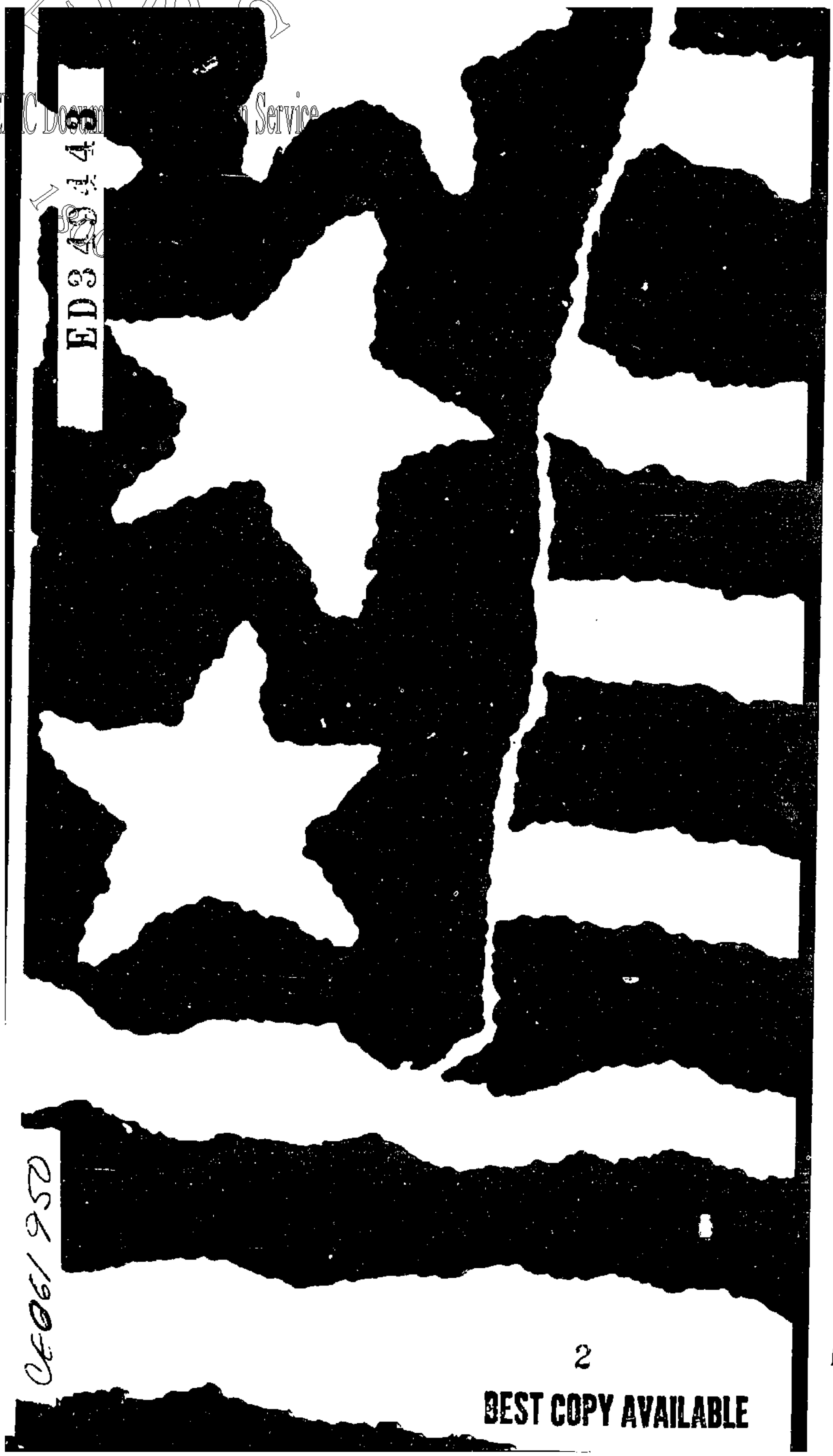

FIRST ANNUAL REPORT TO THE PRESIDENT & CONGRESS

BUILDING A COMPETITIVE AMERICA

COMPETITIVENESS POLICY COUNCIL

MARCH 1, 1992

Competitiveness Policy Council

Appointed by the President

Robert A. Mosbacher* *(Government)*
Secretary
US Department of Commerce

Albert Shanker *(Labor)*
President
American Federation of Teachers

Alexander Trowbridge *(Business)*
President
Trowbridge Partners

Edward O. Vetter *(Public Interest)*
President
Edward O. Vetter and Associates

*resigned January 15, 1992, replacement has yet to be named.

Appointed by the Bipartisan Leadership of the US Senate

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John Barry *(Labor)*
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International Brotherhood
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Second Printing March 1992
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COMPETITIVENESS POLICY COUNCIL

WASHINGTON, DC

March 1, 1992

Honorable George Bush
President of the United States
The White House
Washington, D.C. 20500

Dear Mr. President:

The Competitiveness Policy Council is pleased to deliver its First Annual Report to the President and the Congress. This Report represents a consensus of the Council's members. We unanimously agree that there is much that should and can be done to build a more competitive America. Our main purpose is to bring consideration of the country's long-term economic problems into the mainstream of public debate and policy action.

In an effort to do so, this Report evaluates the competitive strengths and weaknesses of the US economy, offers a diagnosis of its main problems, and makes several immediate recommendations. It then outlines the Council's extensive work program and process for developing more comprehensive proposals during the coming year, including the creation of Subcouncils—as authorized by our legislation—to develop in-depth analyses of eight priority areas of concern. As with all such reports, every member does not of course necessarily agree with every word that is included in its text.

The Competitiveness Policy Council is a 12-member federal advisory committee. One third of our members were appointed by President Bush, one-third by the Speaker and Minority Leader of the US House of Representatives acting jointly, and one-third by the Majority and Minority Leaders of the US Senate acting jointly. The Omnibus Trade and Competitiveness Act of 1988 (P.L. 100-418), as amended by the Customs and Trade Act of 1990 (P.L. 101-382), created the Council "to develop recommendations for national strategies and on specific policies intended to enhance the productivity and international competitiveness of United States industries."

The Council's membership is quadripartite—divided equally among business, labor, government (federal and state) and the public. The members participate as individuals and do not necessarily represent the views of their respective institutions in the work of the Council. One of our members, Secretary of Commerce Robert A. Mosbacher, resigned from the Council on January 15 (when he left the Government) before the preparation of this Report. A replacement for Secretary Mosbacher on the Council has not yet been named by the President.

Appointment of the membership of the Council was completed in the spring of 1991. Secretary Mosbacher convened its first meeting on June 21, 1991. I was elected Chairman at that time. From September 1991 through February 1992, the Council held all-day sessions on a monthly basis. We have consulted actively with a large number of interested members of both the Administration and Congress throughout this period.

We look forward to discussing the findings and recommendations of this Report widely throughout the United States, as we all seek to build a more competitive nation. We hope that our Report, and our subsequent efforts as outlined in it, will make a useful contribution to this effort.

Sincerely,

C. Fred Bergsten

C. Fred Bergsten
Chairman

Enclosure

NOTE: Identical letters were sent to Dan Quayle, President of the Senate and Thomas S. Foley, Speaker of the House of Representatives.

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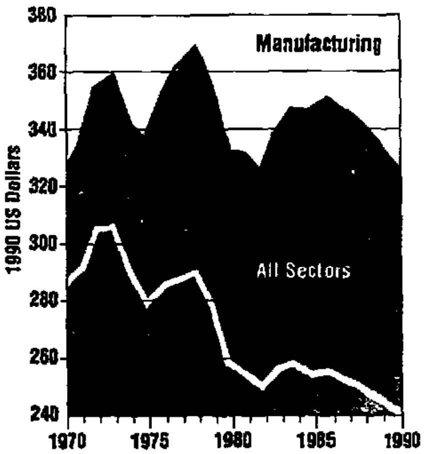
The New Challenge to America

The United States has won the Cold War. Our economy has created forty million new jobs over the past two decades. By most measures, the United States maintains the highest living standards and levels of productivity in the world.

But America's economic competitiveness—defined as our ability to produce goods and services that meet the test of international markets while our citizens earn a standard of living that is both rising and sustainable over the long run—is eroding slowly but steadily. The average real wage is lower today than twenty years ago (Figure 1). Aggregate productivity has grown by only 1 percent annually for over a decade. We are running the world's largest trade deficits. Much of the economic growth of the 1980s was financed by borrowing from our own future, both at home and from the rest of the world.

On present policies and performance, the United States is condemned to slower growth than the other main industrial countries for the foreseeable future. The current recession may turn out to be the longest in the postwar period and is a manifestation of longer term problems that have been building for over two decades. The debt buildup, in both

Figure 1
US Average Real Wages



SOURCE: Bureau of Labor Statistics, US Department of Labor

public and private sectors, severely limits the scope for effective policy responses.

We live today in a global economy. The share of trade in our gross national product (GNP) has doubled in the last two decades (Figure 2). Our performance relative to other countries, not just relative to that of the United States itself in preceding years, has become a central element of American competitiveness. It is critically important in determining both the level of employment and quality of American jobs.

Hence the deterioration in America's international economic position represents dramatic evidence of our relative competitive decline. Our trade deficits over the last decade totaled $1 trillion (Figure 3). We entered the 1980s as the world's largest creditor nation but exited the decade as the world's largest debtor nation (Figure 4). Per capita income in America has slipped below a number of other countries (see box on page 4). Our national saving rate is now the lowest of virtually any major industrial country and is less than half that of Japan (Figure 14 on page 18). Our investment rate is also less than half that of Japan and below all our other major competitors (Figure 15 on page 19).

In addition, the level of non-defense research in the United States has failed to keep up with other countries (Figure 5). US companies no longer lead in patents granted in the United States itself. Our students rank among the lowest on standardized international tests (Figures 18 and 19 on page 21); only 5 percent of our high school seniors are prepared to do college-level math, according to the National Assessment of Educational Progress. The United States has by far the world's most expensive health care system, adding substantially to the costs of our products, while we are virtually the only industrial country without comprehensive health care for its citizens (Figure 22 on page 24).

Our international slippage is especially dramatic with respect to Japan. With only half as many people as America, Japan has invested more capital in its future productivity than we have—in

What Is Competitiveness?

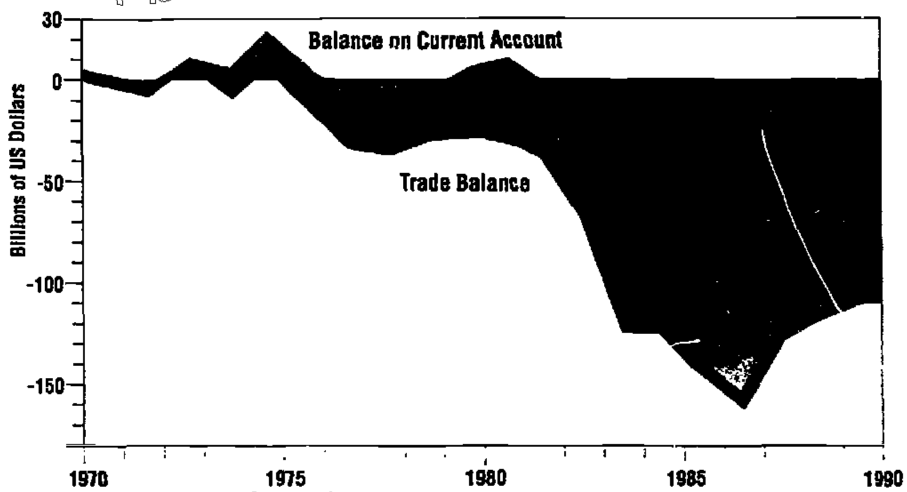
The Council's definition focuses on four criteria. First, US goods and services should be of comparable quality and price to those produced abroad. Second, the sale of these goods and services should generate sufficient US economic growth to increase the incomes of all Americans. Third, investment in the labor and capital necessary to produce these goods and services should be financed through national savings so that the nation does not continue to run up large amounts of debt as in the 1980s. Fourth, to remain competitive over the long run, the nation should make adequate provisions to meet all these tests on a continuing basis.

Figure 2
The Increasing Globalization of the US Economy

Year	Trade as a Percent of GNP
1960	10.6
1965	10.7
1970	12.7
1975	16.9
1980	25.0
1985	20.8
1990	24.9

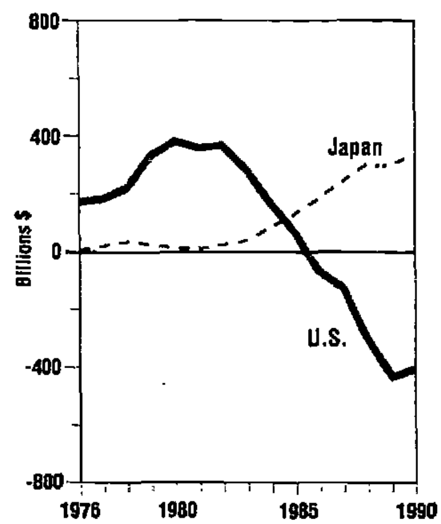
SOURCE: US Department of Commerce, Bureau [illegible] Trade includes exports and imports of all goods, services a[illegible]

Figure 3
US Trade and Current Account Positions



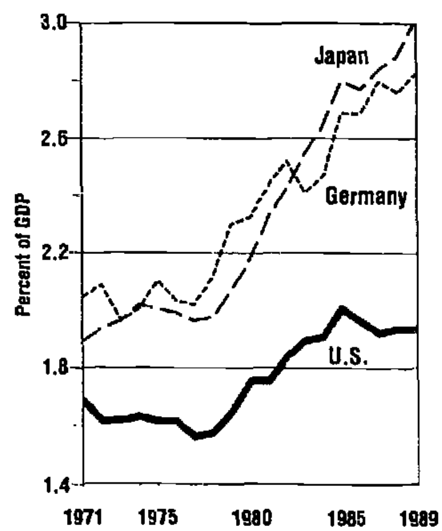
SOURCE: Bureau of Economic Analysis, US Department of Commerce

Figure 4
Net Foreign Investment Position:



SOURCE: Bureau of Economic Analysis, US Department of Commerce and Bank of Japan

Figure 5
Total Civilian R&D as a Percent of GDP



SOURCE: National Science Foundation. Includes both public and private non-defense R&D expenditure.

absolute amounts—for the past three years. It has been spending more, relative to the size of its economy, on civilian research and development. And Japan has overtaken US industry in a number of key sectors.

The Japanese challenge emphasizes a key element of the slippage of American competitiveness: the composition of our economic output. Competitive economies must succeed at the frontiers of manufacturing and technology. Manufacturing generates far higher productivity gains than services. It accounts for almost 80 percent of our international trade. Hence manufacturing is of critical importance to American competitiveness. Yet we have already ceded leadership to other countries in a number of cutting-edge sectors and are now experiencing unprecedented challenges in a wide range of emerging technologies.

Some of this "American decline" reflects a natural catchup by other countries after the devastation they suffered in the Second World War— whether defeated (Japan, Germany, Italy) or victorious (the United Kingdom, France and others). However, as noted already, there are a number of disquieting signs that the United States has experienced deterioration in the performance of its own economy over the past two decades or so. This deterioration, which would be worrisome enough when viewed simply in the domestic context, becomes of even greater concern when compared with the continuing impressive gains of many other nations and America's sharply increased interdependence with the rest of the world. The United States benefits from

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COMPARING NATIONAL INCOMES

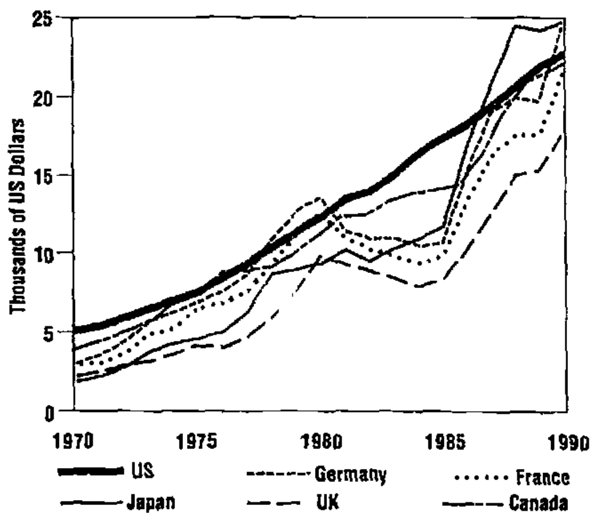
Each country of course calculates its national income, total and per capita, in its own currency—the United States in dollars, Japan in yen and so on. International income comparisons thus require conversion into a standard unit, usually dollars. Two very different exchange rates can be used in such conversions and we display both because they can present very different pictures.

Market exchange rates measure the relative international buying power of a dollar or yen on any given day. Market rates provide a good indication of the relative position of those sectors of an economy which are exposed to external competition, notably goods and services that are traded across borders and international financial flows. (Large surpluses and deficits in national balance of payments positions will result if exchange rates do not accurately reflect these classes of transactions.)

Sizable portions of most economies do not engage in international activity, however. Hence economists estimate *purchasing power parities* (PPP) by comparing the costs in different countries of buying specified quantities of similar goods and services in numerous expenditure categories including nontradeables. Purchasing power parities are thus a good measure of relative living standards among nations.

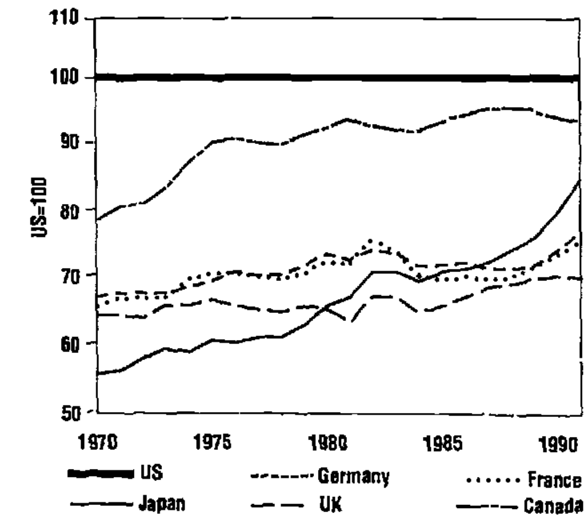
Japanese per capita income is considerably higher than that of the United States when market exchange rates are the basis of comparison (Figure 6). This is because of the high level and rapid growth of productivity in much of Japan's manufacturing sector, which produced the country's large trade surpluses in the 1980s and early 1990s, and the lags in US competitiveness in many of these same sectors as described in this report. On a PPP basis, however, per capita income in the United States is still considerably higher because of the superior quality of our housing, distribution system and other nontradeable sectors that represent a sizable element in the market basket of consumers in both countries (Figure 7).

Figure 6
GDP Per Capita in Market Prices



SOURCE Organization for Economic Cooperation and Development

Figure 7
GDP Per Capita Using Purchasing Power Parities



SOURCE Organization for Economic Cooperation and Development

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rapid economic progress abroad as long as its own economy is functioning competitively and as long as international economic arrangements permit it to participate fully in the advances of other countries. If America fails to have its own house in order, or if other countries block its participation, steady improvements elsewhere can hurt rather than help our standard of living.

America's competitiveness problem has an important foreign policy, and even national security, as well as economic, dimension. The United States has been the world's leader in many senses for over half a century: in winning the Second World War and the Cold War, in demonstrating the virtues of democracy and pluralism, in espousing the principles of market economics. Yet the United States will not be able to maintain a leading role, nor perhaps even be in a position to influence world events substantially, if we continue to slide economically. America's future will increasingly depend on our economic prowess rather than our military capability.

To an extent far greater than ever before, foreign policy and national security in the 1990s and beyond will begin at home. The United States will have neither the resources nor the moral authority to be a world leader unless we meet the challenge of improving our competitive position dramatically. The world will be both more dangerous and less prosperous if we fail to do so.

There is plenty of blame to go around, over an extended period of time, for the decline in America's relative competitive position. The issue now is whether the country as a whole can come to understand the fundamental seriousness of the problem, devise remedies that will effectively meet the challenge, and create and sustain a domestic political consensus to do so.

The purpose of the Competitiveness Policy Council, as mandated by the Congress in the Omnibus Trade and Competitiveness Act of 1988, is to help develop an action plan to restore America's competitiveness, and to further popular understanding and greater awareness by our public officials of the problem and what we as a nation can do about it. The Council is a unique body with equal representation from business, government, labor and the public interest. Its twelve members were appointed equally by the President, the bipartisan leadership of the Senate and the bipartisan leadership of the House of Representatives. The Council has been at work since June 1991 and this report represents its first effort to contribute to the national debate.

There have been numerous previous reports on the competitiveness problem and we do not intend to replicate their analyses at great length. Indeed, we could not hope to have devised a comprehensive strategy on such a complex topic in such a short period. In this first

We believe that the erosion of competitiveness is a serious problem for this nation—one of the most severe that it faces as it prepares to enter the 21st century.

annual report, we therefore intend to do six things:

- highlight the seriousness of the issue;
- analyze the central underlying causes of America's competitiveness problems;
- outline possible courses of action for addressing these causes, without firm recommendation at this point, in an effort to stimulate national debate;
- emphasize that measures put forward to deal with the present economic slowdown will be far more effective if they are part of a program to address the fundamental problems of the economy;
- make specific proposals for enhancing the importance of competitiveness in the hierarchy of national policy concerns; and
- launch a process, including the creation of Subcouncils as authorized by our legislation, to probe deeply into some of the most critical aspects of the competitiveness problem. These Subcouncils will help the Council devise a comprehensive strategy for submission to the President and Congress by January 1993.

Recent Studies on US Competitiveness

Hundreds of books, articles and reports have been written on competitiveness and related issues over the past decade. The following are some examples:

Bergsten. C. Fred (1988). *America in the World Economy: A Strategy for the 1990s*. Washington. DC: Institute for International Economics.
Business-Higher Education Forum (1983). *America's Competitive Challenge: The Need for a National Response*. Report to the President of the United States. Washington, DC.
Business Roundtable (1987). *American Excellence in a World Economy*. Washington. DC.
Carnegie Commission on Science, Technology, and Government (1991). *Technology and Economic Performance: Organizing the Executive Branch for a Stronger National Technology*. Washington, DC.
Choate, Pat and J.K. Linger (1986). *The High-Flex Society: Shaping America's Economic Future*. New York, NY: Alfred A. Knopf.
Cohen. Stephen S. and John Zysman (1988). *Manufacturing Matters: The Myth of the Post-Industrial Economy*. New York. NY: Basic Books.
Council on Competitiveness (1991). "Gaining New Ground: Technology Priorities for America's Future." Washington, DC.
Dertouzos, Michael L., Richard K. Lester, Robert M. Solow, and the MIT Commission on Industrial Productivity (1989). *Made in America — Regaining the Productive Edge*. Cambridge, MA: The MIT Press.
Lawrence. Robert (1985). *Can America Compete?* Washington, DC: The Brookings Institution.
National Advisory Committee on Semiconductors (1992). *Attaining Preeminence in Semiconductors*. Washington, DC: U.S. Government Printing Office.
National Committee on Excellence in Education (1983). *A Nation at Risk: The Imperative for Education Reform*, A Report to the National Committee on Excellence in Education and the Secretary of Education. Washington, DC.
National Productivity Advisory Committee (1983). *Restoring Productivity Growth in America: A Challenge for the 1980s*. A Report to the President of the United States and the Secretary of the Treasury. Washington. DC.
Porter, Michael (1990). *The Competitive Advantage of Nations*. New York, NY: Free Press.
President's Commission on Industrial Competitiveness (1985). *Global Competition — The New Reality*. Washington, DC: U.S. Government Printing Office.
Reich, Robert (1991). *The Work of Nations*. New York, NY: Alfred A. Knopf.
Scott, Bruce and George Lodge. eds. (1985). *U.S. Competitiveness in the World Economy*. Boston. MA: Harvard Business School Press.
US Congress, Office of Technology Assessment (1990). *Making Things Better — Competing in Manufacturing*. Washington, DC: U.S. Government Printing Office.
US Congress. Office of Technology Assessment (1991). *Competing Economies: America, Europe and the Pacific Rim*. Washington, DC: U.S. Government Printing Office.
US Department of Commerce (1987). "Improving U.S. Competitiveness." Proceedings of a September 22 Conference. Washington, DC.
White House Conference on Productivity (1984). *Productivity Growth: A Better Life for America*. A Report to the President of the United States. Washington, DC.
Womack. James, Daniel Jones and Daniel Roos (1990). *The Machine That Changed The World*. New York. NY: Maxwell Macmillan International.
Young. John A. (1985). "Global Competition: The New Reality." *California Management Review*. Volume 27. Number 3, Spring.

Diagnosing the Problem

America's competitive problem reflects slow erosion rather than sudden crisis. The problem has developed over decades and will take many years to correct. There is no Pearl Harbor or Sputnik to galvanize the nation into action. The Council believes that, in spite of broad public awareness of the nature of the problem, this lack of alarm and drama is a major reason why the United States, as a nation, has not yet developed and launched an effective response.

Pluralistic democratic societies such as ours—and perhaps especially ours—are not adept at responding to "termites in the woodwork." Our national leadership has yet to acknowledge the scope or seriousness of the challenge. The United States has yet to develop a coherent, comprehensive, long-run competitiveness strategy. Our leadership must inspire all Americans to recognize the economic challenge and respond accordingly, mobilizing widespread participation throughout the nation over a sustained period of time.

In addition, some Americans seem to believe that American resources and institutions are inherently the best in the world. This view may have been accurate at one time but is now in doubt in some key areas. Excessive confidence in our competitiveness is another barrier to effective national response that must be overcome.

Action has also proven difficult because of the complex causality that underlies the relative American decline. There is no single source of difficulty nor a single prescribed response. Improving America's competitiveness will require simultaneous change in a number of areas, six of which our Council has initially identified as most salient: saving and investment, education and training, technology, corporate governance and financial markets, health care costs and trade. Each of these in turn subdivides into a number of important components. (Other factors, such as lagging productivity in the services sector and antitrust policy, are also important; the Council plans to address them in the future.)

To add to the complexity, there is clearly a good deal of good news. The growth of productivity in American manufacturing has been substantial in the 1980s—faster than in the 1960s and 1970s, and faster than in most other industrial countries except for Japan (and even there the gap was cut sharply from the previous two decades) (Figure 8). Inflation has declined sharply.

The trade deficit has fallen by about $100 billion from its peak in 1987. The continuing trade improvement provided half of our economic growth in 1990 and halved the severity of the recession in 1991. The United States has regained much of the share of OECD exports of manufactured goods that it lost in the 1980s (Figure 9). Many Europeans and others abroad cite fear of American (as well as Japanese) competitiveness as motivation for improving their own performance.

Figure 8
Manufacturing Productivity Growth: Output Per Hour

Compound Average Annual Growth (In Percent)	1960s	1970s	1980s
Japan	11	7	5
France	7	4	3
Germany	[illegible]	[illegible]	3
United Kingdom	4	2	5
United States	3	2	4

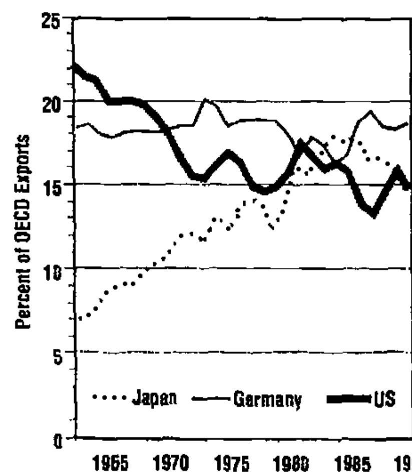
SOURCE Bureau of Labor Statistics, US Department of Labor. Data for Germany begin in 1962

It is clear that a substantial number of American companies, and millions of American workers, have risen to the challenge of the modern world economy. Our aerospace, biotechnology, computer, pharmaceutical, telecommunications equipment and many other industries are leading the world. The Council is encouraged by this progress—achieved mainly by American companies and their workers.

The Council also believes that government has the responsibility to provide a policy environment that supports and promotes a competitive America. Therefore we are also encouraged that the Federal government has recently instituted several programs that begin to deal with the issues we emphasize in this report. Most state governments have adopted their own industrial programs.

But the United States has to an important extent been living off the vast stock of capital—physical and human—amassed over the second century of its national existence (from roughly the Civil War to the close of the Second World War). Prior to 1940, America's saving and investment rates were among the highest in the world—and considerably higher than Japan's (Figure 10). Our education system was second to none. In the interwar years, American

Figure 9
US Share of OECD Manufacturing Exports



SOURCE Organization for Economic Cooperation and Development

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Figure 10
Historical National Saving Rates

	Percentage of GNP				Ratio to pre-WWII	
	Pre-WWII		1950-59	1960-84	1950-59	1960-84
United States	16.7	(1869-1938)	18.4	18.0	0.99	[illegible]
Australia	12.4	(1861-1938)	26.2	22.7	2.12	1.84
Canada	14.8	(1870-1930)	22.4	21.2	1.51	1.52
Japan	11.7	(1887-1936)	30.2	32.5	2.59	2.79
Denmark	10.1	(1870-1930)	[illegible]	[illegible]	[illegible]	[illegible]
Germany	20.0	(1851-1928)	26.8	23.7	1.34	1.19
[illegible]	[illegible]	(1861-1930)	[illegible]	[illegible]	[illegible]	[illegible]
Norway	11.5	(1865-1934)	27.5	27.1	2.40	2.36
Sweden	12.2	(1861-1940)	21.4	21.4	1.75	[illegible]
United Kingdom	12.3	(1860-1929)	16.2	18.1	1.32	1.47

SOURCE. Bela Balassa and Marcus Noland (1988) *Japan in the World Economy* Washington, DC Institute for International Economics

leadership in manufacturing technology—dominated by the key industries of the day such as steel and automobiles—was clear.

After World War II, however, much of the rest of the world made steady and spectacular progress while the United States improved its position much more slowly. The saving rates of many countries jumped sharply, doubling or more in some cases, while ours remained constant and subsequently fell. Other countries maintained or improved their educational standards while ours slipped badly. Their governments consciously implemented competitiveness strategies, seeking to catch up in manufacturing prowess and technology, while ours focused on other goals.

To an important extent, the United States was the victim of its own success. Our inherently temporary domination of the world economy created a sense of complacency in our companies, our workers and our governments. We ignored the possibility that the normal recovery of the vanquished and devastated could turn—in three or four decades—into a severe competitive challenge for America.

Our Council does not view the elements of good news, and America's stellar record in the past, as justification

America's competitive problem reflects slow erosion rather than sudden crisis. . . Pluralistic democratic societies such as ours—and perhaps especially ours—are not adept at responding to "termites in the woodwork."

for any sense of complacency. Rather we believe that the erosion of competitiveness is a serious problem for this nation—one of the most severe that it faces as it prepares to enter the twenty-first century.

But our Council is encouraged by the country's recent progress in several key spheres, the rich heritage of its past, the ability of its people to respond to adversity—especially when inspired by their leaders—its wealth of underlying human and physical resources, and the large number of its private and public institutions that have demonstrated considerable capacity for effective response. We believe these indicators reaffirm the ability of the United States to respond effectively to this newest challenge—though such a response can emerge only when the country develops a plan of action and mobilizes politically to implement that plan. We also note that some of our chief competitors across the Atlantic were recently suffering from so-called "Eurosclerosis" and "Europessimism" but, in less than a decade, have come again to be widely viewed as a dynamic source of world economic growth (despite their current slowdown) and a magnet for international investment.

We also emphasize that relatively modest improvements in performance can have dramatic long-term effects. For example, had we maintained our productivity growth at the 1948-73 average of 2.5 percent annually from 1973 through 1990, instead of letting it drop to 0.8 percent, we would have raised the median family income in 1990 from $35,000 to $47,000—an improvement of over one third. We can eliminate the trade deficit and halt the buildup of our foreign debt by exporting just 1-2 percent more of our annual output.

The Underlying Causes of America's Competitiveness Problem

Many ills exist in America today that, directly and indirectly, adversely affect the nation's competitiveness. But we believe there are three

Other Key Players: The Two Councils on Competitiveness

There are two other groups working on competitiveness issues with names similar to the Competitiveness Policy Council. The President's Commission on Industrial Competitiveness was formed in 1983. Appointed by President Reagan, the group was comprised of 30 representatives from major US corporations, financial institutions and labor unions; academics; and government officials. The Chairman was John Young, President and CEO of Hewlett Packard. The Commission issued its report *Global Competition: The New Reality* in 1985.

One of the Commission's recommendations was for creation of a permanent organization to monitor changes in US competitiveness and recommend policies to enhance it. This was done with the creation of the private sector Council on Competitiveness in 1986. The Council is comprised wholly of private sector representatives including industry, finance, labor, universities and research centers. Originally headed by John Young and now by George Fisher, CEO of Motorola, the Council produces analyses and reports on the nature of the problem and what can be done about it.

In 1989 President Bush established the President's Council on Competitiveness. This group, chaired by Vice President Dan Quayle, is a governmental interagency committee comprised of Cabinet members and other heads of Federal agencies. The Council's four stated goals are: reducing regulatory burdens on free enterprise, developing human resources, bringing science to market and improving access to capital.

Our Competitiveness Policy Council includes federal and state officials as well as members from the private sector. It is an independent federal advisory committee created by act of Congress, reporting to both the President and Congress. It is thus quite different from either of the already existing Councils on Competitiveness.

elements—short-termism, perverse incentives and an absence of global thinking—that permeate our society and most directly hurt its competitive position.

Short-termism

The first, and perhaps most fundamental, problem is America's proclivity to think and act with a short-term horizon. By contrast, our competitors around the world plan and execute their actions against far more extended time horizons. These contrasts can be seen at the corporate, individual and governmental levels.

According to a recent survey of over 200 corporate managers by the Time Horizons Project of the Harvard Business School, conducted for the private sector Council on Competitiveness, "US managers believe that their firms have systematically shorter time horizons than do their major competitors in Europe and (especially) Asia"—though these time horizons are longer today than ten years ago. Our capital markets, traditionally viewed as one of America's greatest economic strengths, seem to demand constant attention to quarterly profits. The volatility of our economy, with much sharper fluctuations in both growth and inflation than our main competitors experience, makes it harder to plan for the long run (see box on page 12). Frequent changes in tax, trade and exchange-rate regimes add to this instability.

In addition, a significant number of American companies have failed to recognize the changing nature of the manufacturing process which, if properly addressed, could arm them with greater responsiveness to customers and more financial flexibility. Many American firms do not devote the rigorous attention to manufacturing excellence that is needed to build and maintain market share over time, to bring new products quickly to market and to continuously innovate the improvements needed to meet consumer demand. Product and process innovation, and dynamic responses to market changes, are crucial ingredients for a nation's competitiveness. There is clearly some progress in this area, but many American firms still fail to effectively commercialize new technologies even when those technologies are invented in the United States.

American households also dwell largely in the short run. Their rate of saving is the lowest by far of any major country in the world (Figure 11). The result is far too little seed capital for investment in future growth. The slow growth that results then retards future incomes, both slowing the creation of new jobs and dampening saving (and consumption) still further in the future.

To be sure, far too many Americans live on incomes that are too low to enable

Three elements permeate our society and most directly hurt our competitive position:

- ***short-termism***
- ***perverse incentives***
- ***absence of global thinking.***

Macroeconomic Volatility and the Time Horizons of US Managers

As part of the private sector Council On Competitiveness' project on "Time Horizons of American Management," Robert Lawrence of Harvard University studied the extent to which macroeconomic factors affect managerial time horizons. His work suggests that recent volatility in US economic growth, inflation, interest rates and the exchange rate of the national currency is greater than that experienced in Germany or Japan, and that this volatility contributes to shortening the time horizons of US managers. In addition:

— US economic growth was slower than in Germany and Japan, leading US managers to invest less in long-range projects and to be less willing to maintain operations in the face of possible setbacks;

— although inflation fell in most industrialized countries in the 1980s, US inflation remained higher (as well as more variable) than in Germany or Japan;

— real long-term interest rates were high in all three countries during the 1980s, but they were higher and most volatile in the United States; and

— the dollar was substantially overvalued in trade competitiveness terms during the first half of the 1980s, and fluctuated more than the DM or yen.

Macroeconomic shortcomings and volatility thus clearly play an important role in America's competitiveness problem.

them to save at all—especially in the present economic circumstances. Indeed, in a period of declining real incomes many Americans have to draw down their savings, or go even deeper into debt, to maintain their standard of living.

But it is crucial to recognize that increasing the share of saving in national income, which requires reducing the *share* of consumption in the short run, will subsequently lead to a higher *level* of consumption for everyone. Income and hence total consumption are lagging because of the slow growth in total productivity, which in turn is due importantly to the low level of investment and supportive national saving. Increasing the share of saving is thus essential to raise the level of consumption. American households' low propensity to save has the effect of reducing their standard of living and ability to consume over time. Conversely, if they save more as their incomes rise, they will be able to achieve and sustain higher levels of income and consumption in the future.

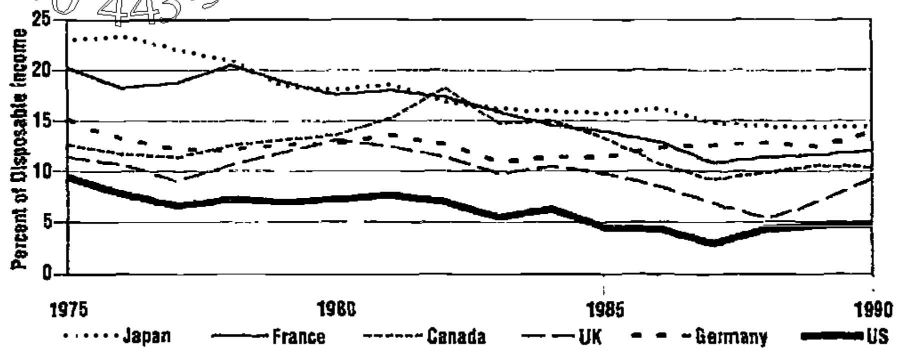
The Federal government—executive and legislative branches alike—is perhaps most guilty of excessive short-term emphasis. Its huge and persistent budget deficits (Figure 12) exhibit a shocking lack of discipline and concern for the future, creating a massive national debt that must be serviced if not repaid by future generations. That debt is now approaching $4 trillion, or about $50,000 for every American family. Productive private investment is crowded out and huge sums must be borrowed from abroad, adding further to America's status as the world's largest debtor nation.

The emphasis on the present and disregard for the future has been revealed most clearly in the buildup of massive debts over the past decade. In the face of high real interest rates and new tax incentives, which should have induced more saving, every sector in America spent more and promised to pay later. Short-termism reached new heights.

Competitive performance requires that incomes be earned and not borrowed. While borrowing, like foreign direct investment, can be a legitimate source of capital, it must go into investment and not consumption if it is to be a source of future growth. Nations, like individuals, cannot indefinitely borrow for consumption. However, nations can go on borrowing for much longer periods and thus shift the cost of today's consumption onto future generations in ways that most families would reject as unfair to their children and grandchildren.

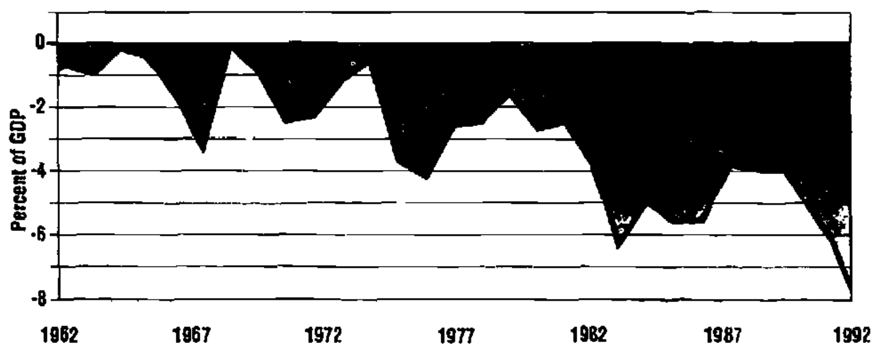
US competitiveness requires an end to the debt-financed consumption, both public and private, which has characterized the past decade. Aggregate nonfinancial debt, which now stands at about 190 percent of GNP, has soared far above its

Figure 11
Household Saving Rates



SOURCE Organization for Economic Cooperation and Development

Figure 12
US Budget Deficit



SOURCE Office of Management and Budget. On-budget deficit in fiscal ye...

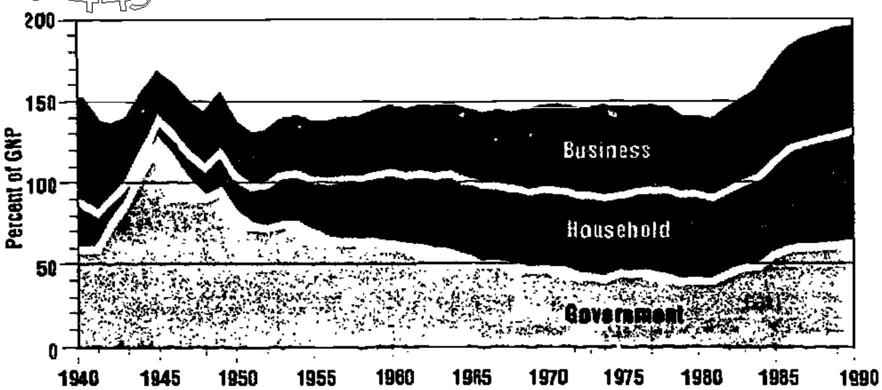
"normal" peacetime range of 135-145 percent of GNP (Figure 13). Our debt has grown much faster over the past decade than it did to finance the Second World War. A return to more normal levels of debt would require substantial changes in the practices of government, business and households.

Perverse Incentives

A second fundamental problem, which helps to explain the emphasis on immediate gratification, is the series of perverse incentives that permeates American society. Oor tax laws penalize

Many American managers have failed to devote the rigorous attention to manufacturing excellence that is needed to build and maintain market share over time, to bring new products quickly to market and to continuously innovate the improvements needed to meet consumer demand.

Figure 13
Level and Composition of US Debt



SOURCE Federal Reserve System and Benjamin Friedman

saving, provide little inducement for investment, indeed tilt investment away from productive capital equipment, and favor consumption and debt. Our politicians are rewarded for spending more and cutting taxes rather than for prudent fiscal policies. They can let their successors pay off the tax-free bonds used to finance new projects rather than spend current money on unglamorous infrastructure maintenance.

Similarly, our education system offers few incentives for good performance as many colleges compete for students, whatever their high school records, and potential employers ignore those records as well. Our health care system provides inadequate mechanisms to induce cost containment. There is inadequate linkage between the long-term performance of our corporations and the compensation of their managers or their boards of directors. There are sizable gaps between the incomes of managers and workers.

These perverse incentives have become worse in recent years. The 1981 tax legislation created huge preferences for investment in commercial real estate as opposed to manufacturing. The 1986 tax legislation, while doing away with those particular preferences and eliminating a number of undesirable tax loopholes, also eliminated most of the incentives intended to increase saving and investment that had previously existed in the tax code. (It did eliminate some subsidies to consumption but it left untouched some of the most extensive ones.)

The wave of corporate mergers and acquisitions in the 1980s, many of them hostile, intensified the pressures on corporate America to produce immediate returns to shareholders. Many colleges, responding to the dual pressures of maintaining enrollment in the face of declines in the traditional college-age population and of expanding access to higher education, loweted their standards for admission and retention—thereby reducing incentives for students to take rigorous courses and work hard in secondary school. Health care costs have absorbed rising and unprecedented shares of national output.

Globalization

The third key problem is America's failure to think globally. The share of trade in our economy has doubled in the last twenty years. The United States is now as dependent on trade as is Japan or the European Community as a single entity. One fifth of our corporations' profits derive from their international activities. One in six jobs in manufacturing relies on exports. Almost 25 percent of all agricultural output is sold abroad. Our prosperity depends to a considerable degree on whether we can compete effectively in the world market—including of course within the United States itself against competition from abroad.

Many American firms are already heavily engaged in international commerce. But only 3 percent are directly active in more than five countries; 15 percent of American firms account for the vast majority of our exports. Much of corporate America, particularly smaller firms for which the costs of entering foreign markets are formidable, has yet to respond to the global nature of today's economy. Even some firms that have internationalized sometimes feel they must take the route of investing abroad rather than competing in foreign markets from their American base, even though the latter would provide greater rewards for the US economy.

The Federal government has frequently ignored the consequences for the American economy of the external effects of its policies. For example, the huge budget deficits and high interest rates of the early 1980s strengthened the exchange rate of the dollar so much that numerous American industries and agriculture were decimated. There have been few efforts to adapt American policy to practices abroad. The United States takes no systematic view of the composition of its economy, except with respect to military production, while many other nations emphasize structure as well as aggregate outcomes.

These tendencies continue to exist to a dismaying degree. Each year's budget debate ignores the continuing and rapid buildup of external debt which increasingly places the fate of our economy in the hands of others. The tax laws of both 1981 and 1986, as noted, ignored their impact on the country's international position. Antitrust policy should consider both global and domestic consequences in determining whether to permit corporate mergers. Myriad policies and practices of our own government block annual exports worth tens of billions of dollars. We have unilaterally disarmed our export credit facilities while the competition expanded theirs.

In the globalized economy of the 1990s and beyond, the United States must consider the impact of all new programs on its competitive position. We cannot ignore the "external" impact of our "internal" actions—indeed the two are now so indistinguishable that the terms lose much of their meaning. American corporations, workers, governments and the public must realize that the competition is global and that American competitiveness can be effectively sustained only if they respond to that reality.

At the international level, the United States has been slow to recognize that the ascendance to global economic power of Europe and Japan will require new forms of collective leadership to maintain a world economy that continues to be both open and globally oriented—rather than divided into restrictive and hostile blocs. The United States has also been slow to seek international harmonization in key policy areas, such as taxation and antitrust, that would limit the damage to the US economy of significant policy differences among the major countries.

The Federal government—executive and legislative branches alike—is perhaps most guilty of excessive short-term emphasis. Its huge and persistent budget deficits exhibit a shocking lack of discipline and concern for the future, creating a massive national debt that must be serviced if not repaid by future generations.

Six Priority Issues

The Competitiveness Policy Council identified six specific issues as deserving priority attention in the first stage of its work:

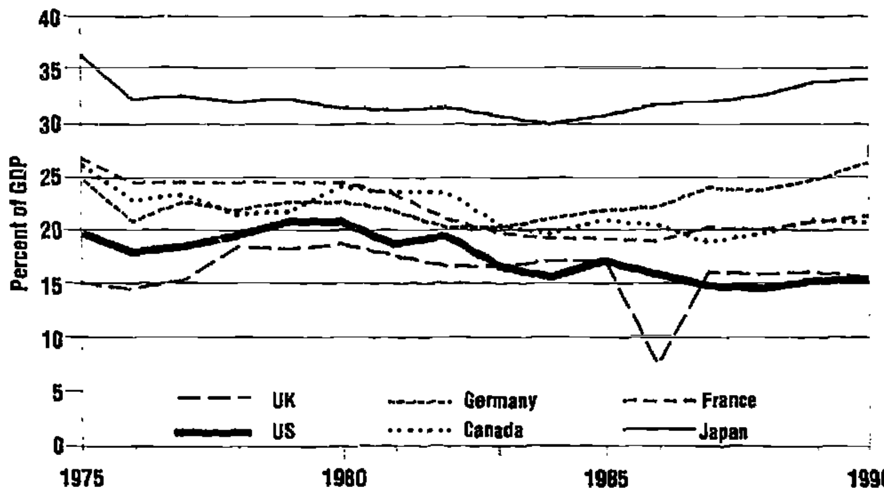
- saving and investment
- education and training
- technology
- corporate governance and financial markets
- health care costs
- trade policy

We do not by any means view this as an exhaustive list of America's competitiveness challenges. Indeed, we plan to address a series of additional issues, such as lagging productivity in the services sector and antitrust policy, in our future work.

In addition, although use of the courts is obviously legitimate and essential to redress individual grievances and to deal with a wide range of issues, especially those relating to safety and health, we believe that excessive litigation is generating sizable costs for the American economy and should be

avoided. We also believe, however, that the six issues we have identified are among the most important components of the problem and should be addressed urgently.

Figure 14
National Saving Rates



SOURCE. Organization for Economic Cooperation and Development

Saving and Investment

America's low levels of saving and investment are clearly a major problem. Competitiveness is largely determined by national productivity. Productivity in turn depends on the stock and growth of physical capital, investment—along with human capital, which relates directly to educational attainment and training, and technology which is driven critically by the ability of a society to innovate and respond dynamically to market opportunities.

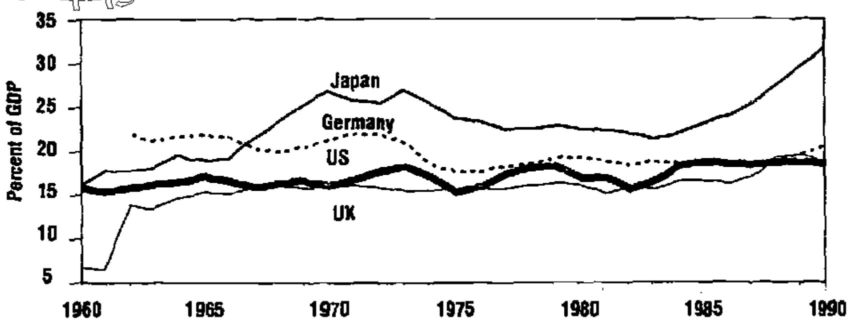
Hence national investment is central. In turn, it is ultimately financed by national savings. Capital can be borrowed from abroad but only for a time and only with significant costs. National investment and saving are thus crucial for competitiveness.

The United States has the lowest rates of saving and investment of any industrial country. Our national saving rate is less than half that of Japan and about two thirds that of Germany (Figure 14). Despite a barrage of tax measures in the early 1980s intended to increase both, and broadly favorable economic circumstances, the rate of saving declined further over the past decade and investment failed to rise. Our goal, as in all areas, should be to achieve globally competitive standards for American performance—in this area, raising both the national saving and investment rates substantially by the end of this decade.

Two particularly disturbing developments occurred on this front in the 1980s. On the saving side, the national rate had remained roughly constant over the previous century—for as long as statistics on the matter had been compiled. Its composition would change at times but private saving would rise when public saving (the budget position) fell and vice versa. In the 1980s, however, both fell sharply. The result was a further substantial decline in America's already inadequate wherewithal to finance internally even its already inadequate previous level of investment.

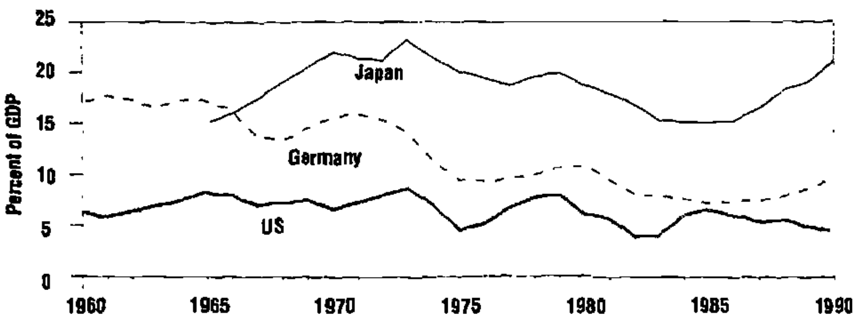
To augment this low rate of national saving, the United States has borrowed massively from the rest of the world—about $1 trillion—over the past ten years. This borrowing converted the country, as already noted, from the world's largest creditor to the world's largest debtor. Such borrowing would have been acceptable, perhaps even desirable, had it been used for new investment to revitalize American plant and competitiveness—as was the case with the country's large importation of capital in the latter part of the nineteenth century. American investment,

Figure 15
Gross Private Investment



SOURCE DRI/McGraw Hill

Figure 16
Net Private Investment



Net Private Investment = Gross Private Investment Less Depreciation

SOURCE DRI/McGraw Hill

The United States has the lowest rates of saving and investment of any industrial country. . . Our goal should be to raise both the national saving and investment rates substantially by the end of this decade.

however, never rose above previous levels (and, on some measures, dropped below them). America's investment rate remains less than half that of Japan and below all other major competitors (Figures 15 and 16).

The foundation of any serious effort by the United States to improve its competitiveness must be a substantial rise in the national levels of investment and saving. Whatever steps are taken to improve our educational system and technological prowess, resources to deploy those gains for lasting economic benefit will be available only if saving and investment rise substantially. The Council thus places the highest priority on these issues.

Both saving and investment can be subdivided into their private and public

Private and Public Saving

	PRIVATE	PUBLIC
SAVING	Household	Federal budget
	Corporate	State budgets
	Employer-provided pension plans	Local government budgets
INVESTMENT	Commercial plant and equipment	Highways, streets and bridges
	Nonresidential buildings including industrial, commercial, religious, educational, hospitals and other institutions	Sewer and water systems
		Airports and seaports
		Military facilities
	Public utilities: railroads, telephone and telegraph, electric light and power, gas, petroleum pipelines	Government residential and nonresidential buildings
	Residential housing	

components. Policy measures can be addressed in all four dimensions: tax and other incentives to stimulate private saving and induce private investment, budgetary tightening to reduce public dissaving. Indeed, the Council believes that the Federal budget should be shifted into surplus in order to make a net contribution to national saving.

The Council has devoted particular attention to the fourth area, public investment—the state of the country's public infrastructure (see box on page 22). There is considerable evidence that the sharp decline in attention to our stock of roads, bridges, airports, public buildings and other infrastructure over the past two decades correlates with, and may be an important cause of, the decline in national productivity. We will be working further on the proposition that increased and sustained government spending on infrastructure, primarily at the state and local levels, including through increased Federal funding for their activities, must be an essential part of any comprehensive strategy to restore American competitiveness.

It may prove desirable to clearly distinguish this component of public spending by creating a capital budget for the Federal government. Such budgets have long been maintained by virtually all other countries as well as by state governments in the United States. It will of course be essential to avoid using this device to circumvent budget discipline however, and to avoid the wasteful "pork" that has sometimes characterized public spending programs of this type in the past.

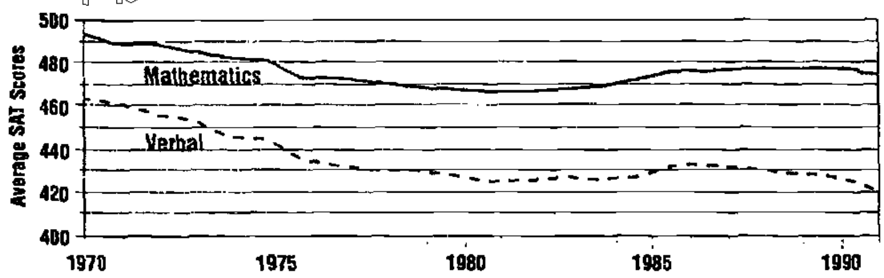
Education

The Council believes that education reform is another critical ingredient of any national competitiveness strategy. A country is only as competitive as its human resources. Japan, Korea and other East Asian countries that have created the most dramatic of the "economic miracles" in the postwar period have done so importantly on the strength of rapid improvement in the education of their workforces.

By contrast, US educational performance—particularly in pre-kindergarten and in K-12—is inadequate by any conceivable standard. Our students' test scores have improved over the last decade but these gains no more than offset the decline of the previous decade (Figure 17). American students rank near the bottom on all recent international comparisons, which include a number of developing countries as well as other industrial nations (Figures 18 and 19). The goal must be a restoration of globally competitive performance by American students by 2000.

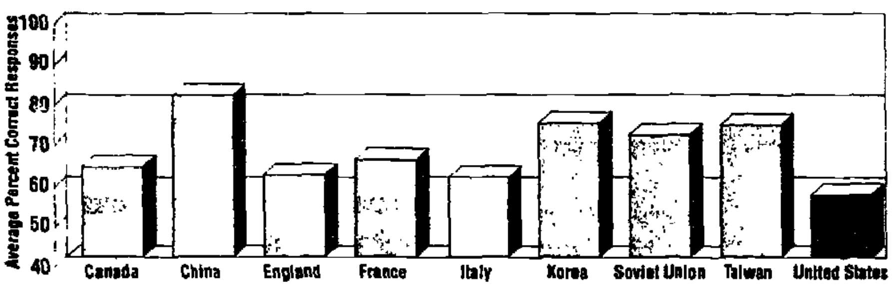
Here too we subdivide the issue into several categories. Primary emphasis

Figure 17
SAT Scores for College-Bound Students



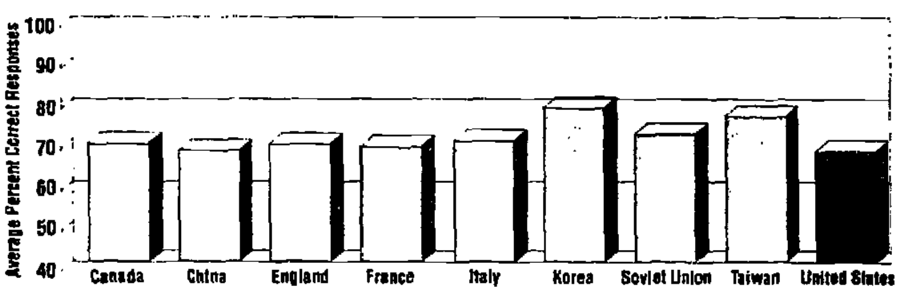
SOURCE Educational Testing Service Highest possible score is 800

Figure 18
Math Proficiency Among 13 Year Olds, 1990-91



SOURCE Educational Testing Service

Figure 19
Science Proficiency Among 13 Year Olds, 1990-91



SOURCE Educational Testing Service

US educational performance is inadequate by any conceivable standard. . . The goal must be a restoration of globally competitive performance by American students by 2000.

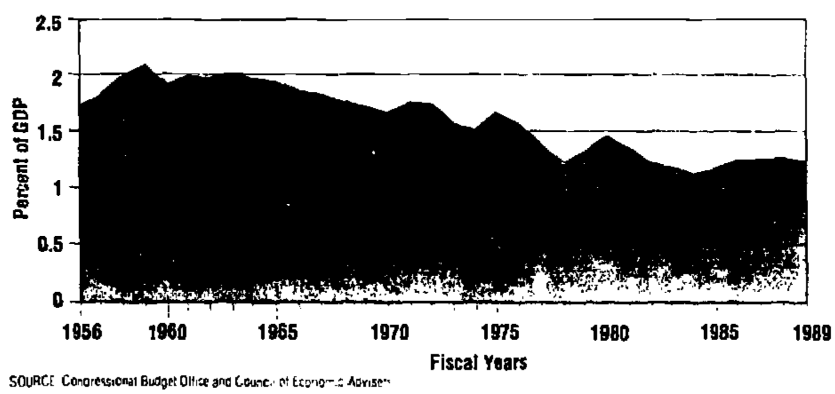
Infrastructure

Figure 20 shows a sharp fall in net public infrastructure investment from a peak of just over 2 percent of GDP in 1959 to a little more than one percent in 1984. There has recently been a modest rebound.

There is some debate as to the contribution of government investment in building and maintaining roads and bridges and other infrastructure to improving the competitiveness of the US economy. Most economists agree that such investment leads to an improvement in productivity although the actual magnitude is in dispute. At one end of the debate, David Aschauer of Bates College (and formerly of the Federal Reserve Bank of Chicago) argues that there is a "virtuous cycle" set in motion by infrastructure spending. Improvements in the infrastructure network raise the productivity of labor and the profitability of private plant and equipment. Higher profitability spurs private investment, which further boosts productivity. In all, Aschauer estimates that every additional dollar of public investment will boost private investment by approximately 45 cents—and that US productivity growth could have been 50 percent higher over the past two decades had we maintained the previous level of investment in public infrastructure.

Others believe that these relationships are not nearly as strong. For instance, Charles Hulten of the University of Maryland and Henry Aaron of the Brookings Institution have obtained lower estimates of the importance of infrastructure spending to economic growth and competitiveness. But Hulten and Aaron also agree that infrastructure investments carry the potential to improve America's economic performance.

Figure 20
Total Government Capital Spending on Infrastructure as a Percent of GDP



SOURCE: Congressional Budget Office and Council of Economic Advisers

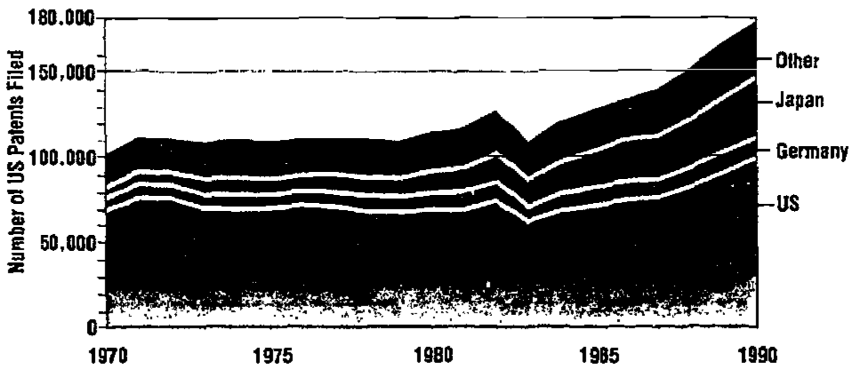
should probably be directed at pre-kindergarten and K-12, where the overwhelming majority of the entire population gets its formal education. It is essential that these reforms focus simultaneously on raising student performance at all levels. Standards of achievement, and the incentives for meeting them, must be raised both for students who plan to go directly to college and those who intend to go directly into the workforce. Another area is also crucial: periodic if not constant retraining of adults, who must shift jobs as a result of the continuing dynamics of the marketplace or upgrade their skills to remain effective in a given job whose requirements are rising steadily due to technological and other changes.

Technology

Technology is the third area to which the Council has attached priority. The problem is not primarily at the level of scientific invention. To be sure, other countries are catching up to the United States on such indicators as patent filings (Figure 21) and Nobel Prize winners. We cannot be complacent on this front any more than on the others, or one key area of continuing American leadership could founder as well.

The main problem at present, however, is in the relatively mundane area of

Figure 21
Origin of US Patent Filings



SOURCE US Patent and Trademark Office

Americans remain good starters while others have become better finishers . . . Our goal should be a rate of growth in manufacturing productivity in the 1990s that equals or exceeds Japan's and continues to exceed that of other industrial countries.

manufacturing process, where technological innovation is translated into commercial success—the "development" in "research and development." Research, development, design and production, marketing and customer service are essential elements in a competitive manufacturing system. Neglect of any of these elements renders the system less efficient. No scientist, no researcher, and no sales or service facility can operate in an effective manner without communication and cooperation from all elements of the system. Good engineering and design occur when engineering specialists benefit from input from those who implement the science and from those who use the technology.

Moreover, management in many companies has failed to draw effectively on its workforce for ideas on how to improve the manufacturing process. Human resource development through greater cooperation between management and labor can play an important role in restoring the ability of American enterprises to sustain profitability and higher real wages in the global market. Japanese and some European firms, and a growing number of US companies, have demonstrated that synergistic labor-management relations can be an important source of productivity improvement and thus an important ingredient for increased competitiveness.

The United States has substantially devalued the importance of excelling at the manufacturing process with the result that firms in other countries have frequently succeeded at commercializing technologies invented in the United States—much as American firms, during the early decades of this century, excelled at commercializing technologies invented in Europe. Americans remain good starters while others have become better finishers.

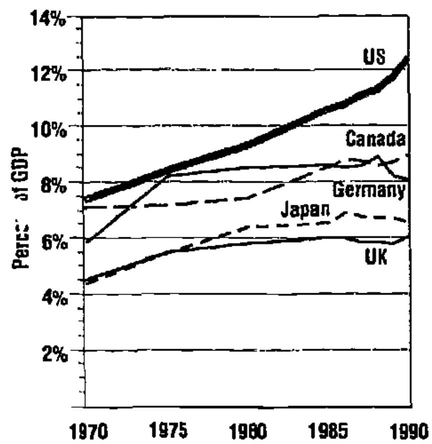
Federal technology policy has contributed to this evolution by clinging to its traditional focus on scientific breakthrough rather than emphasizing commercial followthrough. Another key issue, which is both a cause of the problem and a symptom, is the decline in the number of engineers graduating from American universities to a level below that of Japan on a per capita basis. Our goal should be a rate of growth in manufacturing productivity in the 1990s that equals or exceeds Japan's and continues (as in the 1980s) to exceed that of other industrial countries.

Corporate Governance and Financial Markets

Our fourth priority area is corporate governance. The Council believes that the responsibility for improving American productivity lies primarily with American industry and its workers and that industry's ability to contribute effectively to a competitiveness strategy is thus of utmost importance. A nation's competitiveness ultimately rests on the quality, performance and cost of goods and services produced within its borders. This in turn places heavy emphasis on the nature and performance of the companies there (whatever the mix of domestic and foreign ownership). The environment set for them by government policy is of course critical to these outcomes, in the manners described above and below, but the fundamental achievement of national productivity is largely up to the firms. Thus their modus operandi is of central importance.

One key issue is whether there are elements in the economic and financial environment in which American firms operate that constrain their ability to compete. In particular, as discussed in the previous section, US capital markets can divert the attention of US managers from long-run considerations of maximizing market shares to a short-run focus on quarterly profits. The macroeconomic instability of the United States, with inflation rates both higher and more volatile than in Japan and Germany, seems to have a similar impact. The governance issue also relates importantly to the structure of corporate management: the role of boards of directors, the relationship between them and management, the role of employees in management, the incentive systems on which compensation is based and the like. One national objective should be to create an environment of economic and policy stability within which managers can do what many of them already want to do—manage the corporation for long-term growth.

Figure 22
Health Care Expenditures as a Percent of GDP



SOURCE Organization for Economic Cooperation and Development

Health Care Costs

Our fifth issue is health care costs. We single out this sector for particular attention because of its enormous and growing impact on the economy and Federal budget, and the marked disparity between this impact in the United States and in other countries (Figure 22). Expenditures for health care have risen from 7-8 percent of US GDP in 1970 to 12-13 percent today and are projected to rise to 15-17 percent, on current policies and practices, by 2000. This would be roughly double the level in all other industrial countries. Moreover, there is widespread awareness that these additional costs are not

Figure 23
Health Indicators, 1989

	Life Expectancy at Birth (years) Male	Female	Infant Mortality (per 1,000 live births)	Health Spending as Percent of GDP	Doctors per 10,000 Population
Japan	75.9	81.8	4.6	6.7	16
Germany	71.8*	78.4*	7.5	8.2	30
United States	71.5	78.5	9.7	11.8	23
United Kingdom	72.4*	78.1*	8.4	5.8	14
France	72.4	80.6	7.5	8.7	30
Canada	73.0*	79.8*	7.2*	8.7	22
Holland	73.7	80.0	6.8	6.3	24

SOURCE Organization for Economic Cooperation and Development; *Data for 1985 and 1986

buying better health for the population as a whole. Indeed, while some parts of the population are receiving the best health care in the world, other Americans are receiving care that is inferior to that in many other nations (Figure 23).

The question for our purposes is whether such costs, which divert a large share of national resources that could be used productively elsewhere, are significantly undermining American competitiveness. They can do so in at least two ways:

(1) by raising the total costs to corporations that pay for health care for their workers and retirees (and thus the prices of those companies' products), especially for manufacturing industries where these costs fall particularly heavily, and

(2) by consuming resources that might be otherwise deployed for strengthening the infrastructure, supporting technology development, or improving education.

The national objective should be the achievement of world-class health care for all Americans at a cost to the economy that is comparable to the other major industrial countries.

Trade Policy

Our final priority issue is trade policy. Trade is different from the previous five issues because it relates indirectly rather than directly to productivity and the cost structure of the economy. It can nevertheless be extremely important.

For example, an overvalued exchange rate for the dollar—as occured in 1981–85, creating the massive trade deficits that followed—can price American

We should aim by 1995 to eliminate the deficit in our global trade in goods and services and hence halt the need to borrow abroad with consequent further buildup in the nation's foreign debt.

goods out of the foreign and domestic markets that are crucial to enable them to achieve full economies of scale. An overvalued dollar can also discourage American firms from making a maximum effort to improve their performance by competing aggressively against the world's best. Foreign barriers that block the access of American products to markets abroad, and subsidies and other practices that enable producers abroad to compete unfairly against producers here, likewise jeopardize those two important competitive benefits. Some of the export disincentives and barriers maintained by the US Government itself can have similar effects.

Trade is of course a central focus of the entire competitiveness debate. Some observers in fact view the trade balance as the best single proxy for America's competitive position, or even as essentially defining the problem. The Council rejects that view because it believes that the ultimate test of a nation's competitiveness is the standard of living of its own population, to which external trade is a very important but only one contributing factor. Moreover, macroeconomic problems such as large budget deficits can lead to trade deficits whatever the underlying state of the country's competitiveness.

In today's global economy, however, the trade balance provides an extremely valuable barometer of how a country is doing competitively—and whether it is earning its current standard of living. On these counts, and despite the recovery in our exports over the past five years, the American record of the past decade is dismal. In addition, trade improvement enhances the role of the manufacturing sector because swings in the overall trade balance are dominated by swings in manufactures trade. We should aim by 1995 to eliminate the deficit in our global trade in goods and services (the current account) and hence halt the need to borrow abroad with consequent further buildup in the nation's foreign debt.

This aggregate goal is not intended to imply indifference to what we export. The Council believes it is important that the United States enhance its position as an exporter of products based on high levels of skill and high value added, i.e., manufactures that can support high wages. An alternative approach, which might rely upon a declining exchange rate to stimulate exports, is not what we envision.

Framework for Action

As the Council submits this report in early 1992, concerns over fundamental aspects of the nation's competitiveness fuse with the need for the earliest possible recovery from recession. The positive aspect of this fusion is that the difficulties of the present reinforce awareness of our more basic problems. The risk is that efforts to boost growth in the short term could ignore and even exacerbate the basic difficulties.

The Council believes that the right strategy at present is to devise a program to address the underlying weaknesses in the economy in ways that could also promote short-term recovery. For example, an acceleration of government spending on needed infrastructure projects would have desirable effects both immediately and over time.

But the emphasis must be on righting the basics. Problems with the country's underlying competitiveness have limited our short-term options and will continue to constrain them until fundamental reforms have taken hold. Conversely, the most likely return to prosperity lies in addressing these structural problems and thus restoring confidence in the long-run prospects for America. The Council believes that the time has come to seek far-reaching reforms that would effectively come to grips with the deep, abiding problems identified above.

Our strategy in this report is to identify, and briefly elaborate, reforms in several areas that might generate such improvements over time. The Council is not yet ready to make firm recommendations for such a program but believes that actions of the type described, and the problems they seek to correct, should be focal points of national inquiry and debate during the coming year. Public officials and candidates for all offices should address them. The public, which often exhibits a keen awareness of the problem, should insist that they do so. This is the only process through which fundamental change can emerge.

Toward A National Competitiveness Strategy

In each of the six areas to which we have addressed priority attention, the Council believes that efforts should be made to devise new policies that will make a fundamental change in America's competitive position. In this section, we offer illustrations of the kinds of reforms that we have in mind. The Council is not endorsing any of these steps at this time, having had inadequate time to explore their likely effectiveness and their full ramifications for the country. We believe, however, that these ideas, and others that pursue the same goals, should be seriously considered. The Council itself will be developing and testing such ideas preparatory to issuing firm recommendations in its next report. We urge other interested groups and individuals to do so as well.

In each area, national goals—such as those suggested in our prior discussion of the problems—should be set, against which subsequent performance can be gauged. We want a results-oriented strategy against whose criteria government, business, unions, educational and other institutions can be held accountable. In light of the sweeping scale, novelty and even experimental nature of some of these ideas, constant evaluation of their progress would be needed and should be built into the reforms themselves.

Saving and Investment

The most obvious initiative to enhance saving and investment would be conversion of the budget deficit of the Federal government into balance or preferably surplus. The deficit drains more than half our private saving and drives up interest rates. It pushes us deeper into debt both at home and abroad. It raises serious doubts as to whether the country will ever put its house in order.

A surplus, by contrast, would make a net contribution to national saving. It would also provide a prudent foundation for the increases in pension and medical payments to our older citizens that will become inevitable as the population ages early in the next century. An overall budget surplus would in essence permit the surpluses in the Social Security and other trust funds to become genuine national saving rather than financing the rest of the government budget. It would provide a cushion against future economic difficulties.

Converting the deficit into a surplus will require an intensive review of all major spending programs. If adequate spending cuts cannot be found, it may be necessary at some future point to increase revenues. The sum of these improvements will have to exceed the present deficit because additional spending will be needed on some programs, such as public infrastructure, to promote US competitiveness.

In order to further enhance saving, it might be necessary to change the structure of US tax policy in ways that would eliminate, or even reverse, the perverse incentives in the present code. The most extreme option would be to substitute consumption-based taxes for all or some of our present income-based taxes. The effect would be to exempt all saving from taxation. The result should be a substantial rise in saving that would produce a sharp fall in the cost of capital. A less sweeping way to stimulate private saving would be to exempt all interest and dividend earnings from taxation, as

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Japan did until 1988 with its *maruyu* system that enabled each citi-en to hold multiple tax-free savings accounts and invest in tax-free bonds.

Saving could also be encouraged indirectly through tax changes that would discourage consumption. Alternatives could include a value-added tax (VAT), as utilized in virtually every other major country; a national sales tax; limitation of the tax preference for interest paid on home mortgages that now applies up to $1 million; or other sector-specific approaches. These could replace some portion of today's income-based taxes or be adopted, instead of other types of taxes, to raise additional revenues as part of the essential effort to curb the budget deficit.

All of these pro-saving tax proposals have some undesirable features. The impact on income distribution of most of them is likely to be regressive. Despite the crucial importance of raising saving for the long run, it would be a mistake to dampen consumption too quickly in light of the present state of the economy.

These risks are genuine but can be countered by careful design of the taxes and by offsetting measures elsewhere. For example, necessities such as food and medicine can be exempted from a VAT or sales tax. Direct rebates can mitigate effects on the poor. If the new taxes were only a partial element in the overall regime, as is likely, the progressivity of the income tax could be increased to maintain fairness in the overall tax system. Some members of the Council nevertheless believe that consumption-based tax measures would be inappropriate and would prefer to continue relying on the progressive income tax.

Education

Sweeping reform of education, which the Council also believes should be seriously considered but on which we are not making specific recommendations in this report, would rest on building new incentives into the system at all levels. Colleges and universities would grant admission into degree programs only to those students who have demonstrated that they are prepared for real college-level work. The Federal government would provide incentives for colleges to raise their standards, and for students to meet those standards, by conditioning its institutional and student aid on this basis—and by making sure that all qualified students, however needy, obtain a college education.

Teachers and other K-12 personnel would be rewarded, as a group at each school, for improved performance by their students in meeting higher standards. Students and parents could be given a choice of schools to attend. Teacher pay would be made sensitive to shortages in individual disciplines to

Problems with the country's underlying competitiveness have limited our short-term options and will continue to constrain them until fundamental reforms have taken hold... The most likely return to early prosperity lies in addressing the fundamental problems and thus restoring confidence in the long-run prospects for America.

stimulate the supply of teachers in those areas. The impact on productivity of our system of educational governance and administration should be examined.

Similarly, students who do not attend college should be qualified to obtain good jobs as they leave high school. Employers would begin to scrutinize high school transcripts and teacher recommendations, and take them seriously into account in their hiring decisions. Companies might earmark some jobs for graduates designated by certain high schools, based in turn on those students' records. Structured work-study programs, drawing on German and other European experiences, could substantially improve both the job prospects for high school students and the quality of the workforce that emerges.

Training

Fundamental reform can also be envisaged for aiding workers who must shift jobs due to dynamic changes in the economy. We now rely essentially on market forces and the efforts of some individual companies—and the latter should be improved and expanded to cover all classes of employees. But our Federal government has never mounted effective or widely accessible training programs. Most other industrial countries do it—and most of them spend more than twice as much as the United States on the effort (Figure 24). The focus of a new training program would be on comprehensive worker adjustment assistance that comprised retraining, job search assistance and temporary income support tailored to the needs of the individual. Achievement of a fully competitive educational system would of course help to alleviate this problem as well.

Technology

On technology, the United States could establish a new mechanism for government and industry to work together to promote the development of generic pre-competitive technologies that are not being financed by the private sector. The Federal government has done a good job in supporting defense-related technologies, through its own national laboratories and the Defense Advanced Research Projects Agency (DARPA), but has been much less effective on the civilian side. There are huge differences between the two, and it is clear that expertise in generating and utilizing defense technologies cannot be easily transferred to commercial products.

Nevertheless, the end of the Cold War frees an enormous amount of high-quality resources in the United States: scientists, technicians, skilled workers and managers as well as capital in both the private and public sectors. An historic opportunity exists to redeploy at least some of those resources into channels that will support the restoration of American competitiveness. Much of this conversion must be accomplished in the private sector and some individual firms have already succeeded in launching the shift.

The Federal government, however, may need to stimulate and encourage the process. In addition to creating a

Figure 24
Training Programs in Selected Industrialized Countries

Country	Participation (Percent of Labor Force)	Average Duration in Months	Total Expenditures (Percent of GDP)	Expenditures per Participant (in US Dollars)	Expenditures per Participant as a Percent of Average Income
Canada	1.1	6	0.22	$7,000	37
France	2.3	2.5	0.28	$4,000	27
Germany	1.5	8	0.25	$7,200	37
United Kingdom	1.4	NA	0.22	$5,000	31
United States	1.0	3.5	0.05	$1,800	9

SOURCE: Organization for Economic Cooperation and Development, *Labor Market Policies for the 1990s*, Paris, 1990. Data refer to the period [illegible] new mechanism for government-industry technology cooperation, at least large parts of the national laboratories—among our finest national institutions—should be redirected toward commercial ventures. More effective commercialization of new technologies could be promoted through the creation of new programs and institutions aimed at technology diffusion and application, such as a manufacturing extension program on the model of our agricultural extension service.

Corporate Governance and Financial Markets

On Corporate Governance and Financial Markets, the issue is whether our present system promotes or impedes growth in competitiveness. This question can be answered by careful evaluation of a number of propositions including the following:

- the degree to which long-term performance is the shared goal of both corporate managers and shareholder-owners;
- the degree of management's accountability to owners;
- the effectiveness of owner monitoring to achieve this goal;
- the impact of the "short term" signals sent by the trading practices of institutional investors and management's reaction to them;
- the desirability of dampening current rapid stock turnover patterns;
- the degree to which management's goals of creating shareholder value, creating corporate wealth and advancing the interests of stakeholders (including workers, suppliers and communities) conflict or harmonize with each other, and the preference for one over the other; and
- the effect of legislation in establishing a duty to these several constituencies.

Health Care Costs

Comprehensive reform of health care, in addition to pursuing universal coverage, would involve a recognition that incentives for efficient utilization of medical care are lacking at all levels of the system. To deal with exploding costs, the Federal government could make use of a variety of containment strategies (including expenditure caps) both to reduce unnecessary use of medical services and to improve efficiency of the health care payment system.

Several alternative possibilities are currently being discussed:

- a single payer at the national or state levels could be established (with new limits on malpractice liability);
- to deal with the problems of the uninsured, about 80 percent of whom are in working families. Congress could mandate employment-based

In each area, national goals should be set against which subsequent performance can be gauged. We want a results-oriented strategy against whose criteria government, business, unions, educational and other institutions can be held accountable.

coverage through a pay-or-play tax as recommended by The US Bipartisan Commission on Comprehensive Health Care (Pepper Commission);

- individuals could receive assistance in buying insurance with vouchers, tax credits or expanded regulations;
- a new universal access system could be created similar to those in other industrial countries.

Trade

On trade, the Council also believes that an extensive set of reforms should be considered:

- an agreement among the Group of Seven industrial nations (G-7) to maintain the exchange rate of the dollar (and other currencies) at a competitive level, building on the "reference ranges" that were agreed in 1987. Avoiding dollar overvaluation is of central importance in maintaining American trade competitiveness;
- more broadly, agreements with the other economic superpowers (the European Community and Japan) to coordinate macroeconomic and monetary policies to sustain world growth and thus a hospitable environment for continuing trade expansion;
- effective results that will promote US trade employment and other interests through the several international negotiations in which the United States is presently engaged: most importantly, the Uruguay Round in the GATT, but also the North American Free Trade Agreement and subsequently the Enterprise for the Americas Initiative;
- substantial expansion of the Export-Import Bank to match both the magnitude and effectiveness of other countries' official export programs, as needed to induce others to agree to limit (or preferably eliminate) intergovernmental competition in this area;
- elimination or sharp reduction of many of the export disincentives (excessive or unnecessary national security controls, foreign policy controls, sanctions, short supply controls, etc.) that now curtail billions of dollars worth of foreign sales by US firms annually;
- evaluation of the effectiveness of US trade laws;
- effective assessment of the practices pursued by our trading partners, specifically with regard to how such practices affect US exports;
- a reduction in staff turnover in the relevant government agencies to improve America's ability to negotiate beneficial trade agreements; and
- comprehensive assessment of how multinational corporations, particularly those headquartered domestically, affect our competitiveness.

Specific Proposals

As noted, the Council is not yet prepared to recommend reforms such as those outlined above pending further analysis and discussion. Before turning to the procedures by which it intends to pursue these and other possibilities, however, there are two specific recommendations that the Council does make at this time.

First, the Council agrees that **the time has come for the United States to establish a serious "competitiveness strategy" through both sector-specific and generic policies.** We note that the United States has in fact carried out strategies toward certain sectors of the economy and key industries from the birth of the republic under different rubrics—including agricultural policy, defense policy and aerospace policy—with the effect of supporting particular sectors deemed essential to the national interest. There have been failures but the results have sometimes been spectacularly successful: the world's most competitive farms and commercial aircraft, a robust computer industry and many more. There need be no embarrassment over conscious endorsement of such a policy, particularly as it is pursued by virtually all other countries around the world.

Moreover, under Administrations of both parties and all ideological orientations, the United States has frequently employed import quotas, tax incentives, government loans and procurement, and numerous other devices to support or protect individual sectors (or even individual firms, as with Chrysler and Lockheed). These approaches, however, have been largely episodic and *ad hoc*. We need to replace this latter approach by the establishment of policies like those mentioned above and with a coherent, consistent and effective "competitiveness strategy."

Our present governmental structure was not designed to help this country compete in a global economy. Its only two high-level economic officials, the Secretary of the Treasury and the Chairman of the Federal Reserve Board, are primarily responsible for financial matters. The government needs to designate an agency, perhaps a substantially strengthened Department of Commerce or the International Trade Commission with its functions greatly expanded, that would raise the nation's awareness of the competitiveness problem and initiate and maintain several activities:

- assessing the likely course of key American industries, including at least some of those on the very similar lists of "critical technologies" drawn up recently by several Federal agencies and other groups in this country and abroad, over the coming decade or so;
- comparing these baseline projections with "visions" of industry paths that would be compatible with a prosperous and competitive American economy;
- monitoring the activities of foreign governments and firms in those same sectors to provide "early warning" of competitive problems that might be on the horizon. The intelligence community might be able to contribute significantly to this part of the effort;
- acting as an ombudsman within the Federal government for specific competitiveness issues that are affected by Federal laws and regulations.

With such an analytical mandate and capability, the United States Government would—for the first time—be in a position to respond intelligently to proposals for assistance from specific industries. It would be able to fashion and pursue a coherent and disciplined competitiveness strategy. Such efforts would of course have to be coordinated closely with macroeconomic and other related policies so the Council of Economic Advisers, the Treasury Department and the USTR would need to be closely involved. But these efforts would add an entirely new dimension to the government's capability to provide a competitive environment for the economy and, at a minimum, to respond adequately to sectoral problems as they inevitably arise.

A Comprehensive Competitiveness Strategy for the United States

In November 1991, the U.S. House of Representatives — in a bipartisan "sense of the House" resolution — went on record in favor of a comprehensive, coordinated competitiveness strategy for the United States:

Resolved, That it is the sense of the House of Representatives that—

(1) there is a need for the development of a comprehensive, coordinated strategy to encourage investment in human and material resources, to harness our inventive genius to the marketplace, to secure the education and training of a competitive citizenry and workforce, and to stimulate cooperative efforts between the private and public sectors at all levels of business, education, and government: and

(2) such a comprehensive, coordinated strategy will help the United States achieve its goal of being the strongest nation on earth economically and militarily, so that it remain the greatest nation in support of human dignity, freedom and democratic ideals.

As indicated in this First Annual Report, the Competitiveness Policy Council hopes to contribute to the development of such a strategy in the months and years ahead.

Critical Technologies

Numerous government and private reports have recently listed and analyzed technologies considered critical to the United States. The Department of Defense's *Critical Technologies Plan* is issued annually and focuses on 20 process and product technologies deemed to be "the most essential to develop in order to ensure the long-term qualitative superiority of US weapon systems." The National Critical Technologies Panel created by the Office of Science and Technology Policy (OSTP) is also required to submit biennial reports to the President; its March 1991 report focused on dual-use and product technologies essential to the "long-term national security and economic prosperity of the United States." Similar lists have been developed by the Department of Commerce, the Aerospace Industries Association and the private sector Council on Competitiveness.

The March 1991 report of Office of Science and Technology Policy includes one of the most exhaustive lists of critical technologies:

- aeronautics
- applied molecular biology
- ceramics
- composites
- computer simulation and modeling
- data storage and peripherals
- electronics and photonics
- energy
- flexible computer integrated manufacturing
- high-definition imaging and displays
- high performance computing and networking
- high performance metals and alloys
- intelligent processing equipment
- material synthesis and processing
- medical technology
- micro- and non-fabrication
- microelectronics and optoelectronics
- photonic materials
- pollution minimization, remediation, and waste management
- sensors and signal processing
- software
- surface transportation technologies
- systems management technologies

Second, it is clear that our political institutions should take account of the implications for the country's competitiveness of all new programs that they adopt. The Congress already reached such a judgment in 1988 when, in the Omnibus Trade and Competitiveness Act, it mandated the preparation of Competitiveness Impact Statements for precisely that purpose. The law has seemingly been ignored, however, and such Statements have played no role in the national debate on critical issues including the budget, tax policy, education and health care reform.

We therefore believe that **the Administration should prominently include a Competitiveness Impact Statement with each recommendation or report on legislation that it submits to the Congress. The Congress should insist that such Statements be submitted, review them carefully, and take them fully into account in making its decisions on all relevant legislation.**

Next Steps

In addition to offering these recommendations, the Council is launching an ambitious workplan for the coming year. First, based on this initial report and our continuing work, the Council will from time to time be making recommendations on specific issues that

Competitiveness Impact Statements

The Omnibus Trade and Competitiveness Act of 1988 (Section 5421) calls on the President and agency heads to include a statement of the impact of relevant legislative proposals "on the international trade and public interest of the United States" and the ability of US firms to compete in foreign and domestic markets—in every legislative recommendation or report made to Congress. The requirement was mandated for a trial six-year period, of which over half has already elapsed. It is essential to begin implementing the law now.

may arise in legislative or rulemaking proceedings. We regard the Council as a "competitiveness ombudsman" that will attempt to draw attention to competitiveness concerns in the debate over generic policies, and on issues concerning specific sectors and firms, and invite interested parties to alert us to topics that need to be addressed in that context.

Second, as authorized in the Omnibus Trade and Competitiveness Act of 1988, the Council is establishing a set of Subcouncils to assist us in crafting solutions to a number of the major competitiveness problems facing America. The Subcouncils will seek to develop goals for America in each area and offer specific recommendations to deal with the problems they are addressing. We are directing each Subcouncil to submit its initial set of recommendations to the full Council by November 15, 1992. The Council will review these recommendations and report on them in its next Annual Report to the President and Congress.

Like the Council itself, our Subcouncils comprise a novel structure designed by the Congress to elicit constructive solutions from a quadripartite group of representatives of business, labor, government and the public interest. The Subcouncils will emphasize cooperation between business and labor, between the public and private sectors, and between the Federal and state governments. They will include proponents of all responsible points of view to ensure that their analyses and recommendations will be balanced and comprehensive. They will be ongoing consultative forums that draw upon the best practices from American industry and labor, foreign countries and companies, innovative state programs, university and other research centers, and all other available sources.

We are hereby establishing eight Subcouncils:

- Capital Formation
- Education
- Training

Political leadership, from both the President and the Congress, will be essential to launch the process of reform. Only such leadership can galvanize the public support that is crucial to the success of the effort.

- Public Infrastructure
- Corporate Governance and Financial Markets
- Trade Policy
- Manufacturing
- Critical Technologies

The **Subcouncil on Capital Formation** will focus on strategies to substantially increase the US saving and investment rates. In addition to considering the Federal budget deficit, the Subcouncil will examine the potential contribution of fundamental tax reform (as described above) and the usefulness of individual tax incentives.

The **Subcouncil on Education** will develop ways to bring performance at the pre-kindergarten and K-12 levels to internationally competitive levels. It will consider Federal actions as well as steps that states, local school boards, employers, and labor unions can take. This Subcouncil will draw on the work of previous and ongoing commissions including the National Council on Education Standards and Testing. It will be chaired by Albert Shanker, President of the American Federation of Teachers and a member of our Council.

The **Subcouncil on Training** will have three goals: to develop a plan for more effective worker adjustment programs, to consider ways to encourage and upgrade training for all employees, and to make recommendations for needed improvements in education and preparation for work for high schoolers who do not go on to college. The Subcouncil will draw on the work of the Commission on the Skills of the American Workforce, the Secretary of Labor's Commission on Achieving Necessary Skills, and the National Advisory Commission on Work-Based Learning. The Subcouncil will be chaired by Lynn Williams, President of the United Steelworkers and a member of our Council.

The **Subcouncil on Infrastructure** will look at America's transportation, communications, information, and utility networks to consider what investments need to be instituted now to support American competitiveness over the longer run. The Subcouncil will draw on the work of the National Council on Public Works Improvement.

The **Subcouncil on Corporate Governance and Financial Markets** will seek to identify the specific corporate governance and shareholder trading patterns that impact the nation's competitiveness and growth, and make appropriate recommendations. It will be chaired by Edward Regan, Comptroller of the State of New York and a member of our Council.

The **Subcouncil on Trade Policy** will develop specific recommendations for how the United States can better promote exports, particularly of manufactured products, as an engine of growth. It will look at export disincentives at home as well as policies needed to open markets abroad, and the structure as well as level of US trade. The Subcouncil will work closely with the President's Export Council. It will be chaired by John Murphy, CEO of Dresser Industries and a member of our Council.

The **Subcouncil on Manufacturing** will consider how companies in a select group of industries can do better in stimulating innovation, speeding product development, boosting quality, and improving effective utilization of the workforce and labor-management relations. It will attempt to discern whether valid generalizations can be drawn for manufacturing as a whole. It will suggest what the Federal and state governments can do to improve the environment in which the firms and their workers operate. It will examine the opportunities and challenges of defense conversion. It will consider how workers can participate more effectively in improving the production process. The Subcouncil will build on the work of the MIT Commission on Industrial Productivity and the new industry centers established at several universities by the Alfred P. Sloan Foundation.

The **Subcouncil on Critical Technologies** will review the recently increased US Government efforts for developing leading edge technologies and evaluate them in relation to the efforts by competitors such as Japan, several European countries and the EC as a group, and Korea. The Subcouncil will propose policy, funding, and regulatory changes that may be beneficial to improving our technological base. It too may wish to look at critical individual industries. It will work closely with the private sector Council on Competitiveness which has developed many recommendations on these issues.

Although the Council believes that health care costs are a significant factor affecting US competitiveness, we are not setting up a Subcouncil on that issue at this time. Since several detailed plans are now being considered, the Council believes that it can be most useful not by devising a plan of its own but rather by analyzing the competitiveness impact of various plans as they emerge and make their way through the legislative process. The Council will thus keep the issue under review and return to it later.

Building A Competitive America

The Competitiveness Policy Council believes that improving the nation's competitiveness is one of the primary challenges facing the United States as it prepares to enter the twenty-first century. The degree to which we meet that challenge will go far to determine the prosperity of our people in the coming decades. It will help determine the world role, in security and political as well as economic terms, that the United States will be able to play in the post-Cold War world.

The Council believes that the historical record, recent signs of progress and unparalleled resources of the United States will enable it to meet the challenge effectively. It will not be easy to restore the competitive successes that characterized America in an earlier era, however. Many other countries are moving ahead rapidly and their momentum will be hard to catch. Ironically, the enormous assets of the United States still mask the slide which this Council feels has now become quite clear.

Leadership from all our public officials will be essential to launch the process of reform. Only strong leadership can galvanize the public support for reform that appears to exist and is crucial to the success of the effort. Only such leadership can bring together the necessary components of a comprehensive program. We believe that the American public is ready to respond to such leadership and is in fact starting to demand it.

The America that could result from such an effort would be far stronger than it is today. It would take a much longer run view than it does now. Its laws and regulations would enhance American competitiveness. The country would be fully cognizant of its deep integration into the world economy and recognize the central importance of superior performance as measured against global standards.

Such an America would fulfill our definition of competitiveness— meeting the test of international markets while its citizens earn (rather than borrow) a rising standard of living that can be sustained over the long run. We commend this vision to the President and Congress as we present them with this First Annual Report, and look forward to contributing further to its realization with our work in the months and years ahead.

About Our Members

RAND V. ARASKOG has been Chairman, President and Chief Executive Officer of the ITT Corporation since 1980. He is also chairman of the Supervisory Board of Alcatel N.V, ITT's joint venture with Alcatel Alsthom of France, the world's largest telecommunications manufacturing company. Mr. Araskog is a director of several corporations, the New York Stock Exchange, and the Federal Reserve Bank of New York. He is a member of the Business Roundtable and author of *The ITT Wars*. He spent five years at the Department of Defense during the late 1950s.

JOHN J. BARRY is the International President of the International Brotherhood of Electrical Workers, a position he has held since 1986. He started as an apprentice in the electrical construction industry in 1942 and has held numerous elected positions in organized labor since 1962. He is a Vice President and Executive Council member of the AFL-CIO. He serves on many boards including the U.S. Council for Energy Awareness and the American Productivity Center.

C. FRED BERGSTEN, Chairman of the Council, is Director of the Institute for International Economics, which he founded in 1981. He was Assistant Secretary of the Treasury for International Affairs from 1977-1981 and served on the senior staff of the National Security Council from 1969-1971. Dr. Bergsten is the author of 19 books on a wide range of international economic issues, most recently *America in the World Economy: A Strategy for the 1990s*.

WILLIAM GRAVES is the Secretary of State of Kansas. He was first elected in 1986 and is now serving his second term. He is a member of the board of the National Association of Secretaries of State and of Leadership Kansas. He is also a member of the American Council of Young Political Leaders and has served as an election observer in Taiwan. Mr. Graves is active in numerous civic organizations including the Kansas Chamber of Commerce and Industry.

JOHN J. MURPHY has been Chairman, President and Chief Executive Officer of Dresser Industries, Inc. since 1983. He serves on the boards of PepsiCo, NationsBank Corporation, and Kerr-McGee Corporation. Mr. Murphy is also Chairman of the Board of Trustees of St. Bonaventure University, and U.S. Chairman of the Trade and Economic Council. He serves on the Board of Trustees of Southern Methodist University and the Board of Directors of the U.S. Chamber of Commerce and the U.S.-China Business Council.

EDWARD V. REGAN is the New York State Comptroller. He was first elected to this position in 1978 and is now serving his fourth term. Among his many duties is the trusteeship of New York State's pension funds, whose assets now total over $50 billion. He was a member of the President's Commission on Industrial Competitiveness in 1983-85. Mr. Regan teaches at the Stern Graduate School of Business (NYU) and writes and lectures frequently on municipal finance, pensions, and corporate governance issues.

BRUCE R. SCOTT is the Paul W. Cherington Professor of Business Administration at the Harvard Business School, where he has taught since 1962. Mr. Scott teaches a course in comparative economic strategies of countries and has co-authored a study of industrial policy in France, an analysis of the Venezuelan economy, and more recently a study of the prospects for transition in South Africa. He is co-author (with George Lodge) of *U.S. Competitiveness in the World Economy*.

ALBERT SHANKER is President of the American Federation of Teachers, a post he has been elected to since 1974. He has taught in the New York City public schools and at the graduate level. He is a vice president and Executive Council member of the AFL-CIO. Mr. Shanker serves on numerous boards including the National Academy of Education and the National Council on Education Standards and Testing. His weekly column, "Where We Stand," has appeared regularly for over 21 years.

ALEXANDER B. TROWBRIDGE is President of Trowbridge Partners, Inc. which he founded in 1990 following ten years as president of the National Association of Manufacturers. He has held a number of positions in the public and private sectors including U.S. Secretary of Commerce from 1967-68, President of the Conference Board, and Vice Chairman of Allied Chemical Corp. He serves on ten corporate boards and is a charter trustee of Phillips Academy in Andover, Massachusetts.

EDWARD O. VETTER is President of Edward O. Vetter & Associates. He previously held a number of positions at Texas Instruments including Executive Vice President and Chief Financial Officer. Since retiring from Texas Instruments Mr. Vetter has served as Undersecretary of Commerce from 1976-77, Energy Adviser to the Governor of Texas from 1979-83, and Chairman of the Texas Department of Commerce from 1987-91. He is a director of the AMR Corp., advisor to several venture funds, and a trustee of The Massachusetts Institute of Technology.

LYNN R. WILLIAMS is the International President of the United Steelworkers of America, a position he has held since 1983. He is a Vice President and Executive Council Member both of the AFL-CIO and of its Industrial Union Department. Mr. Williams is a member of numerous organizations including the Collective Bargaining Forum, the National Committee for Full Employment, the Committee for National Health Insurance, the National Planning Association, the National Institute for Dispute Resolution and the Economic Policy Institute.

The Competitiveness Policy Council's Mandate

The Competitiveness Policy Council was created by the Omnibus Trade and Competitiveness Act of 1988. It is charged with making recommendations to the President and Congress on how to improve the nation's competitiveness. The Council's objectives, as stated in Public Law 100-418 (Section 5204), are to:

(1) develop recommendations for national strategies and on specific policies intended to enhance the productivity and international competitiveness of United States industries;

(2) provide comments, when appropriate, and through any existing comment procedure, on—

(A) private sector requests for governmental assistance or relief, specifically as to whether the applicant is likely, by receiving the assistance or relief, to become internationally competitive; and

(B) what actions should be taken by the applicant as a condition of such assistance or relief to ensure that the applicant is likely to become internationally competitive;

(3) analyze information concerning current and future United States economic competitiveness useful to decision making in government and industry;

(4) create a forum where national leaders with experience and background in business, labor, academia, public interest activities, and government shall identify and develop recommendations to address problems affecting the economic competitiveness of the United States;

(5) evaluate Federal policies, regulations, and unclassified international agreements on trade, science, and technology to which the United States is a party with respect to the impact on United States competitiveness;

(6) provide policy recommendations to the Congress, the President, and the Federal departments and agencies regarding specific issues concerning competitiveness strategies;

(7) monitor the changing nature of research, science, and technology in the United States and the changing nature of the United States economy and its capacity—

(A) to provide marketable, high quality goods and services in domestic and international markets; and

(B) to respond to international competition;

(8) identify—

(A) Federal and private sector resources devoted to increased competitiveness; and

(B) State and local government programs devised to enhance competitiveness, including joint ventures between universities and corporations;

(9) establish, when appropriate, subcouncils of public and private leaders to develop recommendations on long-term strategies for sectors of the economy and for specific competitiveness issues;

(10) review policy recommendations developed by the subcouncils and transmit such recommendations to the Federal agencies responsible for the implementation of such recommendations;

(11) prepare, publish, and distribute reports containing the recommendations of the Council; and

(12) publish their analysis and recommendations in the form of an annual report to the President and the Congress which also comments on the overall competitiveness of the American economy.

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