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THE WHITE HOUSE
WASHINGTON

CABINET AFFAIRS STAFFING MEMORANDUM

Date: 12/8/89 **Number:** _____ **Due By:** _____

Subject: December 12 Economic Policy Council meeting:
Savings and Cost of Capital

	Action	FYI		Action	FYI
ALL CABINET MEMBERS	☐	☐	CEA	☒	☐
Vice President	☒	☐	CEQ	☐	☐
State	☒	☐	OSTP	☒	☐
Treasury	☒	☐	_____	☐	☐
Defense	☒	☐	_____	☐	☐
Justice	☒	☐	_____	☐	☐
Interior	☐	☐	_____	☐	☐
Agriculture	☒	☐			
Commerce	☒	☐	Scowcroft	☐	☐
Labor	☒	☐	Porter	☐	☐
HHS	☒	☐	Breeden	☐	☐
HUD	☒	☐	Cicconi (For WH Staffing)	☒	☐
Transportation	☒	☐	_____	☐	☐
Energy	☐	☐	_____	☐	☐
Education	☐	☐	_____	☐	☐
Veterans	☐	☐	_____	☐	☐
OMB	☒	☐	_____	☐	☐
USTR	☒	☐	_____	☐	☐
Chief of Staff	☒	☐	Executive Secretary for:		
UN	☐	☐	DPC	☐	☐
CIA	☐	☐	EPC	☐	☐
National Drug Policy	☐	☐	_____	☐	☐
EPA	☐	☐	_____	☐	☐
GSA	☐	☐	_____	☐	☐
NASA	☐	☐	_____	☐	☐
OPM	☐	☐	_____	☐	☐
National Science Foundation	☐	☐	_____	☐	☐
SBA	☐	☐			

REMARKS:

RETURN TO:

☐ David Q. Bates
Cabinet Secretary
456-2174
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☐ Associate Director
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THE WHITE HOUSE

WASHINGTON

December 8, 1989

MEMORANDUM FOR THE ECONOMIC POLICY COUNCIL

FROM: LEHMANN LI 
SUBJECT: Economic Policy Council Meeting on December 12

The Economic Policy Council will meet at 10:00 am on Tuesday, December 12. The EPC will meet in the Roosevelt Room.

The EPC will review a report by the Working Group on Savings and Cost of Capital. The working group, chaired by the Treasury Department, has prepared the attached paper outlining the role of saving and investment in the economy and presenting an analysis of options for increasing savings and investment.

THE ROLE OF SAVING AND INVESTMENT IN A DYNAMIC U.S. ECONOMY:
OPTIONS AND FURTHER PROGRESS

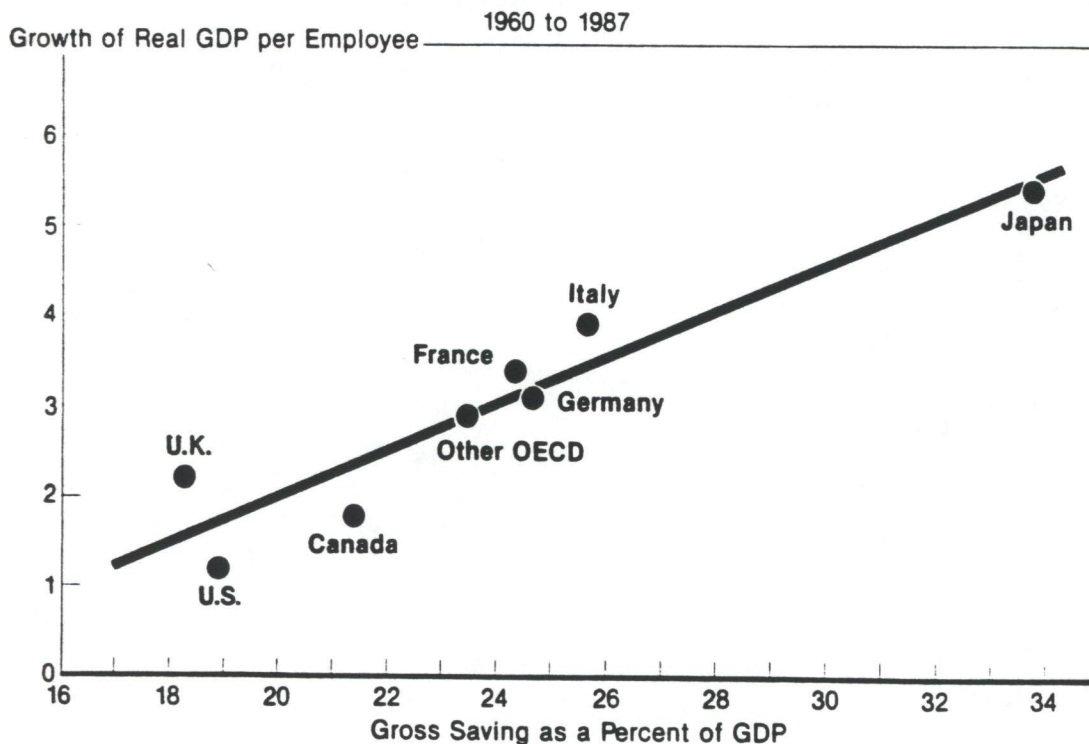
EXECUTIVE SUMMARY

Why Saving is Important

Productivity is the key to sustaining economic growth, competing in an increasingly integrated world economy, and adjusting to changing demographic patterns. To promote the growth of productivity we need increased investment -- in capital equipment, technology, and in human resources. Investment requires matching savings to provide the necessary resources. The basic issue involves the allocation of resources between current consumption and investment for the future. The resulting stock and quality of plant and equipment, combined with the abilities and commitment of the labor force, determine the output of a nation. There is a relationship between a nation's rate of saving and its growth of productivity (output per worker).

Exhibit 1

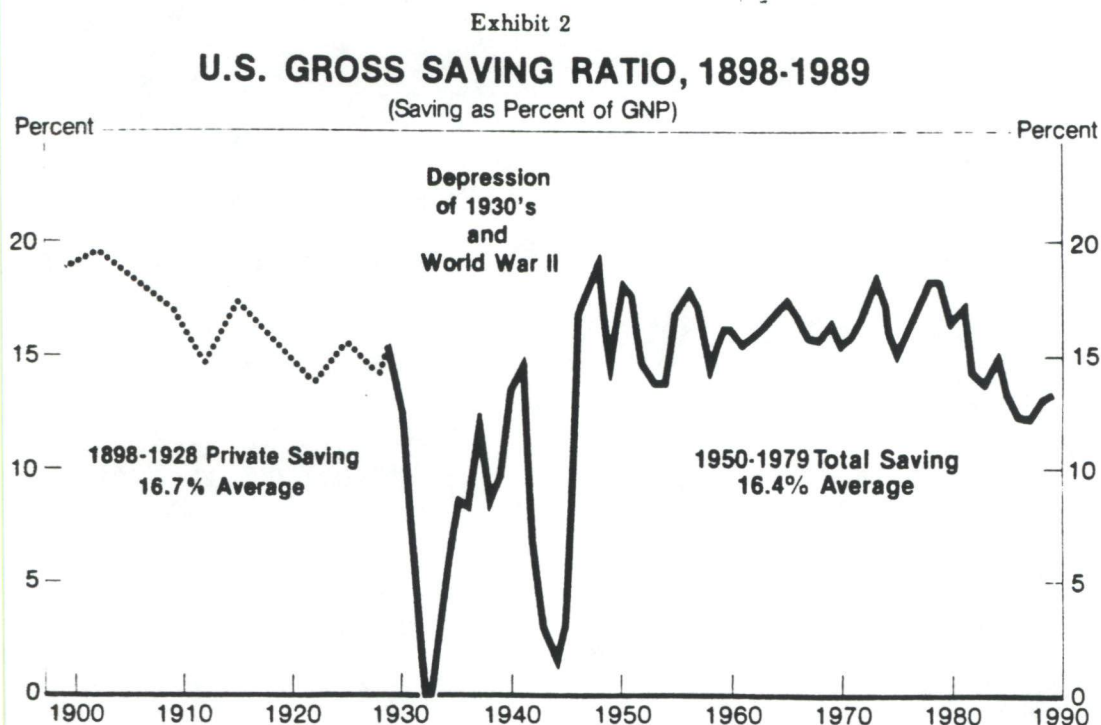
GROSS SAVING AND REAL GROWTH



Source: OECD, Historical Statistics, 1960-1987.

Historical Record

Total national saving (in broad terms, income minus consumption) as a share of gross national product has generally been stable throughout most of this century. The exceptions were during the Depression and World War II. There has been a downward trend in the U.S. saving rate since the late 1970s, requiring the inflow of foreign capital to maintain even the current inadequate rate of investment. There is a consensus that the United States needs to save more.



Note: 1898-1928 data from David and Scadding, Journal of Political Economy, April 1974.
Data following 1928 are from U.S. Department of Commerce.
Latest observation: first three quarters of 1989.

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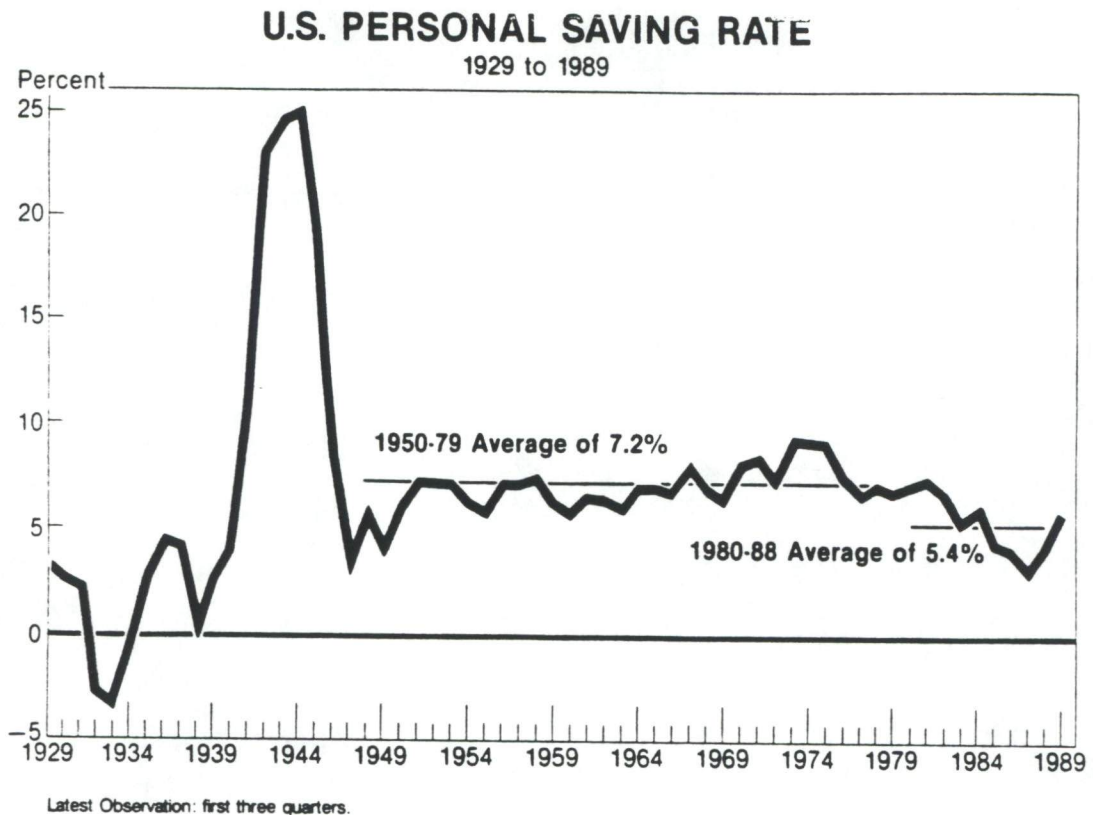
Not only is the recent performance of U.S. saving low in historical perspective, it is poor in comparison with foreign countries. According to a recent OECD calculation during the period 1981 to 1987, the United States ranked 18th of 21 major countries for which data on gross national saving rates were available and 19th of 20 countries for which net national saving rates were available. Personal saving also ranked low even after various statistical adjustments are made.

Components of Saving

National saving is the sum of government saving, business saving, and household saving. While raising total saving is the goal, different factors influence saving in each sector, resulting in different trends in recent years.

- The government sector had a large negative impact on total saving during the early 1980s, due to the Federal deficit. Lower Federal deficits since 1986 are the largest component of the rebound in national saving.
- The personal saving rate (saving as a share of after-tax income) has been disappointing. It has fallen from an average of 7.2 percent in the 1950 to 1979 period to a postwar low of 3.2 percent by 1987. It has since risen to 5.3 percent in the first three quarters of 1989.

Exhibit 3



December 1 1989 A856a

- Business saving -- undistributed profits and depreciation -- accounts for more than three-fourths of private saving. It has not fallen as personal saving has because of rising depreciation allowances.
- The combination of lower personal saving rates and the large government budget deficit claims has reduced the national saving rate well below the historical pace and the rate of saving of other major industrial countries.

Determinants of Saving

- ° Personal saving provides resources to finance retirement, to insure against bad times, to purchase big-ticket items, and to leave a bequest. The major factors affecting saving are the expected length of retirement, the rate of return on saving, other sources of retirement income (e.g., social security), and uncertainty about costs during retirement.
- ° Tax policy affects personal saving by altering the after-tax return to savings. A reduction in the tax on capital gains increases the rate of return and, therefore, should increase saving. IRAs (either conventional or back-loaded) also increase the after-tax return to saving. But the impact of IRAs also depends upon the contribution limits and withdrawal provisions.
- ° Business saving is driven largely by the incentive to finance investment internally rather than externally. Therefore, it is responsive to tax policy toward capital gains, dividends, and interest.
 - Reducing capital gains taxes will increase equity finance and reduce debt finance. It will also increase the incentive to retain earnings. Both effects imply that lower capital gains taxes will raise business saving.
 - Reducing taxes on dividends also will increase equity finance and cause business saving to rise if some of the additional equity earnings are retained.
- ° Government saving can be increased by reducing the budget deficit and, perhaps, eventually running a budget surplus. Given the importance of government saving, this is the single most effective and direct way to raise national saving. To raise national saving, however, deficit reduction cannot rely on policies that reduce private saving or government infrastructure investments.

Determinants of Investment

Investment is determined by the cost of capital, the growth of the economy, the perceived riskiness of investment and corporations' cash flow. Policies affect investment by altering both profitability and the cost of capital.

Good fiscal and monetary policies can work to raise investment in several ways: by promoting growth in output, by reducing perceived inflation risks, by lowering interest rates, and by raising corporate profitability and cash flow.

The tax code has an important effect on the cost of capital. A lower cost of capital increases investment, though the magnitude of the response is uncertain. Lower corporate profits tax rates and reduced personal tax rates on dividends and capital gains encourage investment. Investment also increases in response to accelerated or expanded depreciation and investment tax credits.

A number of studies--through not all--suggest that U.S. companies face costs of capital which are significantly higher than those in Japan and West Germany, and moderately higher than the United Kingdom. If foreign companies have lower capital costs, they will be able to invest profitably in projects which U.S. companies will have to forego, placing U.S. companies at a long-term competitive disadvantage. A higher cost of capital discriminates most heavily against long-term investments. While there is considerable diversity in tax systems, other countries typically reduce the tax distortion in the cost of capital by reducing effective tax rates on capital gains, dividends, and interest.

Consequences of the Low U.S. Saving Rate

The low saving rate in the United States creates the risk that our future standard of living will be curtailed by failing to provide the resources needed to meet important investment goals. It also increases the cost of capital in the United States, which restricts investment. The lack of domestic savings also has created pressures to rely on borrowing from foreign investors to support public and private consumption. The other side of capital inflow is an imbalance on our current account, which has created pressure for protectionism at home. The implications for the future are clear: we must allocate more of our national resources to saving and investment priorities to be prepared for the changing world economy -- more investments in modern plants and equipment, more investments in technology, and more investments in our people.

THE ROLE OF SAVING AND INVESTMENT IN A DYNAMIC U.S. ECONOMY
AND OPTIONS FOR FURTHER PROGRESS

Introduction

It is the stock and quality of capital plant and equipment, combined with the abilities of the workforce, that determine the capacity of a nation for production. Saving provides the resources for the investment necessary to achieve a higher standard of living. Throughout most of the postwar period, the U.S. saving and investment rates have been lower than those of almost all other major industrial countries. More recently, gross saving as a share of GNP has fallen from the 16.4 percent rate averaged in 1950 to 1979 to 14.1 percent in the period 1980 to 1988, requiring the inflow of foreign capital to maintain even the current inadequate rate of investment. There is general consensus that the United States needs to save more. The following paper explores issues relating to saving and investment. Saving will be emphasized in order to help evaluate incentives specifically aimed to stimulate its growth. A separate study will address means of reducing the prospective cost of capital to encourage investment.

The United States faces three major challenges that necessitate higher rates of saving and investment:

- o We need to maintain the strong economic growth of the past seven years, following the slowdown that characterized the 1970's and early 1980's.
- o We must be able to maintain our competitiveness in an increasingly integrated world marketplace.
- o We must prepare our economy for the coming "demographic twist," when the large baby-boom population moves out of the workforce and into retirement, leaving a smaller working-age population to support economic growth.

Why Saving and Investment are Important

The key to meeting these challenges is to increase the growth of American productivity (output per hour worked). Productivity gains in the broad nonfarm sector averaged a little over 2-1/2 percent annually in the 1950's and 1960's. Growth of productivity slowed thereafter and during the current economic expansion has averaged only a 1-3/4 percent annual rate.

Measurement problems, such as the difficulty in calculating improvements in the quality of a product, may lead to understating productivity. Even so, we have learned through international competition that we could do better. Japanese manufacturers, for instance, have taught us that an automobile can be assembled in far less time than the American standard.

While there are indications of a worldwide slowdown in productivity growth, other nations continue to outpace the United States, leading to a narrowing of our traditional advantages.

- o The best way to improve the growth of productivity -- and with it the prospects for economic growth and a higher standard of living -- is through increased investment -- investment in capital equipment, investment in technology, and investment in human resource development.

Saving: An Issue of Allocating Resources between Current Consumption and Investment for the Future

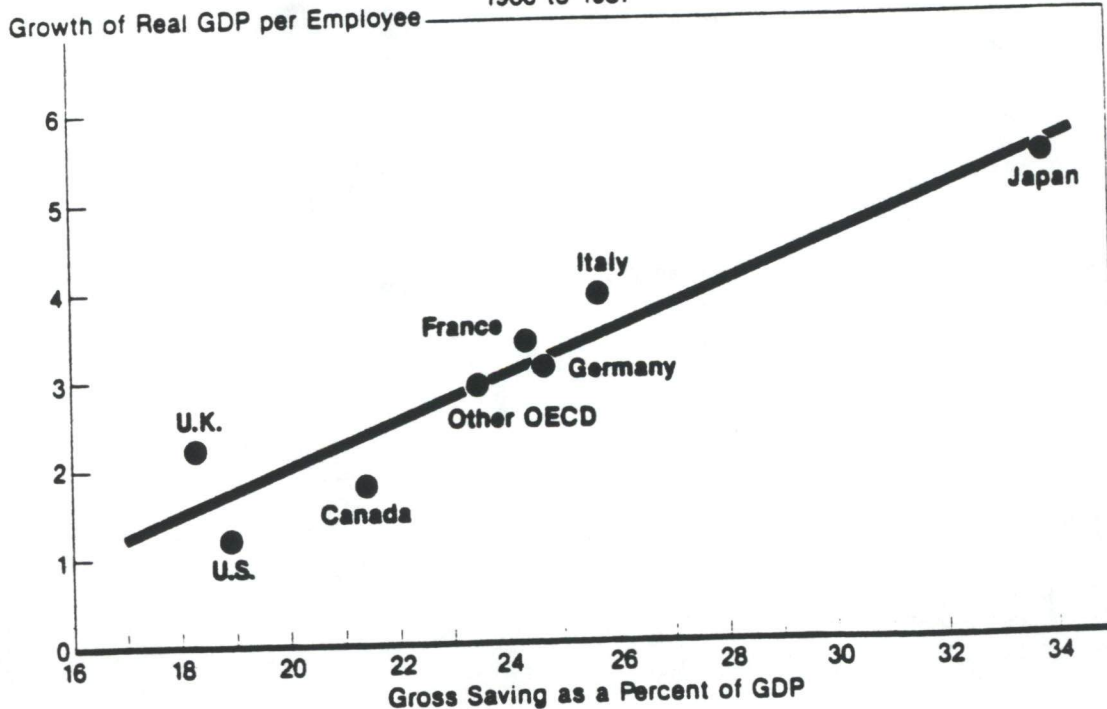
In the simplest form, in a closed economy, saving equals investment. Additions to the quantity or quality of capital stock achieved through saving and investment lead to higher productivity and contribute to higher real growth beyond the gains achieved by more people working more hours.

The link between domestic saving, investment, and productivity has become less certain as the economy has become more open. Indeed, the link has been weakened in recent years as international capital markets have become more integrated, allowing low saving countries, such as the United States, to maintain investment by borrowing abroad. There is, however, empirical evidence of a relationship between a nation's rate of saving and its growth of real output per employee (an alternative productivity measure), as shown in Exhibit 1.

Exhibit 1

GROSS SAVING AND REAL GROWTH

1960 to 1987



- o While borrowing abroad can provide funds to meet the need for higher investment, it carries the burden of creating trade imbalances and ultimately of allowing returns to investment to flow overseas.
- o To improve the outlook for U.S. real growth and productivity, the Nation must find a better balance between consuming in the present and saving and investing for the future.

Saving: the Statistical Record

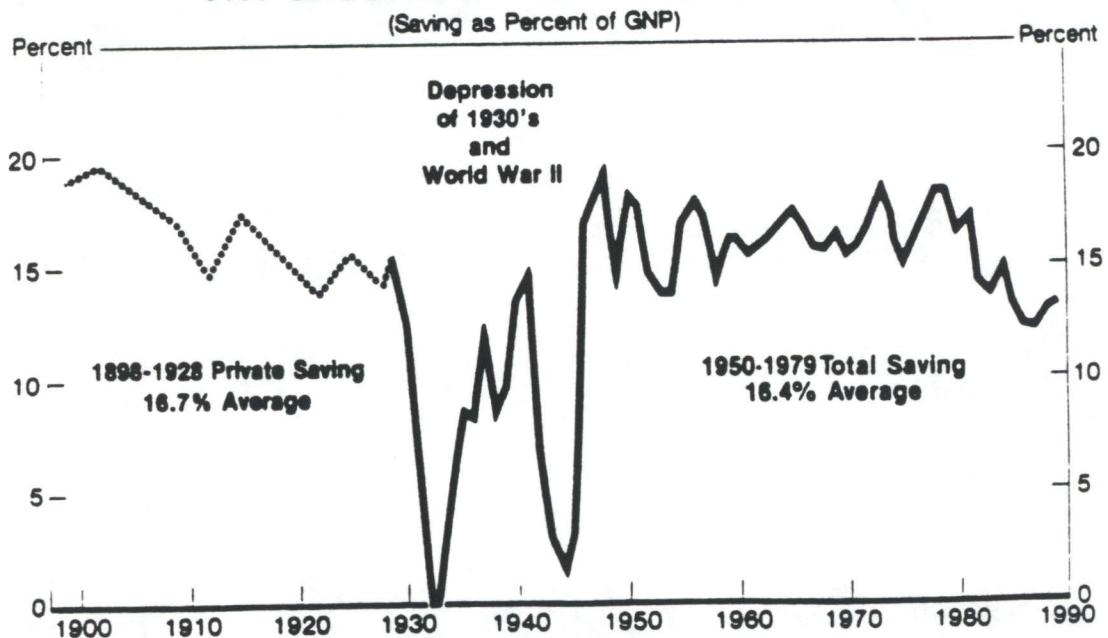
It is total national saving -- consisting of personal, corporate, and government saving -- that represents the domestic resources available to support future economic growth. Saving for each of the components is calculated by subtracting consumption from income. In the national income and product accounts (NIPA), all government spending is considered to be consumption.

Over the past century, saving in this country has been strikingly stable, as shown in Exhibit 2, leading many to question the extent to which policy changes can influence saving. Sharp declines during the Great Depression and World War II were the chief exceptions to this stable pattern until recently.

- o Since 1982 there has been a pronounced downtrend in the gross national saving rate, which reached a postwar low of 12.2 percent of GNP in 1987. By the first three quarters of this year, the saving share had only recovered to 13.4 percent. (While net saving is conceptually preferable, gross saving will be used throughout much of this paper because of difficulties in calculating the net figure. See discussion on page 6.)

Exhibit 2

U.S. GROSS SAVING RATIO, 1898-1989



Note: 1898-1928 data from David and Scadding, Journal of Political Economy, April 1974.
 Data following 1928 are from U.S. Department of Commerce.
 Latest observation: first three quarters of 1989.

- o Raising gross saving to the long-term average of 16.4 percent of GNP would have meant roughly an additional \$150 billion in resources available for investment this year.

The sources of the recent decline in the national saving rate can be traced in Exhibit 3.

Exhibit 3

Gross Saving and Investment as a Share of Gross National Product

	1950's	1960's	1970's	1980-88	1987	1988	First 3-Qtrs. 1989
<u>Gross Domestic Saving</u>	16.1	16.3	16.7	14.1	12.2	13.2	13.4
Private ¹	16.5	17.1	18.4	18.0	16.1	16.6	16.8
Personal ¹	5.1	5.1	6.4	5.1	3.7	4.4	5.3
Corporate Undist. Profits	2.8	3.5	2.5	1.7	1.7	1.6	1.0
Depreciation Allowances	8.7	8.5	9.6	11.0	10.8	10.5	10.5
Government ¹	-0.4	-0.8	-1.8	-3.8	-3.8	-3.4	-3.4
Federal	0.1	-0.3	-1.7	-3.9	-3.6	-3.0	-2.8
State & Local ¹	-0.6	-0.5	0.0	0.1	-0.3	-0.4	-0.6
<u>Gross Domestic Investment</u>	16.3	16.2	16.7	14.2	12.1	13.0	13.0
Gross Private Domestic	16.2	15.5	16.4	15.8	15.5	15.4	14.9
Business Fixed	9.6	9.9	10.7	10.9	9.8	10.0	9.8
Net Foreign	0.1	0.6	0.2	-1.6	-3.3	-2.4	-1.9
A D D E N D U M:							
<u>Net Domestic Saving²</u>	8.1	8.6	7.9	3.4	1.7	3.0	3.2
Private ¹	8.6	9.4	9.8	7.7	6.0	6.8	7.0
Government ¹	-0.5	-0.8	-1.9	-4.3	-4.3	-3.8	-3.8
Personal Saving Rate ³	6.8	6.7	8.0	5.4	3.2	4.2	5.3

Note: Small difference between gross domestic saving and gross domestic investment represents the statistical discrepancy. Other components may not add exactly to totals due to rounding.

1. Employee pension funds of state and local governments are allocated to personal saving to match the treatment of private pension funds.
2. Net saving equals gross saving minus depreciation allowances. It is shown as a share of net national product (GNP minus depreciation).
3. Personal saving as a percent of disposable personal income.

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- o The apparent heavy burden of the Federal deficit on the overall saving picture is striking. The Federal claim, which was relatively neutral in the 1950's and 1960's, subtracted 3.9 percentage points from saving as a share of GNP from 1980 through 1988.

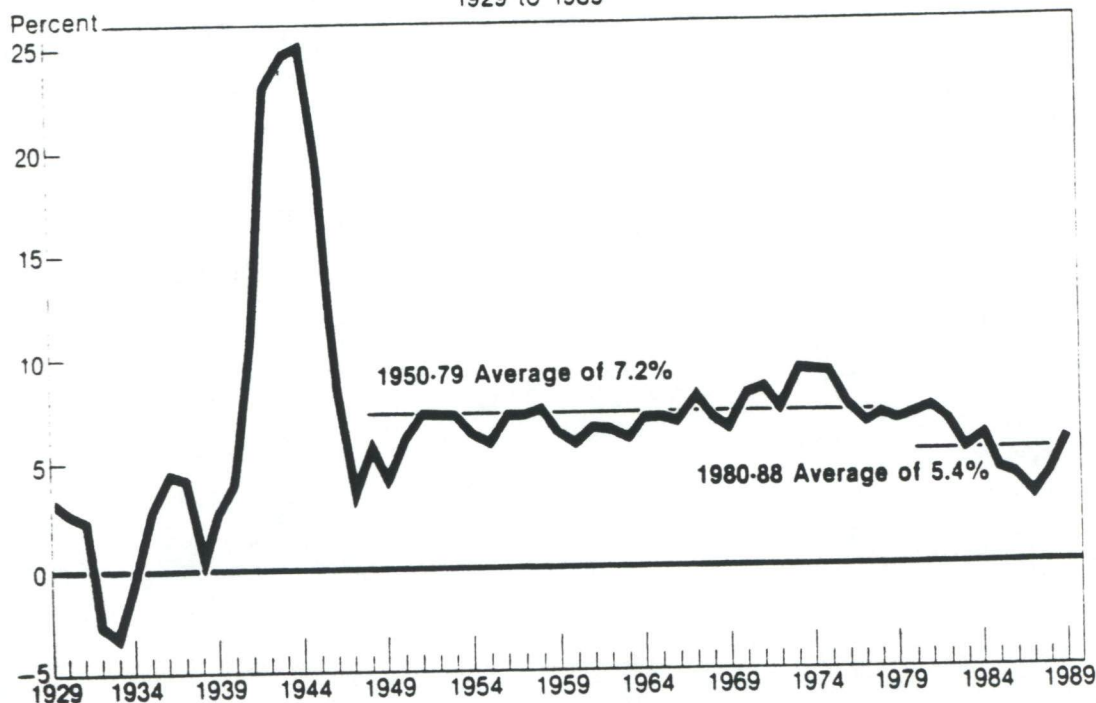
-- This fact highlights the urgency of pursuing budget balance along the Gramm-Rudman-Hollings path, and resolving to maintain that balance in the future.

- o Private saving (personal and corporate) in these gross measures (including depreciation) appears to have been fairly stable in the aggregate, mainly due to rising depreciation allowances.
- Corporate profits have eased about 1 percentage point during the 1980's from their average in the previous three decades. Business depreciation allowances on the other hand have risen markedly as asset lives have shortened.
- The most frequently cited personal saving rate, as published in the national income and product accounts (saving as a share of after-tax income), fell sharply during the 1980's as depicted in Exhibit 4. (Historical data also shown in last line of Exhibit 3.)

Exhibit 4

U.S. PERSONAL SAVING RATE

1929 to 1989



Latest Observation: first three quarters.

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- o An alternative measure of personal saving treats pension funds of state and local governments the same as those of private employers by including them in the household sector, as shown in line 3 of Exhibit 3.
- While this measure has held up better than the conventional personal saving rate, the average for this decade obscures a falloff in

the mid 1980's. By 1987, adjusted personal saving as a share of GNP had declined to 3.7 percent, its lowest rate since 1947. During the last five years it has averaged only 4.4 percent.

- ° There is the possibility that the decline in both personal saving rates was a transitory phenomenon. Although still below long-term averages, each measure in 1989 has now risen by roughly 2 percentage points from its 1987 low.
- There is no reason to favor one of the three components of saving over the others. Total national saving is what counts in the supply of funds for investment. Thus, any efforts to raise private saving (either corporate or personal) would be misplaced if they came at the expense of widening the Federal deficit.

Issues Surrounding the Measurement of Saving

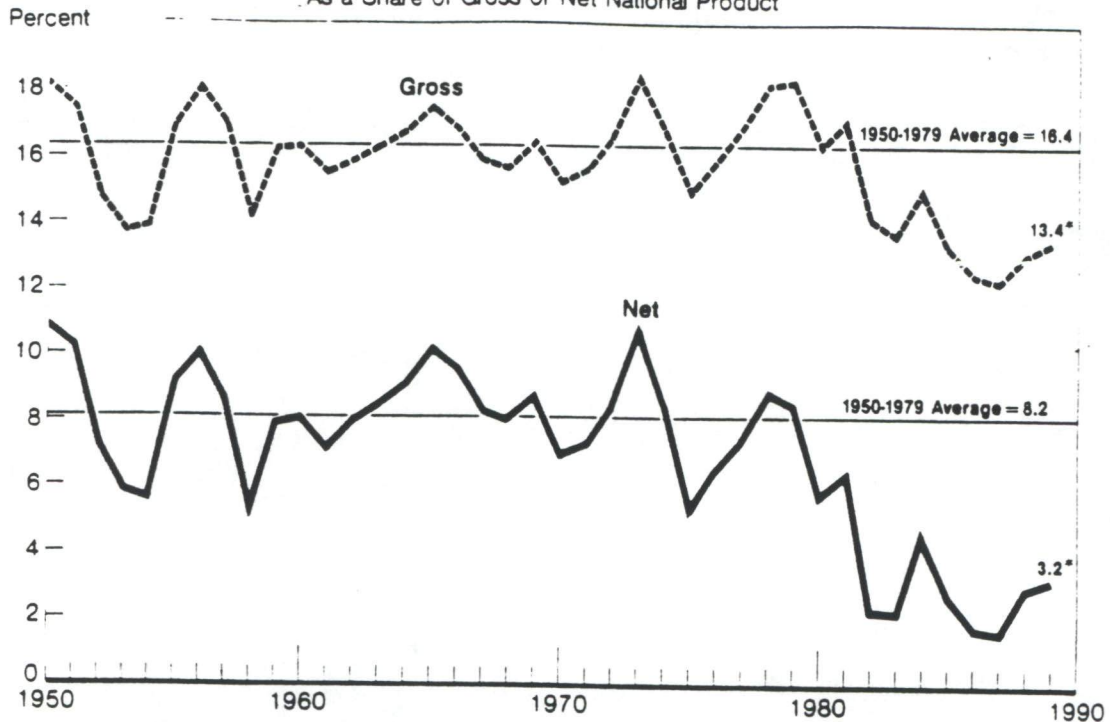
A number of measurement and definitional issues have caused debate on the actual rate of U.S. saving. Among the most important is the question of whether net or gross saving more accurately represents funds available for investment.

- o Gross saving is the difference between income and consumption. (Errors in either estimate will affect the accuracy of the saving figure).
- o Depreciation must be deducted from gross saving to yield net saving. From a conceptual standpoint, net saving would be the preferable measure of saving since it represents funds available for additions to capital stock, after the replacement of worn-out or obsolescent plant and equipment.
- It is difficult to estimate economic depreciation, however, and it is likely that even funds from depreciation are used to provide more productive replacements for old plant and equipment. Therefore, many analysts prefer the gross measure.
- o Both net and gross saving are depicted in Exhibit 5 (top of next page) and net saving measures are also shown in Exhibit 3 beginning in line 13. Net saving during the 1980's has fallen sharply to 3.2 percent of GNP in the first 3 quarters of 1989, compared to its long-term average 8.2 percent.

Exhibit 5

NATIONAL SAVING

As a Share of Gross or Net National Product



* First Three Quarters 1989

December 1, 1989 AS&S

There are alternative measures of saving and numerous adjustments that can be made in efforts to understand the Nation's saving patterns. The frequently cited Flow of Funds measure of personal saving is useful since it calculates saving from different data sources (changes in assets minus changes in liabilities, rather than income minus consumption as in the NIPA series). It shows a fairly stable pattern over time into the late 1980's, largely because of the inclusion of consumer durables. These durables are added because they provide a flow of services to consumers similar to business investment, although there may be questions as to the productive value of all consumer durable purchases. Adjusted for these durables and other smaller conceptual differences, the Flow of Funds series also shows a drop in personal saving in recent years.

Consumer durables, as well as government military and nonmilitary investment, are included in the NIPA series on gross and net national saving shown in Exhibit 6. Net national saving continues to show a decline over the postwar period. Gross saving is up a little when all adjustments are taken into account.

Exhibit 6

Gross Saving Rates (Gross National Saving/GNP),¹

Selected Years

	Exclude Government Nonmilitary Investment (NIPA Basis)	Include Government Nonmilitary Investment in Fixed Reproducible Capital (OECD Basis)	Include Government Nonmilitary Investment in Fixed Reproducible Capital & Consumer Durables	All Government Investment & Consumer Durables
1950	17.8	20.3	24.7	23.9
1960	15.0	18.3	21.9	22.9
1970	13.8	16.8	21.3	21.8
1980	16.4	18.1	23.2	24.0
1985	13.8	15.5	22.2	24.3

Net Saving Rates (Net National Saving/NNP), Selected Years

1950	11.7	13.2	14.6	11.8
1960	8.2	10.6	10.9	11.1
1970	6.2	8.2	8.8	8.7
1980	7.7	8.5	8.7	9.2
1985	4.7	5.5	7.0	8.8

¹These estimates are derived from 1985 dollar calculations. Denominators (GNP or NNP) in each column have been adjusted to include the relevant service value. Depreciation for each category is estimated.

Source: NBER Working Paper on "Government Saving, Capital Formation and Wealth in the United States, 1947-1985," by Michael Boskin, Marc Robinson, and Alan Huber.

November 17, 1988-A877

Despite much arguing over definitions, the U.S. saving rate remains low by most historical measures. Additionally, the United States compares poorly with foreign countries. Exhibit 7 (on the top of the next page) shows national and personal saving rates of the United States compared to some of its trading partners, on both a net and gross basis. These figures are based on the U.N.'s standardized national accounts (SNA) used by the Organization for Economic Cooperation and Development (OECD). The standardized national accounts differ somewhat from the U.S. national income and product accounts but to the extent possible measure all countries on a comparable basis. (A notable difference from the NIPA figures is that the SNA data include government nonmilitary investment in saving.) They show the United States at the low end of all measures.

Exhibit 7

International Saving Rates: 1981-1987

(percent of net and gross national product)

	<u>National</u>		<u>Personal</u>	
	<u>Gross</u>	<u>Net</u>	<u>Gross</u>	<u>Net</u>
United States	16.3	3.9	9.6	6.0
Canada	20.3	9.4	12.9	10.9
Japan	31.1	20.2	15.9	13.3
France	19.6	—	10.9	—
Germany	21.8	10.7	—	8.9
Italy	15.6	7.5	17.2	14.6
United Kingdom	17.5	6.2	7.2	5.1
Sweden	17.2	6.0	3.6	0.8
Australia	19.3	3.4	12.0	7.4
U.S. Rank	8/9	7/8	6/8	6/8

Data are converted to a standardized national accounts basis.

Source: OECD Report on "Saving Behaviour and Related Policy Issues," March 1989.

November 17, 1989-A878

- o A more comprehensive tabulation of OECD countries shows that in national saving the United States ranks 19th of 20 countries for which net data are available and 18th of 21 countries for which there are gross data.
- o The United States remains at the bottom of the ranking as we were in the previous two decades, even though the saving rate in other countries appears to be declining as well.

Work has been done at the OECD to adjust personal saving figures for some of the differences among countries that are not picked up in the standardized national accounts, such as the varying roles of consumer durables, social security or private pensions, and inflation gains or losses. Even after these adjustments, the United States remains at the low end of the ranking, as shown in Exhibit 8 on the top of the next page.

Exhibit 8
Personal Saving Rates: 1981-1986

(percent of disposable personal income*)

	(1)	(2)	(3)	(4)	(5)
	Gross Saving*	Including Consumer Durables	Including Saving of Social Security Funds	Adjusted for Private Pensions & Life Insurance	Including Inflation Gains or Losses
United States	13.2	22.5	12.8	7.8	9.9
Canada	18.7	30.1	19.6	14.0	13.9
Japan	21.6	26.1	24.6	18.3	19.7
France	15.6	22.7	16.1	14.6	12.0
Italy **	24.4	31.9	24.7	23.3	12.0
United Kingdom	10.7	19.2	10.7	2.7	8.4
Sweden	6.3	14.8	10.8	4.3	—
Finland	12.1	21.5	12.0	—	—
U.S. Rank	5/8	5/8	5/8	5/7	5/6

* Disposable income is gross saving plus personal consumption. Gross saving includes depreciation of owner-occupied housing and of unincorporated businesses.

** Figures for Italy are for 1981-1985.

Source: OECD Report on "Saving Behaviour and Related Policy Issues," March 1989.

Overview of Factors Determining Saving

National saving is an important component of the pool of funds available for investment. It is the sum of household, corporate, and government saving, with a different set of factors influencing saving in each sector. These saving decisions also interact, however, so no single category can be analyzed in isolation from the others.

- Government saving directly affects national saving. The single most effective way to raise saving is to reduce the Federal budget deficit. To raise national saving, deficit reduction cannot rely on policies that reduce private saving. Deficit reduction should also not reduce government investments -- particularly in infrastructure -- that contribute to economic growth. Because they do not face a market test, however, these investments must be evaluated carefully.

- Business saving -- retained earnings -- is responsive to tax policy toward interest, dividends, and capital gains. Policies that reduce taxes on equity earnings -- lower dividend taxes or lower capital gains taxes -- will increase

equity finance, reduce debt finance, and tend to raise business saving. However, the tendency to pay out dividends (rather than retain earnings) increases when dividend taxes fall relative to capital gains taxes.

- Lower capital gains tax rates both increase equity finance and lower payout rates, raising business saving. In contrast, reduced dividend taxes lead to more equity finance, but increased payout rates. The recent growth of debt finance makes it more likely that the net effect of reduced dividend taxes will be to increase business saving, but the exact effect will depend upon whether dividend taxes are reduced at the corporate or the personal level.
- Policies toward business saving also can have an even greater effect on investment for those firms that cannot obtain additional financing and may invest only out of retained earnings.

o Households save for many reasons, among which are to protect against financial disruptions, purchase durable goods, finance retirement, and leave a bequest. Of these, retirement appears to be the dominant motive for saving. Thus, the factors affecting saving are the pattern of lifetime earnings, the length of retirement, the rate of return on saving, other sources of retirement income, and uncertainty about costs during retirement.

- Tax policy alters the after-tax return to saving. This has two opposing effects. Higher returns lower the price of future consumption, increasing the incentive to save now and consume more later. However, by lowering the amount of saving required to finance a given level of future consumption, higher returns may lower saving. The empirical evidence indicates that the net effect of higher rates of return is to boost household saving, at least modestly.
- Deductions for saving (conventional IRAs) or untaxed interest (back-loaded IRAs, tax-favored pensions) increase the after-tax returns to saving. The impact of these policies depends not only on the response of households to higher rates of return, but also on the contribution limits and withdrawal provisions.
- The incentive to save more depends upon the rate of return received on additional saving. Lowering contribution limits reduces the number of households receiving the higher return on their last dollar of saving, and thus reduces the marginal incentive. More liberal withdrawal provisions increase the incentive for using the IRA, but lower the probability of generating new saving. These factors also affect

government receipts and, therefore, government saving. Lower contribution limits reduce the government budget cost. Conventional IRAs have a much larger near-term budget cost than "back-ended" IRAs.

- o The most important current retirement policy is the Social Security program, and its effect on saving is somewhat controversial. Individuals can substitute Social Security for personal retirement saving. If the government does not accumulate a surplus against its future social security obligations, national saving is lowered. There is no definitive evidence that Social Security had a large negative effect on private saving in the past.

Determinants of Investment

Studies of investment behavior suggest that the pace of investment is determined by the cost of capital, the growth of the economy, the perceived riskiness of investment, and corporations' cash flow. In theory, firms should invest until the rate of return on investments no longer exceeds the cost of capital. Policies affect investment by altering both the rate of return and the cost of capital. A higher cost of capital reduces the desired capital stock and rate of investment, but empirical studies have found it hard to pin down the magnitude of the response. Some studies find a modest sensitivity, while others indicate a more substantial response.

- o The expected rate of aggregate economic activity appears to be the most important determinant of investment. It stimulates investment because increased output requires a larger stock of plant and equipment.
 - In addition, studies find that increased confidence about the future promotes investment by reducing the perceived risk that investment decisions will turn out to be a mistake.
 - Finally, increased cash flow raises capital formation by allowing firms to invest even when adverse financial market conditions restrict borrowing or stock issues.
- o Good fiscal and monetary policies can work to raise investment in several ways: by promoting growth in output, by reducing perceived inflation risks, by lowering interest rates, and by raising corporate profitability and cash flow.

Targeted investment policies typically use the tax code to reduce the cost of capital. In general, lower corporate profits tax rates and reduced personal tax rates on dividends and capital gains encourage investment. The historical record also shows that investment increases in response to accelerated or expanded depreciation and investment tax credits.

Cost of Capital and its Impact on Investment

As discussed above, targeted investment policies generally focus on the cost of capital. Financial theory dictates that rational U.S. companies should invest when a project provides enough return to both satisfy the company's investors and to pay the tax liability arising from the investment. In practice, a company estimates the cash flows for each year of the project's life, and then discounts it back by the investment's cost of capital, sometimes referred to as the "hurdle rate." If the sum of the discounted cash flows is greater than the cost of the investment, then the project will create value for the company and its shareholders and the company should choose to make the investment. Conversely, if the cost of the project is greater than the discounted future cash flows, the project takes value away from the company.

- o A high cost of capital reduces the value of future cash flows, reducing the number of investment projects which will be profitable. Thus, a high cost of capital can be viewed as a disincentive to investment. The higher the cost of capital, the fewer the number of investments which will be undertaken. In this way, the cost of capital plays a major role in determining the level of investment, the growth rate of capital stock and, ultimately, the growth in economic well-being.
- o If foreign companies have lower capital costs, they will be able to invest profitably in projects which U.S. companies will have to forgo. Lower net investment can place U.S. companies at a long-term competitive disadvantage, since the investments undertaken by competitors can provide greater production cost advantages. Ultimately, the effects of lower investment will result in a lower growth rate for the economy as a whole. Alternatively, if two companies were to invest in similar projects, the one with the lower cost of capital can price its products more cheaply.

A number of studies -- though not all -- suggest that U.S. companies face costs of capital which are significantly higher than those in Japan and West Germany, and moderately higher than that of the United Kingdom. While these studies do highlight the importance of international differences in capital costs, they are inconclusive. In an attempt to obtain a greater understanding of how the U.S. costs of capital compares to those of our major trading partners, the Economic Policy Council, under the leadership of the Treasury, is undertaking an extensive study which attempts to build upon the foundations of previous works while improving upon their approach. Specifically, this study will examine:

- o The factors which impact the cost of capital (a preliminary overview is included in the following section).

- o How the current U.S. cost of capital compares to earlier periods, including the impact of changes in tax laws on the cost of capital.
- o How the U.S. cost of capital compares to other countries.
- o What policies could improve the U.S. cost of capital and incentives to invest.

Once the primary reasons for international and historical differences in the cost of capital have been clearly identified, policies to lower capital costs to U.S. companies can be formulated.

Overview of Major Factors Impacting the Cost of Capital

The cost of capital is determined by the return that suppliers of capital require or cost of funds, and by the taxes due on the investment. Funding for investments comes from two sources: debt (borrowing) and equity, which can be either funds raised by selling ownership shares or funds generated internally through retained earnings. The cost of debt is essentially the interest rate less the tax benefit of deducting interest. The cost of equity, which is more difficult to calculate, is the return which shareholders expect to receive on their investment through dividends and the appreciation of their stock. The following discussion identifies four general factors which impact the cost of capital:

- o Taxes paid by the corporation and at the individual level (the "tax wedge") reduce the amount of profit from an investment that the investors receive. The corporate tax wedge is determined by Federal, state and local corporate income and property tax rate schedules, the deductibility of depreciation, and the availability of tax credits. The tax rate for individuals on dividends, interest, and capital gains also influences the pre-tax return which the investment needs to generate.
 - Since nominal rather than inflation-adjusted income is taxed in the United States, the tax wedge varies with the inflation rate.
- o As documented above, the low personal saving rate and high Federal budget deficit (dissaving) has reduced the supply of funds available to U.S. companies, placing upward pressure on the cost of funds. A large portion of this decrease in domestic funds is offset by inflows of foreign capital.
 - Due to impediments to the international flows of capital, however, foreign capital inflows are not a perfect substitute for domestic savings and, thus, the low savings rate contributes to the United States' comparatively higher capital costs.

- Furthermore, a high reliance on foreign capital has a number of negative aspects (discussed below) such as potentially lowering the Nation's wealth and creating pressure for protectionism.
- o Fundamental differences in government policies and economic structures among nations can contribute to cost of capital disparities. For example, restrictions on capital flows to domestic or international investments, the structure of the financial services industry, the role of the central bank, and restrictions on interest rates can all affect the cost of capital.
- A favorable governmental and institutional environment can also increase the availability of funds to companies, allowing them more freedom in financing decisions and making investment easier than in the United States where a company's access to funds is more dependent on current market conditions. Economic environments which are conducive to higher leverage ratios lower a company's overall cost of capital because the cost of debt is less than the cost of equity.
- o A stable and predictable economy increases the confidence that investors have about the decisions they are making. A future tax increase, for example, could result in an investment's inability to cover both its tax liability and its return to investors. To the extent that investors are unsure about the future, they will demand a premium to compensate them for the risk of unfavorable change. They may demand premiums for inflation and interest rate risk, foreign exchange risk (cross border investments), tax changes or market volatility. If market conditions are less predictable in the United States than in other countries, then U.S. companies will have to pay higher risk premiums to investors, raising capital costs.

Saving is one component to the cost of capital, and policies which expand the available pool of domestic saving should serve to lower the cost of capital. Additionally many other factors influence the cost of capital which will be addressed in detail in the EPC cost of capital paper to be completed in the future.

Policies of Other Countries toward Saving and Investment

Higher levels of saving in other industrialized countries than in the United States have been attributed to a number of causes, from the need to save and rebuild after World War II, to the rapid economic growth that occurred in the postwar years, to the age structure of the workforce, to the degree of use of bonus pay systems, and to simple national cultural differences. In addition, considerable policy differences among countries may account for some part of the higher private sector saving abroad than in the United States.

- o Japan is perhaps of most interest, because its current saving rate ranks highest in the industrialized world even though in earlier periods it had a relatively low saving rate. Two major features of its policies toward the household sector stand out:
 - Until tax reform that became effective in April 1988, Japan allowed generous sheltering of household interest income from saving deposits. In fact, an individual could shelter interest on savings of over \$115,000 (at an exchange rate of 130 yen per dollar).
 - Japan also imposed strict limits on access to households to bank credit loans.
- o Among other countries, those which allow fullest deductibility of interest on loans to households often have the lowest saving rates. The United States continues to allow somewhat more generous deductions than other countries even with the phase-out of the deduction of interest on consumer loans because of the deductibility of interest on home equity loans and second mortgages.
- o U.S. investment income tends to be taxed heavily by international standards, because 1) the United States does not provide an exemption allowance for interest and dividends, as is widely practiced abroad; and 2) many other countries eliminate or reduce the double taxation of dividends by allowing dividend tax credits or reducing the tax rate on distributed profits.
- o Long-term capital gains tend to be fully tax exempt or taxed at relatively low rates in many other countries, whereas in the United States, capital gains are treated as ordinary income.
 - The United Kingdom, which has a higher tax rate on long-term gains than the United States, indexes capital gains for inflation. In the United States, taxes are paid on the gain due to inflation, even though it represents a loss in real value.

Other countries seem to offer greater incentives for private saving and investment than does the United States. Introduction of similar incentives in the United States may merit consideration as long as their budget implications are taken into account.

Consequences of Low U.S. Saving and Investment Rates

Saving, by providing the resources for investment for future production, can determine future levels of consumption. Failure to reverse the pattern of declining saving in the United States carries the risk of condemning the nation to a stagnant standard of living.

- o Some argue that low, and in some cases declining, prices of capital equipment in the United States have made it possible to maintain high levels of real investment even with low saving. While real gross investment has been on the rise since the mid-1960's, net investment -- particularly in new plant -- has trended down during that time.
 - Anecdotal evidence of U.S. businessmen rejecting projects whose payoff lies far in the future because of the high cost of capital suggests that investment could be stronger. Higher saving could be a major element in reducing the U.S. cost of capital.
 - In any case, sluggish productivity growth and the fact that our own citizens, as well as foreigners, look for higher quality products abroad, illustrates that we need to do more to improve U.S. competitiveness.
- o Borrowing from foreign sources has also helped maintain domestic investment at levels higher than otherwise would have been possible. While international markets may currently be the least-cost source of funds, this alternative carries several negative aspects:
 - It is associated with a trade imbalance, creating pressure for protectionism.
 - It causes criticism from our trading partners that the United States is usurping international saving.
 - Ultimately, the returns to investment financed by foreigners will flow overseas, thus diminishing its benefit to U.S. citizens and potentially retarding growth of our national wealth. Future generations would be saddled with paying off debt to foreigners or repurchasing assets.
 - Finally, evidence suggests that foreign borrowing may to some extent be supporting consumption, rather than investment. National consumption, shown in Exhibit 9 on the top of the next page, has been higher in the 1970's and 1980's than in the prior two decades. Private consumption has risen steadily throughout the postwar period.

Exhibit 9

**Private, Government and National Consumption
as Percent of Expanded Net National Product, Selected Years**

	Private Consumption/ NNP	Govt. Consumption/NNP			Nat'l. Consumption/ NNP
		Total	Federal	State- Local	
1950	62.9	23.5	13.8	9.7	86.4
1960	63.7	25.1	14.4	10.7	88.8
1970	65.4	25.6	12.7	12.9	91.0
1980	67.9	22.0	8.6	13.4	89.8
1985	69.0	21.3	8.7	12.6	90.3

Note: Net national product expanded to include imputed returns to government capital and consumer durables.

Source: Michael Boskin, Marc Robinson, Alan Huber, "Government Saving, Capital Formation and Wealth in the United States, 1947-1985," National Bureau of Economic Research, Inc., Working Paper Series.

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Conclusion

Higher saving in the United States would be beneficial for the future of the country and would have a favorable impact on international relations. The most important task in attaining a higher level of national saving is a reduction of the prospective Federal budget deficits. Some aspects of current government policies discourage saving and investment. The best approach may be to focus on policies that would restore neutrality to the system and, if possible, actively encourage saving.

OPTIONS FOR INCREASING SAVING AND INVESTMENT

Current Bush Administration Policies

1. A firm commitment to reduce the Federal budget deficit by 1993 along the Gramm-Rudman-Hollings path by controlling spending, which will limit future government dissaving as a claim against national saving.
2. Continuing efforts to control Federal credit and make more visible the amount of subsidies involved in government credit and guarantee programs.
3. Institution of a permanent tax rate reduction for long-term capital gains in order to stimulate risk-taking and investment.
4. Make permanent the tax credit for private research and experimentation expenditures.
5. Implementation of an environmental tax on chlorofluorocarbons (CFCs) to help protect the Earth's atmosphere.
6. Establishment of fees on government services to improve efficiency, eliminate subsidies and assure that users bear the cost of programs whose benefits accrue largely to them, rather than taxpayers at large.
7. Renewed efforts to evaluate government programs to identify disincentives for saving and investment.
8. Promotion of an open and competitive foreign trade system to encourage the optimum allocation of resources.
9. Preservation of the open market for foreign investment in the U.S. as a means of increasing the Nation's capital stock.

Options Under Consideration

1. Achieve a surplus in the unified budget after 1993 so that the Federal Government adds to national saving rather than usurping available resources.
2. Tighten controls over government loan and loan guarantee programs to reduce claims against national saving.
3. Reorient government spending toward capital investment and away from consumption.
4. Expand Individual Retirement Accounts (IRAs) in order to both increase the supply of national saving, assure adequate retirement incomes for individuals, and provide resources

for other worthwhile activities.

5. Explore methods whereby the government can internalize social costs through the imposition of assessments on specific goods or activities which generate external costs.
6. Eliminate the double taxation of corporate income paid as dividends to reduce the cost of equity capital for corporations, increase incentives for corporate saving and investment, and decrease corporations' incentives for undertaking highly leveraged transactions.
7. Promote saving through increased public awareness brought about by public/private campaigns to inform people of the benefits and need for increased saving.
8. Increase saving through pension funds by requiring public pension funds to meet minimum funding standards and requiring private pension plans to provide earlier vesting for employees.

OPTION 1: BUDGET SURPLUS

Description

Achieve a surplus in the unified budget after 1993 so that the Federal Government adds to national saving rather than usurping available resources.

Background

The Federal budget deficit is a net subtraction from gross national saving. Indeed, growth of the Federal deficit in the 1980s accounts for virtually all of the decline in the gross national savings rate. In the 1950s through the 1970s, when gross domestic saving averaged better than 16% of GNP per year, the deficit was relatively small, averaging less than 1.8% per year. In the 1980s (through 1988), gross saving has fallen to a 14.1% rate while the deficit has increased to 3.6%.

Pros

- o A budget surplus would free more saving for private investment.
- o A budget surplus is the most certain method known for increasing the supply of national saving.
- o Additional capital per worker would increase productivity, output, and the standard of living, partly offsetting the slower growth of the labor force.

Cons

- o Could induce a recession by requiring too great a fiscal contraction.
- o Would require that severe policy measures to cut non-social security spending or tax increases be enacted.
- o Private saving could be reduced in part in response to increases in public saving.

OPTION 2: LOAN AND LOAN GUARANTEES

Description

Tighten controls over government loan and loan guarantee programs to reduce claims against national saving.

Background

At the end of 1988, the government had \$222 billion in direct loans outstanding and \$550 billion in guaranteed loans. Government-sponsored enterprises had \$666 billion of loans and outstanding credit, up 134% from 1980. In some sectors, the government supports the majority of credit extended either by credit programs or deposit insurance; this is true of farm debt (73%), home mortgages (84%), and student loans (nearly all). In FY1989 the budget cost of loan defaults was \$11.2 billion.

Pros

- o Low equity is a key determinant of borrower default. For example, a study of FHA showed that loans covering 95% of value were 2.4 times more likely to default than loans covering 90% of value; loans covering 97% of value were 5.4 times more likely to default.
- o Would provide an incentive for borrowers to save for larger downpayments and borrow smaller amounts.
- o Full guarantees give the lender no stake in the quality of loans. Of Federal loan guarantees, 70% are formally fully guaranteed, and much of the rest is fully guaranteed in practice.
- o Lack of borrower's equity or lender's stake in a loan leads to less efficient allocation of saving.

Cons

- o Would be strongly resisted by housing and other interest groups with demonstrated clout.
- o Federal credit programs are designed to help people with low income and little wealth.

Budgetary Cost

Estimates not available, but such policies would reduce defaults by growing amounts as new loans are affected.

OPTION 3: GOVERNMENT CAPITAL FORMATION

Description

Improve the accounting and awareness of government capital formation in order to encourage greater government investment expenditures at the expense of non-investment outlays.

Background

Federal investment was \$206 billion in 1988, three-fifths of which was for defense. The \$82 billion of Federal nondefense investment included \$18 billion for R&D, \$25 billion for education and training, and \$39 billion for physical investment. Since 1980, real nondefense outlays for R&D fell 21% and fell 37% for education. Investment in physical capital rose 5%. Most nondefense investment does not increase Federal asset holdings; this is true of intangible investment, and also of three-fifths of the physical investment, which consists of grants to state and local governments.

Pros

- o It would underscore the fact that the Government is bequeathing future generations highways and aircraft carriers, as well as debt.
- o It may be more equitable for future generations to share the cost of long-lived projects.
- o The return to society from intangible investment in R&D and education is very high -- greater than the private return -- so the Nation's economic growth and well-being are enhanced by Federal support.
- o Investment in some infrastructure, such as highways and airports, complements private investment and contributes to productivity and economic growth.
- o Modern information processing, communications, and other investments are needed to deliver Federal services.
- o Reduction in transfers may enhance the labor supply.

Cons

- o The Federal impact on aggregate demand, resource allocation, and borrowing depends on all outlays, including capital outlays.

- o Most transfers are social security; thus would have to reduce these benefits financed by regressive payroll tax to finance investment outlays, thus creating distribution problems.
- o "Rate of return" tests are rarely applied to assure that Federal investments are the most efficient use of funds.
- o Many infrastructure investments are for local use. Generally, they are most efficient when selected and paid for by State and local governments.
- o Would require reductions in transfer programs that have their own purposes and constituencies.

Budgetary Cost

None.

OPTION 4: INDIVIDUAL RETIREMENT ACCOUNTS

Description

Strengthen and extend the tax-free saving incentives embodied in individual retirement accounts (IRAs). There are several ways in which this might be accomplished. Revenue estimates for four specific options are included below. These options are differentiated by three major attributes:

- o Time Pattern of Tax Liability (Frontended vs. Backended IRAs): Existing IRAs are frontended in the sense that deposits into such accounts are deductible from taxable income for qualified taxpayers. Some recent IRA proposals have been backended in the sense that contributions would not be deductible, but qualified distributions from such accounts would be tax-free.
- o Withdrawal provisions for qualifying expenditures: Existing IRAs, including pre-1986 tax reform IRAs, allow penalty-free withdrawals only at retirement age or under stringently defined hardship circumstances. Some have proposed that IRA rules be changed to permit penalty-free withdrawals within well-defined limits for expenditures for first-time home purchase, education, or catastrophic health care. Another suggestion is to allow pre-retirement withdrawals for any purpose after a specified period of years.
- o Rollover provisions from existing IRAs: Some IRA options currently under consideration in Congress would include rules for transferring funds held in existing IRA accounts to new IRA accounts with differing tax treatment. Specifically of interest is the rollover of funds from the old frontended IRA accounts to proposed backended IRA options. Backended IRA options differ in their provision for rollovers and in the taxes that would be due and payable upon the execution of such rollovers.

Background

Currently, IRA contributions are deductible from taxable income, subject to annual dollar limits depending on taxpayers income and participation in an employee-sponsored retirement plan. There is an immediate revenue loss to the Treasury in the year in which the IRA deposit is made if the deposit qualifies as tax-free and an on-going revenue loss as the earnings accumulated within IRA accounts remain untaxed. Both the original deposits and accumulated earnings are taxed upon withdrawal or distribution from the IRA accounts. Backended IRAs would have a much different revenue loss pattern; aside from rollover effects, the

revenue loss is a function of the foregone taxes on earnings accumulated within the IRAs. Currently, virtually all premature IRA withdrawals are subject to a 10% penalty plus taxation at ordinary income tax rates. There are no provisions for penalty-free withdrawals for qualified expenditures.

IRAs in General

Pros

- o Some research indicates that IRA programs do enhance personal and national saving, although the statistical evidence on the effect of IRAs is still tenuous.
- o Contribution limits limit budgetary costs.
- o Savings deductions with a maximum limit, such as IRAs, have progressive tax consequences.

Cons

- o IRAs are significant long-run revenue losers.
- o Although the proposal would stimulate personal savings, national savings may decline if the revenue loss exceeds the increased personal savings.
- o IRAs with an income phaseout range for tax deductibility of IRA deposits, such as current law, have a distortionary "spike" in the marginal tax rate on income.
- o Expansion of IRA tax deductibility limits from current law, as in the Senate Finance Committee plan discussed below, would principally benefit high-income taxpayers, since low- and moderate-income taxpayers are currently eligible for deductible, frontended, IRAs.
- o The cap on contributions means that savers who are already saving for retirement more than the maximum allowed contribution do not receive a higher marginal after-tax return on their savings as a result of shifting some of their saving into an IRA. The tax advantage they receive raises their lifetime incomes without shifting the relative prices of current and future consumption. For such savers, IRAs are an incentive to save less.

Backended IRAs

Pros

- o All things being equal, a given dollar contribution limit provides a more generous saving incentive in a backended IRA than in a deductible IRA.
- o Backended IRAs should be preferable to taxpayers who expect their tax rates to be equal or higher after retirement.
- o Backended IRAs avoid possible work disincentives by eliminating the possibility that taxable IRA withdrawals push retirees into higher marginal tax brackets.
- o The revenue costs in the initial years are less severe for a back-ended plan for a deductible IRA plan.
- o IRAs with partial deductibility rules, such as current law or the Senate Finance Committee option described below, are needlessly complex, requiring separate accounting of deductible and nondeductible contributions.

Cons

- o The absence of an immediate tax benefit may limit the relative attractiveness of backended IRA plans to taxpayers and financial institutions. Aggressive marketing efforts may be required.
- o Deductible IRAs will be relatively more attractive for taxpayers who expect to face lower tax rates when they withdraw funds after retirement.
- o Some of the initial revenue losses in a deductible plan will be returned when retirees pay tax on withdrawals from their accounts.

Early Withdrawal Provisions

Pros

- o Early withdrawal provisions may increase participation in the plan, by making accounts more liquid.

Cons

- o It may be undesirable to permit withdrawals for qualifying expenditures:
 - Housing, education, and health care already benefit from subsidies.
 - Direct support for needy households may be more effective than a saving subsidy for, e.g., catastrophic medical care.
 - The increased demand may push up price rather than quantity in, e.g., higher education.
- o The Senate Finance Committee plan provision for qualified expenditures is virtually the same as allowing advance deductions for these expenditures. Why should expenditures made from savings be tax-free while expenditures for the same purpose made from current ordinary income are taxable?

Rollover Provisions

Pros

- o The conversion of existing IRA accounts would increase current revenues.

Cons

- o The tax-free rollover of accumulated IRA earnings as in the Packwood-Roth bill described below is a windfall to existing IRA holders at the cost of reduced future revenue. The present value of this loss in future revenue is greater than the immediate revenue gain so that this rollover provision decreases the net present value of federal revenue.

Specific Options

The four specific IRA options considered are described briefly below:

- o The "IRA-Plus" proposal by Senators Packwood and Roth. Contributions would be non-deductible, but withdrawals would be tax-free. Earnings would be tax-free on the after-tax saving held in special accounts for retirement. Qualified expenditures for first-time home purchase, education, or catastrophic health care could be charged against such accounts within well-defined limitations. Withdrawals for these purposes of up to 25% of the account value would be allowed without penalty after the first five years. Under the plan, existing IRAs would remain an option and would be convertible without penalty and without taxation of accumulated earnings if converted prior to January 1, 1992; thus the conversion of existing IRAs would be strongly encouraged. If converted, previously deducted IRA contributions would be included in taxable income over a four year period.
- o Simple, backended, IRAs for retirement only in parallel with existing IRA law. Contributions to these new IRAs would be non-deductible, but earnings and withdrawals would be tax-free. Under the plan, existing IRAs would remain an optional savings vehicle but could not be rolled over.
- o Expansion of the existing law as in the Senate Finance Committee Proposal (S.1682). As currently, there would be a maximum annual deposit to such IRA accounts, with penalties for early withdrawal. The proposal would allow a deduction for 50% of the previously nondeductible contributions, with penalty-free withdrawals penalty for first-time home purchase or education.
- o Penalty-free withdrawals from existing IRA accounts for qualified expenditures. Merit goods expenditures for first-time home purchase, education, or catastrophic health care could be charged against such accounts within well-defined limitations. Taxes would be payable at ordinary income tax rates for such qualified expenditures.

Revenue effect

Treasury Revenue Estimates (\$B)

	1990	1991	1992	1993	1994
Packwood-Roth Proposal	*	1.0	4.8	4.6	4.4
Simple Backended IRA Option	*	-0.1	-0.2	-0.3	-0.4
Senate Finance Proposal, S.1682	-0.1	-0.9	-3.5	-3.9	-4.1
Addon Early Withdrawal Provision	-0.1	-0.4	-0.4	-0.4	-0.4
* less than \$0.1 billion					

OPTION 5: ASSESSMENTS ON EXCESS SOCIAL COSTS

Description

Explore methods whereby the government can internalize social costs through the imposition of assessments on specific goods or activities which generate external costs.

Background

The market price of many goods does not reflect their full social costs. The production of some goods entails social costs that are not borne by their producers; the consumption of other goods imposes social costs on society that are not paid by the consumer. Assessments on such goods would both provide a source of funds for society to use in countering these social costs and increase allocative economic efficiency by equilibrating private and social costs.

Pros

- o Imposing fees or charges on these consumption goods would reallocate consumption toward goods without social costs and would increase savings.
- o Such fees would promote economic efficiency. That is, they promote an allocation of resources closer to that which would obtain if private costs, market costs and social costs are all equal.
- o Ballpark estimates of the appropriate charges are available in the economic and technical literature on environmental, transportation, energy and health problems, although the exact calculations would be difficult to make.
- o To the extent that lower income groups tend to live in places with the lower environmental quality and be generally less healthy, the burden and benefit would be matched.
- o Without international cooperation, the United States can still impose appropriate import excises on goods with consumption social costs, while forgiving like taxes on exports but, of course, such actions may be inconsistent with U. S. international trade obligations and raise significant trade policy concerns.
- o Such user fees could be designed to yield a given reduction in, for example, pollutants in a more cost effective, less burdensome way than by government regulation.

Cons

- o Since lower income groups spend relatively more of their income on energy, tobacco and alcohol, the financial burden of excises on these goods may be regressive.
- o To the extent that our international trade partners are unwilling to tax negative production social costs, certain United States industries could be put into less competitive positions by having to either internalize social production costs relocate their production facilities overseas.
- o International cooperation is imperative for the institution of excises on production social costs on a global basis.
- o Strong opposition can be expected from well-organized and politically powerful industrial, agricultural and special interest groups.

Revenue effect

Revenue increase, magnitude depends on the proposal.

OPTION 6: TAX INTEGRATION

Description

Modify the tax treatment of corporations so as to reduce or eliminate the double taxation of corporate income. There are many ways in which this could be accomplished. One method, referred to as "full integration," eliminates the corporate tax, and requires individuals to declare pro rata shares of undistributed profits of corporations in which they hold equity. Another method, "dividend relief," keeps the corporation tax in place, but allows individuals to take a credit against the corporate level tax paid on distributions. In a third method, with a "dividend-paid deduction," a corporation is allowed to deduct dividends paid to stockholders.

- o Full Integration: For tax purposes, the corporation is treated as a conduit through which corporate income passes to stockholders. By not treating the corporation as a separate taxable entity, the income earned by the corporation is taxed to the shareholder at the shareholder's tax rate. Shareholders are taxable on corporate income that is earned, even if it is not distributed in that year. For the purpose of calculating individual capital gains, a shareholder's basis equals the amount contributed or paid for his equity shares, increased by corporate income allocated, and decreased by losses allocated and distributions.
- o Dividend Relief: Shareholders receive a credit against their personal income tax liability for the corporate tax paid with respect to the dividends they receive. In effect, then, the corporate level tax on the dividend is removed. As under full integration, dividends are taxed only at the shareholder's rate. Mechanically, a shareholder includes in income the amount of the dividend, plus the pro rata share of the corporate tax paid on the distribution. Shareholders then receive a credit against their personal income taxes for the corporate tax paid. A shareholder's basis in his stock is the amount contributed or the amount paid for the stock. Shareholders recognize gain in the sale of stock equal to the difference between the proceeds received and their basis in their stock.
- o Dividend-paid Deduction: Under this proposal, corporations can deduct dividends paid to shareholders. Capital gains are treated as in the dividend relief method.

Background

Under the current system, corporate earnings are taxed twice: once at the level of the corporation, and once again when they are distributed to individuals. This tends to disadvantage firms that operate in corporate form. Although double taxation has been an aspect of the U.S. tax system for many years, it was exacerbated by the Tax Reform Act of 1986; the maximum corporate tax rate is now above the top personal income tax rate.

Integration in General

Pros

- o Removing double taxation would level the playing field with respect to investment choices. The decision to invest in a corporate versus an unincorporated business would be based on fundamental economic considerations instead of taxes. Consequently, efficiency would increase.
- o Removing double taxation would eliminate the tax bias in favor of debt finance and hence reduce excessive dependence on debt.
- o Depending on the method of its financing, corporate integration may reduce the cost of capital and thus lead to a greater volume of investment.

Cons

- o It may be difficult to administer.
- o Full integration could lose significant revenue.
- o To the extent that the benefits accrue to the owners of capital, removing double taxation would tend to benefit the wealthy disproportionately. Such effects could be attenuated by making other changes in the tax system.

Dividends Relief Relative to Full Integration

Pros

- o Dividend relief is probably easier to administer than full integration.
- o Depending on the specifics of the proposal, the revenue cost may be lower.

Cons

- o Given the current configuration of tax rates, taxes retained earnings at a higher rate than dividends, thus biasing the system against retentions.

Dividend-paid Deduction Relative to Dividend Relief

- o Pros and Cons are very similar. However, given that many of our trading partners have dividend relief, international coordination would probably be facilitated with that system.

Revenue effect

The Treasury is currently working on a comprehensive study of alternative approaches to the elimination of double taxation of corporate income. The report, whose expected time of release is in the first part of 1990, will provide revenue estimates for specific approaches.

OPTION 7: PROMOTE SAVING

Description

Promote private saving through increased public awareness brought about by government campaigns, supported by private organizations such as the Advertising Council, to inform people about the benefits of and the need for increased saving.

Background

Some of the decline in personal saving is the result of reduced awareness of both the national importance of a higher savings rate and the important benefits to individuals of saving for the future. A government campaign to both educate the citizenry on the importance of increased saving and encourage additional saving could have a beneficial impact on the savings rate.

Pros

- o Budget costs of the program would be insignificant.
- o The program could engender a national team spirit concerning saving similar to that resulting from World War II bond drives.

Cons

- o The effectiveness of such a program in the absence of a serious threat to our national well-being is unclear.
- o Would probably need to be linked to some savings vehicle, such as a bond or an IRA, to be effective.
- o In the absence of such a concrete new program, risks ridicule as an empty or trivial policy.

Budgetary Cost

Assuming that private sector cooperation through organizations such as the Ad Council could be obtained, such a program could be conducted at very modest budgetary cost.

OPTION 8: PENSIONS

Description

Increase saving through pension funds by requiring public pension funds to meet minimum funding standards and requiring private pension plans to provide earlier vesting for employees.

Background

Under ERISA, private pension plans are required to meet minimum funding standards, and these standards were revised as part of the Pension Protection Act of 1987. However, public plans are not subject to any of ERISA's requirements. Funding and other standards for public pension plans are set entirely by state law. Most single employer plans have five year vesting, though some plans have graded vesting which requires partial vesting after three years and full vesting after 7 years. Multi-employer plans have 10 year vesting with graded vesting beginning at 7 years. "Top-heavy" plans (those providing more than 60 percent of their benefits to "key employees") must fully vest benefits after three years and begin graded vesting after two.

Pros

- o Funding standards for public pension plans would increase government saving, while providing greater benefit security for participants and beneficiaries.
- o To hold public pension plans to ERISA-type funding standards would increase their financial stability in future years when the ratio of retirees to active employees is expected to be much greater than it is currently.
- o Overall contributions may increase, though no estimates are currently available.
- o Will help people with high turnover accrue retirement income.

Cons

- o No reliable data on the funding levels of public pension plans is currently available.
- o Because states' ability to fund their pensions is dependent on their power to tax, they view this as an unconstitutional attempt to impose state taxes at the federal level.

- o In the past the states have strongly opposed any effort to subject public plans to ERISA-type reporting and disclosure standards, much less funding standards.
- o The Federal Government's retirement systems do not meet minimum funding standards set forth in ERISA; full funding could require increased taxes so that the budget is not further unbalanced.
- o The increased state and local taxation required may reduce private saving.
- o Since governments have the power to tax, risk-related arguments for full funding in the private sector do not apply here.
- o Could force firms with high turnover to increase contributions sharply.
- o Higher contributions may come at the expense of taxable wage payments.
- o Some firms with defined benefit plans may respond by scaling back retirement benefits rather than increasing contributions.
- o May not increase savings in the long run unless tighter restrictions are placed on pre-retirement distributions.
- o Many defined contribution plans have shorter vesting, typically three years. In addition, employee contributions, such as those in 401(k) plans, primarily must be vested immediately. Thus the proposal would impact on defined contribution plans, many of which are already at the full funding limit and unable to receive additional contributions.

Budgetary Cost

Indeterminate.

THE WHITE HOUSE

WASHINGTON

October 2, 1989

MEMORANDUM FOR THE ECONOMIC POLICY COUNCIL

FROM: LEHMANN LI *LI*

SUBJECT: Economic Policy Council Meeting on October 5

The Economic Policy Council will meet at 2:00 pm on Thursday, October 5. The EPC will meet in the Roosevelt Room.

The EPC will consider the telecommunications issue. The Commerce Department, in consultation with other EPC agencies, prepared the attached paper on the subject.

Telecommunications Options

I. ISSUE

The Administration should determine what approach to telecommunications policy would best promote effective competition in national and international telecommunications markets and other important public interests.

- The AT&T antitrust consent decree currently imposes line-of-business restrictions on the Bell companies.
- Legislation is pending that would permit the Bell companies to provide information services and manufacture telecommunications equipment. Hearings were held before two Congressional committees this summer. It is likely that Commerce Committee Chairman Dingell will attempt to move legislation this fall or early winter.
- Legislation that would have the effect of giving the FCC rather than DOJ and the consent decree court jurisdiction to enforce or modify the decree restrictions was introduced in 1986; this type of legislation is another option.
- The Administration may wish to support legislative change if that would promote U.S. goals regarding the encouragement of competition; widespread availability of advanced information services to the American public; protection of consumers from monopoly abuses; development of an efficient, technically sophisticated national telecommunications infrastructure; improvement in U.S. trade position in telecommunications goods and services; and enhancement of international competitiveness of U.S. industry.

II. BACKGROUND

- U.S. domestic and international telecommunications networks supply the electronic tools essential to future competitiveness and productivity in our Information Age economy.
- In all major economies worldwide, highly computerized, digital fiber optic networks, which multiply information services power, are replacing the traditional copper wire, analog networks. These and other technological changes could make possible dramatic improvements in network services and related products.
 - Through the telecommunications network, for example, education would benefit because students could use video terminals to study interactively with teachers at distant locations; using high definition video, doctors at urban hospital centers could diagnose rural patients; twenty-four hour per day energy, health care, and home security monitoring could be universally available.
 - An extensive mass market for information data bases could flourish. (The United States is the information hub of the world; it is estimated that more than 50% of on-line database vendors in the world have operations located in the United States.)

- Further R&D in network-dependent high capacity computers, software, high resolution display terminals, and fiber optic switching could be stimulated to meet new market demands.
- A key challenge is to ensure that U.S. telecommunications policy furthers, rather than limits, full realization of the benefits that these technological advances can bring.
 - The 1982 AT&T antitrust consent decree, while not the only factor affecting these concerns, presents a pivotal issue.
 - The decree was intended to prevent conduct that would impede competition in telecommunications markets, but it does so by limiting the types of services that the Bell companies may provide and prohibiting them from developing or manufacturing telecommunications equipment.

A. AT&T Consent Decree

- DOJ and AT&T proposed and the court approved the decree in 1982 to settle a major government antitrust case that had lasted eight years.
- The government had alleged that AT&T violated the Sherman Act by using its monopoly power in local exchange telephone service market to exclude competition in the telecommunications equipment and interexchange (long distance) services markets. The government alleged that regulation had not been sufficient to prevent these abuses.
- The terms of the AT&T consent decree reflect the premise that provision of monopoly service was incompatible with competitive ventures due to two major potential harms: cross-subsidization of competitive activities with ratepayer revenues, and discrimination against competitors with respect to network access.
- Under the decree:
 - AT&T divested its local exchange operations in 1984.
 - AT&T was allowed to keep Bell Labs and its long distance and manufacturing operations (Western Electric), and to enter unregulated, competitive ventures previously prohibited under a 1956 consent decree.
 - The divested local exchange networks, i.e., the local monopoly "bottlenecks," were reorganized into seven independent, regional Bell companies, generally restricted to provision of local telephone service.
 - The divested Bell companies were required to provide AT&T's long distance competitors with access to their local networks equal to that provided to AT&T.
 - Significant line-of-business restrictions were imposed on the Bell Companies based on their bottleneck control of local facilities, as follows:

- Information services. Barred Bell companies from offering new, computer-related services, including "electronic publishing."
 - Manufacturing. The district court has held that the manufacturing prohibition includes not only fabrication, but also design and development of telecommunications products and some types of product-related software.
 - Long-distance. Barred Bell companies from providing most long distance service.
- Thus, the Bell companies are precluded from integrating their local networks with other telecommunications activities (except pursuant to waiver granted by the U.S. District Court).
 - DOJ undertook to provide recommendations to the court every three years concerning any needed changes to the decree restrictions.
 - After conducting its first review of the decree restrictions in 1987, DOJ concluded that due to changed circumstances, the information services and manufacturing restrictions were no longer needed to protect competition in those markets (but continuation of the interexchange restriction was warranted).
 - The decree court's subsequent rulings partially lifted the information services restriction — allowing Bell company provision of transmission-related information "gateway" services, voice storage and retrieval, and electronic mail — but retained the prohibitions on other information services, manufacturing, and interexchange services. The court recently stated it would not require DOJ to conduct a second comprehensive review of the restrictions.
 - Appeals are pending on the consent decree court's rulings. The United States asked that the court of appeals reverse and remand for further consideration of the refusal to lift completely the information services restriction, as well as that for manufacturing.
 - The decree court's continuing supervisory role has given it power to influence U.S. telecommunications policy; this split of jurisdiction between the decree court and the FCC with respect to Bell company activities has impaired coherent government policymaking in telecommunications.

B. Current Environment

- Vigorous competition exists in the market for terminal equipment; a competitive market is developing for network equipment, although more slowly (with most new competitors being foreign firms); and information services competition is also developing, although largely oriented toward business users.
- The Bell companies' monopolies in the provision of local telephone service, particularly for residential customers, still remain, but businesses are increasingly using private alternatives to meet specific needs.

- Provision of equal access to local networks for long distance competitors has been virtually completed, producing a thriving, highly competitive long distance market today.

- The U.S. trade posture in telecommunications equipment deteriorated from a \$580 million surplus in 1981 to a \$2.6 billion deficit in 1988. While most of the telecommunications trade deficit stems from low-end terminal equipment and involves complex macroeconomic factors, this trend raises concern for future U.S. international competitiveness in this industry.

- Government deregulation in telecommunications has progressed since 1982, with the FCC reducing regulatory burdens where marketplace forces promote competition and yield consumer benefits.

- The FCC instituted a new set of regulatory safeguards applicable to the Bell companies to prevent the types of abuses at issue in the AT&T lawsuit that resulted in the consent decree, including:

- cost allocation rules designed to prevent cross-subsidy;

- "open network architecture" (ONA), and other safeguards against discrimination, which give information service providers access to network functions and features equal to that which the Bell companies can obtain themselves. Although the FCC is in the process of implementing ONA, it has other interim safeguards in place designed to prevent discrimination.

- The FCC's ability to regulate has been enhanced by the breakup of the monolithic Bell system into seven independent Bell companies; each Bell company provides a comparison point with respect to practices of the others.

- Restrictions on the Bell companies' entry into other markets may reduce incentives to deploy fiber optics. Their potential marketing and technical efficiencies in providing fiber-based information services could produce a significant revenue base; this could motivate them to speed deployment of fiber in the local network. However, some parties disagree with these views, arguing that such efficiencies do not exist or would not be increased by removal of the restrictions.

- The decree restrictions preclude some efficiencies of integration; they also limit the Bell companies' ability to manufacture equipment and provide services beneficial to consumers. The restrictions may however, reduce the incentives and abilities to engage in potentially anticompetitive conduct.

- The need to seek waivers or decree interpretations delays Bell company entry into new businesses.

C. Constitutional Constraints on Legislation

- Legislation cannot directly modify or vacate a judicial decree — that must be left to the court.

- Congress may, by enacting otherwise valid legislation, deliberately change the substantive law governing a particular activity, and such a change may obligate the courts to modify the existing decree.

D. Trade-Related Aspects of Bell Company Manufacturing

- The impact of Bell company entry into manufacturing on telecommunications trade balance is unclear.

- Bell companies claim entry would encourage investment in R&D and U.S. manufacturing facilities, with positive impact on U.S. current \$2.6 billion trade deficit in telecommunications equipment.

- Some opponents of entry contend that Bell companies would joint venture with foreign firms or locate manufacturing operations offshore, potentially increasing U.S. imports.

- Due to effect of complex macroeconomic factors, any impact on telecommunications trade balance (positive or negative) may not be reflected in overall U.S. trade balance.

- New foreign investment conditions with respect to Bell company manufacturing would conflict with certain U.S. agreements with foreign countries and could hamper current bilateral negotiations.

- The United States has traditionally promoted an open investment climate for telecommunications and national treatment, not reciprocity, with respect to all overseas investment, including telecommunications.

- In the OECD, the United States has supported and undertaken obligations to provide national treatment to foreign investors both at and after entry of investment, and it has opposed new reciprocity measures.

- Restrictions on foreign investment in telecommunications manufacturing would call into question U.S. obligations under existing treaties of friendship, commerce and navigation (FNCs), and would violate the recent U.S.-Canada Free Trade Agreement.

- The United States is negotiating with the European Community (EC) and Korea for open access for U.S. telecommunications trade and investment; any conditions could harm U.S. efforts to reach positive solutions in this area.

- The United States has argued at ministerial level against reciprocity provisions in several EC 1992 directives.

- Any procurement conditions on Bell company manufacturing should be weighed in the context of ongoing U.S. trade negotiations.

- An issue in GATT negotiations has been application of the Government Procurement Code to government agencies that procure telecommunications equipment. The EC states that it will apply the Code to its telecommunications agencies (PTTs) if the United States does the same for the Bell companies. The U.S. refuses to do so, since the Bell companies are private entities.
- Imposing procurement requirements on Bell companies would hinder ability of U.S. negotiators working to open European procurement in this sector.

E. Pending Legislation (Swift-Tauke Bill — H.R. 2140) (see attached summary)

- Bipartisan legislation to permit Bell company entry into information services and manufacturing was introduced in early 1989; it does not alter the long distance restriction. As condition to removal of the information services and manufacturing restrictions, the bill would impose safeguards (some, but not all, of which would parallel existing FCC safeguards).
- There are mixed industry and public views on the need for change. While the Bell companies support legislation without extensive restrictions, others — many of whom are actual or potential Bell company competitors — oppose either some or all aspects of proposed decree modifications.
- House hearings were held on the pending bill by the House Energy and Commerce Committee, which plans to move a revised bill this fall. The Judiciary Committee has also conducted hearings and is taking a hard look at issues surrounding the AT&T consent decree. (The Administration did not testify in either set of hearings).
- Alternative legislative strategies may take either a process approach, shifting decree administration from the court that oversees the consent decree to the FCC, or address the substance of the restrictions.
- The 1986 Dole bill, which sought to transfer jurisdiction to the FCC, was supported by the Reagan Administration, but it was not passed; the Bush Administration has not taken a position on the Swift-Tauke bill.

III. ADMINISTRATION OPTIONS

List of Options Presented

- A. Defer taking a position on this issue or the pending bill.
- B.1. Support legislation shifting jurisdiction over consent decree provisions from the decree court to the FCC.

- B.2. Support legislation shifting jurisdiction of all consent decree provisions from the district court to the FCC, with direction to the FCC to eliminate information services and manufacturing restrictions.
- C.1. Support Swift-Tauke Bill with modified safeguards on Bell company manufacturing.
- C.2. Support Swift-Tauke Bill as written.
- C.3. Support Swift-Tauke without its specific conditions on electronic publishing.

Analysis of Options

A. Defer taking a position on this issue or the pending bill. (Take no position until events now underway, such as the pending court appeal on the decree and pending legislative activity, further define the situation; reappraise at subcabinet level.)

- Pro
 - Provides additional time to study the difficult legal and policy issues and consider the impact of the court of appeals decision (expected in the spring of 1990).
 - The decree restrictions were imposed based on legitimate antitrust concerns, which were supported by evidence concerning the activities of the pre-divestiture, vertically integrated AT&T. Their removal should be approached cautiously.
 - Keeps the Administration out of a highly contentious domestic policy issue. Avoids pursuing proposals that have little support in the Senate or that might ultimately have provisions the Administration should not support.
 - Does not preclude later support of legislation if there is sufficient public/Congressional interest and an acceptable compromise is developed.
- Con
 - Appropriate modifications of the decree appear desirable. (DOJ and Commerce have determined and publicly stated that the decree restrictions on information services and manufacturing are no longer needed to protect competition and should be removed.) Administration action may be necessary to achieve desired results.
 - The court of appeals' decision is unlikely to lead to changes in the restrictions and will not alter enforcement jurisdiction.
 - Without Administration support this fall, there may be very little, if any, likelihood that legislation will pass this session.
 - Administration leadership should not be merely reactive on a major public policy question with significant competitiveness and trade implications about how the United States builds an infrastructure for the Information Age.
 - National policy about the telecommunications sector should be made by the Executive branch and Congress, rather than by a single Federal judge; the current role of DOJ and consent decree court, which lack expertise in technical issues and overall telecommunications policy, creates burdens, delay, and confusion.

- Seven large U.S. companies are denied the benefits of vertical integration, losing efficiencies that could exist across stages of production.

B. Jurisdictional Shift Legislation.

B.1. Support legislation shifting jurisdiction over consent decree provisions from decree court to the FCC. (While the FCC is an independent agency, it appears, based on previous FCC positions and Chairman Sikes' public statements, that the FCC would permit the Bell companies into information services. It is unclear what the FCC would do regarding manufacturing, and it is likely that the FCC would take no action regarding the long distance restriction.)

- Pro
- Avoids taking a position on complex technical and policy issues, but reflects a desire for procedural change and a more coherent government regulatory policy in telecommunications.
 - Increases prospects for "clean" legislation without a lot of unnecessary and potentially counterproductive conditions.
 - Moves regulatory-type decisions to the expert regulatory agency, which would remove restrictions only if it determines that regulatory safeguards against anticompetitive conduct or harm to ratepayers are adequate.
 - With the new leadership at the FCC, Congress may be more willing to consider a simple "shift bill" than in the past.
 - DOJ and Commerce could participate and provide their views on issues, on which they have expertise, through the FCC notice and comment procedures.
 - FCC regulations are largely in place for information services.

- Con
- Disadvantages of current restrictions would remain under this option until the FCC acts to remove them.
 - Transfer would give the FCC rather than Administration and Congress control over the decision whether to lift restrictions. The FCC's public interest standard, like the decree's competition standard, does not take into account, competitiveness, international trade ramifications, or other important concerns.
 - While ostensibly neutral on the merits of the issues, given the previously expressed views of the FCC and its new Chairman, a transfer bill (like the Dole bill) could be perceived as effectively lifting the information services and manufacturing restrictions, and strongly opposed on that basis.
 - FCC may not currently have enough money and personnel to assume additional functions under this option. Such demands on FCC resources are unclear and should be considered explicitly prior to making any final decision.

B.2. Support legislation shifting jurisdiction of all consent decree provision from the district court to the FCC, with direction to the FCC to eliminate information services and manufacturing restrictions.

- Pro** • Current restrictions on information services and manufacturing could be eliminated more quickly and more certainly than with a simple jurisdictional transfer.
- Con** • Undercuts principal advantages of the transfer approach — that is, a transfer obviates the need to take a position on difficult and controversial policy issues and can be sold as a procedural change that will allow the expert agency to make the necessary decisions.

C. Support Swift-Tauke Bill or a variation of it. (Swift-Tauke would permit the Bell companies to manufacture telecommunications equipment and provide information services subject to FCC regulation and specific conditions; it would not alter the prohibition on provision of long distance services.)

C.1. Support Swift-Tauke Bill with modified safeguards on Bell company manufacturing.

(1) Allow national treatment with respect to a manufacturing joint venture with a Bell company, only if there are equivalent opportunities in partner's country of origin;

- Pro** • To extent there is any negative trade impact from Bell company manufacturing, could serve to offset some of that impact by seeking further opening of investment markets overseas.
- Chance of passage may be improved by responding more directly than in present bill to opponents' concerns that foreign entities in joint venture with a Bell company will unduly benefit.
 - Might serve as a lever in working toward open entry for U.S. telecommunications suppliers in overseas markets, i.e., by sending a strong signal to foreign countries.
- Con** • Potential difficulty in defining "equivalent opportunities;" many U.S. companies are free to manufacture in foreign countries already.
- Any national treatment provision should apply to all U.S. competitors, not Bell companies alone.
 - Approach inconsistent with U.S. investment policy and certain international agreements; would hinder U.S. efforts in negotiating GATT provisions and in imposing similar reciprocity-related policies, such as those recently considered (and rejected at U.S. insistence) by the EC.
 - Approach represents "managed" trade rather than free trade; effectiveness as an investment market opening lever is unclear, since foreign companies most likely to seek joint ventures here (e.g., Japan and EC countries) already have open investment markets in their country of origin.

(1) Long range importance of broadband networking
on national level.

(2) European and Japanese are highly effective
competitors. Ericsson / NEC

(3) Centrally important that Bell company personnel
play a role here.

(2) Permit Bell companies to manufacture equipment, but not sell it to themselves as a check against self-dealing. (They would be permitted to do R&D and software development both for their own use and for sale).

(alternative 2a) permit Bell companies to manufacture but require sales of a substantial amount (e.g., 50%) of their products outside the company (as a check against self-dealing).

Pro • Self-dealing restriction should prevent Bell companies from setting artificially high prices for their own products, potentially burdening ratepayers through cross-subsidization.

Con • Alternative 2: Possibly difficult to define scope of "self-dealing;" could be difficult to enforce. Limits on self-dealing could sacrifice potential economies of vertical integration.

• Alternative 2a: Possible difficulties in measuring and monitoring "substantial" sales by Bell companies.

• State and Federal regulation already in place scrutinizes Bell company investments and could guard against self-dealing.

C.2. Support Swift-Tauke Bill as written.

Pro • Policy decision on removal of restrictions would be made by Administration and Congress, taking into account factors such as foreign trade, competitiveness, and current international trade negotiations, which are beyond scope of decree's competition standard or FCC's public interest standard.

• Approach consistent with Administration emphasis on renewing American competitiveness through R&D and manufacturing investment.

• Would allow the Bell companies (large firms with considerable resources) to diversify into related fields and apply telecom expertise; many foreign firms can manufacture and offer information services in this country.

• By permitting Bell company entry into information services, could promote investment in fiber to the home (a trend actively encouraged by Japan, France, and Germany).

• Permitting Bell companies to enter joint ventures would ensure that more benefits associated with manufacturing are shared by U.S. firms, while open procurement requirements in pending bill could help prevent Bell companies' self-dealing.

• Bell entry into information services could particularly benefit residential customers who have fewer options than business users; competitors would be protected by new FCC safeguards, including ONA.

- Con**
- Will involve Administration in existing controversy over the bill, which is strongly opposed by AT&T, MCI, publishers, and others in industry, who argue that FCC safeguards are inadequate.
 - If FCC safeguards are not effective:
 - Letting Bell companies control both transmission conduit and content (information services) could lead to discrimination and possibly limit diversity of information over their networks.
 - Bell companies might try to subsidize new services or manufacturing from their monopoly local exchange base, possibly using market power to drive others from markets.
 - Concerns exist that Bell companies will manufacture offshore, leading to U.S. job losses, and that they might discriminate against manufacturers who do not joint venture with them.
 - Would hinder current U.S. efforts to negotiate coverage of foreign PTTs in GATT Government Procurement Code.

C.3. Support Swift-Tauke without its specific conditions on electronic publishing (i.e., eliminate Swift-Tauke restrictions on updating of information services such as "electronic yellow pages;" rely on FCC safeguards.)

- Pro**
- Permits Bell companies to develop services such as electronic yellow pages fully, which may be among the most efficient and valuable services the companies could provide.
 - Restrictions on updates of Bell company information services appear protectionist and anticompetitive; it would reduce the value of such services to consumers in order to protect other sources of information from competition.
 - Broader provision of information services by Bell companies could help create a mass market; there could be significant economies of scope and scale promoting development of fiber to the home.
 - Would avoid enacting unnecessary constraints that conflict with existing FCC regulations; such constraints could intrude on competitive markets.
- Con**
- Would draw opposition from newspaper publishers concerned about Bell competition through electronic yellow pages with newspaper classified advertisements.
 - If FCC safeguards are inadequate, competition could suffer.

SUMMARY OF SWIFT-TAUKE BILL (H.R. 2140)

Consumer Telecommunications Services Act of 1989

Information Services

PERMITS BELL COMPANY ENTRY INTO INFORMATION SERVICES

- Includes electronic publishing
- Does not change Cable Act (which keeps Bell companies out of cable video business)

RESTRICTIONS ON BELL COMPANIES

- Must provide nondiscriminatory interconnection
- Cannot provide electronic publishing unless FCC finds there is a competitive information services market in the Bell Company service area
- Updates on "electronic Yellow Pages" no more than once per month the first two years

FCC TO ADOPT REGULATIONS

- Should promote competition in electronic publishing and protect telephone ratepayers
- FCC to consult with Secretary of Commerce and Attorney General before adopting such regulations

Manufacturing

PERMITS BELL COMPANIES TO MANUFACTURE TELECOMMUNICATIONS EQUIPMENT AND CUSTOMER PREMISES EQUIPMENT

- Requires nondiscriminatory procurement (must provide others opportunities to sell them equipment)

FCC TO ADOPT REGULATIONS

- Should ensure manufacturing competition and telephone customers not harmed
- FCC to consult with Secretary of Commerce and Attorney General before adopting such regulations

Long Distance Services

RESTRICTION NOT LIFTED

Safeguards

BELL COMPANY CUSTOMER INFORMATION SUBJECT TO FCC RULES REGARDING DISCLOSURE TO OTHER PROVIDERS

COST ALLOCATION RULES REQUIRED TO PREVENT UNLAWFUL CROSS-SUBSIDIES AND TO PROTECT RATEPAYERS

THE WHITE HOUSE
WASHINGTON

December 28, 1989

MEMORANDUM FOR MICHAEL J. BOSKIN

FROM:

D. ALLAN BROMLEY

Allan

SUBJECT:

1990 Economic Report of the President

Many thanks for sending me the draft copies of the 1990 Economic Report of the President for comment. In general I must say that you and your staff have done a superb job and with a single exception I would have no quarrel with anything in the draft. There are a small number of typos and grammatical slips to be expected in any draft and I shall leave these to your editors.

My point of difference comes in Chapter 4 -- Investing in America's Future. This chapter accurately discusses the importance of technical change (and the underlying research and development) in economic growth. Its citation of rates of return of 20 to 50 percent on R&D investments, presumably based on the studies of Mansfield and others, is accompanied by an elegant explanation that is understandable by the average, literate reader. The role of the R&E tax credit, and the Administration's thoughtful and sound proposed reformulation are also well presented.

The first full paragraph on page 11, however, is both simplistic and inaccurate. It is simplistic because the process of development and commercialization of new technologies is clearly a complicated one; ruling out any federal role may be ideologically attractive but clearly does not comport with past experience. The examples of Japan, Korea and some of the Western European countries cited in other parts of the report show, if nothing else, the effectiveness of intelligent, targeted interventions by government to help assure successful commercial technology development. Further, in our own case, the paragraph is inconsistent with Administration policy with regard to Sematech and other civilian technology initiatives. There

is a spectrum of informed opinions as to the specific federal role in nurturing a more competitive generic technology base in the U.S., but completely ruling out any federal role is not consistent with the best analysis available, operating experience in other countries, and current Administration policy.

Finally, in the bold face summary in the middle of page 11, you may wish to note again the importance of a favorable macroeconomic environment to the development of civilian technology.

I shall be happy to discuss these points at your convenience and would again congratulate you and your colleagues on an excellent report.

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

December 22, 1989

MEMORANDUM FOR THE HONORABLE D. ALLAN BROMLEY

FROM: MICHAEL J. BOSKIN *MJB*
SUBJECT: 1990 Economic Report of the President
Chapter 4 - Investing in America's Future

Attached is a preliminary draft of Chapter 4 of the 1990 Economic Report of the President. We need your agency's comments by c.o.b. Thursday, December 28.

Please deliver a coordinated set of comments to Room 314, Old Executive Office Building. Should you or any staff members have detailed questions about the chapter, please feel free to contact the Chapter Leader, Marc Robinson directly at 395-5614.

Attachment

Distribution:

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CHAPTER 4

INVESTING IN AMERICA'S FUTURE

Raising economic growth is a central goal of the President's economic program. A higher rate of growth will significantly increase standards of living, expand opportunities, and reduce the economic burdens of both current and future generations. The cumulative effect of even a modest increase in the growth rate is enormous. Sweden had only two-thirds the per-capita income of Denmark in 1870, but, with a growth rate only half a percentage point higher, overtook Denmark by the 1970s. Growth rate differences of fractions of a percentage point have a substantial impact on the degree to which children will be better off than their parents.

Economic growth can have a broader impact on society as well. When economic growth is rapid, the poor benefit not only from increased economic opportunities, but also from the greater willingness of others to share their gains. A higher growth rate makes attaining a kinder, gentler society much easier.

Higher growth will reduce conflicts across generations. As the baby-boom generation ages, the ratio of workers to retirees will shrink dramatically by early in the next century. Unless the productive capacity of our economy grows substantially, financing the retirement and medical needs of the elderly could become a contentious issue.

There is increasing concern about the prospects for rapid, long-term economic growth in the United States. Growth requires investment in factories, equipment, knowledge, and skills. The rate of investment in the United States is below that of other major industrialized countries. Investment can be paid for either by reducing consumption or, for a time at least, by borrowing from abroad. The U.S. saving rate is well below our investment rate, with the difference filled by large inflows of foreign capital. America benefits substantially from this foreign capital, but the growth of our standard of living will suffer unless the national saving rate rises.

Government policy can have a major impact on economic growth. As the previous chapter stressed, monetary and fiscal policies designed to keep inflation low and minimize the size and frequency of recessions are key to reducing uncertainty and promoting long-term growth. Similarly, tax and spending policies designed to improve incentives to work, save and invest, as well as regulatory policies that maximize market flexibility can have a strong influence on economic growth.

DETERMINANTS OF GROWTH

The nation's productive capacity depends on the supply and quality of capital, the number and skills of workers, and the technology of production. Increasing the utilization of available supplies of labor and capital translates quickly into

growth in the output of goods and services. As in most cyclical expansions, increases in the employment and utilization of existing resources have provided much of the relatively rapid growth since the recovery began in 1982, although improved productivity growth has also played a role. Now, however, the high utilization rate of available resources indicates that this source of growth will be smaller in the 1990s.

Technical change is one of the basic sources of higher growth and standards of living. Technical change improves the productivity of inputs and the quality of output. Innovations--in the form of new products, new machines, new production techniques, and new communication and transportation methods--have an important beneficial effect on growth. Entrepreneurs, taking substantial risks (and sometimes failing), are often needed to translate innovations from the laboratory to the factory or home. President Bush has advanced a number of proposals to spur investment in research and innovation and to provide a more favorable environment for entrepreneurial activity and new business formation.

Investment is a second major vehicle for enhancing economic growth. Purchases of physical capital--such as tools and machinery--make the labor force more productive, as each worker has more capital to use. Further, new investment permits technological improvements to permeate the economy, providing each worker with better capital. Investment is also needed to

start the new ventures that help to give the economy vitality. Sustained national investment leads to higher productivity, higher wages, and enhanced standards of living.

The cost and availability of financial capital is a critical part of the investment climate. Increases in the total supply of funds to finance investment--whether from domestic saving or from foreign capital inflows--decrease the cost of capital, increase its availability, and raise investment. Foreign capital inflows reflect the attractiveness of U.S. investments and provide substantial benefits to the economy. However, increasing the national rate of saving will provide the funds needed to exploit an even greater array of investment opportunities. In addition, reliance solely on capital inflows tends to increase protectionist pressures, working against the goals of freer trade and open markets. For these reasons, increasing the rate of domestic saving is a major priority of the Administration.

The final major source of growth is raising the number and skills of workers. Efforts by workers to increase their skills through training and education can be thought of as investment in human capital. Our highly-skilled workforce is the basic source of our economic strength, but the increased complexity and competitiveness of the world economy creates demand for new and greater skills and more flexibility. The next chapter is devoted to analysis of the challenges and opportunities for growth in human capital.

The correct ranking of the relative impacts of these sources on past--let alone prospective--economic growth is the source of much debate among economists. While the precise contributions are controversial, there is near unanimity that investment and technical change are the central factors in economic growth.

TECHNOLOGICAL PROGRESS AND ECONOMIC GROWTH

Technical change has played a central role in economic growth. Just as providing workers with more capital will make them more productive, so will providing them with better capital. Many famous innovations--in agriculture, in textile manufacture, in transportation, in communications, and in electronics--played an important role in both economic growth and the transformation of our society over the last two centuries. A host of less visible minor improvements in product designs and production techniques have combined to make equally important contributions.

DETERMINANTS OF TECHNOLOGICAL PROGRESS

Many people have an image of technical progress as the result of work by solitary scientists or inventors motivated primarily by curiosity. Yet there is ample evidence that economic factors influence innovation. Even Thomas Edison, after unsuccessfully trying to sell his first invention (an automatic vote counter), vowed that he would only work on ideas for things that people would buy. The size of the potential market

determines the return to invention and therefore influences investment in applied research. Even in universities, the direction of basic research is influenced by the availability of funding.

But invention is only the first step in technological progress. To affect economic growth, an idea must be translated into a marketable product, applied on a production line, or built into a new machine. Development, which brings the fruits of research to market, is expensive: 66 percent of U.S. R&D investment in 1988 was for development rather than basic or applied research. The actual use of an innovation is an important step beyond development. Information about the technical advance needs to be disseminated and workers must be trained. In many cases, it is prohibitively expensive to modify old capital to include new technology. Therefore, the rate at which new technology actually augments productivity depends in part on the rate at which new capital is created, i.e., on investment. A recent study estimates that 20 percent of the contribution of technical change to growth in the United States between 1949 and 1983 came by improving the quality of capital.

Raising the rate of investment in the United States may increase the rate of technological progress in other ways, though the size of these effects is difficult to document. Higher rates of investment reduce the lag between innovation and adoption, increasing the return to research efforts and spurring additional

advances. Further, as new capital equipment is used, new ways of doing business, new production processes, and new potential products are sometimes discovered.

TRENDS IN R&D SPENDING

Though investment in research and development (R&D) is only part of the explanation for the rate of technical change, it is clearly important. Average rates of return on R&D investment are extremely high: estimates range from 20 to 50 percent. Moreover, it is difficult, even with patents, for an innovator to capture all of the benefits of an innovation. The innovation may be too costly or difficult to patent. The patent may be hard to defend. The innovation may have spin-offs or ramifications that are brought to market by others. Users of the product, as well as the innovator, receive benefits. The patent eventually expires. For these reasons, the returns of R&D investment to society are estimated to average twice those to the firm that makes it.

The United States spent \$118.4 billion, or 2.6 percent of GNP, on R&D in 1987. This reflects dramatic growth, as real R&D spending grew more than fivefold since 1953, doubling as a fraction of GNP. As shown in Table 4-1, the United States spends more on R&D than the other four leading industrialized nations combined. However, the share of the total R&D performed by the United States has fallen over the last 25 years, as the other

TABLE 4-1
1987 R&D Expenditures for 5 Major Industrial Countries
(Billions of Dollars)

	<u>France²</u>	<u>West Germany</u>	<u>Japan</u>	<u>United Kingdom³</u>	<u>United States</u>
R&D Expenditures ¹	16.1	22.8	45.9	15.7	118.4
-as a percentage of GNP	2.3	2.8	2.9	2.4	2.6
Estimated Nondefense R&D Expenditures	12.8	21.6	45.6	11.7	79.2
- as a percentage of GNP	1.8	2.6	2.8	1.8	1.8

¹ Foreign currency conversions to U.S. dollars are calculated based on OECD purchasing power parity exchange rates.

² Data for France are based on GDP; consequently, percentages may be slightly overstated compared to GNP.

³ Data for the United Kingdom are for 1986.

SOURCE: National Science Foundation.

industrialized countries have increasingly reached the technological frontier.

The United States, West Germany, and Japan currently spend about the same proportion of their GNP on R&D, with France and the United Kingdom only slightly lower. However, less of the R&D in the other countries is defense-related. The \$79.2 billion spent on nondefense R&D in 1987 was a smaller fraction of U.S. GNP than were non-defense R&D expenditures in West Germany and Japan.

ROLE OF GOVERNMENT

Though industry performs about three-quarters of all R&D in the United States, the Federal Government plays an enormous role in science and technology. It provides 47 percent of the funds for R&D, most of it performed by industry and universities. It undertakes basic research and military R&D at more than 700 national laboratories, accounting for 11 percent of the national R&D budget. It helps to finance the education of scientists and engineers. It protects the intellectual property rights of innovators through the patent system and laws dealing with copyrights, trademarks, and trade secrets. It encourages private innovation through a 20 percent research and experimentation (R&E) corporate income tax credit.

The Federal Government also has a substantial indirect impact on R&D investment through monetary and fiscal policies.

Interest rates and taxes are large components of the cost of capital, which in turn influences investment decisions, including the level of R&D. Monetary and fiscal policies also affect expectations about future economic growth and, therefore, the return to R&D investment.

The Federal Government's role in basic research arises because the benefits resulting from basic research usually extend well beyond the firm or research team that performs it. Because of these spillovers, there is a strong tendency for the private sector to underinvest in basic research. Believing that the Federal Government has a central role in funding basic research and that such research is becoming increasingly important, President Bush supported substantial increases in funding for basic research in his 1990 Budget.

The President has also advanced important proposals to improve private incentives for R&D. First, the Administration is aggressively pursuing improved international protection of intellectual property. The current negotiations in the Uruguay Round of the General Agreements on Tariffs and Trade (GATT) are an important forum for developing better international rules.

Second, the Administration has proposed revising the R&E tax credit, as well as making it permanent. Under current law, the R&E credit is available only for expenditures that exceed the average of the firm's R&E expenditures over the previous 3 years. One feature of this is that today's R&E expenditures reduce

future credits. This and other provisions reduce the effective rate of credit well below the statutory rate: the General Accounting Office estimates an effective rate of less than 5 percent from 1981-3, compared to the then statutory rate of 25 percent, while another study suggests an even larger discrepancy. The Administration has proposed a reformulated credit in which revisions to the base R&E for established firms depend on GNP growth instead of the firm's actual R&E expenditures. This would increase the effective rate of R&E credit, without substantially reducing tax revenue.

Third, the Administration has proposed changes in product liability laws. Currently, the tort system discourages innovation, particularly in the form of new products, and increases the cost of doing business in the United States. The proposed changes to the product liability laws would help to restore balance to the tort system and to reduce uncertainty--particularly for new products--while still maintaining incentives to produce safe products.

Finally, while applied research and development has a high average rate of return, it is also quite risky. Much of the return to entrepreneurs and their backers who bring new products to market--particularly for start-up ventures--comes through increasing the value of the business. Lowering the tax rate on capital gains will reward those who bring successful ideas to market and will help provide a climate that encourages businesses

to take risks and invest in new technologies.

Some have argued for broadening the Federal role to support the development and commercialization of specific civilian technologies. This approach is strongly opposed by the Administration. The government is not well suited to this task and may support potential technologies that are merely fashionable or that have powerful advocates, rather than those that are productive.

The best way to support development of civilian technology is through improving private incentives by protecting intellectual property, lowering the tax rate on capital gains, improving product liability laws, and making an improved R&E tax credit permanent.

CAPITAL INVESTMENT

During the postwar era, real growth in net national tangible capital averaged 3.2 percent per year. To achieve this growth, the private sector invested an average of 16 percent of each year's GNP in the United States between 1950 and 1988. Including government capital outlays, the gross rate of national investment in the United States averaged 18.5 percent of GNP. While it may appear that a substantial fraction of resources has been devoted to capital formation, the U.S. investment rate is low by international standards. Government policies should foster an environment for long-term investment and remove impediments to faster economic growth.

The United States invests at significantly lower rates than its major competitors, instead devoting a greater share of output to private and government consumption at the expense of capital accumulation. The rate of gross domestic investment in the United States is the lowest of the six major industrialized countries shown in Chart 4-1. Between 1975 and 1987, while the other countries devoted an annual average of 22.5 percent of their GNP to national investment, the United States invested only 17.3 percent. Even in Canada--a North American country with a similar economic structure--investment was 5.5 percentage points higher than in the United States.

CAPITAL ACCUMULATION IN THE UNITED STATES

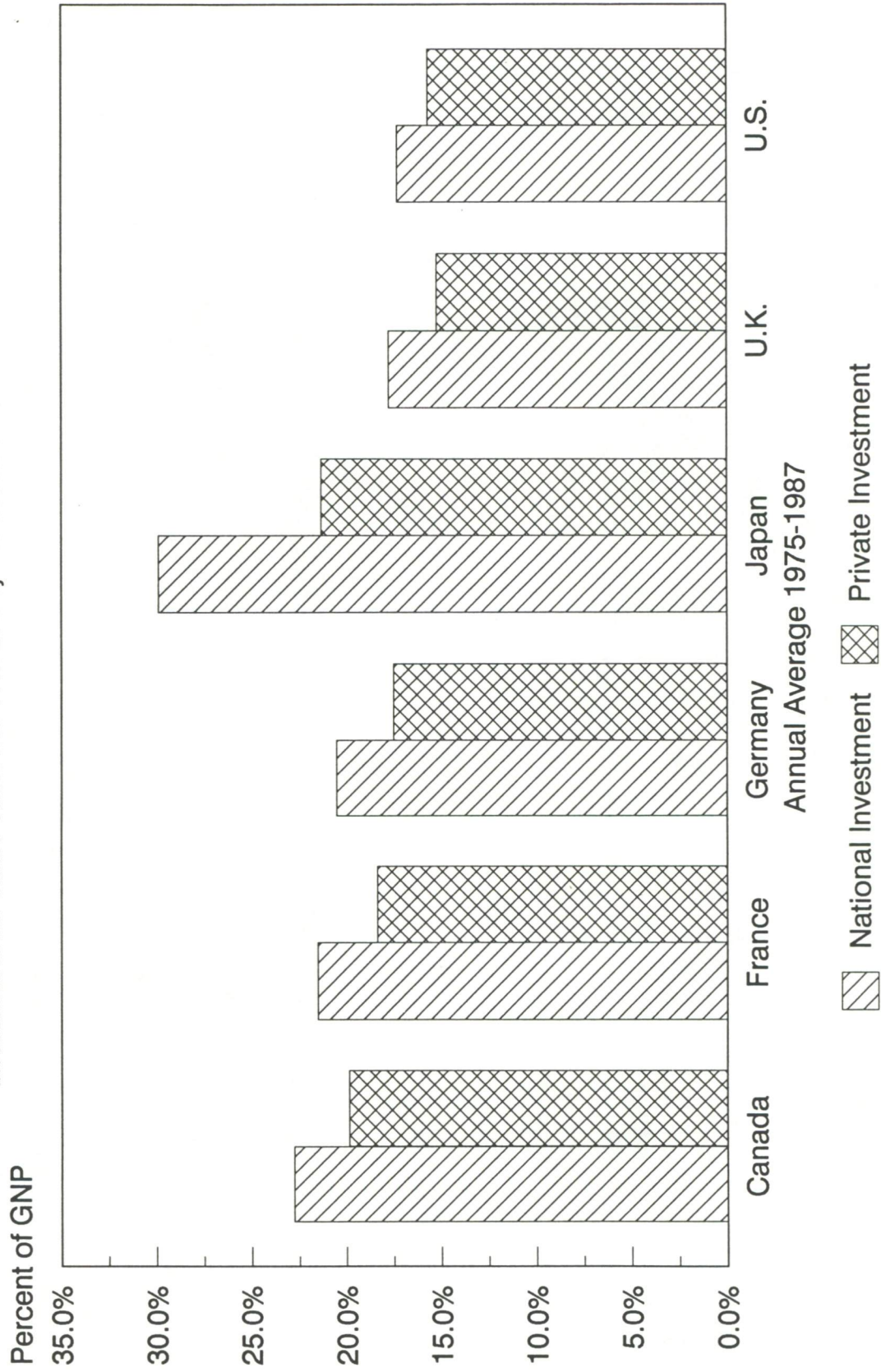
Growth in real investment has been an important part of the long expansion since 1982. Indeed, as shown in Chart 4-2, the share of real total fixed capital purchases in real GNP has been relatively high during the decade of the 1980s. Similarly, the rate of investment in non-residential fixed capital compares favorably with the historical record.

However, using any single indicator of investment performance can be misleading. For example, a large fraction of the capital stock wears out each year, so substantial investment can be required merely to keep the stock from declining. If investment simply replaces worn plant and equipment with otherwise identical new capital, the critical contribution to

Chart 4-1

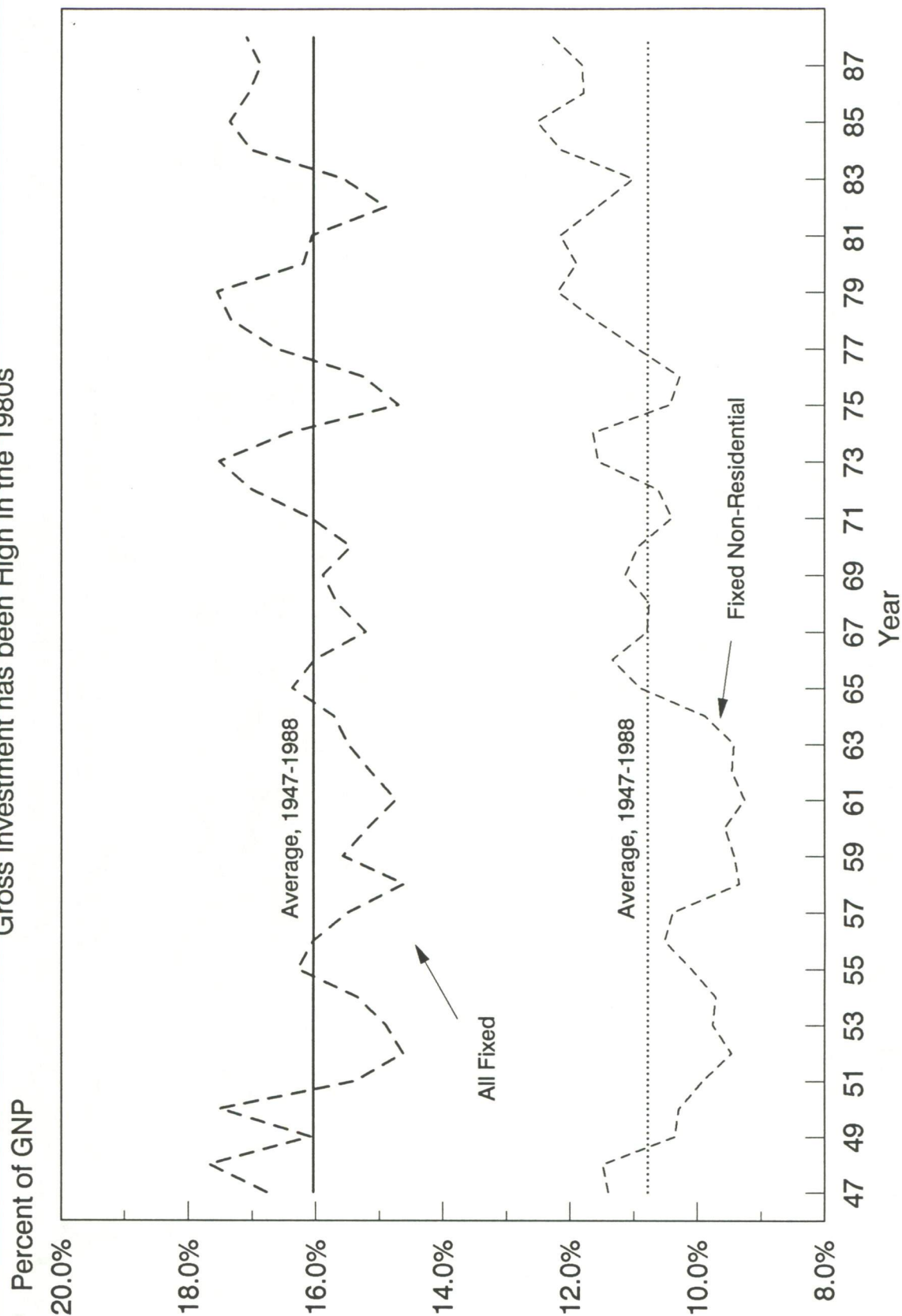
Gross Investment Rates

Investment in the United States has been Low by International Standards



Gross Investment Rates

Gross Investment has been High in the 1980s



Source: Department of Commerce

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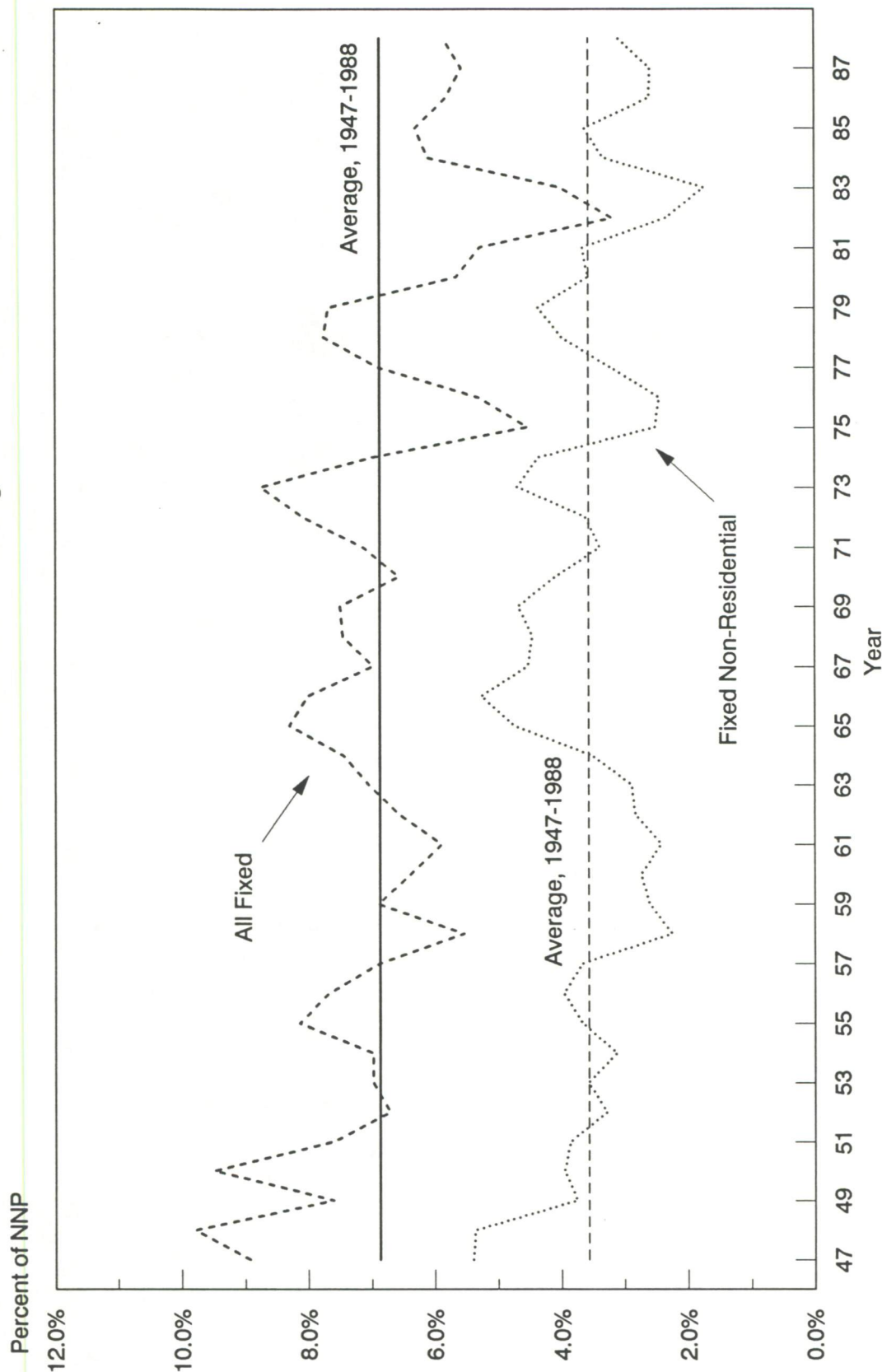
economic growth is net investment--the net addition to capital after accounting for the effect of depreciation and retirements. Using this measure, the recent United States investment record--shown in Chart 4-3--appears less impressive. Net fixed capital formation has essentially remained below the postwar average for the decade of the 1980s. This reflects the fact that the share of equipment in the total capital stock has risen, partly in response to the high inflation and interest rates of the late 1970s and early 1980s. Equipment wears out more quickly than other capital such as structures, meaning that a larger fraction of the capital stock must be replaced each year.

The use of net investment rates has two important flaws. First, true depreciation is difficult to measure, making net investment more susceptible to measurement errors than gross investment. More importantly, new and old equipment are not necessarily identical. Replacing worn out capital offers the opportunity to install improved equipment and newer technologies. In this way, the gross rate of investment offers a more reliable indicator of increases in the quantity and quality of the capital stock.

A final aspect of investment performance is more difficult to quantify. Government policy should not discourage risk-taking investments by young companies and entrepreneurs. These investments are a prime source of innovation and growth, but typically are profitable only over long horizons, requiring the

Net Investment Rates

Net Investment has been below Average in the 1980s



Source: Department of Commerce

assurance of stable, consistent policies toward investment. Evaluating U.S. investment performance includes considering successes in fostering risk-taking and innovative investment.

While the recent rate of investment in the United States is healthy by historical standards, it remains low by international standards. Higher rates of investment are critical to ensuring continued improvements in the quality of the capital stock and to raising economic growth.

IMPORTANCE OF A HIGHER INVESTMENT RATE

At first glance, a high investment rate may not seem to have important consequences for economic growth. Consider the effect of a one percentage point rise in the net private investment rate. At 1988 levels, this higher rate of investment would translate into a 0.5 percentage point increase in the annual growth rate of the net private capital stock. Over a period of 10 years, such a higher rate would raise total capital accumulation by 6.4 percent. Assuming, as is often done, that capital's contribution to economic growth is equal to its share of national income--roughly 30 percent--this would imply that the level of GNP would rise an additional 1.9 percent overall or 0.2 percent per year.

Small Improvements Matter in the Long Run

These seemingly small improvements have important implications over time. A 0.2 percentage point increase in the growth of annual output would substantially speed improvements in the standard of living for future generations. For example,

raising the annual growth rate of real GNP from 2.8 percent to 3.0 percent would ultimately yield 10 percent more national income than otherwise would have been available after 50 years. This is a sizeable impact: 10 percent of 1988 GNP was \$500 billion, much more than either defense spending or Social Security.

As these calculations illustrate, the full consequences of even substantial variations in the national investment rate emerge only gradually over time. This may produce an unfortunate tendency for policy-making to be myopic, as small increases in the rate of capital accumulation will not immediately have an evident impact on GNP. Because the costs of undesirable policies that reduce investment are not immediately apparent, it may be necessary to re-examine long-standing policies toward saving and investment.

ALLOCATING CAPITAL

Capital should be directed toward its most productive use. Private capital markets, driven by the search for the highest return, automatically weed out investments expected to be inefficient or unsuccessful. Thus, markets are the best judges of investment opportunities, and success and failure is best determined in the competitive marketplace.

Past government policies have distorted the allocation of investment funds across different industries because some

industries were protected and others subsidized. While policies have sometimes directly provided investment funds, more often they altered investment incentives. For example, the corporate income tax reduces incentives for corporate compared to non-corporate investment. Similarly, the mix of investment between purchases of equipment and additional business construction has been affected by recent swings in tax policy. Government tax policies, regulatory policies, and spending policies should be designed to minimize the interference with the efficient functioning of markets for investment funds. Preserving the efficient functioning of these markets is an important part of policies for growth.

INVESTING IN INFRASTRUCTURE CAPITAL

Roughly one-quarter of the capital stock in the United States is owned by the Federal, State, and local governments. It is typical for discussions of investment behavior to focus on business investment, but government capital accumulation should not be ignored. Since the value of its product is not revealed through market transactions and since government decision-making is partly political, government capital is not subject to the same rigorous comparison of costs and benefits as markets require of private capital. While the lack of market incentives suggests that government investment plans should be carefully scrutinized, government capital can provide valuable services in the economy.

It supplies the infrastructure that is a prerequisite for a healthy economy.

The bulk of nonmilitary government capital is owned by State and local governments and consists largely of highways, streets, bridges, schools, sewers and other public service infrastructure. Over the past two decades, there has been a slowdown in capital accumulation; it fell from an average growth of the capital stock of 4.9 percent in the 1950s and 1960s, to 2.2 percent in the 1970s, and to 0.9 percent in the 1980s. Part of this decline simply reflects a reduction in the size of the school age population and the completion of road networks. However, two recent studies suggest that slower government infrastructure investment provides part of the explanation for the slower rate of productivity growth in the 1970s. Taking advantage of productive opportunities to maintain and improve the infrastructure is an important part of policies to improve economic growth.

FINANCING NATIONAL INVESTMENT

For most of the postwar period, United States domestic saving was sufficient to finance domestic investment. As Table 4-2 shows, from 1950 to 1979 national saving--the sum of personal saving, business saving, and government saving--exceeded gross private domestic investment in the United States, leaving an average of 0.3 percent of GNP available for net United States

Table 4-2
The Changing Finance of United States Investment
(All figures as a percent of GNP)*

	<u>1950-1979</u>	<u>1980-1988</u>
Gross Private Domestic Investment	16.0	15.8
Equals		
National Saving	16.3	14.1
Private	16.8	16.7
Household	5.0	3.8
Business	11.8	12.9
Government	-0.4	-2.6
Plus		
Net Foreign Capital Inflows	-0.3	1.6

* Components may not sum to totals due to rounding.

investment abroad. In this setting, changes in saving ultimately were reflected in investment and vice versa. As a result, policies directed toward either saving or investment could be counted on to affect both similarly. Indeed, the two concepts often came to be used interchangeably, a practice that is misleading in today's economic environment.

FOREIGN SOURCES OF FINANCING FOR NATIONAL INVESTMENT

In recent years, a substantial fraction of domestic investment has been financed by an inflow of foreign saving into the United States. Between 1980 and 1988, the share devoted to gross investment was essentially the same as in the earlier period, but national saving fell by more than 2 percentage points of GNP. As a matter of arithmetic, the difference between domestic investment and domestic saving was provided by increased net inflows of foreign saving into the United States.

Foreign individuals and institutions supply their saving to the U.S. capital market because of available productive, high-yield investments. In 1988, these flows of foreign saving into the United States totaled \$219.3 billion. Similarly, some U.S. domestic saving is directed toward investment opportunities in other countries. In 1988, this amounted to \$82.1 billion. The difference, in 1988 equal to \$137.2 billion, is net capital inflows.

Foreign saving in the United States takes two forms. Some is Foreign Direct Investment (FDI)--acquisitions of a controlling interest in a domestic company, plant, equipment, or real estate. The remainder is portfolio investment purchases of financial instruments such as stocks or bonds. In 1988, \$58.4 billion or 26.7 percent of total foreign investment in the United States, was FDI. FDI in the United States has grown rapidly in recent years. According to balance of payments measures, the value of all foreign direct holdings reached \$329 billion at the end of 1988, increasing at an annual rate of 19 percent from its 1983 value of \$137 billion.

Some commentators view the growth in FDI with concern, arguing that direct foreign ownership of assets is somehow different, and more threatening, than "passive" portfolio investments like Treasury bills or corporate stocks and bonds.

In general, such concerns are misguided. FDI benefits both investors and the host economy. It adds to total U.S. domestic investment and, like domestic investment, can create jobs, valuable technological spillovers, and long-run increases in productivity. Interfering with the free flow of FDI into the United States would result in the sacrifice of these benefits. Moreover, unlike portfolio investments, FDI is inherently long-term in nature. Direct investments are not easily liquidated, and hence provide a stable source of financing for the United States.

The Magnitude of FDI in Perspective

Much of the worry over FDI can be traced to a lack of perspective as to its magnitude. Although FDI in the United States has increased a great deal in the past several years, cumulative foreign holdings in the United States remain modest by international standards. Table 4-3 illustrates that, excluding Japan, cumulative U.S. investment in other countries far exceeds their total investment in the United States as a proportion of GDP. Indeed, the figures in Table 4-3 understate the point, since investments are measured at book value or acquisition cost. The bulk of foreign holdings in the United States were recently acquired, while many U.S. investments abroad were made during a period of expansion by U.S. multinational corporations in the 1950s and 1960s. The current market value of these older U.S. assets is substantially higher than their historical acquisition cost.

Thus, the recent increase in FDI in the United States is properly viewed as a process of convergence towards other countries in terms of global integration. It is instructive to recall that the growth of U.S. direct investment abroad in the 1950s and 1960s was greeted with widespread mistrust in Canada, Europe and many developing countries. One prominent commentator warned that U.S. investment would destroy established European companies. Hindsight shows that such alarm was inappropriate,

Table 4-3

Foreign Direct Investment

(Direct investment holdings as percent of
host-country GDP, 1988)

Foreign Country	Foreign Holdings in U.S.	U.S. Holdings in Foreign Country
U.K.	2.1	5.1
Japan	1.1	0.6*
Netherlands	1.0	6.4
Canada	0.6	13.0
Germany	0.5	2.1
Switzerland	0.3	10.9
France	0.2	1.3

*1987 figure.

and that U.S. investment generated significant benefits for European economies.

In fact, foreign firms are a relatively small part of the American economy. Foreign firms employ less than 4 percent of the U.S. labor force. Even in manufacturing, where the FDI presence is the largest, foreign companies account for approximately 13 percent of assets and employ only 7 percent of all workers. Thus in absolute terms, as well as in comparison to other countries, the magnitude of direct investment in the United States is less than overwhelming.

Reliance on Net Capital Inflows

While the flow of foreign saving into the United States is in itself desirable, sustained net capital inflows have two consequences. First, increased net inflows are matched by reduced growth of net exports of goods and services (see Box 4-1). As a result, those domestic industries that rely heavily on exports and those businesses most susceptible to competition from imports will suffer disproportionately. This can lead to calls for protectionist trade policies, which interfere with international trade of goods and services and lower living standards here and abroad.

Second, while the United States benefits from higher levels of capital, improved productivity, and increased real wages, the return to foreign investments flows back to the supplier of capital. The answer is not to restrict either financial or

**Box 4-1: The Link Between Lower National Saving
and Net Export Performance**

When foreign investors enter U.S. capital markets, they must first exchange foreign currencies for U.S. dollars. Since U.S. residents will not accumulate holdings of foreign currencies indefinitely, they will ultimately use them to pay for goods and services imported from abroad. At the same time, U.S. investments abroad create a similar set of transactions involving sales of U.S. dollars. The excess of foreign investment in the United States over U.S. investment abroad is the net capital inflow or borrowing from abroad. This excess must be matched by a corresponding excess of imports to the United States over exports to other countries, in order to balance the supply of dollars with the demand.

Adjustments in foreign exchange rates and rate of return differentials serve to coordinate this process. Purchases of dollars as capital flows into the United States raise the value of the dollar, making imports cheaper and raising the purchase price of U.S. exports.

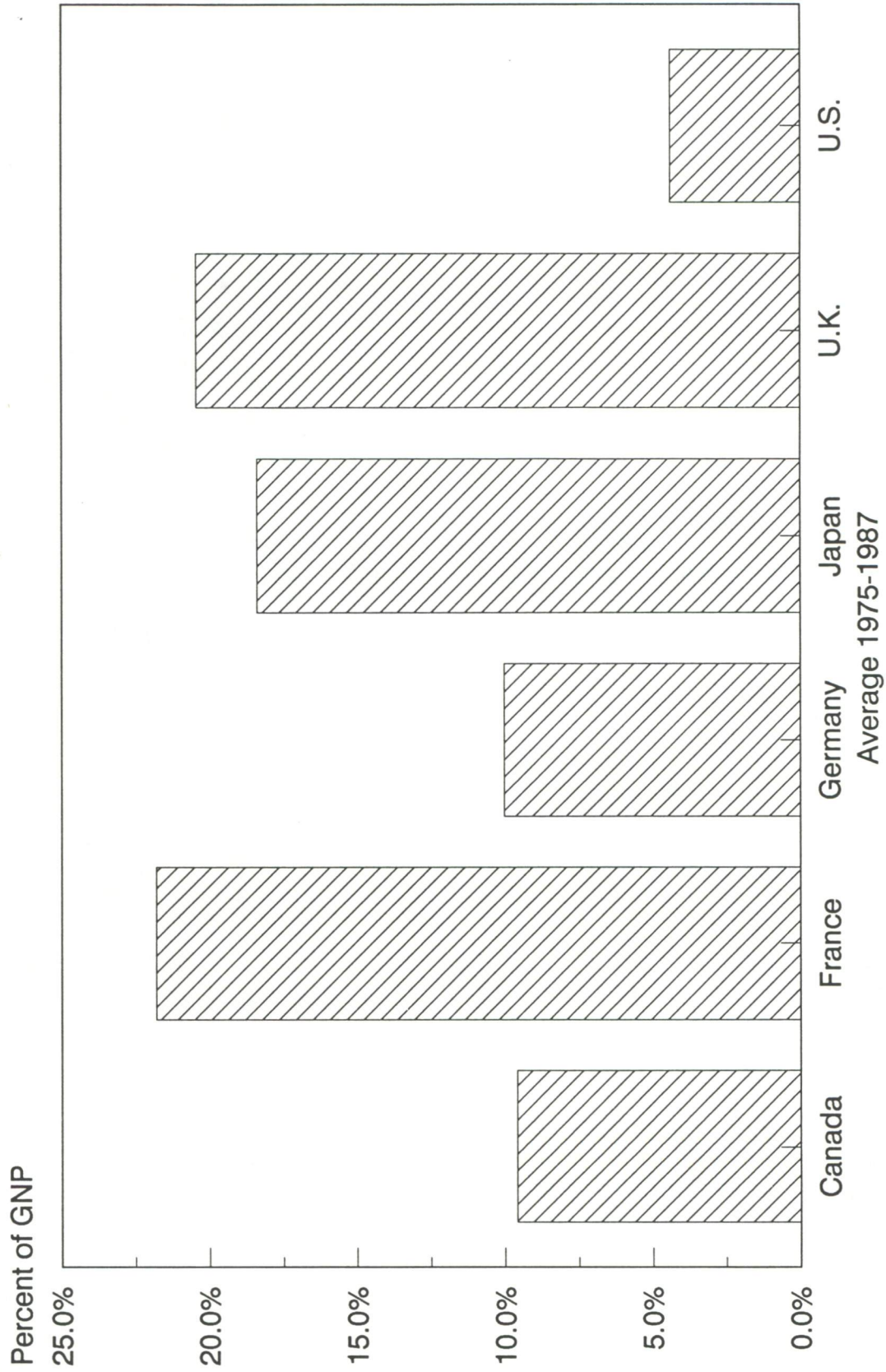
physical capital inflows. Instead, the goal of U.S. policy should be to raise national saving, permitting a greater fraction of productive investments to be financed domestically. In this way, improved national saving will lead to greater increases in productive capital, national wealth, and, ultimately, greater increases in the standard of living.

DOMESTIC SAVING TO FINANCE NATIONAL INVESTMENT

If our investment performance is poor by international standards, our recent saving performance is abysmal. Chart 4-4 indicates that the national saving rate--net of capital depreciation--has been much lower in the United States than in

Net Saving Rates

Saving in the United States has been Low by International Standards



Source: OECD

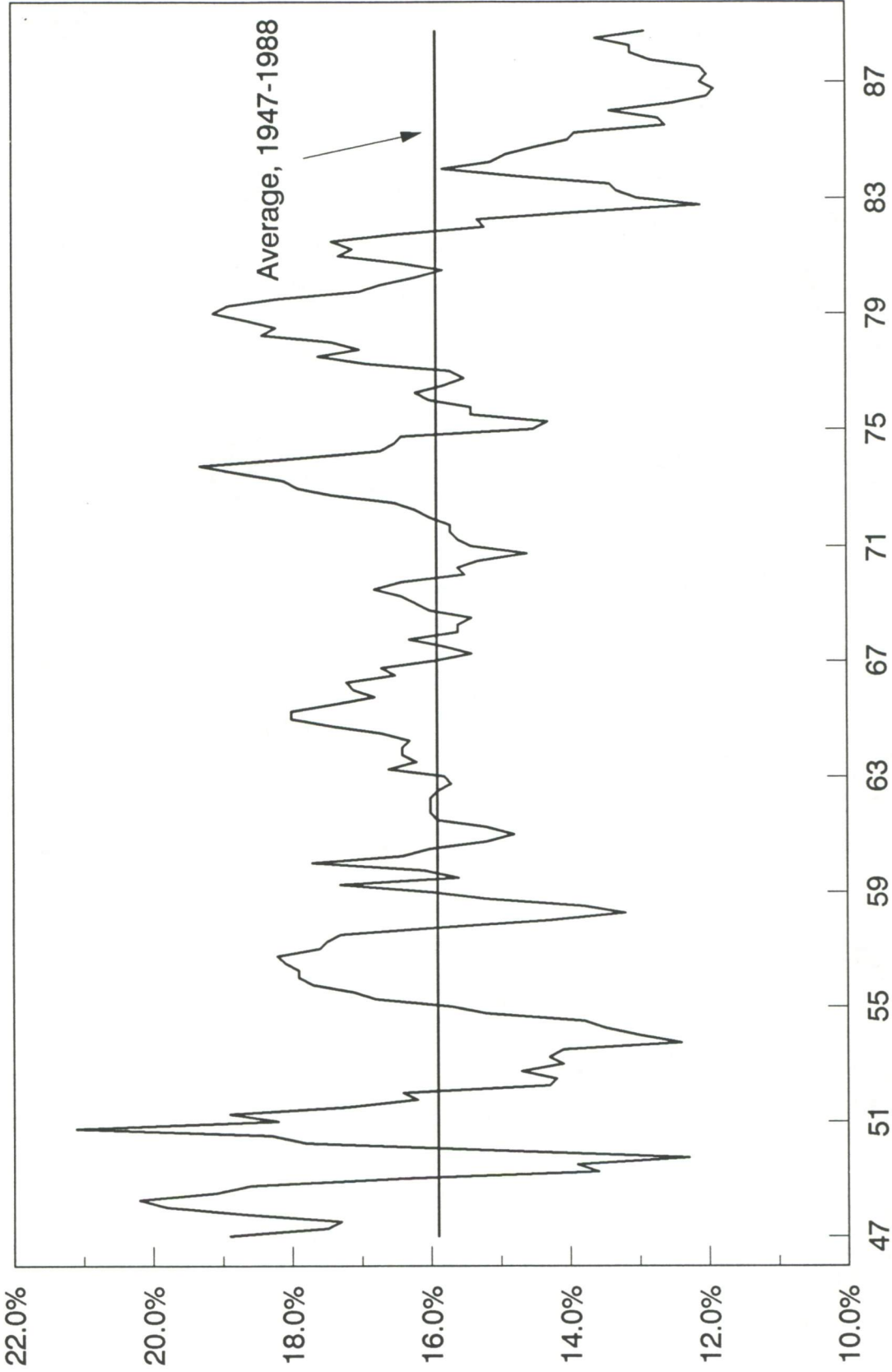
other industrial economies. While there are substantial difficulties in measuring "the" rate of saving, the national saving rate in the United States is the lowest of these countries by any measure. Moreover, the lower rate of saving does not appear to be concentrated in one sector of the U.S. economy. Businesses, governments, and households all save at lower rates than their counterparts in other advanced economies.

SAVING IN THE UNITED STATES

The national saving rate varied around 16 percent of GNP in the postwar period until 1980, when it fell, as shown in Chart 4-5. Though the saving rate has partially rebounded over the last 2 years, the gross rate of national saving was more than 2 percentage points lower in the 1980s than in the previous three decades, as displayed in Table 4-2. The sectoral breakdown given there helps to understand the sources of this decline. The government borrowing (or dissaving) rate has risen by over 2 percentage points between the 1950 to 1979 period and the 1980s, despite the fact that State and local governments increased their saving rate. It is the Federal Government, which increased its rate of borrowing by over 3 percentage points, that more than accounts for the drop in the national saving rate. Federal Government deficit spending is the most important reason for lower national saving in the United States.

National Saving Rate

Percent of GNP National Saving has been below its Historical Average in the 1980s



Source: Department of Commerce

The private saving rate has dropped only slightly, but the composition of saving has shifted. During the period 1980 to 1988, the household saving rate fell by over 1 percentage point but this was nearly fully offset by a rise in business saving. The apparent constancy of the private saving rate is potentially misleading, as it includes the increase in depreciation in the 1980s. Though the increase in depreciation reflects real changes in the distribution of assets, measurements of depreciation are imprecise, so changes must be interpreted cautiously. Between 1950 and 1979, the business saving rate net of depreciation was 2.9 percent, while between 1980 and 1988, the net business saving rate was only 1.8 percent.

POLICIES TOWARD INVESTMENT

Allowing the economy to achieve its full growth potential will require increased investment in the capital stock. In order to formulate policies to promote investment and economic growth, it is necessary to understand the factors influencing firms' demand for capital and their resulting investment decisions. Moreover, in an increasingly integrated global economy, policy must recognize the value of foreign direct investment.

DETERMINANTS OF DOMESTIC INVESTMENT

Analyses of firms' decisions indicates that investment is largely determined by four factors that affect expected

profitability: the cost of capital (particularly real interest rates), expected future demand for business output, business cash flow, and the degree of confidence that businesses have about the profitability of investment.

Firms will continue to invest as long as the profitability

BOX 4-2: The User Cost of Capital

The "user cost of capital" for any specific investment, such as a new machine, is the minimum expected pre-tax rate of return it must yield in order to be profitable. The user cost includes all costs associated with financing and operating the machine. Two components of the user cost are strongly affected by government policy.

The first of these is the cost of the money tied up in the investment. (This is sometimes called the "cost of capital" or the "cost of capital funds.") This cost varies directly with market interest rates and is thus affected by monetary and fiscal policies and the relation between domestic investment and domestic saving.

The second component of the user cost of capital that is affected by government policy is the taxes associated with operation of the investment. Thus, higher tax rates raise the user cost of capital, while more rapid depreciation allowances lower it by postponing tax payments. Finally, the ability to deduct interest payments lowers the user cost of investments financed in part by borrowed money.

of investments exceeds the cost of capital (see Box 4-2). A higher cost of capital reduces investment. Expected economic growth directly increases investment because increased future output will require a larger stock of plant and equipment. Increased business cash flow can support capital formation by

increasing internal finance and allowing firms to invest even when adverse financial market conditions make external finance difficult. Improved confidence about the economic future tends to promote investment in the capital stock because it reduces the perceived risk of investment decisions.

Of these factors, studies find that growth in current output is both a good proxy for expected growth in future demand and the most important determinant of investment. In addition, increases in the cost of capital reduce the rate of investment, but the magnitude of this response is uncertain. Part of the reason for this uncertainty is that it is hard to determine business expectations; investment responds more strongly to lasting changes in the cost of capital. While there is also some evidence that higher levels of cash flow promote investment, the major message of investment studies is that investment responds most strongly to sustained increases in output and sustained, certain reductions in the cost of capital.

IMPLICATIONS FOR DOMESTIC INVESTMENT POLICY

The list of key investment factors--output, the cost of capital, cash flow, and the uncertainty of the investment environment--offer insight into policies that can increase investment.

Policy Stability

Monetary and fiscal policies affect both the level and volatility of sales growth and the cost of capital. Policies that keep the economy close to its potential will improve expectations about sales growth, encouraging investment. Erratic monetary and fiscal policies make the path of inflation and output more uncertain, inducing lenders to demand a higher interest rate as insurance against inflation risk. Stable, credible macroeconomic policies will lower the risk component of interest rates, leading to a lower cost of capital.

Stable tax and regulatory policies also encourage investment. If the rules regularly change in ways that penalize previous investment, firms will soon learn that the current investment environment does not indicate future policies and cancel new investment plans. Governments, like individuals, benefit from reputations for credibility.

Instability in policies can also influence the timing and type of investment. Since firms do not know exactly what will happen in the future, they must consider the risk associated with their choices. If the investment environment is very uncertain, investors may be less willing to commit themselves to investment today, preferring to wait for the cost or likelihood of mistakes to decline. Those that do invest will shift toward short-term projects, at the expense of long-term investments.

Given the desirability of stable policies, it is important to avoid sharp swings in investment incentives. The Economic Recovery Tax Act of 1981, for example, contained business tax incentives, including sharply accelerated depreciation allowances, that were scaled back or eliminated the following year. Such an approach may produce a temporary investment boom, but will increase uncertainty about the long-run course of policy and ultimately discourage long-term growth.

Maintaining consistent policy toward investment is crucial, but may be difficult. Investment spending each year is a mix of new projects and completions of those started in the past. Hence, it takes time for investment to respond to changes in policies. Moreover, as discussed earlier, even substantial changes in the rate of investment require time to alter the rate of economic growth visibly. Thus, it may be tempting to abandon successful long-run policies in the interests of short-run expediency.

However, policy changes designed to increase investment, such as new incentives or reduced distortions, will be more cost-effective if they apply only to new investment. Since the returns to current investment are received in the future, investment is inherently a "forward-looking" decision. For this reason, investment incentives need not alter the returns to existing capital to be effective.

Stable, permanent macroeconomic and tax policies encourage investment. The most important investment

incentives are those that affect expectations about the future.

Tax Policies Toward Investment

The cost of capital is significantly modified by tax policy. Corporate and individual income tax liability raises the cost of capital, while depreciation allowances, and, in some past years, investment tax credits offset this to some extent. In addition, unequal tax treatment of different types of capital can reduce the efficiency of investment.

The taxation of capital income at both the corporate and individual level raises the cost of capital for corporations. Corporations pay taxes on the earnings from new investment. Shareholders pay additional taxes on these earnings when they receive dividends or when the sale of shares results in a capital gain. This double taxation increases the cost of capital for investments financed in whole or part by corporate shareholders.

The double taxation of corporate equity induces corporations to make debt-financed investments, since corporations may deduct interest payments. Even though the earnings of debt-financed investment are taxed only at the individual level, the tax system still raises the cost of capital. The larger amount of corporate debt induced by the double taxation of equity raises the risk of default and, hence, the risk premium demanded by lenders. In this way the double taxation of corporate equity raises the cost of capital for all investments.

Some argue that double taxation is illusory because tax-exempt entities such as pension funds are large suppliers of capital funds, and they are not affected by the personal tax code. Similarly, a large fraction of current investment in the United States is financed from foreign sources where the incentives depend upon the tax treatment of U.S. earnings in the home country.

These observations notwithstanding, the empirical evidence favors a view that firms behave as if their new investment funds come, at least in part, from new equity. As a result, the cost of capital depends on both corporate and individual taxes.

The double taxation of equity earnings raises the cost of capital to U.S. corporations. Reducing combined taxes on dividends and capital gains will increase investment.

It is misleading to focus on corporations alone. In 1988, nearly 15 percent of real, non-residential fixed investment was undertaken by non-corporate businesses. For these businesses, one of the most important features of the income tax is the tax rate on capital gains. Much of the return on non-corporate investment takes the form of an increase in the value of the business itself. Increasing the tax rate on the capital gains on ownership equity raises the cost of capital and reduces non-corporate investment. Thus, in addition to providing an incentive for corporate investment, a lower capital gains tax rate is an incentive to raise non-corporate business investment.

Lower corporate tax rates currently provide limited investment incentives. While the primary effect of lower corporate tax rates is to reduce taxes on existing capital, lower rates also encourage investment by increasing cash flow and by reducing the cost of capital. However, the Tax Reform Act of 1986 lowered marginal tax rates on corporations, as well as individuals, and equalized tax rates across different categories of assets. These changes were a major advance in reducing the significance of tax considerations in investment decisions and limit the additional incentive that can be provided by further rate reduction.

Investment tax credits (ITCs) boosted investment but distorted decisions. ITCs, which were eliminated by the Tax Reform Act of 1986, reduced firms' tax liabilities by some fraction of the cost of capital assets purchased. ITCs were originally designed in the early 1960s to provide a temporary investment stimulus as a part of stabilization policies. By providing a brief period of lower taxes, ITCs were supposed to sharply accelerate investment spending, boosting the economy. The long and uncertain lags in changing tax policy made them a blunt instrument for this purpose. As a result, by the 1980s they were viewed as a permanent feature of the tax code. Since the value of the investment credit they provide is higher for shorter-lived assets, ITCs distorted investment decisions among assets and across firms. When ITCs were no longer expected to

expire, they also provided less incentive to invest, since investment decisions could be postponed without losing the tax credit. The judgment made in the Tax Reform Act of 1986 was that the distortions and the revenue losses outweighed the stimulative effects on investment, and ITCs were abolished.

Broad changes in depreciation allowances are an inefficient investment incentive. Depreciation allowances are intended to adjust profits for the costs of using capital assets during production. Prior to the Tax Reform Act of 1986, however, rapid depreciation allowances were used as a policy instrument to stimulate investment. The stimulus was uneven, varying between structures and equipment and within asset classes. This led to underinvestment in assets that had less generous allowances. As with investment tax credits, these distortions and the revenue losses were believed to outweigh the positive effects of investment stimulus, so an effort was made in the Tax Reform Act of 1986 to match tax depreciation schedules and economic depreciation more closely.

The most important investment incentives the government can provide are stable macroeconomic policies that keep inflation low and output near its potential and an institutional framework that encourages new business formation and the free movement of resources to their highest-valued use. Tax policies should work toward removing long-standing impediments to investment, such as the double taxation of corporate equity, and avoid temporary,

quick-fix approaches to stimulating investment.

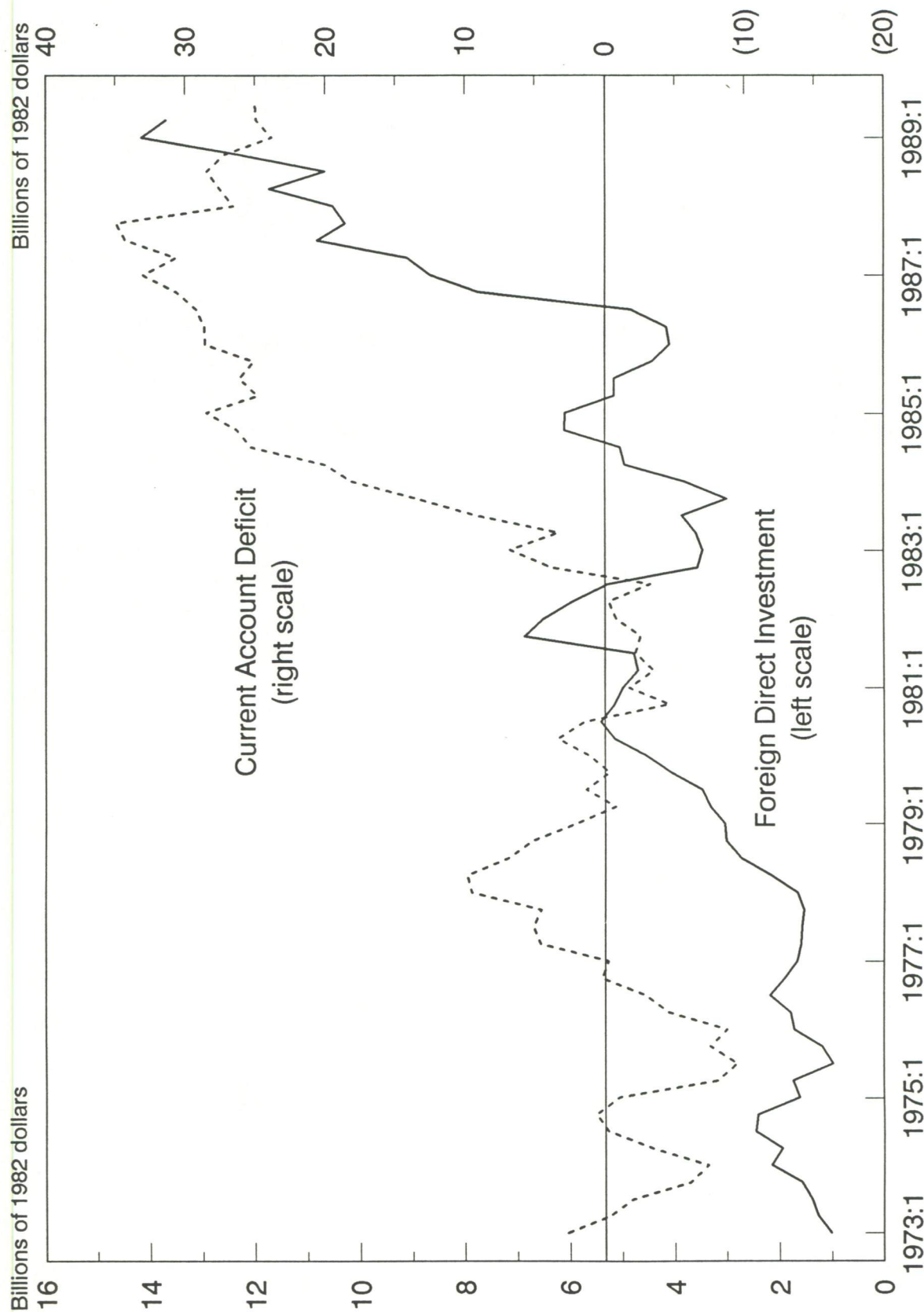
DETERMINANTS OF FOREIGN DIRECT INVESTMENT

Many observers see the recent increases in FDI as closely related to macroeconomic factors, such as the trade deficit, or the decline in the value of the dollar since 1985. However, there is no automatic link between FDI and the current account deficit. A current account deficit does imply offsetting net capital flows, this can be accompanied by receiving increased gross inflows of either direct or portfolio investment from abroad, or a reduced rate of U.S. gross investment in other countries. For example, FDI in the United States can increase without a change in the current account if at the same time the United States is increasing its investment abroad. Indeed, U.S. companies have continued to increase their direct holdings abroad in recent years, in spite of large current account deficits--witness the recent acquisition of Britain's Jaguar PLC by the Ford Motor Company, and many other large purchases of foreign assets by U.S. corporations.

The data confirm that FDI is driven by much more than just current account balances. As Chart 4-6 shows, FDI inflows climbed in the late 1970s before a large current account deficit developed, and continue to increase now even as the current account improves. The experience of other countries is even more striking in this regard. For example, Germany has run a current

Chart 4-6

Foreign Direct Investment and the Current Account Deficit. Movements in foreign direct investment are not closely related to movements in the current account deficit.



Source: Department of Commerce

account surplus for decades, but has seen foreign ownership of its manufacturing sector climb to 15 percent.

The upward trend in FDI over the past several years has been matched by a surge in mergers and acquisitions in the United States. In this same period acquisitions of existing assets have played a growing role as a vehicle for FDI. Between 1982 and 1988, the proportion of all new FDI (i.e., all foreign acquisitions or establishments of new enterprises) accomplished through mergers and acquisitions rose from 61 percent to 92 percent.

This change reflects in part the development of a larger and more efficient market for corporate assets, a market that facilitates the movement of corporate assets into the hands of those who expect to be able to use them most productively. Not only can whole companies be purchased more easily, but, because of restructurings and divestitures, particularly desirable assets or divisions can often be acquired on a stand-alone basis. As the global economy becomes more integrated and both U.S. and foreign firms adopt more sophisticated strategies in response, it is hardly surprising that foreign companies are increasingly often "best buyers" of U.S. corporate assets. The United States is one of the most attractive new places to invest, due in part to the sheer size and scope of its markets: the U.S. produces 26 percent of the world "GNP". And it is important to remember that foreign firms operating in the U.S. enjoy no unfair advantages over domestically-owned firms. They are subject to the same

environmental, antitrust and other regulations, and they must hire from the same labor pool. Indeed, foreign-owned firms do not markedly differ from their domestic counterparts in such areas as employee compensation and research and development expenditures.

IMPLICATIONS FOR POLICY TOWARD FOREIGN DIRECT INVESTMENT

United States policy towards foreign direct investment has recognized that a free flow of investment capital across borders benefits both host and investor countries. We must defend this open policy from protectionist sentiments, which may gain a stronger voice as foreign holdings become more prominent.

In some cases, of course, foreign investment can be a cause for policy concern. For example, legitimate national security considerations may militate against certain foreign acquisitions. The appropriate response in such cases is to target specific, clearly defined problems, and to avoid any movement towards general restrictions on capital flows.

Under the Exon-Florio provision of the Omnibus Trade and Competitiveness Act of 1988, the interagency Committee on Foreign Investment in the United States (CFIUS) reviews any investment with national security implications. The President then has discretion to block that investment. This law is currently being administered prudently. Only one investment has been formally discouraged so far: the proposed purchase by a Japanese

firm of General Ceramics, a company with defense ties. This narrow interpretation of Exon-Florio should be maintained--it should not be used as a broad screening device for FDI.

Rather than seeking to block foreign investments in the United States, a more constructive agenda is to work towards removing formal and informal barriers to U.S. investment abroad. This might involve the use of a multilateral framework, to set up an internationally-agreed program for rolling back restrictions and monitoring compliance.

POLICY TOWARDS SAVING

The saving rate in the United States is too low from several perspectives. First, it is not sufficient to finance the demands of domestic investment. Second, it remains below saving rates in other countries. Finally, it has recently fallen below its historical norm.

The performance of saving in the United States reflects, in part, long-standing features of government policy. Large Federal budget deficits directly reduce national saving. These deficits do not fully reflect higher levels of government investment. Many types of personal saving are taxed twice, once when the income is earned and again when the returns on the saving are received. For businesses, returns to corporate equity, particularly dividends, are taxed at both corporate and individual levels. This leads to a bias against equity, favoring

debt finance. These and other policies need to be reexamined in an effort to increase national saving.

Current policies--whether in the household, business, or government sectors--are biased toward consumption and away from saving.

National saving reflects the actions of the three principal sectors of the economy. Personal saving is the result of the spending decisions by individuals and households; business saving reflects decisions by firms to retain after-tax profits; and government saving is the outcome of the political debate over revenue measures and spending priorities.

Government policy should focus on national saving. National saving--not its distribution among households, businesses, and governments--determines the amount of domestic funds available for investment, affects the cost of capital, and influences the balance of trade. Policies toward saving must be analyzed both for each sector of the economy--household, business, government--and for the nation as a whole.

GOVERNMENT SAVING

The single most direct way for the government to increase national saving is to reduce the Federal budget deficit. Lower deficits increase the pool of domestic funds available for private investment. Government investment also represents a form of national saving, though it is not counted this way in our national income accounts. To be effective at raising national

saving, deficit reduction should not be attained by increasing disincentives for private saving or by reducing government investment.

HOUSEHOLD SAVING

Household saving is the most familiar component of national saving. Because household saving reflects so many individual goals, however, understanding and fostering the wealth accumulation of households are among the most difficult policy tasks. Households save as a precaution against accident, illness, or loss of job. For these purposes, the liquidity of savings is critical. They save in order to purchase homes and big-ticket durable goods and for future educational expenses. These intermediate goals are particularly important among young families who have few assets. People also save in order to finance their retirement and to leave bequests to their offspring. For these long-term goals, liquidity may be less important than security or the rate of return on the saving.

Changes in the age structure of the population will affect aggregate saving even when all individuals have the same underlying taste for saving over their lifetimes. For example, because of the baby-boom generation, those under 35 have constituted an unusually large fraction of the working population over the last 15 years. Since the young save relatively little of their income, this explains part of the overall decline in

saving. As the baby-boom ages, saving rates will rebound slightly.

The response of household saving to changes in the rate of return is a critical issue, since the rate of return is directly affected by tax policy. However, increases in the rate of return have two opposing effects on saving. Higher rates of return lower the price of future consumption, increasing the incentive to save. Higher rates also reduce the amount of saving required to achieve a given level of future consumption, reducing the incentive to save. Though this is an area of active research and debate, empirical studies on balance suggest that saving increases modestly with higher rates of return.

Though several methods of saving for retirement allow savers to earn the untaxed rate of return, such options are usually not available for shorter-term goals. Pensions, Keogh and 401(k) plans, and, for those eligible, Individual Retirement Accounts (IRAs) all permit individuals to deduct their contributions, with both contributions and earnings taxed only upon withdrawal.

Another form of IRA would not allow deductions for contributions, but would permit tax-free withdrawals of both contributions and earnings after age 59 1/2. Such a "back-loaded" IRA offers the same rate of return as a conventional IRA for a taxpayer who is in the same tax bracket now and at withdrawal. As long as households realize this, their spending will be the same under either type of IRA. The mix between

private and government saving would be different under the two IRAs, however. With a conventional IRA, the government postpones taxing contributions until withdrawal, while this tax revenue is collected immediately under a "back-loaded" IRA. If private spending is the same under both plans, the tax deduction offered by a conventional IRA results in higher private saving than "back-loaded" IRAs. However, the cost is lower government saving. The impact on national saving of the two plans would be identical.

The response of households to IRAs depends in part upon the contribution limit. Lower contribution limits reduce the budget cost, thus reducing the effect on government saving. They also reduce the number of households who receive a saving incentive--since the higher return will not apply to their last dollar saved--leading to less private saving. For "back-loaded" IRAs the contribution limit can be smaller than for conventional IRAs because contributions must come from after-tax income.

The most important government policy toward retirement is the Social Security program, and its effect on personal saving is somewhat controversial. Individuals substitute Social Security for retirement saving, but, until recently, Social Security ran on a pay-as-you-go basis, with current worker's payroll taxes paying current retirees benefits. As a result, there was no government saving to offset the reduction in private saving, suggesting that Social Security reduced national saving.

However, the historical record does not reveal a strong effect, perhaps because, during their working years, currently retired households did not fully expect the level of benefits they later received.

Social Security is not only a pension plan; it also affects the riskiness of retirement consumption. Benefits are indexed for inflation and are paid until the death of both the worker and spouse. As such, they are essentially an annuity that guarantees a constant level of consumption. This implicit government insurance may reduce private saving.

BUSINESS SAVING

Most discussion or debate regarding saving--whether among policymakers, academics, members of the press, or the public at large--focus on either household saving or government saving, yet corporate saving typically accounts for over half of private saving. Businesses save out of earnings, by retaining some profits within the business and reinvesting them rather than paying them out as dividends or share repurchases. The impact on business saving of a particular policy therefore depends critically on its effects on the level of earnings and on the incentive to pay them out.

A lower capital gains tax rate, by increasing the incentive to retain earnings, will increase business saving. The return to retained earnings comes in the form of higher stock prices, which

are taxed at the capital gains rate. Lower capital gains tax rates will reduce the pressure to pay dividends and increase the incentive for equity finance. Both effects increase retained earnings.

Lower tax rates on dividends--which can be achieved in a variety of ways--have an uncertain effect on business saving. By reducing the double taxation of corporate equity, lower dividend taxes would increase equity finance. On the other hand, corporations would have an incentive to pay out more in dividends.

Even if business saving is reduced by lower tax rates on dividends, however, private saving might not fall. Lower tax rates on dividends and capital gains also increase the rate of return to household savers. Personal saving may increase in response by enough to offset any decline in business saving. Moreover, shareholders may change their saving in response to changes in business saving--they may "see through the corporate veil." If corporations save less for their shareholders, the shareholders can compensate by increasing their household saving. However, the available evidence indicates that a reduction in business saving is only partially offset by an increase in household saving. Shareholders consume part of the higher payouts. For the same reason, the rise in mergers, takeovers, and leveraged buyouts--which increased cash payments to shareholders and reduced retained earnings--reduced private

saving.

Share repurchases, takeovers, and leveraged buyouts have increased dramatically in recent years; net equity issues by U.S. corporations have been negative in each year since 1986. This increasing trend to debt finance makes it likely that the net effect of lower taxation of dividends would be to increase business saving.

SUMMARY

The rate of productive investment--whether in the form of physical, technical, or human capital--in the United States needs to be raised if we are to maintain our international competitiveness and to achieve our goals for society in coming decades. Our rate of saving also needs to be raised if the standards of living in the United States are to increase at the rate of other large industrialized countries. Increasing national investment and reducing the imbalance between saving and investment are urgent national priorities.

Current government policies discourage saving and investment. One important step toward increasing saving and investment is to move policies at least toward neutrality between consumption and investment. A mix of policy changes is the best approach to raise the level of both productive investment and saving. Policies that encourage domestic investment may have little impact on saving, while those that affect domestic saving

may have little impact on the level of investment. The new policies should not compromise our commitments to open capital markets for foreign investors.

The Bush Administration has offered several important proposals to increase saving and investment. Reducing the budget deficit without raising taxes will reduce government dissaving without lowering private saving. Lowering the capital gains tax rate will increase investment and business and household saving.

Revising the tax credit for research and experimentation will increase the effectiveness of this inducement without lowering government revenue.

These proposals are a strong start to the effort to increase national saving and investment. Raising our rate of saving and investment will spur economic growth, help achieve societal goals, and enhance the welfare of future generations.

CLOSE HOLD

Document No. _____

WHITE HOUSE STAFFING MEMORANDUM

DATE: 12/23/89 ACTION/CONCURRENCE/COMMENT DUE BY: COB, THURS. 12/23/89

DRAFT CHAPTER SEVEN "THE GLOBAL ECONOMY" FROM THE
1990 ECONOMIC REPORT OF THE PRESIDENT

SUBJECT: _____

	ACTION FYI			ACTION FYI	
VICE PRESIDENT	☐	☒	MCCLURE	☒	☐
SUNUNU	☐	☒	NEWMAN	☐	☐
SCOWCROFT	☒	☐	PORTER	☒	☐
DARMAN	☒	☐	ROGICH	☐	☐
BATES	☒	☐	UNTERMAYER	☐	☐
CARD	☐	☒	BOSKIN	☐	☒
CICCONI	☐	☒	BROMLEY	☒	☐
DEMAREST	☒	☐	_____	☐	☐
FITZWATER	☐	☒	_____	☐	☐
GRAY	☒	☐	_____	☐	☐
HAGIN	☐	☐	_____	☐	☐

REMARKS:

Please forward any comments directly to Michael Boskin, Room 314, x5042, with a copy to my office, no later than COB, THURSDAY, DECEMBER 28. Thank you.

RESPONSE:

OK
James W. Cicconi
12-29-89
CLOSE HOLD

James W. Cicconi
Assistant to the President
and Deputy to the Chief of Staff
Ext. 2702

THE WHITE HOUSE

WASHINGTON

Dec 29 '69

Dr. Michael Bookin

Dear Mike:

Chapter 7 is excellent.
Have no comments.

I do have a few on chapter
6 that I had not seen previously.
Nancy Maynard will pass them
on to John Asble directly.

Happy New Year!

Ann

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

1989 DEC 22 PM 6:16

December 22, 1989

MEMORANDUM FOR JIM CICCONI

FROM: MICHAEL J. BOSKIN *flj*
SUBJECT: 1990 Economic Report of the President
Chapter 7 - The Global Economy

Attached is a preliminary draft of Chapter 7 of the 1990 Economic Report of the President. We need your agency's comments by c.o.b. Thursday, December 28.

Please deliver a coordinated set of comments to Room 314, Old Executive Office Building. Should you or any staff members have detailed questions about the chapter, please feel free to contact the Chapter Leader, Susan Collins directly at 395-3375.

Attachment

Distribution:

EOP (OMB, USTR, NSC, OPD)
State
Treasury
Commerce
Labor
Federal Reserve Board
Agriculture

12/27

Copies given to JTR, JBW and DAB

JTR said it's fine (ch. 7). 12/29

SS

CHAPTER 7
THE GLOBAL ECONOMY

DRAFT

Barriers to free markets and an open trading system appear to be coming down throughout the world. Remarkable transformations from centrally planned to market-oriented systems are occurring in Poland, Hungary, and other countries in Eastern Europe. Far-reaching market reforms -- aided by reduced debt burdens -- are beginning to generate noticeable improvements in some of the heavily indebted developing countries such as Mexico and Costa Rica. Market-oriented development in the Asian Pacific Rim countries is proving to be a dramatic success, and efforts are underway to translate the export orientation of these nations, including Japan, into higher domestic living standards. Barriers to the free movement of goods, services, labor, and capital are being removed as a single, unified market is being established in Western Europe. There are now clear signs that a significantly freer world trading system, with reduced barriers in agriculture, services, textiles and intellectual property, will be the outcome of the nearly completed Uruguay Round of the General Agreements on Tariffs and Trade (GATT).

The backdrop to these exciting developments has been the rapid expansion of the United States and other developed economies through the integration of national markets during the last decade. Over 30 percent of U.S. economic growth since 1984

DRAFT

- 2 -

came from increased exports to developing and other developed countries. The United States, like other nations, has benefited from a healthy global economy and international trading system. All countries share a responsibility to encourage and safeguard the development of world markets through multilateral and bilateral negotiations.

The United States has been a leader throughout the postwar period in working with other countries towards a freer global market economy and a more open international trading system. The enormous progress during the last year should not lead to complacency in this effort. Indeed, one of the highest priorities of President Bush's trade policy is the successful completion of the Uruguay Round of GATT negotiations, and the strengthening of this rules-based institution for improving the international trading system.

MARKET ORIENTED REFORM IN CENTRALLY PLANNED ECONOMICS

In recent months, the world has witnessed unprecedented developments in Eastern Europe as many countries moved towards democracy and economic reform. After the first partially free elections in 40 years, the Polish government is now headed by a noncommunist Prime Minister. It has already begun to implement a major economic restructuring and stabilization program. In

- 3 -

October, Hungary declared itself a Republic, with a multi-party instead of a single party system, and adopted a bill of rights. While economic reform has been underway for many years, a new initiative will be launched in 1990. Since the opening of the Berlin Wall in November, East Germans have flooded into West Germany. In December, Czechoslovakia named a noncommunist government, and made plans to hold free elections. It is not yet clear how far these two countries will move toward market-oriented reforms.

Through 'glasnost' (openness) and 'perestroika' (restructuring), the USSR began to initiate political, legal and economic reforms in 1985. China has also moved to reshape its economy, beginning to increase reliance on markets in 1978. However, political actions associated with the Tiananmen Square repression are a setback to these reforms. These changes are of tremendous global significance: one-fifth of the world's population live in China, and nearly 8 percent live in the Soviet Union or countries of Eastern Europe which, excluding Albania and Yugoslavia, form the Council for Mutual Economic Assistance (CMEA).

These countries are all addressing the fundamental question of how some form of market economy can revive growth rates and raise living standards after years of declining economic