Trends in Investment and Tax Policy: Time for a Change?

By Margo Thorning*

Washington policymakers are trying to identify the policy levers that can restore solid growth to real family income in the United States. Such income has been near-stagnant since the mid-1970s and has actually declined since 1989. Among the many proposals now "on the table" — e.g., tax cuts for families with children, better training for lower-skilled workers to help assure higher-quality jobs, etc. — one time-tested key to higher living standards deserves special emphasis: fostering faster growth in the nation's capital stock. While other actions are important, without such growth a resumption in the upward trend in family income is not likely to occur.

INVESTMENT SPENDING in the United States in recent years compares unfavorably with that of other nations and with our own past experience. From 1973 to 1991, gross nonresidential investment as a percent of GDP was lower for the United States than for any of our major competitors (Table 1). The U.S. saving rate is also significantly lower than other industrial nations: 4.8 percent compared to 19.1 percent in Japan and 10.7 percent in West Germany. Even more disturbing is that annual U.S. investment is only half the level achieved in this country during the 1960s and 1970s. Net private domestic investment averaged 7.4 percent of GDP from 1960 to 1980; since 1991 it has averaged only 3.0 percent (Table 2).

Reflecting the reduced share of GDP being invested each year, the U.S. capital stock has also grown more slowly. In the three decades prior to 1980, the total capital stock grew at 4.0 percent per year; in the 1980s and 1990s, the rate fell to 2.7 and 1.4 percent, respectively (Table 3). The stock of equipment, which many experts regard as critical for strong productivity growth, has increased since 1980 only about half as fast as in previous decades. Industrial equipment stocks, which grew at an average rate of 4.3 percent over the 1950-79 period, increased by just 1.2 percent annually in the 1980s and 0.1 percent since 1990.

LINK BETWEEN INVESTMENT AND PRODUCTIVITY

Productivity increases are critical to raising wages for both unskilled and highly-skilled U.S. workers. New York University Professor Edward Wolff's research shows that aggregate productivity growth in the OECD countries outstripped the United States during much of the 1950-90 period.[1] He notes that countries like Japan and Germany, which experienced strong productivity growth in the 1970s and 1980s, showed significant gains in their capital-to-labor ratios. Professor Wolff's study also shows that labor productivity growth is associated with the rate of capital-labor growth and the rate of technological progress.

Professor Wolff argues that U.S. productivity growth rates are depressed by the recent slower growth in the capital-labor ratio – from a peak of 2.0 percent per year in the 1950s to 1.2 percent per year in the 1977-92 period. He emphasizes that the effects of the decline in U.S. capital-labor growth are perhaps even

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[1] See footnotes at end of text.

Table 1
Saving and Investment as a Percent of Gross Domestic Product, 1973-1991

	United States	Canada	Japan	France	West Germany	United Kingdom
SAVING						
Net Saving[1]	4.8%	8.1%	19.1%	8.8%	10.7%	4.7%
Personal Saving[2]	5.9	7.7	11.9	6.9	8.2	3.2
Gross Saving (net saving plus consumption of fixed capital)[3]	16.6	19.7	32.8	21.2	22.9	16.2
INVESTMENT						
Gross Nonresidential Fixed Capital Formation	13.9	15.3	24.1	15.0	14.7	14.3
Gross Fixed Capital Formation	18.4	21.7	30.3	21.1	20.6	18.0

[1] The main components of the OECD definition of net saving are: personal saving, business saving (undistributed corporate profits), and government saving (or dissaving.) The OECD definition of net saving differs from that used in the National Income and Product Accounts published by the Department of Commerce, primarily because of the treatment of government capital formation.

[2] Personal saving is comprised of household saving and private unincorporated enterprise.

[3] The main components of the OECD definition of consumption of fixed capital are the capital consumption allowances (depreciation charges) for both the private and the government sector.

Source: Derived from National Accounts, Vol. II, 1973-1985 and 1979-1991, Organization for Economic Co-Operation and Development (OECD), 1987 and 1993 eds. Prepared by The American Council for Capital Formation Center for Policy Research, February 1994.

more pernicious than they appear at first glance. First, an increasing capital-labor ratio will increase labor productivity through capital deepening. Second, there appears to be an important and significant interaction effect between technological advance and capital investment. Thus, a slowing in capital formation may doubly hurt labor productivity growth – directly by slowing the rate of capital deepening and indirectly by slowing the rate of technical advance.[2]

The importance of equipment investment to economic growth is also documented in studies by Lawrence Summers, Undersecretary for International Affairs, U.S. Department of Treasury, and Bradford De Long, Deputy Assistant Secretary for Policy Analysis, U.S. Department of Treasury.[3] Their research shows that, for a broad cross-section of nations, every 1 percent of GDP invested in equipment is associated with an increase in the GDP growth rate itself of one-third of 1 percent – a very substantial rate of return. Summers and De Long conclude that investment in equipment is perhaps the single most important factor in economic growth and development.

IMPLICATIONS OF SLOW PRODUCTIVITY GROWTH

U.S. family income has been nearly stagnant since the mid-1970s, and in recent years family income has actually fallen. For example, real median household income was $39,869 in 1989; income has declined each year to $36,959 for 1993.[4] These trends in family income have not only made it harder to maintain living standards but have also jeopardized our future economic health and our ability to remain the principal leader in international affairs. In addition, looming in the future is the need to finance the retirement of the "baby boom" generation. Research suggests this generation's saving rate is only one-third the amount needed for secure retirement. Strong productivity growth is critical to enhancing family income and providing the wherewithal to raise the U.S. private saving rates.

TAX POLICY AND CAPITAL COSTS

The user cost of capital is the pretax return on a new investment that is required to cover the purchase price of the asset, the market rate of interest, inflation, risk, economic depreciation, and taxes. This capital cost concept often is called the "hurdle rate," because it measures the return an investment must yield before a firm would be willing to undertake the capital expenditure.

Economists are in broad agreement that capital costs are affected by tax policy. For example, Stanford Professor John Shoven estimates that about one-third of the cost of capital is due to taxes, i.e., hurdle rates are about one-third higher than they would otherwise be due to the tax liability on the income produced by the investment. Thus, the higher the tax on new

Table 2
Flow of U.S. Net Saving and Investment
(Percent of GDP in current $; national income accounts basis)

	Average 1960-1980	Average 1981-1985	Average 1986-1990	Average 1991-1994[3]
Net Private Domestic Saving	8.1%	7.2%	5.1%	5.2%
State and Local Government Surpluses	0.7	1.2	0.9	0.4
Subtotal of Private and State Saving	8.8	8.4	5.9	5.6
Less: Federal Budget Deficit	-1.0	-4.1	-3.2	-3.6
Net Domestic Saving Available for Private Investment	7.8	4.3	2.7	1.9
Net Inflow of Foreign Saving[1]	-0.4	1.2	2.4	1.0
Net Private Domestic Investment	7.4	5.5	5.1	3.0
Personal Saving	5.2	5.6	3.4	3.4
Net Business Saving[2]	2.9	1.6	1.7	1.8

Source: Department of Commerce Bureau of Economic Analysis, National Income Accounts. Update prepared by the American Council for Capital Formation Center for Policy Research, October 1994.

[1] In the 1960-80 period the U.S. sent more capital abroad than it received; thus net inflow was negative during this period.

[2] Net Business Saving = Gross private saving - personal saving - corporate and noncorporate capital consumption allowance.

[3] The 1994 figures included in this average reflect only the first two quarters.

investment, the less investment will take place. Although the Tax Reform Act of 1986 (TRA) substantially reduced corporate and individual income-tax rates, the legislation's capital cost recovery provisions raised effective tax rates and capital costs for productive and pollution-control assets. Capital costs increased because of the loss of the investment tax credit, the lengthening of depreciable lives for many assets, the corporate alternative minimum tax, and capital gains tax increases.

The impact of TRA on U.S. industry can be illustrated by the following example that relates to the present value of the capital cost recovery allowance when a corporation purchases new equipment. The present value of the deductions for investment in modern and competitive continuous casting equipment for steel production under the strongly proinvestment tax regime in effect from 1981 to 1985 was 98 percent of the cost, according to a study by Arthur Andersen & Co. In contrast, under current law the present value of the capital cost recovery allowance for that same investment today is only 78.5 percent for a corporation paying the regular income tax. And if a corporation is subject to the corporate alternative minimum tax (AMT), as many major steel companies are, the present value is only 57.7 percent (see Table 4).

The Arthur Andersen study also shows that we lag behind many of our major competitors in capital cost recovery for equipment that is technologically innovative, is crucial to U.S. economic strength, or helps prevent pollution. Capital cost recovery provisions for pollution-control equipment are much less favorable now than prior to TRA's passage. For example, the present value of cost recovery allowances for wastewater treatment facilities used in pulp and paper production was 98.0 percent prior to TRA. Under regular TRA income tax, the present value dropped to 78.5 percent, while for AMT payers, the figure is 62.1 percent. Scrubbers used in the production of electricity fared even worse. Prior to TRA, the present value was 86.8 percent. Today the present value is only 50.8 percent; for AMT taxpayers the figure drops to 41.5 percent. As is true in the case of productive equipment, loss of the investment tax credit and lengthening of depreciable lives both raise effective tax rates. Pollution-control outlays also become subject to the AMT under TRA.

According to estimates by Dr. Joel Prakken of Laurence H. Meyer & Associates, the user cost for most types of productive equipment would be about 15 percent lower had TRA not been enacted (Figure 1).

OPTIONS FOR TAX REFORM

Restructuring the U.S. federal tax system in order to reduce the multiple taxation of saving and investment inherent in the income tax — and thus to promote productivity and higher living standards — should be high on policymakers' 1995 agenda. Several congressional tax reform proposals have been introduced or

Table 3
Growth in the Net Capital Stock by Type
(Average annual growth rates in 1987 dollars)

	1950-59	1960-69	1970-79	1980-89	1990-93	1993 Level (billions of 1987 dollars)
Total	3.6%	4.5%	3.8%	2.7%	1.4%	$4979.5
Equipment	4.1	5.0	4.9	2.6	2.3	2359.7
Information Processing	8.8	8.9	8.9	9.3	7.3	747.7
Equipment less Information Processing	3.8	4.7	4.4	1.0	0.3	1612.1
Industrial[1]	5.0	4.3	3.6	1.2	0.1	754.6
Structures	3.3	4.2	2.8	2.8	0.6	2619.7

[1] Industrial equipment includes fabricated metal products, engines and turbines, metal working machinery, special industry machinery, general industrial, including materials handling, equipment and electrical transmission, distribution and industrial apparatus.

Source: Fixed Nonresidential Private Capital, by Type of Equipment and Structures, Department of Commerce, Bureau of Economic Analysis, July 21, 1994. Table prepared by ACCF Center for Policy Research, September 1994.

are close to being introduced as legislation. The proposals described below are all, in fact, variations on the consumed income tax plan described almost twenty years ago in *Blueprints for Basic Tax Reform*, a study directed by David F. Bradford, then the Deputy Assistant Secretary for Tax Policy at the U.S. Treasury.[5] Under a consumed income tax, all saving is excluded from the tax base. A common theme of the congressional proposals is that saving and investment are taxed more lightly and consumption more heavily than under current law. Major proposals include:

The Comprehensive Tax Restructuring and Simplification Act

The Comprehensive Tax Restructuring and Simplification Act was introduced by Senator John Danforth (R-MO) and David Boren (D-OK) on May 26, 1994. The bill repeals the corporate income tax and eliminates over $400 billion of business, individual income taxes and payroll taxes. To replace the lost $400 billion, their proposal includes a Business Activity Tax (BAT)

The BAT is a tax on all businesses that sell goods or services in the U.S. Generally, a company will determine its gross receipts from the sale of goods and services and its gross purchases — including plant and equipment — of goods and services that it uses in its business. By subtracting purchases from sales, the company computes the value of its business activity. The BAT base will equal the sum of the company's payments for the labor services (wages, salaries, fringe benefits, etc.) and the capital services (interest to creditors and profits to owners). A single rate of 14.5 percent will be applied to that value to determine the tax due. The social security payroll tax rate for employers is also reduced from 6.2 percent to 3.1 percent. The BAT operates according to the destination principle, i.e., the tax applies only to goods and services that are used or consumed in the United States. Under the provisions of GATT, the BAT is a border-adjustable, indirect tax that can be removed from U.S. exports.

The bill modifies the individual income tax by reducing the social security payroll tax from 6.2 percent to 3.1 percent (same as for employers). It also allows an extra standard deduction for taxpayers who do not itemize and a refundable credit against the income tax.

The Savings-Exempt Income Tax

Senators Sam Nunn (D-GA) and Pete Domenici (R-NM) propose to replace the individual corporate federal income tax and a portion of the Social Security tax with the Savings-Exempt Income Tax (SEIT). Total revenues from the SEIT would equal total revenues from individual and corporate income taxes, plus the revenues needed to pay for the Social Security payroll tax credits. To compute its tax base under a SEIT, a business would take the total value of its business receipts from domestic sales (which, by definition, exclude exports sales, income from overseas operations, and financial income) and subtract its purchases from other businesses, including capital equipment. Purchases of imported goods also would be subtracted, assuming that the imports had been taxed at the border.

Table 4
International Comparison of the Present Value of Equipment Used to Make Selected Manufacturing Products and Pollution-Control Equipment (As a Percent of Cost)

	Computer Chips	Telephone Switching Equipment	Factory Robots	Crank-shafts	Continuous Casting for Steel Production	Engine Blocks	Wastewater Treatment for Chemical Production	Wastewater Treatment for Pulp and Paper Equipment	Scrubbers Used in Electricity Plants
United States									
1985 Law	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%	86.8%
MACRS	83.4	83.4	78.5	78.5	78.5	78.5	83.4	78.5	50.8
AMT	80.8	78.1	68.9	64.1	57.7	60.3	69.4	62.1	41.5
Brazil	75.7	74.8	74.7	74.7	88.3	74.7	74.7	74.7	79.4
Canada	73.4	72.2	70.3	70.1	70.5	69.9	82.8	82.8	82.8
Germany	80.7	80.1	79.8	81.1	79.3	81.1	67.6	65.5	64.6
Japan	78.8	77.5	73.5	74.4	70.9	74.1	75.2	74.2	72.9
Korea (w/3% ITC)	86.2	81.3	79.6	76.9	74.4	76.5	94.2	93.1	91.8
Singapore	90.1	90.1	90.1	90.1	90.1	90.1	90.0	90.0	90.0
Taiwan	80.6	73.7	75.1	58.4	57.7	57.9	144.4	144.1	144.1

Source: Stephen R. Corrick and Gerald M. Godshaw, "AMT Depreciation: How Bad is Bad," *Economic Effects of the Corporate Alternative Minium Tax*, Published by the American Council for Capital Formation Center for Policy Research (Washington, DC, September 1991); and unpublished data incorporating the AMT provisions of OBRA 1993.

To compute its tax liability, a business would multiply its tax base by the business tax rate (7.1 percent). The business would then take a tax credit equal to the employer's portion of the payroll tax payments for its employees. The SEIT would not allow a business to deduct wages, state and local tax payments, or interest and dividend payments.

Most of the other features of the individual-level SEIT resemble those of the current individual income tax; however, saving would be fully deducted from income and money withdrawn from savings and spent would be taxable. The SEIT retains personal exemptions, the standard deduction, some itemized deductions and graduated tax rate schedules ranging from 16 to 55 percent. It also has an earned income tax credit for low-income taxpayers. The SEIT has not been introduced as legislation.

Value-Added Tax

Acting Chairman of the Ways and Means Committee, Congressman Sam Gibbons (D-FL), proposes to replace the current individual and corporate federal income tax and the social security payroll tax with a simplified value-added tax (VAT). A new personal income tax would be used to address the regressivity of the VAT.

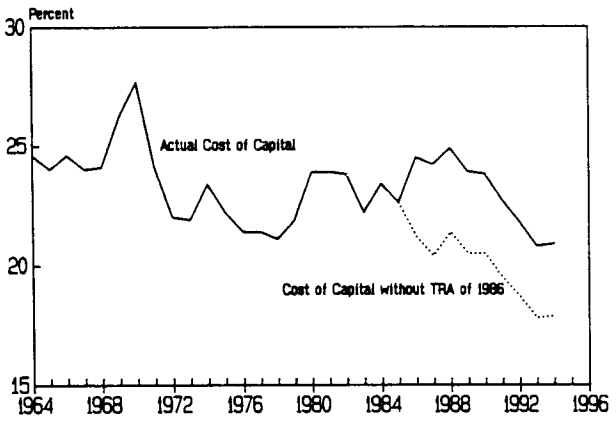
The VAT for business would be computed by the subtraction method and apply a uniform tax rate for all goods and services according to the destination principle. The destination principle means that the tax would not be levied on exports but that it would be levied on imports as allowed by the General Agreement on Tariffs and Trade (GATT). Gross receipts from sales of goods and services would be the tentative taxable amount. Gross costs for purchases of goods and services from other businesses and for plant and equipment would be deducted from that amount. The balance would be the business' value-added base, which would be multiplied by the tax rate to determine the tax liability.

The tax rate is not specified in Chairman Gibbons' proposal; he states that the rate would be that needed to offset the revenue loss stemming from the repeal of the individual and corporate income tax and payroll taxes. The VAT has not been introduced as legislation by Chairman Gibbons.

The Flat Tax

Congressman Dick Armey (R-TX) introduced the Freedom and Fairness Restoration Act on June 16, 1994. The bill replaces the current individual and corporate federal income tax with a flat tax modeled after the consumed income tax proposals by Stanford Economist Robert Hall and Alvin Rabushka of the Hoover Institution. Businesses would pay a 17 percent rate on the difference (if positive) between revenue and

Figure 1
Cost of Capital for Equipment
Less Computers
1964-1994



Note: The cost of capital is defined as the user cost of capital; it includes economic depreciation. Personal tax rates are not factored into the calculations.
Source: Joel Prakken, Laurence H. Meyer and Associates, unpublished data, August 1994.

expenses. The tax would cover corporate, partnership, professional, farm, and rental profits and royalties. The base for the tax would be gross revenue less purchases of goods and services, capital equipment, structures, land, and wages and pension contributions paid to employees. No deductions are permitted for fringe benefits, interest, or payments to owners.

Personal income would be taxed only once at a rate of 17 percent. Personal income is defined as the total of wage, salary, and pensions. Personal allowances would be permitted: $13,000 for an individual, $17,200 for a single head of household, $26,200 for a married couple, and a dependent deduction of $5,300.

Modified Tax Reform

The tax reform proposals described above entail scrapping the federal internal revenue code and starting fresh. Attractive as that option may be to many, enactment of fundamental tax reform may be beyond reach in the 1990s. One way to achieve the goal of encouraging the saving and investment needed for faster productivity and income growth is through adoption of incremental tax reform.

Improving investment incentives through faster capital cost recovery, an investment tax credit, and modification of the alternative minimum tax could reduce capital costs significantly. For example, the Republican *Contract with America* proposes a "neutral cost recovery" system that indexes depreciation for inflation and allows investors to recover a 3.5 percent return on invested principal. Saving incentives, such as expanded Individual Retirement Accounts, simplification of pension regulations, and lower capital gains taxes, would promote higher rates of personal saving.

Although spending cuts would be preferable, if additional revenues are needed to finance modified tax reform, a broad-based consumption tax, such as a value added tax (VAT), could provide the wherewithal for tax initiatives needed both to lower U.S. capital costs for investment in equipment, a crucial determinant of economic growth, and enhance saving incentives Each percentage point of a comprehensive tax yields about $35.0 billion in revenue per year.

CONCLUSIONS

As the 104th Congress convenes in 1995, the issue of tax restructuring to enhance investment and productivity growth may assume a prominent role. The pendulum may be about to swing away from the economic policies of the past decade, especially the substantial increase in the economic tax burden on saving and investment, and back toward a progrowth policy. The hard fact is that we can no longer afford the luxury of policies that reward consumption, discourage saving and investment, overregulate American business, and penalize economic growth.

FOOTNOTES

[1] Edward N. Wolff, "Capital Formation and Productivity Growth in the 1970s an 1980s: A Comparative Look at OECD Countries," *Tools for American Workers: The Role of Machinery and Equipment in Economic Growth*, ACCF Center for Policy Research, Washington, DC, p. 46-76.

[2] Op. cit., p. 73-74.

[3] J. Bradford De Long and Lawrence Summers, "Equipment Investment and Economic Growth," *Quarterly Journal of Economics*, Vol. 106, pp. 445-502.

[4] Current Population Reports, Series, p. 60. U.S. Bureau of the Census, U.S. Department of Commerce, Washington, D.C., 1994.

[5] David F. Bradford, *Blueprints for Basic Tax Reform*, Second Edition, Revised, Tax Analysts, Arlington, Virginia, 1984.