monetary policy has been more effective when used to spur or restrain economic activity (and thereby employment and inflation) by changing demand in the short-term, when compared to fiscal policy. In the longer term, however, monetary policy's primary task is to find the fastest rate of growth consistent with price stability. Inflation is a debilitating force for economic growth. When inflation or the expectations of it are strong enough to affect business thinking, it distracts business from the activities — such as invention and investment — that lead to growth. The same can be said for deflation, a steady decline in prices, which can have just as pernicious an effect.

But beyond the broad sweep of monetary and fiscal policy, the details can also be important. The composition of government spending can also have important consequences. Policies at cross purposes will waste resources, as do, for example, agricultural policies that encourage overproduction for government storage that exist side-by-side with export promotions. Alternatively, the composition of expenditures determines a variety of direct incentives. CED has expressed its concerns that federal spending, for example, is tilted towards current consumption (for example, Social Security) and away from investment in both its private and public forms.[22] Similarly, tax incentives for homeownership have, over time, given us a relatively larger residential stock and smaller productive stock of capital than other advanced nations and do not distinguish between owner-occupied homes that stabilize neighborhoods versus beach homes and mansionized residences.[23]

"Changes in the composition of Federal expenditures have encouraged private consumption and reduced public investments. The most conspicuous shift in spending priorities has been the rapid expansion of transfer payments in entitlement programs… go[ing] predominantly to middle- and higher-income rather than poor beneficiaries."

SOURCE: Committee for Economic Development, *Restoring Prosperity: Budget Choices for Economic Growth* (New York, NY: Committee for Economic Development, 1992), p. 33.

Finally, direct incentives can stimulate parts of the growth process, as do incentives for research and development or for investment. But these must be designed carefully in order to avoid conveying direct and deadweight subsidies to activities that would have occurred in the private sector regardless.[24]

OPENNESS

If the global economy offers any producer access to (almost) all of the world's productive resources, and if economic success depends on assembling those resources in order to add value to them, then an economy's openness must be a fundamental determinant of its standard of living.

"International trade and investment improve global economic welfare through specialization, increased competition, economies of scale, and smoother economic adjustment."

SOURCE: Committee for Economic Development, *From Protest to Progress: Addressing Labor and Environmental Conditions Through Freer Trade* (New York, NY: Committee for Economic Development, 2001), p. 1.

Of course, "openness," over the long sweep of history, has sometimes meant precisely the reverse to many peoples — colonialism, oppression, and enslavement. But even in distant historical periods, openness based on mutual benefit and voluntary exchange has been a catalyzing force in producing wealth and betterment. Trade helped to make Venice, Portugal, and then Holland the most advanced economies of the seventeenth century. Moreover, expanded trade interacted with technological progress, investment, and organization, as awareness of distant opportunities led these societies to improve their shipbuilding, banking and finance, and other technologies, to invest in these opportunities, and to adopt new forms of organizations (such as the first banks, or such early public stock companies as the Dutch East India Company), all of which raised the standards of living of their societies dramatically.

CED's historical commitment to open borders is based on its understanding of trade's compelling benefits. These benefits are traditionally expressed in terms of a nation's "comparative advantage," that is, its ability to find some set of activities it performs *relatively* (when compared to other activities) better than do other nations. This *relative* ability allows every country, however unproductive in absolute terms, to specialize in something and, in turn, improves global welfare. Moreover, trade allows a nation's firms to develop specializations that reflect its competencies, and to avoid recreating within its boundaries what can already be purchased, and on better terms, elsewhere in the world.

In the modern context, however, "openness" means more than simple trade. It means accessibility to capital and foreign investment, to technology, and to human resources via immigration.

Foreign direct investment is the dominant manner in which resources are transferred to the developing world.[25] While the U.S. and Europe are the world's major recipients of foreign direct investment, the impact of foreign investment is greater in the developing world. Beyond the traditional benefits of investment — an expanded stock of productive capital and enhanced embodied technology — foreign investment adds to the level of competition within an economy, increasing the incentives firms have to innovate and become more productive. It may also deliver new ideas regarding organization, consumer satisfaction, or other operating precepts to the local labor force. Again, we associate this phenomenon with direct investment in the developing world, but it holds true in advanced countries such as the U.S., where foreign firms have been important innovators in such industries as automobiles or electronics.

Openness to investment often equates to openness to technology, since investment often conveys new technology. But the benefits of openness in technology can also be seen in failed attempts to substitute domestic efforts for abilities that already exist elsewhere. Two noteworthy failures in this regard were Plan Calcul, a French government program to develop a French mainframe computing alternative to leading American firms (such as IBM) in the 1960s, and the Japanese Fifth Generation Computing Program, in which the Japanese government and computing industry banded together to develop a Japanese computer operating system to replace MS-DOS and Unix in the 1980s. In both cases, policy attempted to create economic activity where the private sector had shown no innate ability to outperform foreign competitors. Not only did both of these efforts fail, but they distracted their domestic industries from finding activities at which they had

a sustainable advantage. With its strength in computer components and its ideographic language, one would expect Japan to be a leader in computer graphics. In fact, it isn't. One reason may be the policy-led distractions associated with reinventing what had already been accomplished elsewhere in the world, and the commensurate waste of time and resources.

"As the impending long-term national labor shortage approaches and the relative productivity and importance of skilled workers continues to grow, immigration will become increasingly important as one means of addressing economic change."

SOURCE: Committee for Economic Development, *Reforming Immigration: Helping Meet America's Need for a Skilled Workforce* (New York, NY: Committee for Economic Development, 2001), p. 38.

As the world's economy becomes more integrated, the benefits of openness extend to cross-border movements of labor as well. Census data from 2000 reveal that the contribution of foreign workers — both legal and undocumented — may have been far more substantial than at first thought.[26] With the costs of transportation falling around the world, workers have the ability to travel to virtually any place and apply their skills. Influxes of foreign workers may now become a hallmark of the advanced economies, particularly in the United States, where the education system is producing inadequate quantities of scientists and engineers. As of 1999, fully 41 percent of new doctoral degrees in science, mathematics, and engineering given in the U.S. were being awarded to foreigners.[27] Without these workers, the U.S. economy would be unable to realize its innovative potential.

CORPORATE GOVERNANCE AND THE QUALITY OF THE MARKETS

As discussed earlier, economists tend to focus on markets as a *process*, that is, a technique for allocating resources that puts them to the best use. But markets are, at their core, a set of social relationships, in that they define the way people will interact and what they may reasonably expect of each other. When markets "work" — when they do their resource allocation job well — it is because those relationships work.

The recent corporate reporting scandals are an excellent example of the importance of this standard. Perhaps the most important market in the economy is the capital market, the market for funds used by businesses at all stages of development, whether in the form of stocks, bonds, loans, or more speculative forms, such as private equity, venture capital, or start-up money. The corporate reporting scandals (and the associated malfeasances of some Boards of Directors) were an affront to the economy because they demonstrated that investors could not rely on the information they received, whether through obfuscation or outright fraud.

Like the thirteenth chime of a clock, the presence of some misinformation in a market casts doubt on all the other information provided to market participants. This presents markets with a new and unanticipated source of risk; the effect of this risk was evident in the precipitous declines in the value of stocks and resulting slowdown of economic activity. While much or most of the financial information provided by many or most firms was not corrupted, the faith investors had in the information of each particular firm was suddenly called into question. Thus, the presence of *some* misinformation and the failure of *some* market participants to uphold agreed-upon standards of behavior (even if those standards are imposed externally by regulation and the threat of litigation) poses a risk for all concerned. The losses experienced by the shareholders of Enron, Worldcom, or other such companies, while grievous, are small in comparison to the larger, economy-wide losses that occur when the "quality" of markets is impaired.

The severity of the corporate reporting scandals can be seen in this paradox: while the conduct of corporate management impaired markets, it is markets themselves that are supposed to discipline the behavior of corporate management. The U.S. (or more generally, countries that subscribe to the "Anglo-American model") has an "agency economy," that is, an economy in which corporate managements act as *agents* for their shareholders. Shareholders, in turn, discipline corporate managers, both directly (in theory) through their ability to select them, and indirectly, by evaluating their performance through buying and selling their shares. The intent of this system — a "contestable market for corporate control" — is to make corporate managers willing and responsive agents for their stockholders. When they are such agents, corporate managers are most likely to engage in vigorous competition — inventing, investing, and reorganizing their firms. This is the growth process as it is experienced at the firm level. But the system breaks down if managerial behavior is corrupt, if Boards of Directors are captive, or if stockholder vigilance is lax, which creates a need for regulation and its enforcement.

A closely-related subject is the structure of capital markets. The purpose of capital markets is to direct funds towards the most promising activities in the economy, whether to the largest corporations or the smallest start-ups. But this task can be accomplished in any number of ways. In Japan, for example, in most critical sectors, capital is allocated largely through interconnected families of companies; in continental Europe, banks frequently provide capital and play the role of stockholders and managers. Both systems have been justified in the past on the basis of the farsightedness they allow in corporate management, as *keiretsu* members or banks are capable of looking to the long-term when formulating investment plans.

The implicit criticism of the American system — that a free market for corporate control is susceptible to speculative frenzies, myopia, churning, and other counterproductive tendencies — has some merit. The U.S. endured a sizable bubble in the late 1990s, although its causes may not be wholly related to the failure of its agency-based economy; the recent collapse of the telecom sector in the U.S. was paralleled in the other industrialized regions, regardless of institutional features. Thus, bubbles are not unknown to other countries — in the Japanese case, they are spectacularly well known — and their economies have demonstrated neither the growth record nor the history of corporate profitability the American system has shown.

Governments influence the characteristics of their economies' systems of governance and capital allocation through the conduct of regulation and law and, ultimately, by permitting the prospect of litigation. Granted, regulation is an imprecise policy instrument with often-unintended consequences. Regulations, for example, requiring independent boards of directors and stipulating their behavior can bolster the disciplining role of boards, but can also make it difficult to recruit new board members, or make the corporate form too expensive for middle-size companies. Similarly, regulations governing accounting standards or the ways stock exchanges relate to their traders may meet specific domestic objectives, but fail to conform to international norms and create other disadvantages. But these problems are not reasons to avoid needed regulation. Instead, when regulatory policies are vital to assure the proper functioning of markets, they must continually be reviewed to make sure they are most consistent with the long-term growth process of invention, investment, and reorganization.

CULTURE AS AN ECONOMIC ASSET

Markets serve an economic purpose, but are a social phenomenon; thus, culture will affect them. And while economists traditionally have not been predisposed to consider culture as an economic phenomenon,

there is now a growing recognition that it is important, as evidenced by the work of David Landes and others.[28]

Culture can be defined as a set of values and beliefs shared widely in society. America's cultural predisposition towards individualism has played a central role in its historical development. It has fostered an environment in which inventors and investors anticipate rewards and entrepreneurs are predisposed to take risk.

Much of the invention that has powered American growth has its roots in this culture. From Eli Whitney to Edison and the Wright brothers to Xerox and Hewlett-Packard, American technological progress has strong roots in this individualism. The same culture assigns individual investors responsibility for their decisions and rewards them with gains and losses, which underpins the agency economy and the contestable market for corporate control.

That is not to argue that America's culture is the only possible culture consistent with economic progress. But it does argue that culture and economic organization play a strong role in determining how resources are used, and therefore how growth occurs. Critics have raised important concerns about the U.S. culture of individualism, from its unwillingness to purchase adequate public goods (such as education or public health), its short-sightedness (as witnessed in a low savings rate or willingness to tolerate environmental damage, or the potential for whipsaws or "bubbles" in its markets), or its countenance of inequality.

But the same culture offers compelling strengths. Perhaps the proof of this proposition lies in comparing the U.S. to other advanced economies. Japan and continental Europe, with cultures more oriented towards consensus and collective action, have been unable to develop the new businesses needed to reorganize society around new technologies; where are the European or Japanese Microsofts and Dells? When Japan was an economic power in the 1980s, its strengths came from its very integrated and closely-held system. Japan came to dominate the production of fax machines, for example, because its "industrial families" made all of the necessary parts and were able to plan, as a group, to absorb their capacity with this new production. The tax system also favored this plan, since personal income was taxed at a very high rate while capital gains were taxed at a very low one, leading firms to reinvest as much of their available profit as possible rather than distribute it. Thus, the culture, corporate structure, and tax environment combined to induce the Japanese to produce fax machines, even though, on the whole, they probably made no money doing so.

A further aspect of culture that relates to economic growth is the political system. In the absence of open political competition, a self-perpetuating political establishment is prone to being captured by specific interests whose interests are not served by change.[29] The current economic crisis in Japan provides ample demonstration of the paralysis that can occur when entrenched interests oppose policy changes needed to restore growth.

CED has been a champion of political reform, from campaign finance reform to the improved selection of judges. It does so because of a long-standing commitment to an improved democracy. But the same political reforms have economic consequences — they create a more open political system, which makes it more difficult for individual interests

"A vibrant economy and well functioning business system will not remain viable in an environment of real or perceived corruption…. If public policy decisions are made — or appear to be made — on the basis of political contributions, not only will policy be suspect, but its uncertain and arbitrary character will make business planning less effective and the economy less productive."

SOURCE: Committee for Economic Development, *Investing in the People's Business: A Business Proposal for Campaign Finance Reform* (New York, NY: Committee for Economic Development, 1999), p. 1.

to capture the policy-making apparatus and slow the growth process.

Thus, much of the explanation for the way economic activity takes place in any country has to do with governance, finance, and tax policy, but culture plays an important role as well, if only because it influences these other factors.

PUBLIC INVESTMENT

A final set of government policies worthy of mention is public investments. These are investments that private actors could not reasonably be expected to perform, either because their benefits would be impossible to appropriate fully (for example, basic research), because they have large start-up costs and would require some element of monopoly to recoup the investment (e.g., roads and other public infrastructure), or because they are viewed as both a precondition to private economic activity or as a social right (public education, the legal system, police and fire protection).

Education and infrastructure are frequently noted as essential elements of the growth process, and CED has frequently commented on these.[30]

"Productive economic activity depends upon private and public investment…. Effectively chosen and designed public investment in physical capital, R&D, and human capital (such as education and training) are essential to economic growth, as they have been throughout our history."

SOURCE: Committee for Economic Development, *Growth with Opportunity* (New York, NY: Committee for Economic Development, 1997), p. 14.

As CED's previous work demonstrates, "more" public investments do not always mean "better." While more spending on education in some instances — particularly on pre-school programs — might well deliver sizable benefits, improving the accountability for educational results is also necessary, in CED's view.[31] Similarly, more spending on infrastructure could facilitate growth, but also ignores the need to manage what we now operate effectively, though such policies as pricing roads or airports to reduce the demand for them at peak hours or generally to charge appropriate user fees.

Public investments such as these have a variety of rationales, over and above their contribution to growth. Schools are a vehicle for social mobility. Mass transit potentially obviates pollution and allows low-income workers to reach places of employment. Research and development allows those who use innovations to benefit in ways that do not accrue to the innovator. While these benefits can be compelling, they need to be demonstrated concretely to justify the investments that create them.

UNRESOLVED ISSUES

A growing economy helps to create a better society, but it does not lead to a perfect one. Specifically, there are economic issues growth alone does not resolve. Two of these are of immediate concern here: equity and distributional considerations; and environmental preservation and more generally, sustainable development.

The "right" level of equality or inequality is subjective and ultimately a matter of political judgment. To some extent, inequality and growth are inseparable. Growth itself is an act of change and displacement, as new activities supplant old ones, and therefore changes the distribution of societal rewards. Moreover, so long as incentives are the primary reason for economic behavior, some degree of inequality would appear necessary. But we nonetheless believe that the recent increase in inequality in our society needs to be scrutinized.

CED's historical approach has been not to focus on the degree of inequality as an outcome in its own right, but to address the specific needs of populations in poverty, with an emphasis on identifying the tools necessary to

provide them with the skills and means to help them function in the labor market.[32] This involves training, job search, transportation, health care, and other instruments to facilitate their becoming employable and productive enough to earn an adequate living. Regardless of one's views of the "correct" level of equality in society, this is a needed first step.

A final general problem concerns environmental issues, or more generally, "sustainability." CED has stressed its commitment to effective regulation and, in particular, regulation that specifies outcomes such as clean water and air but leaves open the means to achieve them.[33]

But, as was the case for corporate governance, the need to temper the strategy of regulation does not mean regulation should not exist. Indeed, regulation may be required when markets fail to perform their functions effectively, either because they do not provide the right signals or because people respond to them incorrectly.

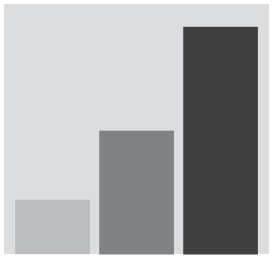
A good example of a failure to provide "the right signals" is pollution. An air polluter imposes costs on others, through illness, property loss, and other injuries. But the polluter, absent regulation, has no incentive to mitigate this damage. Ideally, regulators would have the ability to establish the "right price" for pollution and force polluters to pay that price for their emissions. This ideal, however, is hard to implement in practice: the "true" value of pollution or, more generally, "external effects" is often uncertain; many of the benefits (such as species diversity or the preservation of scenic wilderness) may be difficult to assess or to turn into monetary values; monitoring emissions or administering the most theoretically efficient policy may pose difficulties or costs; or there may be benefits to coordinating the societal response through such devices as standards, information programs, technological programs, or other devices. But just as unabated pollution imposes costs that impede growth, so can regulation that is inflexible or poorly targeted.

Some observers believe that resource scarcities will ultimately force limits on the growth process. In fact, history has shown the opposite to be true. Society has substituted for scarce resources by increasing its stock of knowledge and finding new means for accomplishing the same ends, that is, by inventing and investing. There are some natural resources — for example, particular biological species — that should be preserved in the interest of ecological balance and values and those species' potential effect on human welfare. Similarly, the deforestation of Africa resulting from the use of wood as fuel is a matter of markets failing rather than working.

But the fact of scarcity in and of itself is not a reason to anticipate slower growth nor to put arbitrary limits on consumption. Oil poses environmental and security risks — these risks ought to be "priced" — meaning a value established for them — and duly regulated. But were oil environmentally benign and more abundant domestically, its scarcity alone would not merit it special treatment. Economists have substantial faith that, in these cases, markets can foresee these geological or other "natural" limits and correct for them on their own, by developing alternatives in anticipation of future price increases. The true "limits to growth" are about limits on invention, investment, and reorganization — not about resource scarcity.

"The American people overwhelmingly — and correctly — believe that government regulation is needed to achieve many important economic and social goals. Regulations spring directly from the desire for clean air, drinkable water, reliable financial markets, improved medicines, and competitive industries…. Nevertheless, the current regulatory system produces too few benefits at excessive cost."

SOURCE: Committee for Economic Development, *Modernizing Government Regulation: The Need for Action* (New York, NY: Committee for Economic Development, 1998), p. 3.



Conclusion

American society is premised on continuing economic growth. But long-term economic growth itself is rarely the explicit object of policy. Growth, across time and across societies, inevitably is the product of three compelling factors — invention (generating new ideas), investment (putting those ideas into practice), and social reorganization (allowing the full ramifications of those ideas to take effect).

The extent to which this growth process will take place also depends on the environment within which it occurs. This environment includes among other components, a pro-savings fiscal policy, a sound monetary policy, an open international environment, strong corporate governance, rational public investment (particularly in education), and an honest political system. These "set the stage" for growth by allowing invention, investment, and reorganization to flourish.

These policies are often thankless politically — they sometimes require sacrifices or occur at the expense of a particular group's interest. But CED, both over the 60 years of its existence and into the future, will continue to be a "voice for growth" that brings this central economic issue to the public debate.

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