Policy Analysis

Cato Institute Policy Analysis No. 242: The ABCs of the Capital Gains Tax

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Executive Summary

The most controversial provision of the Republicans' tax reduction package to be voted on later this fall is the proposal to cut the capital gains tax. The Contract with America proposal would provide a 50 percent exclusion for capital gains, lowering the top effective tax rate to 19.8 percent, and index capital gains for inflation. Opponents charge that those changes would provide a huge tax cut for the rich and substantially reduce federal tax revenues.

This study examines the historical experience with the capital gains tax in the United States, as well as the findings of more than 50 economic studies on capital gains taxation. We conclude that a capital gains tax cut would

- substantially raise tax collections and increase tax payments by the rich;
- increase the rate of capital formation, economic growth, and job creation through the year 2000;
- unlock hundreds of billions of dollars of unrealized capital gains, thus promoting more efficient allocation of capital;
- expand economic opportunities for the most economically disadvantaged workers by bringing jobs and new businesses to capital-starved areas, such as America's inner cities.

Finally, the study argues that the capital gains tax is so economically inefficient--because of its punitive effect on entrepreneurship, thrift, and investment--that the optimal economic policy for the United States would be to abolish the tax entirely.

> The tax on capital gains directly affects investment decisions, the mobility and flow of risk capital . . . the ease or difficulty experienced by new ventures in obtaining capital, and thereby the strength and potential for growth in the economy.
>
> -- *President John F. Kennedy, 1963*

> You're looking at a poor man who thinks the capital gains tax [cut] is the best thing that could happen to this country, because that's when the work will come back. People say capital gains are for the rich, but I've never been hired by a poor man.

-- *New Jersey painting contractor*

Over the past 10 years perhaps no single economic issue has been embroiled in more controversy than the capital gains tax. Ever since the capital gains tax rate was raised from 20 to 28 percent as part of the 1986 Tax Reform Act, Republicans and many centrist Democrats have tried repeatedly to enact a capital gains tax cut to stimulate job creation and economic growth. Those efforts have been stymied on each occasion by the criticism that the tax cut would be a "giveaway to the rich."

This year the political logjam may finally be broken. A capital gains tax cut is a central feature of the Republican budget plan, which is now making its way through Congress. Earlier this year Speaker of the House Newt Gingrich called tax cuts the "crown jewel" of the GOP Contract with America. Yet, as the prospects for passage grow more promising, the opposition is once again mobilizing for what appears to be an eleventh-hour campaign to defeat the measure. And no one knows whether President Clinton would sign a capital gains tax cut even if Congress were to pass one.

Despite the high profile of this tax issue in Washington, many Americans still have little awareness of why the tax treatment of capital gains should matter to them. This study is an attempt to make the capital gains tax understandable and relevant to ordinary American workers. We intend to walk the reader through the ABCs of the capital gains tax. Here are some of the questions this study addresses:

- What is capital?
- What is a capital gain?
- Why is the capital gains tax important to the U.S. economy?
- How does the capital gains tax affect the typical American worker?
- Who pays the capital gains tax? Is it a rich man's tax?
- Would a capital gains tax cut increase the budget deficit?
- How does the U.S. capital gains tax compare with those of other nations?
- How would a capital gains tax cut affect jobs and wages?

To answer those questions, this guide synthesizes all of the most recent and well-respected studies of the issue and presents the arguments for and against the proposed tax cut. It is our conclusion from reviewing the historical evidence and more than 50 studies that the GOP tax reduction plan (which would lower the tax rate from 28 to 19.6 percent and index gains for inflation) would

- increase taxes collected from the rich;
- increase the rates of capital formation, economic growth, job creation, and real wages over the next decade; and

- unlock hundreds of billions of dollars of unrealized capital gains, thus promoting a more efficient capital market.

An even more economically compelling reform would be to eliminate the capital gains tax entirely. Abolishing the capital gains tax would promote entrepreneurship, business creation, U.S. competitiveness, and higher wages for American workers--especially for the most economically disadvantaged among us.

The Capital Gains Tax: Where We Stand Now

The 1986 Tax Reform Act constituted the largest capital gains tax hike in more than 50 years, raising the top marginal tax rate on long-term capital gains (assets held for more than one year) from 20 percent to 28 percent--a 40 percent increase.[1] The Reagan administration, which initiated the 1986 Tax Reform Act, called the increase in the capital gains tax "the one detrimental fallout from tax reform." President George Bush made a capital gains tax cut the centerpiece of his limited economic agenda. Although capital gains tax rate cuts have enjoyed broad bipartisan support in recent years, liberal Democrats have continually erected procedural roadblocks to prevent their enactment.

A capital gains tax cut is the centerpiece of the House Republican Contract with America. In April of this year the House approved the tax reduction measure, which is now awaiting action in the Senate. The House-Senate budget resolution calls for a capital gains tax cut, thus heightening the odds that this initiative will be passed by Congress and sent to the White House for President Clinton's signature.

The GOP capital gains tax cut proposal includes the following four features:[2]

- A 50 percent capital gains tax deduction. This would reduce the effective rate of tax on capital gains for low-income Americans to 7.5 percent (50 percent of 15 percent), for most middle-income Americans to 14 percent (50 percent of 28 percent), and for most high-income Americans to 19.8 percent (50 percent of 39.6 percent).
- Indexation of capital gains for inflation. Taxpayers would be permitted to make an adjustment for inflation on all gains earned on certain capital assets, such as stocks, after January 1, 1995.[3] (The Senate bill would not allow indexing.)
- Capital gains deduction for loss on sale of a principal residence. Losses from the sale of a home would be treated as a deductible capital loss for tax purposes.
- An effective date of January 1, 1995, for all of these capital gains tax changes.[4]

The rest of this study examines the rationale for those tax changes and investigates whether they would improve America's economic performance, as Republicans allege.

Why Does Capital Matter?

Capital is the engine of a growing economy. A recent study by Dale Jorgenson of Harvard University discovered that almost half of the growth of the American economy between 1948 and 1980 was directly attributable to the increase in U.S. capital formation (with most of the rest a result of increases and improvements in the labor force).[5]

The term "capital" has more than one meaning. Most people think of capital as money--the dollars invested in the stock market or in a new business. But for the purpose of understanding the capital gains tax, it is wrong to think of capital as just financial assets. Capital is also physical investment--the plant, the factory, the forklifts, the computers, the fax machines, and the other nonlabor factors of production that make a business operate efficiently. A corner lemonade stand could not exist without capital--the lemons and the stand are the essential capital that make the enterprise operate.

Capital can also refer to technological improvements or even the spark of an idea that leads to the creation of a new business or product. Ten years ago when Bill Gates decided to form a computer software company and then brought MS-DOS to market, he was creating capital. An investor who had the foresight to take the risk of investing in Bill Gates's idea made fabulous amounts of money. (A $20,000 investment in Microsoft in 1986 is now worth nearly $1 million.) That may seem like a huge windfall for the original financers of Microsoft, but without those investors' risking their money, a globally dominant American firm that employs 15,000 U.S. workers might not exist today. Of course, for every Microsoft whose stockholders make large profits, there are hundreds of risky investments that lose money for investors.

Capital formation is essential to generating higher incomes for American workers. Between 1900 and 1990 real wages in the United States rose about sixfold. In other words, a worker today earns as much, adjusted for inflation, in 10 minutes as a worker in 1900 earned in an hour. That surge in the living standard of the American worker is explained by the increase in capital over the period. U.S. farmers and manufacturing workers are more productive, and their real wages higher, than those of most other industrial nations because America has one of the highest ratios of capital to worker in the world. Even Americans working in the service sector are highly paid relative to workers in other nations as a result of the capital they have to work with.

Opponents of a capital gains tax cut often maintain that the returns on capital accrue primarily to the owners of the capital and that those owners tend to be wealthier than the average American worker or family. It is therefore argued that a capital gains tax cut would mostly benefit affluent Americans. But that ignores the critical link between the wage rate paid to working Americans and the amount of capital they have to work with. This is what Nobel laureate Paul Samuelson, a member of John F. Kennedy's Council of Economic Advisers, and William D. Nordhaus had to say about the importance of capital formation to worker well-being:

What happens to the wage rate when each person works with more capital goods? Because each worker has more capital to work with, his or her marginal product [or productivity] rises. Therefore, the competitive real wage rises as workers become worth more to capitalists and meet with spirited bidding up of their market wage rates.[6]

The facts support the economic axiom that capital formation benefits American workers. Roughly 95 percent of the fluctuation in wages over the past 40 years is explained by the capital-to-labor ratio (see Figure 1).[7] When the ratio rises, wages rise; when the ratio flattens, wages stagnate.

The relationship among productivity, wages, and capital is especially dramatic in agriculture. Today the American farmer is far and away the most productive in the world. In 1900 well over two-thirds of the American workforce were in farming; today, only about 3 percent are. Imagine what would happen to the productivity and output of American farmers today if they lacked modern irrigation equipment, tractors, and other sophisticated farm machinery. They would be as productive and well paid as Chinese peasant farmers. Modern farm equipment and techniques are forms of capital.

So, to recap, there are three reasons capital should matter to the typical American worker:

1. Capital represents the modern tools that Americans work with on the job.
2. Capital formation makes the average American worker more productive.
3. Improvements in worker productivity lead to higher real wages and improvements in working conditions.

[Bar graph omitted. Data presented below.]

Figure 1
Wages and Capital per Worker
(Data presented instead of figure)

Year	Real Average Hourly Wage Rate per Hour Worked	Real Capital Stock Hourly Wage Rate per Hour Worked
1954	$7.37	$34.29
1955	$7.53	$34.64
1956	$7.77	$35.60
1957	$7.99	$37.10

1958	$8.21	$39.55
1959	$8.41	$39.43
1960	$8.64	$40.17
1961	$8.89	$41.72
1962	$9.11	$41.98
1963	$9.41	$43.07
1964	$9.82	$43.72
1965	$9.99	$43.92
1966	$10.27	$43.99
1967	$10.58	$45.18
1968	$10.97	$46.16
1969	$11.26	$46.50
1970	$11.74	$48.66
1971	$12.02	$50.31
1972	$12.40	$51.24
1973	$12.58	$52.08
1974	$12.58	$54.13
1975	$12.51	$57.28
1976	$12.86	$58.33
1977	$13.01	$58.79
1978	$13.05	$59.23
1979	$13.03	$60.63
1980	$13.14	$63.65
1981	$13.09	$64.35
1982	$13.33	$66.42
1983	$13.46	$66.80
1984	$13.50	$65.54
1985	$13.76	$66.42
1986	$14.15	$67.68
1987	$14.31	$67.63
1988	$14.59	$67.75
1989	$14.54	$68.38
1990	$14.75	$68.86
1991	$14.99	$70.35
1992	$15.42	$70.99
1993	$15.66	$71.10
1994	$15.84	$70.32
Source: Aldona Robbins and Gary Robbins, "Tax Action Analysis," Institute for Policy Innovation, Lewisville, Texas, September 1995.		

What Is the Capital Gains Tax?

A capital gain is income derived from the sale of an investment.[8] A capital investment can be a home, a farm, a ranch, a family business, or a work of art, for instance.[9] In most years slightly less than half of taxable capital gains are realized on the sale of corporate stock. The capital gain is the difference between the money received from selling the asset and the price paid for it.

"Capital gains" tax is really a misnomer. It would be more appropriate to call it the "capital formation" tax. It is a tax penalty imposed on productivity, investment, and capital accumulation.

For all the controversy surrounding the tax treatment of capital gains, that tax brings in surprisingly little revenue for the federal government. In the 1990s capital gains tax collections have amounted to between $25 billion and $30 billion a year. As Figure 2 shows, capital gains taxes are just 6 percent of personal and corporate income tax receipts and just 3 percent of total federal revenues. Even if the capital gains tax were abolished entirely, and there were no offsetting receipts, the federal government would still collect 97 percent of its total tax receipts each year.

[Bar graph omitted. Data presented below.]

Figure 2
Sources of Federal Revenue
Billions of 1992 Dollars

Capital Gains Tax	32
Corporate Income Tax	100
Personal Income Tax	414
Social Security Taxes	476
Total Revenues	1,090

Source: Historical Tables: Budget of the United States Government, Fiscal Year 1996 (Washington: Government Printing Office, 1996), Table 2.1, p. 22. **Notes**: Revenue figures are for fiscal year 1992, the most recent year for which capital gains tax data are available. Columns do not add because all sources of federal revenue are shown.

The capital gains tax rate is now 28 percent for individuals, higher than at any time in history except for the slow-growth period of 1970-81. The corporate capital gains tax rate of 35 percent is now at its highest level ever.[10]

The capital gains tax is different from almost all other forms of federal taxation in that it is a voluntary tax. Since the tax is paid only when an asset is sold, taxpayers can legally avoid payment by holding on to their assets--a phenomenon known as the "lock-in effect." Today there is an estimated $7.5 trillion in unrealized capital gains that have not been taxed. Over the past 40 years the appreciation of capital assets has outpaced realized capital gains 40-fold. That suggests that a capital gains tax reduction has the potential of "unlocking" hundreds of billions of dollars of stored up wealth.[11]

There are many unfairnesses imbedded in the current tax treatment of capital gains. One is that capital gains are not indexed for inflation: the seller pays tax not only on the real gain in purchasing power but also on the illusory gain attributable to inflation. The inflation penalty is one reason that, historically, capital gains have been taxed at lower rates than ordinary income. In fact, Alan Blinder, now a member of the Federal Reserve Board, noted in 1980 that, up until that time, "most capital gains were not gains of real purchasing power at all, but simply represented the maintenance of principal in an inflationary world."[12]

Another unfairness of the tax is that individuals are permitted to deduct only a portion of the capital losses that they incur, whereas they must pay taxes on all of the gains. That introduces an unfriendly bias in the tax code against risk taking.[13] When taxpayers undertake risky investments, the government taxes fully any gain that they realize if the investment has a positive return. But the government allows only partial tax deduction (of up to $3,000 per year) if the venture goes sour and results in a loss.

There is one other large inequity of the capital gains tax. It represents a form of double taxation on capital formation. This is how economists Victor Canto and Harvey Hirschorn explain the situation:

A government can choose to tax either the value of an asset or its yield, but it should not tax both. Capital gains are literally the appreciation in the value of an existing asset. Any appreciation reflects merely an increase in the after-tax rateof return on the asset. The taxes implicit in the asset's after-tax earnings are already fully reflected in the asset's price or change in price. Any additional tax is strictly double taxation.[14]

Take, for example, the capital gains tax paid on a pharmaceutical stock. The value of that stock is based on the discounted present value of all of the future proceeds of the company. If the company is expected to earn $100,000 a year for the next 20 years, the sales price of the stock will reflect those returns. The "gain" that the seller realizes from the sale of the stock will reflect those future returns and thus the seller will pay capital gains tax on the future stream of income. But the company's future $100,000 annual returns will also be taxed when they are earned. So the $100,000 in profits is taxed twice--when the owners sell their shares of stock and when the company actually earns the income. That is why many tax analysts argue that the most equitable rate of tax on capital gains is zero.[15]

In addition to the federal tax levy on capital gains, many states impose their own capital gains tax (Figure 3). In high-tax states, such as California, Montana, and Rhode Island, the combined federal-state capital gains rate can reach 40 percent.[16]

Arguments for and against the Capital Gains Tax Cut

The following arguments are made for a reduction in the capital gains tax.

1. A cut would increase investment, output, and real wages. If the tax on the return from capital investments--such as stock purchases, new business start-ups, and new plant and equipment for existing firms--is reduced, more of those types of investments will be made. Those risk-taking activities and investments are the key to generating productivity improvements, real capital formation, increased national output, and higher living standards.
2. A cut would liberate locked-up capital for new investment. For those already holding investment capital, a capital gains tax reduction might create an "unlocking effect": individuals would sell assets that have accumulated in value and shift their portfolio holdings to assets with higher long-run earning potential. The unlocking effect might have strong positive economic benefits as well: the tax cut would prompt investors to shift their funds to activities and assets--such as new firms in the rapid-growth, high-technology industry--offering the highest rate of return.
3. A cut would produce more tax revenue for the government. If a capital gains tax cut increases economic growth and spurs an unlocking of unrealized capital gains, then a lower capital gains rate will actually increase tax collections.
4. A cut would eliminate the unfairness of taxing capital gains due to inflation. A large share of the capital gains that are taxed is not real gains but inflationary gains. The government should not tax inflation.

Opponents of a capital gains tax cut question those advantages. They argue that a capital gains cut will do the following:

1. Provide a large tax cut for the wealthiest Americans. Most capital gains taxes are paid by Americans with incomes above $200,000.
2. Have very little positive impact on the U.S. economy. Many argue that taxes do not influence investment decisions and that even if there were an unlocking effect, investors might simply consume the proceeds or shift investment from U.S. assets to foreign assets that may hold greater earnings potential.
3. Increase the budget deficit. If a capital gains tax cut reduces revenues and increases the federal budget deficit, then savings and investment in the United States might actually fall after the tax cut. That would only worsen America's reported capital shortage. Sen. Bill Bradley (D-N.J.), for instance, has been highly skeptical of the economic dividend from a capital gains tax cut and has argued that eliminating the federal budget deficit should be a higher policy priority.

Some frequently asked questions are addressed in the following subsections.

Will a Capital Gains Tax Cut Increase Investment and Capital Formation?

Virtually all economists agree that capital formation is essential to restoring growth to the American economy. The real issue is, will a lower capital gains tax rate raise capital formation appreciably?

U.S. industry has experienced a rise in the cost of capital as a result of the changes in the 1986 Tax Reform Act. Although a number of factors (including the institution of the corporate alternative minimum tax, changes in depreciation allowances, and elimination of the Investment Tax Credit) have contributed to rising capital costs in the United States, one of the most important tax penalties on capital was the hike in the capital gains tax.[17] Altogether, the added tax burdens imposed on capital investments in1986 have widened the gap between the income derived from a capital project, such as investment in a new plant, and the after-tax return to the firm and its stockholders.

America's unfavorable tax treatment of capital investment has caused an observable slowdown in the rate of growth in U.S. capital formation since 1986. Between 1986 and 1992 business fixed investment fell by half. Business investment in equipment fell by one-third over the same period. Since 1992 investment has rebounded somewhat, but it is still growing at a much slower pace than during the first half of the 1980s.

How much of that reduction in capital investment is attributable to capital gains taxes? Economist Yolanda Henderson with the Federal Reserve Bank of Boston estimated that roughly half of the rise in the corporate cost of capital is directly attributable to the increase in capital gains taxes. Henderson found that for the typical firm financing new investment with two-thirds equity and one-third debt, "the Tax Reform Act raised the corporate cost of capital by almost 15 percent, from 6.5 to 7.5 percent. From the changes in the capital gains taxes alone, the cost of capital increased by about 8 percent, to 7.0 percent."[18] Using a Cobb-Douglas function for computing the desired corporate capital stock, Henderson determined that the capital gains rate increase reduced the level of corporate capital stock by between 2 and 4 percent.

Further evidence comes from a 1989 study by Richard Kopcke, also an economist with the Federal Reserve Bank of Boston.[19] Kopcke isolated the additional cost of capital that is attributable specifically to the current capital gains tax rate of 28 percent. He investigated the rate of return required on various forms of equity under the current capital gains tax structure assuming a 6 percent inflation rate. His results are shown in Table 1. In some cases the 28 percent capital gains tax raises capital costs by as much as 20 percent--a significant investment disincentive. Kopcke summarizes his findings as follows:

> This additional tax burden tends to increase the cost of equity financing and deter the growth of corporate enterprises.[20]

Table 1
Capital Gains Taxes Rates and Required Rate of Return on Various Investments

	Required Rate of Return under	
Type of Investment	**Zero Capital Gains Tax**	**28% Capital Gains Tax**
Corporate equity with 3% growth of corporate assets	12.7%	15.1%
Assets yielding no taxable income with 3% annual increase in asset price[a]	7.0	8.7
Owner-occupied housing	10.0	10.6
Producers' durable equipment	14.5	15.5
Rental structures	14.0	15.5

Source: Richard W. Kopcke, "No Gain, No Pain: Some Consequences of Taxing Capital Gains," New England Economic Review, March-April 1989, pp. 39-55. Note: All

examples assume investors' required rate of return is 10 percent and that the assets are held for five years. [a] Examples include works of art and natural resources.

Kopcke's results have been generally replicated by Robbins and Bloomfield.[21]

All of that research demonstrates an important linkage between capital gains tax rates and capital formation. That finding is confirmed by a U.S. Chamber Foundation study, which estimated the impact of a proposal to reduce the top capital gains rate to 20 percent. The research was conducted by economists Patric Hendershott and Yunhi Won of Ohio State University with Eric Toder of the Treasury of New Zealand. The researchers employed a modified version of the General Equilibrium Model of Differential Asset Taxation, which attempts to capture the effect on various types of capital investment of changes in the tax treatment of various assets and differences in marginal tax rates among taxpayers.[22]

In response to a rollback of the capital gains tax to 15 percent, the model finds that the taxable bond rate rises, the cost of capital to the corporate sector and noncorporate business sector falls, and the tax-exempt bond rate rises. The researchers found that those economic responses to the tax cut have the following consequences for capital formation:

> The size of the business capital stock, both corporate and noncorporate, expands relative to the size of the capital stock devoted to housing and consumer durables and to state and local capital. In the present model with a fixed aggregate capital stock, these results imply that the business capital stock increases and the other elements of the capital stock decline. In a growth context, of course, the business capital stock would simply grow faster than other components of the capital stock.[23]

The most important quantitative prediction of the model is that corporate capital stock would grow by $35 billion (or by about 1 percent) if the capital gains tax rate were cut to below 20 percent. The research, therefore, confirms the theory: the rate of growth of the nation's capital stock is sensitive to the rate of taxes on the return from capital. The magnitude of that capital response is not easy to predict using such models, but the direction of change is demonstrably positive.[24]

In a very recent study, Allen Sinai, chief economist at Lehman Brothers and a respected economic forecaster, modeled the impact of the GOP tax reduction proposal.[25] As Table 2 shows, Sinai found that the tax cut would increase the rate of GDP growth by about 0.7 percent per year (or about $40 billion increased output per year), lower the cost of capital, and raise capital spending by business.

Table 2
Economic Effects of GOP Capital Gains Tax Cut

Effect	Percentage Change
Growth rate of GDP	0.7
Capital spending	
Total	2.1
Equipment	1.6
Structures	3.6
Cost of capital	-3.7
Source: Allen Sinai, Testimony before the House Ways and Means Committee, January 24, 1995.	

Will a Capital Gains Tax Cut Enhance U.S. Global Competitiveness?

One indication of which nations will prosper economically in the future and which will fall behind is the flow of international capital. In the 1980s after marginal income tax rates were reduced by more than one-third, the United States attracted a net of nearly one-half trillion dollars of foreign capital. That is, foreigners invested $520 billion more in the United States than U.S. citizens and companies invested abroad. Since 1986 the rate of foreign capital investment in the United States has substantially slowed. Table 3 shows net investment in the United States from 1962 to 1992.

The reduction in capital inflows in the 1990s has been due in part to higher income tax rates since 1990 and higher capital gains tax rates since 1986. Today the United States is burdened with one of the highest capital gains taxes of any industrial nation. Table 4 shows that virtually all of America's principal trading partners tax capital gains at a lower rate than does the United States. In fact, many of our major international competitors--including the Netherlands, Hong Kong, and Taiwan--impose no tax on long-term capital gains. Only Australia and the United Kingdom have higher capital gains tax rates, but because both those nations allow for indexing of the base, the effective tax rate is typically lower than the U.S. tax rate.

Table 3
Net Private Foreign Investment in the United States, 1962-92

Year	Net Private Foreign Investment ($)	Year	Net Private Foreign Investment ($)
1962	3,982	1978	26,844
1963	4,755	1979	8,760
1964	6,067	1980	31,036
1965	4,729	1981	25,803
1966	2,014	1982	22,413
1967	3,458	1983	-11,162
1968	-3,070	1984	-83,098
1969	-5,796	1985	-109,090
1970	10,779	1986	-85,419
1971	16,849	1987	-114,825
1972	1,939	1988	-101,366
1973	8,024	1989	-65,277
1974	9,947	1990	-14,122
1975	26,737	1991	-10,298
1976	25,672	1992	-45,243
1977	16,214		

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 75, no. 6 (June 1995): 84-85. Calculated from lines 43 and 56.

Table 4
Capital Gains Tax Rates (percent) around the World (assets held more than one year)

Country	Tax Rate
United States	28.0
Belgium	0.0
Canada	23.8
France	18.1
Germany	0.0
Hong Kong	0.0
Italy	25.0
Japan	20.0

Netherlands	0.0
Singapore	0.0
South Korea	0.0
Sweden	16.8
Taiwan	0.0
Source: American Council for Capital Formation. Note: Australia has a capital gains tax rate of 48.3 percent, and the United Kingdom has a rate of 40 percent, but both countries allow indexing.	

Economists Robert N. McCauley and Steven A. Zimmer of the Federal Reserve Bank of Boston find that capital costs for various standard investments in plant, equipment, research and development, and land in the United States are higher in almost all cases than in the United Kingdom, Germany, and Japan.[26] For a factory with a 40-year life, for example, the cost of capital in the United States is 104 percent higher than in Japan.

Abnormally high capital costs in the United States are increasingly a barrier to growth and global U.S. leadership. A 1991 report by the Manufacturers' Alliance for Productivity and Innovation compared capital costs for large industries in the United States with similar costs in Japan. The report comes to this sobering assessment:

> Japanese tax and economic policies aim to keep the cost of capital low, and as a consequence, the cost of capital in Japan is one-half that for U.S. firms. This lower cost of capital has encouraged Japanese firms to invest, which in turn has meant a higher rate of productivity and increased competitiveness in comparison to U.S. firms.
>
> If U.S. policy fails to stimulate investment and renders U.S. industry unable to match the productivity performance of Japan and a number of other industrial nations, there is no question that U.S. industry will become less competitive in world markets.[27]

In sum, the United States cannot compete and win in the global economy of the 21st century with a tax code that repels capital.

Do High Capital Gains Taxes Encourage Debt Financing?

A related effect of the capital gains tax is to encourage the financing of new business investment through debt rather than equity. That is because the capital gains tax is a form of double taxation of the same income (it is taxed as corporate income when earned and later as capital gains income when the taxpayers sell their equity holdings). In contrast, income resulting from debt-financed investments is taxed only once, because interest expenses are tax deductible.

That has created a powerful and unintended incentive to finance corporate expansion and reorganization through leveraging rather than equity. Hudson Institute economist Alan Reynolds explains why.

The otherwise admirable 1986 tax reform increased effective tax rates on corporate profits, capital gains and real estate, and thus provided a powerful incentive for companies to add to debt and retire equity (leveraged buyouts, going private, stock buybacks, etc.). This incentive to become highly leveraged is a major reason why receipts from the supposedly increased taxes on corporate profits came in far below static estimates, as did receipts from the increased capital gains tax.[28]

A 1987 report by economist Randall J. Pozdena of the Federal Reserve Bank of San Francisco succinctly summarized the problem. "An increase in . . . the tax on capital gains increases the use of debt generally and low-grade (risky or "junk") debt specifically."[29]

A 1988 study by J. Gregory Ballentine, an economist with Peat Marwick Main & Co., arrived at a similar conclusion. Ballentine calculated the capital gains tax surcharge imposed on a corporation that chooses equity over debt financing of a new investment. For his analysis, Ballentine assumed a 5 percent after-tax rate of return on investment (the 36-year average from 1950 to 1986 on corporate stocks) and an inflation rate of 4 percent. He assumed that the corporation (the borrower) falls in the 34 percent tax bracket and the lender in the 28 percent bracket. As Table 5 shows, Ballentine found that "for the typical holding periods the tax penalty [of equity versus debt financing] is over 50 percent." He continues by underscoring the perversity of such incentives.

Table 5
The Tax Bias against Equity Financing: Capital Gains vs. Interest Income

Holding Period	Effective Capital Gains Tax Rate (%)	Effective Tax Surcharge on Capital Gains (%)[a]
	5% Real Return, 4% Inflation	
3 years	38	70
5 years	36	61
10 years	30	35
15 years	26	17
	4% Real Return, 3% Inflation	
3 years	38	67
5 years	36	59
10 years	30	41
15 years	26	23

Source: J. Gregory Ballentine, "The Tax Penalty on Capital Gains,"Peat Marwick Main and Company, 1988. [a]Relative to debt.

The goals of tax reform were laudable: uniformity and equity. But what possible rationale is there for imposing a 50 percent tax penalty on investors willing to commit equity investments in a project in anticipation of future capital gains, and to provide a corresponding tax benefit to the use of debt finance. . . . The result of tax reform is not uniformity, nor a tilt against debt, but is the tilt against capital gains and in favor of debt.[30]

The economywide evidence suggests that the bias encouraging debt financing has already had substantial effects on corporate investment patterns. Between 1984 and 1987 corporate equity declined by $300 billion while debt increased by more than $600 billion.[31] The corporate shift to indebtedness and leveraged buyouts was an unintended byproduct of the capital gains rate hike. It may or may not have a harmful economic effect, but it does indicate that, by raising capital gains tax rates in 1986, Congress directly encouraged the very trend in corporate finance that it now bemoans: increases in corporate debt and leveraged buyouts.

How Does the Capital Gains Tax InfluenceBusiness Creation?

One of the potential benefits from reducing the capital gains tax is to divert investment funds to new business start-ups, particularly in the high-tech industries--where investments tend to involve high risk but have potentially large payoffs. That is particularly vital to the economy because studies indicate that small businesses (20 employees or fewer) create anywhere from 50 percent to 80 percent of all new jobs in the United States.[32]

Why do investors put seed capital into high-risk small start-up companies rather than more established firms or mutual funds with more stable rates of return? The answer is that start-up firms, despite their higher risk, offer much higher potential payoffs. Here is an example of a small business that turned into a highly profitable gazelle in the 1980s, as reported by the Wall Street Journal.

Back in 1985 a little company called Novell Inc.--which makes hardware and software used to link

> personal computers--raised $5.8 million in an initial public offering of its shares. A year later it raised an additional $18 million. Since 1985, Novell shares have shot up by more than 10,000 percent. If the original investors had held on to all of those shares, that $24 million investment would now be worth $1.5 billion.[33]

Another start-up firm has become a household name in the 1990s.

> Blockbuster Entertainment Corp., the Fort Lauderdale, Fla. video rental chain, raised $32 million in 1986 and 1987 by selling stock in the company. With Blockbuster shares now trading at 23 times what they did when first offered, that original investment would now be worth $641 million. Those early investors . . . [made a] contribution to the competitiveness of the U.S. economy through their foresight that nearly everyone would soon buy a VCR.[34]

People who are skeptical about a capital gains tax reduction complain that a rate cut would offer a windfall to the shrewd investors who put their money into Novell and Blockbuster. For example, a capital gains tax cut would amount to as much as a $200 million tax reduction for those holding Novell stock since 1986.[35] But that misses the point. The real issue is whether a lower capital gains tax rate will lead to the creation of more Novells, Walmarts, Blockbusters, and Microsofts. That is, is there a relationship between the capital gains tax and investment in those types of promising new firms?

The answer is yes. The evidence from the past 20 years shows compellingly that past reductions in the capital gains tax rates (1978 and 1981, for instance) stimulated the financing and start-up of new businesses, while new business activity stalled after increases in capital gains taxes (1969 and 1986). Table 6 compares three separate measures of new business generation--the number of initial public stock offerings (IPOs), the dollars raised from those IPOs, and the dollars committed to venture capital firms--with fluctuations in the capital gains tax rate between 1969 and 1992.[36] The data show the following relationships:

- The number of new public stock offerings fell from 780 in 1969 to 34 in 1976; over that same period the maximum capital gains rate rose from 27.5 percent to 49 percent. Between 1986 (the year before the capital gains tax rate was increased) and 1989, the number of IPOs fell from 953 to 371--a 60 percent decline (see Figure 4).[37]
- New commitments to venture capital firms accelerated from $68 million in 1977 when the top marginal rate was 49 percent to $5.1 billion by 1983 when the rate had been dropped to 20 percent (Figure 5). That was a 700 percent increase in capital raised for new firms.
- Furthermore, since the 1987 capital gains tax rate hike, the number of companies receiving venture capital funding has been in steady decline. In 1986, 1,512 firms received funding. That number had fallen to 800 by 1991 and still remains well below its peak (Figure 6).
- And in 1986 real venture capital funding for promising young firms was $3.4 billion, but the level fell to $1.41 billion in 1991--a 59 percent reduction (Figure 7).[38]

Venture capital funds are the economic life blood of high-technology companies in industries that are of critical importance to U.S. international competitiveness: computer software, biotechnology, computer engineering, electronics, aerospace, pharmaceuticals, and so forth. The high capital gains tax rate appears to have contributed to the drying up of funding sources for those promising new frontier firms.[39]

Not only are there more small business start-ups and IPOs during periods of low capital gains taxes, but the stock of smaller firms appears to outperform that of large corporations during periods of low capital gains taxes. New research by Merrill Lynch (1995) demonstrates that over the past 25 years small and medium-sized firms have benefited more from reductions in capital gains taxes than have large, established corporations. In its innovative study, Merrill Lynch constructed an index of the performance of small-capitalization stocks relative to that of large corporate stocks (measured using the Standard & Poor's 500 index). That ratio was then compared to the capital gains tax rate over the period 1967-88 (Figure 8). Although the stock prices of firms of all sizes tend to be sensitive to changes in capital gains tax rates,

> smaller capitalization stocks have even greater sensitivity because they tend to be capital gains, rather than

> income, oriented. Our regression work suggests that every cut of five percentage points in the capital gains tax rate could translate into approximately 12.5 percentage points of additional return for smaller stocks [above the return for other stocks].[40]

Critics of capital gains tax reduction maintain, however, that the apparent inverse relationship between capital gains taxes and business formation and performance is overstated. In a 1989 study of the composition and characteristics of the venture capital industry, M.I.T. economist James M. Poterba estimated that only 12 percent of venture capital funds are generated by sources subject to the capital gains tax. He concluded that that finding "casts doubt on the supply of funds view of how the capital gains tax affects venture investment, especially in organized venture capital." He criticized the capital gains cut solution as a "blunt device for encouraging venture investment."[41] Poterba's analysis has frequently been cited as rebuttal to the suggestion that a capital gains tax cut will promote entrepreneurial activity.

The truth is that investors in small firms are not ambivalent about capital gains taxes. First, while it is true that in recent years a growing percentage of venture capital funding for small firms has come from nontaxed sources, such as pension funds and nontaxable foundations, it is precisely because of the higher capital gains taxes since 1986 that the shift has occurred. Taxable sources of financing are fleeing the venture capital area as the after-tax return has been substantially reduced for those investors, while the nontax sources have actually increased their participation in venture capital funding.[42] For example, Table 7 shows the changing composition of venture capital financing between 1984 and 1993. Nontaxable investors accounted for just over half of the venture capital funds when the capital gains tax rate was 20 percent, but by 1993 with a 28 percent rate their share of the total had risen to more than 80 percent. Commitments of taxable investment dropped by more than half and their share of the total declined from 29 percent to 15 percent.

Table 7
Capital Commitments to Private Venture Capital Funds

Commitments	**1984 ($ millions)**	**1993 ($ millions)**	**Change (%)**
Nontaxable			
Endowments and foundations	178	271	52
Pension funds	1,085	1,504	39
Insurance companies	419	268	-36
Percentage of total	53		81
Taxable			
Corporations	463	206	-56
Individual investors	467	187	-60
Percentage of total	29	15	
Source: Coopers and Lybrand and Venture Economics, "Third Annual Economic Impact of Venture Capital Study," conducted for the National Venture Capital Association, 1993.			

There is a related fallacy in the contention that informal investors are not a critical source of new business capital. Experts in the venture capital industry believe that that argument misrepresents the dynamic of the business start-up process and the role the venture capital industry plays in it. According to James R. Swartz, president of the National Venture Capital Group, an association of more than 1,000 companies that are the actual actors in the venture capital industry, the idea that all business start-up funds come from nontaxed entities is a myth. Swartz says,

> I view the situation much as an auditorium full of people, and one individual yells "fire," and the rest of the people scramble for the exits. I think pension funds are the scramblers. They are the followers. They come into the market after the companies have been created. It is individuals, entrepreneurs, private venture capitalists who get these companies started, and pension funds come in afterward. If rates of return are reduced in the venture capital market as a result of higher tax rates, pension funds will begin to look in

> other sectors for returns.[43]

Finally, even if the venture capital market were entirely dominated by nontaxable investors, that would not discount the importance of individual taxable investors in new business creation. In 1988 the Small Business Administration estimated that the "informal supply of capital"--that is family, friends, "angels," and other taxable investors--invested about $55 billion each year in small businesses.[44] And while venture capital funds have their own critical importance in business financing, the $55 billion of informal investment is roughly 10 times the amount that the venture capital firms raise each year.[45]

A 1990 joint study by the American Electronics Association, the National Venture Capital Association, and Coopers & Lybrand surveyed 410 high-tech firms. All of those firms were founded between 1966 and 1985 and today employ a combined total of more than 400,000 workers. As Figure 9 shows, 54 percent of funding during the founding stages of those companies was supplied by either the founders themselves or individuals. The researchers discovered that

> institutional venture capital firms provide only about 5 percent of the capital consumed by young growth companies each year. The vast majority of investors who provide the risk capital to invest in America's technology companies are subject to capital gains taxation.[46]

Last December's INC. magazine showcased America's 500 fastest growing small businesses, and its data confirm that taxable investors have a major impact on entrepreneurial success. Those 500 businesses employ 47,000 Americans today and are an average of six years old. Those businesses got all or a portion of their start-up capital from the following sources:[47]

- personal savings, 71 percent;
- family members 27 percent;
- partners, 19 percent;
- friends, 13 percent; and
- informal investors, 13 percent.

All of those sources of financing are subject to the capital gains tax.

To summarize, a capital gains tax cut is critical to American entrepreneurs and small business owners because

1. most high-risk small business start-ups receive the bulk of their seed money from informal investors who are subject to the capital gains tax;
2. over the past 25 years higher capital gains taxes have been associated with a drying up of investment capital for small and growing businesses, and lower capital gains taxes have produced substantial increases in business start-ups and financings; and
3. a capital gains tax cut will particularly benefit America's new high-technology companies, which have a voracious appetite for investment capital in their start-up stages; those firms tend to be financed by a combination of informal investors and venture capital--both of which are highly influenced by the capital gains tax rate.

How Do Capital Gains Taxes Affect Workers?

Assuming that the capital gains tax reduction would lower the cost of capital and stimulate additional investment and business formation, what would be the effect on jobs?

The 1990 survey by the American Electronics Association, the National Venture Capital Association, and Coopers & Lybrand provides one rough estimate. It discovered that

> for all of the 410 companies formed between 1966 and 1985, each of the 190,000 total jobs created required an average of $31,850 in capital investment. [Today that estimate is up to about$52,000.[48]

Several forecasters have attempted to estimate through economic simulation models the direct employment gain from a capital gains tax cut. In 1994 Gary Robbins and Aldona Robbins, formerly economists with the U.S. Department of the Treasury, performed an economic simulation to estimate the number of new jobs and the increase in economic growth that would result if the Contract with America's capital gains tax provisions were adopted.[49] The Robbinses' analysis was based on calculations of the fall in the service cost of capital for a wide range of corporate investment opportunities in response to the rate reduction. They then translated the lower cost of capital calculations into estimates of the impacts on gross national product and jobs by employing the standard Cobb-Douglas production function to simulate the long-term economywide production process.

The Robbinses' conclusion is that the GOP capital gains tax cut would, by the year 2000, reduce the cost of capital by 5 percent, increase the stock of capital by $2.2 trillion, and yield an extra $960 billion in national output. The increased capital formation triggered by the tax cut would give rise to 720,000 new jobs. The year-by-year estimates of the economic effects are summarized in Table 8.

Table 8
Estimated Economic Impact of GOP Capital Gains Tax Cut

	Change from Baseline in				
Year	**GDP (billions of nominal $s)**	**Jobs (millions)**	**Capital (billions of nominal $s)**	**Tax on Capital**	**Cost of Capital**
1996	16.0	0.030	152.0	-3.2	-3.1
1997	48.9	0.096	455.4	-4.0	-3.8
1998	91.0	0.206	823.8	-4.5	-4.1
1999	135.6	0.340	1,195.2	-5.0	-4.4
2000	183.3	0.484	1,577.8	-5.4	-4.6
2001	226.0	0.616	1,901.1	-5.7	-4.9
2002	267.9	0.721	2,215.8	-6.0	-5.0

Source: Gary Robbins and Aldona Robbins, "Putting Capital Back to Work for America", Institute for Policy Innovation, Paper no. 124 May 1994. Note: The GOP capital gains tax cut is 50 percent exclusion, indexing, and residential passive loss deduction.

Although the Robbinses' estimates appear to be more optimistic than the forecasts of other models, most other studies concur that the direction of change in jobs and GNP that would result from the capital gains tax cut would be positive. Sinai, for example, projects that job creation would increase by 1.4 percent by 1999 if the GOP capital 50gains tax cut were adopted.[50]

Historical experience also confirms that the corollary is true as well: when the capital gains tax rises, job opportunities are reduced. This is what a Wall Street Journal story said about the employment impact of the 1986 tax rate hike.

> Altogether, entrepreneurial investment was at an all-time peak for a low-inflation period in 1986, when $179 billion was raised in these markets....
>
> Four years later, the total capital raised in these capital markets had probably dropped to $91 billion. If investment had continued at 1986 levels through 1990, the economy would have been $247 billion greater. . . . That $247 billion of missing capital means 4.9 million fewer jobs.... Unemployment [in 1991] would have been less than 5 percent, as opposed to 6.9 percent.[51]

In the long term the real impact on workers of a change in the capital gains tax is reflected not in jobs but in wages. Consider the chain of events when the capital gains tax is raised:

1. The higher tax lowers the expected after-tax return for the owner of capital.
2. The lower rate of return on capital leads businesses to reduce their purchases of capital--equipment, computers, new technologies, and the like. In the very short term firms may use less capital and more labor to produce goods and services.
3. Because capital is more expensive, the cost of production rises and output falls.
4. Because workers have less capital to work with, the average worker's productivity--the amount of goods and services he or she can produce in an hour--falls.
5. Because wages are ultimately a function of produc- tivity, the wage rate will eventually fall.

That is not just ivory-tower economic theory. Over the past 30 years the real wage rate paid workers has tracked the capital/labor ratio with very little variance. In the four years from 1982 to 1986 the real wage rate in the United States climbed by 2.0 percent. Since the 1986 capital gains tax hike, the real wage rate in the United States has fallen by 4.5 percent. In short, workers bear a large share of the burden of a hike in the capital gains tax and enjoy a large share of the benefit from a reduction.

Will a Capital Gains Tax Cut Help the Poor?

Economics consultant Jude Wanniski recently told the Senate Finance Committee,

> When the government puts a high tax on capital gains, the people who lose the most from a high rate are the poorest, the youngest, those at the beginning of their careers, those who are furthest from the sources of capital. . . . The people who ultimately benefit from a capital gains tax cut are those who have no wealth, but aspire to it.[52]

The capital gains tax has been described as a tax on the American dream. For many low- and moderate-income workers, one of the few ways of accumulating wealth is through investment in stocks and businesses. Here is one example of a moderate-income worker who realized the American dream through saving and shrewd investment.

> Theodore R. Johnson never made more than $14,000 a year, but he invested wisely--so wisely that he made $70 million. Now he's donating $36 million of his fortune to education.
>
> The 90-year-old Johnson, from middle-class roots, worked his way up at United Parcel Service to be Vice President of industrial relations by the time he retired in 1952. His annual salary was $14,000 then, but he had bought as much UPS stock as he could.
>
> While enjoying retirement life, he watched UPS grow and grow--and the value of his stock holdings with it.[53]

High capital gains taxes reduce opportunities for workers to achieve the American dream and accumulate the kind of wealth that Theodore Johnson has.

The capital gains tax also affects "those furthest from the sources of capital" in another way. Capital gains tax reduction is a way to attract investment funds to capital-starved areas and minority groups. When capital gains taxes are high and investment capital grows scarce, the last areas that receive funds from the shrinking investment pool are inner-city neighborhoods with high crime rates, a poorly educated workforce, and high business bankruptcy rates.

Historical experience suggests that when capital gains taxes fall, investment begins to seep back into the areas most starved for investment. In Edge City, reporter Joel Garreau of the Washington Post found that in contrast to the high-tax-rate, high-inflation 1970s, when inner cities hemorrhaged capital, in the 1980s' era of low capital gains taxes, "inner city business districts flourished." According to Garreau, "In the 1980s, most American downtowns did as well or better than they ever had in any decade of the twentieth century. This was true from Boston to Seattle to San Francisco to Los Angeles to Atlanta to Washington to Philadelphia."[54]

A report by the members of the U.S. Civil Rights Commission found that after 1978, when the capital gains tax was reduced from 49 percent to 28 percent, "the number of black-owned businesses increased in a five-year period by one-third (to 308,000 from 231,200)."[55] After the tax rate was cut again, down to 20 percent, the number rose by an additional 38 percent (to 424,000 by 1987). The commission noted that "expansion has slowed significantly since the capital gains tax rate was raised from 20 to 28 percent in 1986."

The conclusion of the commission's report bears repeating because it emphasizes why a capital gains tax cut might benefit even the poorest Americans.

> The best hope of getting critically needed seed money into Los Angeles and other tense urban areas is by cutting the capital gains tax.
>
> Just as the fruit of a tree contains the seeds for more trees, so the fruits of success--capital gains--contain the seeds that generate new investment and success for more people. Policies that punish success ultimately kill the seeds that promise enterprise and jobs to the poor. . . .
>
> This generation of young minorities is looking at a rapidly growing divide between the haves and have-nots. They may represent our last opportunity to become owners and full participants in the broader economy. . . .
>
> Their message to us, to the president and to Congress could not be clearer: Give us the seed capital for inner-city jobs and investment, and we will use our rich potential to rebuild our city and transform America.[56]

Would a Capital Gains Tax Cut Increase the Deficit?

The impact of a capital gains tax cut on federal revenue collections has long been an issue of contentious debate--both in the academic literature and in public policy circles. In the current era of emphasis--at least rhetorical emphasis--in Washington on deficit reduction, it is predictable that the budgetary effect of capital gains tax changes would dominate public discussion. In fact, the "official" revenue estimates vary widely. The congressional Joint Committee on Taxation says that the House GOP proposal would cost the federal government $63 billion in lost revenues over 7 years.[57] (The Hatch-Lieberman bill in the Senate, which would not allow indexing for inflation, wasscored by the committee as a $53 billion revenue loser between 1995 and 2002.)[58]

In theory, a capital gains tax cut would create several countervailing positive and negative revenue effects. The revenue-losing effects are

1. a static revenue loss from asset sales that would have occurred without the tax cut but benefit from the lower rate;
2. a reduction in trading in anticipation of changes in the tax rate, as was witnessed in 1986; and
3. a paper shifting of reported income from ordinary sources--such as wages taxed at the "normal" rate--to capital gains income with lower rates.

The proposal would gain revenue through the following mechanisms:

1. a short-term unlocking of assets that would not have been sold otherwise (and might never have been sold but, instead, bequeathed at death);
2. an increase in reporting of income (i.e., less tax evasion);[59]
3. an increase in the value of stock and other capital assets traded over the long run; and
4. an increase in long-term economic growth from the higher capital formation, which would raise tax collections from income taxes, payroll taxes, and other sources.

The issue is, which effects dominate--the revenue-losing ones or the revenue-gaining ones? Unfortunately, the academic literature and the economic modeling forecasts show no consensus on the answer to that question. Regression analysis has validated statistically that the 1969 rate increase lost revenue, the 1978 and 1981 rate reductions gained revenue, and that 1986 rate hike has lost revenue.[60]

But the idea that lower rates generated higher revenues is by no means universally accepted. A time-series regression analysis by Urban Institute economist Joseph Minarik contradicts the favorable assessment of the 1978 and 1981 tax cuts. According to Minarik,

> The 1978 law experience gives no backing to claims of an ongoing revenue pickup [from the tax cut]. . . . The 1981 capital gains tax cut was a revenue loser from day one. The heart of the issue is revenue. And here there is no doubt.[61]

Economist Jane Gravelle of the Congressional Research Service dismisses the notion that the GOP tax cut will raise revenues. Last February she told the Senate Finance Committee,

> The new evidence suggests that the revenue maximizing tax rate is probably higher, perhaps much higher, than current tax rates. It is unlikely that any capital gains tax cut, no matter how small, would fail to lose revenue.[62]

Many other studies predict a modest to very positive long-run revenue gain from a 20 percent capital gains tax rate.[63] What is one to make of all the conflicting research?

We believe that the only truly reliable predictor of the future is the past. And here the evidence is fairly straightforward. Over the past 30 years a consistent pattern has emerged: every time the capital gains tax has been cut, capital gains tax revenues have risen. Every time the capital gains tax has been raised, capital gains tax revenues have fallen (Table 9 and Figure 10). Here are some prominent examples:

- In 1968 real capital gains tax receipts were $33 billion (1992 dollars) at a 25 percent tax rate. Over the next eight years the tax rate was raised four times, to a high of 35 percent. Yet with the tax rate almost twice as high in 1977 as it had been in 1968, real capital gains tax revenues were only $24 billion--27 percent below the 1968 level.
- In 1978, when the top marginal tax rate was 35 percent, $24 billion of capital gains tax was collected. By 1984, after the tax had been cut to 20 percent, revenues from the lower tax rate were $32 billion--25 percent above their 1978 level.
- In 1986 the tax rate increased by 40 percent, from 20 to 28 percent. Did tax revenues climb by 40 percent? Just the opposite occurred. In 1990 the federal government took in 10 percent less revenue at the 28 percent rate than it did in 1985 at the 20 percent rate. In 1991 and again in 1992 the government collected 20 percent less revenue than it did in 1985.

Do Capital Gains Taxes Have a Lock-in Effect?

The major explanation for the lower tax collections at higher tax rates is the lock-in effect described earlier.[64] The lock-in effect is generally conceded even by opponents of a capital gains tax cut. The Congressional Budget Office recently stated, "There is strong evidence that realizations of capital gains decline when tax rates on gains are increased."[65] Figure 11 shows the inverse relationship between capital gains realizations and capital gains tax rates from 1977 to 1992.

Figure 12 illustrates the lock-in effect differently. It shows, for 1954 through 1994, the ratio of total capital gains earned each year to the amount of those gains that was realized.[66] The figure shows that when the capital gains tax rate is low, the ratio of unrealized capital gains falls (i.e., investors are more likely to sell their assets). After the increases in the capital gains taxes in the late 1960s and early 1970s, the unrealized capital gains ratio rose from about 35 percent to almost 60 percent. After the 1978 and 1981 tax cuts, the 60 percent ratio tumbled to a 40-year low in 1986 of 20 percent. Today the ratio is back up to 45 percent.[67]

The reduction in inflation-adjusted capital gains realizations since the 1986 rate increase has been massive. Capital gains realizations, adjusted for inflation, were cut in half in the six years after the 1986 capital gains rate increase took effect. Realizations, which were $213 billion the year before the rate increase, fell to $125 billion in 1990, $108 billion in 1991, and $120 billion in 1992 (the most recent year for which data are available).[68]

Clearly, investors are highly sensitive to the rate of capital gains tax when determining whether to sell stock holdings and other assets. The best evidence of that sensitivity to tax rates is the huge spike in capital gains realizations in 1986. That year was the last opportunity for investors to take advantage of the 20 percent capital gains tax rate.

To be sure, some of the reduction in capital gains realizations in recent years is a result of the 1990-91 recession. But Figure 11 shows clearly that the decline in capital gains realizations began in 1987--three years before the recession began. The recession accelerated the reduction in capital gains realizations, but it did not cause that trend. Moreover, the capital gains drought has persisted in the current "recovery" period.

It is instructive to compare the increase in capital gains realizations in two periods, 1980-85 and 1987-92. In the 1980-85 period capital gains realizations increased at a real annual rate of 12 percent. Since 1987 realizations have declined at an annual rate of 8 percent.

The evidence suggests that the federal government would be collecting more revenue today from capital gains taxes if the tax rate had not been increased in 1986. The Joint Economic Committee of Congress recently examined what would have happened if the capital gains tax rate had remained at 20 percent after 1987 and if realizations had continued to increase at the rate they did from 1980 to 1985 (Table 10). Here is what the JEC found:

> The federal government is losing billions of dollars of tax revenue by imposing a 28 percent capital gains rate. . . . If the capital gains tax rate had remained at 20 percent and capital gains realizations had continued to grow at a 12 percent annual rate between 1986 and 1992, as they did between 1980 and 1985, the federal government would have collected $70 billion more in revenues over the period even at the lower tax rate.[69]

Table 10
Loss of Federal Revenue Caused by the 1986 Capital Gains Tax Hike (billions of 1991 dollars)

	Realizations		Revenues	
Year	**Actual**	**With 12% Growth**	**Actual**	**With 20% Tax Rate**
1986	394	239	60	37
1987	169	267	41	41
1988	185	299	44	46
1989	166	335	40	52
1990	125	375	30	58
1991	108	420	26	65
1992	120	470	32	73
Total	1,267	2,405	303	372

Source: Joint Economic Committee, 1993.

One conclusion that can be drawn, with 20-20 hindsight, from the historical data is that the CBO's and the Joint Tax Committee's forecasts of capital gains tax revenues and realizations were widely off the mark. As late as 1988 the CBO claimed that their computer simulations showed "a net revenue increase from the 1986 Act."[70] How could those government forecasters have been so wrong?

Part of the answer is that they substantially underestimated the lock-in effect of the higher tax rates. The CBO estimated capital gains realizations at $269 billion for 1991, and the Joint Committee on Taxation predicted realizations of $285 billion for that year. In reality, capital gains realizations were $108 billion. For 1992 the CBO predicted capital gains realizations of $287 billion; the actual figure was $126 billion (Figure 13). The CBO's forecasting error from 1989-92 accounts for roughly $115 billion in lost revenues and higher than expected federal debt over that period.[71]

That was not the first time the static government revenue prediction models had produced erroneous forecasts of capital gains. The static models have time and again been proved deficient when later checked against actual results.

The three major government forecasters, the Congressional Budget Office, the Joint Committee on Taxation, and the Treasury (all of which now insist the House capital gains tax cut will be a revenue loser), forecasted that the 1978 capital gains tax cut would produce a static revenue loss. The joint committee forecasted that the 1978 act would reduce revenues by $2 billion per year; in fact, receipts rose by $3 billion per year. The Office of Treasury Analysis estimated revenues after the 1978 cut at $6.4 billion in 1979 and $7 billion in 1980.[72] The OTA was off by a factor of 50 percent: actual revenues were $10.6 billion and $11 billion, respectively.

The intent here is not to deride the government forecasters who have compiled those error-prone predictions in the past. It is to point out that the government econometricians have not learned from their mistakes. They are still using the same flawed models of behavior today that they did 10 and 20 years ago--and that we now know are wrong. The government forecasts that predict a loss of revenue simply have no historical credibility.

Alan Reynolds, chief economist with the Hudson Institute, explains the consistently misguided forecasts. Reynolds notes,

> All of the many studies of the revenue effect of the capital gains tax simply assume that there is no effect at all on the price of stocks and bonds, and also no effect on business investment or real GNP. That is, the revenue estimators ignore the most important effect.[73]

If the government revenue forecasters were to incorporate even modest economic growth responses into their static models and appropriately estimate the lock-in effect, the computers would spew out substantially different conclusions. That was the finding of a recent analysis by economist Martin Feldstein of the National Bureau of Economic Research on the sensitivity of government models to changes in economic growth. Feldstein concludes that if

> the improved incentives for saving, investment, and entrepreneurship were to increase the annual growth rate of GNP [over five years] by even a microscopically small 4 one-hundredths of one percent--for example, from the CBO's estimate of an average 2.44 percent real GNP growth per year to 2.48 percent--the additional tax revenue would be about $5 billion a year and would turn CBO's estimated revenue loss into a revenue gain. In short, the potential economic gains from a capital gains [tax] reduction are substantial and the potential revenue loss is doubtful at best. . . . The slightest improvement in economic performance would be enough to turn [CBO's] revenue loss into a revenue gain.[74]

In sum, if one accepts the notion that a capital gains tax cut promotes economic growth (as the evidence suggests is the case), then even the most pessimistic possible fiscal scenario is no loss of tax revenue from a tax rate cut. The more likely effect would be a substantial and permanent rise in revenues.

Is a Capital Gains Tax Cut "Fair"? For nearly a decade the capital gains tax debate has been dominated by the so-called tax fairness issue. Who are the winners and who are the losers from a capital gains tax cut? Every new analysis seems to provide a different answer to that question.

A common claim by opponents of a capital gains tax cut is that "60 percent of the tax break will go to households with incomes above $200,000." Most of the evidence, however, suggests that a rate reduction would promote tax fairness and benefit taxpayers of all income levels. There are four major reasons for that.

Economic Growth Benefits All Income Groups. The equity issue has been used by opponents of the capital gains tax cut as a smoke screen to avoid the real issue, economic growth. If a capital gains tax cut generates new investment and new jobs, as most of the evidence suggests, all Ameri-cans will reap the benefit. For example, when the capital gains tax rate was lowered in 1981, the incomes of all income groups rose and the unemployment rate fell by nearly 3 percentage points by 1986. The rich and the poor alike benefited from the tax law change.

Not Just the Wealthy Realize Capital Gains Income. A capital gains tax rate reduction will reduce taxes for all income groups. Capital gains are not reported just by wealthy individuals. In fact, 1992 Internal Revenue Service data indicate that 56 percent of all returns reporting capital gains were from households with incomes below $50,000. Eighty-three percent, or 7 million returns, were for households with incomes below $100,000 (Figure 14).[75]

Moreover, when the Joint Committee on Taxation estimates the tax burden shift caused by the entire GOP tax reduction package, the committee finds that the largest percentage tax cut accrues to families with incomes between $30,000 and $75,000. The smallest tax cut goes to those with incomes below $10,000--because those families pay very little if any taxes to begin with--and households with incomes above $200,000 (Table 11).[76]

Table 11
Effect of House Republican Tax Cut by Income Class

Income	Change in Taxes (%)
Less than $10,000	-2.3
$10,000-20,000	-3.4
$20,001-30,000	-3.9
$30,001-50,000	-4.4
$50,001-75,000	-4.4
$75,001-100,000	-4.0
$100,001-200,000	-3.7
$200,001 or more	-2.9

Source: Joint Committee on Taxation, March 1995.

But what about the CBO data that indicate that the total dollar savings from a capital gains tax cut benefit primarily the wealthiest income groups? It turns out that, because the income figures include the one-time capital gain, that deceptive statistic, almost by definition, labels anyone with a large capital gain in any given year "rich."

A woman who has a middle income all her life but then sells her business for $150,000 when she retires is labeled "rich"--for that year--by the CBO. Similarly, a struggling farmer who sells the family farm to avoid indebtedness is labeled "rich" because the once-in-a-lifetime sale substantially inflates his income for that single year.

In the public finance literature, that is called "bunching." Joseph Minarik, now of the Urban Institute, notes,

> The bunching problem arises when a taxpayer realizes a long-term gain relative to his average income. Such a taxpayer bears a far higher liability on that gain upon realization than he would under accrual taxation or a proration or averaging provision.[77]

Minarik examined IRS tax return data for 1967-73 and found that the bunching problem increased the tax liability of 88 percent of those realizing taxable capital gains over that period. More recently, the American Council for Capital Formation found that over the five-year period of 1979-83, only 16 percent of tax filers had capital gains income in each year, while almost half reported taxable gains in only one of the five years.[78] When the bunching problem is accounted for, the percentage of capital gains realized by those with incomes above $200,000 falls by almost half.[79]

Those data reveal that for most taxpayers capital gains are an unusual occurrence and are not part of the individual's normal annual income stream. A more meaningful measure of income, for the purposes of examining the equity effects of capital gains taxes, is "recurring income"--that is, income received on a regular or recurring basis. When income tax data excluding income from capital gains are examined, the share of capital gains income appears to be much more evenly distributed. Figure 15 shows that in 1985 only one-quarter of all capital gains were realized by those with incomes above $200,000, excluding the capital gains income. Forty-five percent of the gains went to Americans with non-capital-gains incomes below $50,000.

Until recently, the bunching problem had long been recognized by policymakers and tax experts as a convincing justification for a capital gains differential. A 1923 House of Representatives report on capital gains taxes identified the full taxation of capital gains as "an injustice to the taxpayer, in that an investment frequently accumulated over a period of many years was . . . arbitrarily attributed to the year the sale took place."[80] The introduction of a differential tax rate for capital gains a half century ago was heralded as a victory for tax fairness. Similarly, in 1982 the CBO argued that one rationale for the then 60 percent exclusion of long-term capital gains was "to reduce the burden on a taxpayer that occurs when a capital gain accruing over several years is realized, requiring the taxpayer to pay tax at progressive rates on several years' income all in one year."[81]

Capital Gains Taxes Particularly Punish the Elderly. Bunching is most common among people entering retirement. A large percentage of capital gains beneficiaries are the elderly, who wind up selling a family business or a portfolio of stock that has accumulated over the individual's working life and is meant to serve as a nest egg for retirement. The elderly are two and a half times more likely to realize capital gains in a given year than are tax filers under the age of 65. The elderly are also likely to derive a larger share of their income from capital gains than are younger workers. A study by the National Center for Policy Analysis examining IRS data from 1986 found that the average elderly tax filer had an income of $31,865, 23 percent of which was capital gains. The average nonelderly filer had an income of $26,199, 9 percent of which was from capital gains.[82]

Hence, the high capital gains tax rates punish the elderly, not the rich. The high tax rate is also a severe penalty against couples that have frugally saved during their working years to sustain themselves during retirement.

The "Rich" May Pay More Capital Gains Taxes if Rates Are Lowered. Paradoxically, if the capital gains tax rate is lowered, the rich may pay more taxes than they do now. The reason is that wealthy Americans have hundreds of billions of dollars outside the reach of the tax collector as a result of the lock-in effect. They are avoiding the tax by holding their assets. The CBO found in 1988 that the share of total capital gains tax collections from the wealthy rises when the tax rate is low, and falls when the rate is high. According to the CBO,

> The share of gains realized by upper income groups rose when gains were growing rapidly and declined when gains were stable or falling. For example, the top 1 percent of returns ranked by income accounted for 50 percent of realized long-term gains in 1968 [27 percent top rate], only 33 percent between 1975 and 1978 [49 percent rate], and about 55 percent between 1982 and 1985 [20 percent rate].[83]

The U.S. Chamber of Commerce Office of Tax Policy found that after the 1981 rate reduction, total capital gains taxes paid by Americans with earnings over $500,000 per year rose threefold. Low- and middle-income Americans' capital gains taxes rose by only slightly more than one-third. After the 1986 capital gains rate increase, the average millionaire reported $1.5 million less capital gains and paid about $250,000 less taxes in 1991 than in 1985. Capital gains realizations fell by two-thirds for those with incomes over $200,000, but they fell by less than 50 percent for those earning less than $50,000.[84] Most of the revenue increases from the 1981 tax rate reduction were the result of the wealthy paying more tax; most of the revenue loss from the 1986 rate hike was due to the wealthy paying less tax.

The conclusion that the rich will receive a giant tax cut if the capital gains tax rate is reduced is predicated on the assumption that behavior will not change in response to the lower tax penalty. But all of the evidence suggests that behavior does change when the rate is reduced: more capital gains are reported. When economists Gerald Auten and Joseph Cordes took into account the behavioral change predicted to result from a capital gains rate reduction to 20 percent, they found that the rich would pay 16.1 percent more capital gains taxes under that scenario than under the current tax rates (Table 12).[85]

Table 12
Static versus Dynamic Estimate of Capital Gains Tax Cut

	Percent Change in Capital Gains Taxes (%)	
Permanent Income Class (1990 dollars)[a]	**Static Simulation**	**Dynamic Simulation**
Less than $20,000	-34.9	-20.7

$20,001-50,000	-32.3	-29.9
$50,001-100,000	-30.3	-4.7
$100,001-200,000	-30.1	-13.8
$200,000 or more	-25.6	+16.1
All Returns	-28.0	+2.2
Source: Gerald E. Auten and Joseph J. Cordes, "Policy Watch: Cutting Capital Gains Taxes," 1991, Based on "Statistics of Income," 1979-1983 Panel of Individual Income Tax Returns. [a] Average adjusted gross income for 1979-83 calculated under 1990 law.		

Is It Fair to Tax Gains Due Solely to Inflation?

One of the most unfair features of the capital gains tax is that it taxes gains that may be attributable only to price changes, not real gains. That is because the capital gains tax, unlike most other elements of the U.S. tax code, is not indexed for inflation. The nonpartisan Tax Foundation reports that that can have major distortionary effects on what an individual pays in capital gains taxes and can-- indeed, often does--lead to circumstances in which investors "pay effective tax rates that substantially exceed 100 percent of their gain."[86]

As an example, consider the following hypothetical case. If an investor purchased a $10,000 diversified portfolio of stock in 1970 as a retirement nest egg, and that stock appreciated in value at the same rate as the Dow Jones Industrial Average over the next 20 years, then it could have been sold when the investor retired in 1989 for roughly $28,000. Yet that stock would have had to have been sold for about $31,000 to have kept pace with the rate of inflation over that 20-year period. Hence, the investor suffered a real loss in purchasing power of about $3,000 on the stock. Nonetheless, under current law the retiree would have to pay $5,040 in capital "gains" tax (assuming he is in the 28 percent tax bracket) on an investment that produced a real $3,000 capital loss. That means that the investor would pay a 129 percent tax rate on the investment.[87]

It is not at all uncommon for taxpayers to pay capital gains tax rates that high. Then-Federal Reserve Board governor Wayne Angell calculated in 1993 that the average real tax rate on investments in NASDAQ stocks from 1972 to 1992 had been 68 percent.[88] The real tax rate on investments in the Standard & Poor's Composite Index over the same time period was 101 percent. The average real tax on a portfolio of New York Stock Exchange stocks was 123 percent. And the average real tax on the Dow Jones Industrial Average over that 20-year period was an astounding 233 percent (Figure 16). In other words, according to three of the four indexes, investors paid capital gains taxes on investments that actually lost money after adjusting for inflation--and thus the tax simply diminished the principal. Angell concluded,

> If we are to reduce the damaging effects that we know are caused by all capital taxation, it makes sense to eliminate the worst aspect of the most damaging tax on capital--the tax on phantom gains. The tax on real capital gains is a middle-of-the-road bad tax. But the tax on nominal capital gains without regard to whether the gain is real or only the effect of inflation is truly the worst tax.[89]

The taxation of inflationary capital gains under the current tax code especially harms lower income tax filers. A 1990 report by the CBO came to the remarkable conclusion that in 1981 all of the capital gains tax paid by people in low- and middle-income tax brackets was on nominal gains and real losses. But the wealthy paid a substantial share of their capital gains tax on real gains, as shown in Table 13.

Table 13
Real and Nominal Capital Gains by Income, 1981

Adjusted Gross Income Class ($)[a]	Nominal Gains ($)	Real Gains ($)
Less than 0	595	159

0-19,999	599	-3,659
20,000-49,999	1,685	-5,615
50,000-99,999	2,886	-2,166
100,000-199,999	3,521	725
200,000-499,999	3,384	1,697
500,000-999,999	1,810	1,259
1,000,000 and over	3,182	2,613
Total, all classes	17,662	-4,987
Source: Internal Revenue Service, "Statistics on In- come, Sales of Capital Assets," 1981.		
[a]Note: Capital gains are a component of adjusted gross income, so that individuals with more capital gains are likely to be in higher income classes. If taxpayers were classified by adjusted gross income net of capital gains, the pattern of real gains and losses would be the same. This table includes only transactions with complete acquisition and sale dates in the calculations.		

The CBO reports that indexing helps lower income taxpayers most.

> Among those reporting gains on stock in 1981, indexation would have provided the least tax re- duction per dollar of reported gain to the high- est-income taxpayers and the most to those middle- and lower-income taxpayers with gains. The aver- age taxpayer receiving gains and with adjusted gross income below $100,000 would have owed no tax because no real gain had been earned.[90]

A follow-up study by economists Leonard Berman and Eric Toder examining tax return data from 1985 confirmed the earlier results.[91] On average, every income classification of taxpayers with net incomes below $75,000 had nominal capital gains but real capital losses.[92] The data compiled by Berman and Toder show that indexing would reduce the capital gains tax on lower income Americans far more than on the wealthy. Under indexing with a $3,000 loss limit, those with incomes below $50,000 would see a 40 percent reduction in their capital gains tax. Those with incomes above $200,000 would see a reduction of their capital gains tax liability of just 13 percent.

It seems clear, then, that indexing capital gains for inflation, as proposed in the GOP capital gains tax bill, would promote tax fairness by ending the taxation of phantom gains.

What Is the Optimal Capital Gains Tax Rate?

The House GOP proposal to reduce the capital gains tax rate to 19.8 percent and index gains for inflation would be a vast improvement over the current tax system. But because the capital gains tax is a form of double taxation, and an economically destructive tax on capital formation, the most equitable and appropriate capital gains tax is zero.[93] Several proposals now before Congress promote the concept of a zero capital gains tax. House Majority Leader Dick Armey's flat-tax legislation would eliminate the capital gains tax.[94]

A 1994 analysis by former Treasury economists Gary and Aldona Robbins compared the economic effect of six prominent capital gains tax proposals--including the GOP plan and the zero rate. The analysis showed that eliminating the capital gains tax would have by far the most positive impact on long-term economic growth in the United States.[95] As Table 14 indicates, after five years the zero capital gains option leads to a $300 billion increase in national output ($3,000 per household), 877,000 additional jobs, and $2.5 trillion of additional capital. Additional tax revenues of $46 billion would be raised for the federal government as a result of added growth. The Robbinses find that that is almost twice the positive impact of the 50 percent exclusion and indexing plan proposed by the GOP.

Table 14

Economic Effect of a Zero Capital Gains Tax Rate					
	Change from Baseline in				
Year	**GDP (billions of nominal $s)**	**Jobs (millions)**	**Capital (billions of nominal $s)**	**Tax on Capital (%)**	**Cost of Capital (%)**
1996	35.3	0.124	318.0	-6.7	-6.2
1997	97.1	0.264	882.0	-6.9	-6.2
1998	167.0	0.462	1,490.8	-7.2	-6.3
1999	233.2	0.682	2,032.5	-7.4	-6.3
2000	297.8	0.877	2,548.5	-7.5	-6.3
2001	345.3	1.023	2,893.9	-7.7	-6.4
2002	391.0	1.141	3,220.2	-7.9	-6.4
Source: Gary Robbins and Aldona Robbins, "Putting Capital Back to Work for America," Institute for Policy Innovation Working Paper no. 134, May 1994.					

In the long run it appears that a capital gains tax cut is the fairest and the most economically stimulative tax change Congress could make.

Conclusion

This study reviews many of the recent findings on and historical experience with the economic effects of the capital gains tax. On balance, the evidence supports the case for an immediate capital gains tax cut. The economic evidence--and more important, recent actual experience-- suggests that a rate reduction would increase capital in- vestment, new business formation, jobs, and the rate of growth of GNP. When the positive economic impact of a capital gains tax cut is fully accounted for, the current proposed capital gains tax cut will almost certainly be a revenue raiser over the long term or, at worst, will leave the deficit unchanged.

Ultimately, the most pro-growth and fairest tax treat- ment of capital gains would be to abolish the tax entirely (and end the deductibility of interest). To the extent that a zero capital gains tax paradigm promotes economic growth, the policy change would benefit Americans from all income classes, not just the wealthy.

Notes

The authors wish to thank Ben Geiger for his research assis tance on this study.

[1] The top tax rate on short-term capital gains--from an asset held less than 1 year--is 39.6 percent.

[2] For further explanation of the GOP capital gains tax cut proposal, see Arthur Hall, "Analysis and Summary of the Contract with America Tax Relief Act of 1995," Special Report, Tax Foundation, Washington, March 1995.

[3] The inflation adjustment would be measured by increases in the gross domestic product deflator. It would apply to all increase in the value of assets after December 31, 1994, regardless of whether they were acquired by the taxpayer before that date.

[4] There is now talk that the effective date may be moved forward, perhaps to January 1, 1996.

[5] Dale Jorgenson, *Postwar U.S. Economic Growth*, Vol. 1 of Productivity (Cambridge, Mass.: MIT Press, 1995).

[6] Paul Samuelson and William D. Nordhaus, *Economics* (New York: McGraw-Hill, 1985), p. 789.

[7] Aldona Robbins and Gary Robbins, "Tax Action Analysis," Institute for Policy Innovation, Lewisville, Texas, September 1995.

[8] The Joint Tax Committee defines a taxpayer's net capital gain for the year as "the excess of the net long-term capital gain over the net short-term capital loss. Gain or loss is treated as long-term if the asset is held for more than one year."

[9] Some types of capital gains are exempt from capital gains taxes. For instance, most home sales are not subject to capital gains taxes when the seller purchases another home. Moreover, pension funds, which purchase stocks and other assets, are exempt from paying taxes on capital gains.

[10] American Council for Capital Formation," Questions and Answers on Capital Gains," Special Report, 1995, p. 6.

[11] Jude Wanniski, Testimony before the Senate Finance Committee, March 15, 1995.

[12] Alan S, Blinder, "The Level and Distribution of Economic Well-Being," in *The American Economy in Transition*, ed. Martin Feldstein (Chicago: University of Chicago Press, 1980), p. 48.

[13] Congressional Budget Office, "Indexing Capital Gains," August 1990.

[14] Victor Canto and Harvey Hirschorn, "In Search of a Free Lunch," Laffer and Canto Associates, San Diego, November 1994.

[15] See, for example, Norman B. Ture and B. Kenneth Sanden, *The Effects of Tax Policy on Capital Formation* (New York: Financial Executives Research Foundation, 1977); Jude Wanniski, "Capital Gains in a Supply Side Model," Statement before the Senate Finance Committee, February 15, 1995; and Raymond Keating, "Eliminating Capital Gains Taxes: Lifeblood for an Entrepreneurial Economy," Small Business Survival Committee, Washington, 1995.

[16] Small Business Survival Committee, "Small Business and the Economy," Washington, January 1995, p. 3.

[17] Mark Bloomfield, American Council for Capital Formation, Testimony before the Senate Committee on Finance, February 15, 1995.

[18] Yolanda K. Henderson, "Capital Gains Rates and Revenues," Federal Reserve Bank of Boston *New England Economic Review*, January-February, 1989.

[19] Richard Kopcke, "No Gain, No Pain: Some Consequences of Taxing Capital Gains," *New England Economic Review*, March-April 1989, pp. 39-55.

[20] Ibid., p. 39.

[21] Mark A. Bloomfield, American Council for Capital Forma- tion, Statement before the Senate Committee on Finance, March 28, 1990; and Gary Robbins, "Taxing Capital Gains," National Center for Policy Analysis and Institute for Policy Innovation, Lewisville, Texas, October 1989.

[22] The General Equilibrium Model of Differential Asset Taxation is a sophisticated simulation computer model of the economy. It incorporates four major capital using sectors: corporations, noncorporate businesses, state and local governments, and 147 separate household sectors. The particular assets held by those sectors is sensitive to the after-tax yields on investments, the riskiness of the assets, and a measure of risk aversion. The model also contains a detailed representation of the major elements of personal and corporate tax laws, thus allowing the researchers to measure how capital is allocated in response to various changes in the tax code--in this case, a reduction in capital gains taxes.

[23] Patric Hendershott, Yunhi Won, and Eric Toder, "Economic Efficiency and the Tax Treatment of Capital Gains," National Chamber Foundation, Washington, 1990. Emphasis added.

[24] Using a dynamic model the Council of Economic Advisers, for instance, predicted a 2.5 percent increase in business capital as a result of the Bush capital gains rate change. Michael Boskin, chairman, President's Council of

Economic Advisers, Testimony before the Senate Finance Committee, March 28, 1990. See also Lawrence B. Lindsey, "Capital Gains Taxes under the Tax Reform Act of 1986: Revenue Estimates under Various Assumptions," National Bureau of Economic Research Working Paper no. 2215, April 1987; and Henderson.

[25] Reported in: Allen Sinai, Testimony before the House Ways and Means Committee, January 24, 1995.

[26] Robert N. McCauley and Steven A. Zimmer, "Explaining International Differences in the Cost of Capital," Federal Reserve Bank of New York *Quarterly Review*, Summer 1989.

[27] Manufacturers Alliance for Productivity and Innovation, "Why U.S. Companies Are at a Competitive Disadvantage," Washington, 1991, p. 1.

[28] Alan Reynolds, "Who Really Gains from the Capital Gains Tax?" Hudson Institute Briefing Paper, April 1995.

[29] Randall Pozdena, "Tax Police and Corporate Tax Structure," Federal Reserve Bank of San Francisco *Economic Review*, Fall 1987, p. 49.

[30] J. Gregory Ballentine, "The Tax Penalty on Capital Gains," Peat Marwick Main & Co., Washington, 1988, p. 19.

[31] Alan Reynolds, "Time to Cut the Capital Gains Tax," Supply Side Analytics, Polyconomics, Inc., Morristown, New Jersey, March 15, 1989.

[32] For further information, see David L. Birch, "Who Creates Jobs?" Public Interest 65 (1981).

[33] David Wessel, "Proposed Capital Gains Tax Break for Investors in Small Firms Has Critics Calculating Costs," *Wall Street Journal*, May 17, 1993, p. A18.

[34] Ibid.

[35] Ibid.

[36] See Clark S. Judge, "The Tax That Ate the Economy," *Wall Street Journal*, June 24, 1991, editorial page.

[37] The 49 percent rate was the effective top rate in the late 1970s after accounting for all phaseouts of deductions.

[38] National Venture Capital Association, *1991 Annual Report* (Washington: NVCA, 1992).

[39] See Coopers and Lybrand and Venture Economics, "Third Annual Economic Impact of Venture Capital Study," conducted for the National Venture Capital Association, 1993.

[40] Richard Bernstein, "Small Stock Performance and Investor Risk Perception," Merrill Lynch, New York, 1990.

[41] James Poterba, "Venture Capital and Capital Gains Taxation." in *Tax Policy and the Economy*, ed. Lawrence H. Summers (Cambridge, Mass.: MIT Press, 1989), p. 48. Another study suggests that "nearly 90 percent of the funding for start-ups and new corporations comes from sources that do not pay capital gains taxes." Harold Pepperell, "Should Capital Gains Taxes Be Raised?" *Tax Notes*, January 17, 1994, p. 379.

[42] National Venture Capital Association, *1993 Annual Report*, 1993, pp. 6, 19.

[43] James R. Swartz, National Venture Capital Group, State ment before the House Ways and Means Committee, February 2, 1988.

[44] Cited in C. Richard Kramlich, Statement on behalf of the National Venture Capital Association, "The U.S. Economy and Proposals to Provide Middle Class Tax Relief and Economic Growth," submitted to the House Committee on Ways and Means, February 5, 1992.

[45] Richard Kramlich, president of the National Venture Capital Association, told the House Ways and Means Committee, "Our current tax policy, in effect is channeling funds away from long-term investments which are crucial to our economic vitality. In taxing capital gains as ordinary income, Congress in 1986 sent a clear signal to individuals and corporations that there was nothing special about long-term investments. As a result, the emerging company, once and still among this nation's most precious resources, has been placed on the endangered species list." He concluded by saying, "The enactment of a significant reduction in the tax on capital gains could go further to meet the laudable goals [of middle-class tax relief and economic growth] than any other single tax change or combination of small tax modifications." Ibid.

[46] American Electronics Association, National Venture Capital Association, and Coopers and Lybrand, "Generating Economic Growth through Young Technology Companies," 1990, p. 1. Emphasis in original.

[47] Reported by the National Venture Capital Association in Testimony before the House Ways and Means Committee, January 25, 1995.

[48] American Electronics Association, National Venture Capital Association, and Coopers and Lybrand, p. 2.

[49] Gary Robbins and Aldona Robbins, "Putting Capital Back to Work for America," Institute for Policy Innovation, Lewisville, Texas, May 1994.

[50] Sinai, p. 2.

[51] Judge.

[52] Jude Wanniski, Testimony before the Senate Finance Committee, February 15, 1995.

[53] "Ex-UPS Worker Parlays Earnings into $70 Million," *Chicago Tribune*, November 12, 1992.

[54] Joel Garreau, *Edge City: Life on the New Frontier* (New York: Doubleday, 1991), p. 116.

[55] Cited in Arthur A. Fletcher et al., "Help the Poor, Cut the Cap Gains Tax," Wall Street Journal, August 25, 1993.

[56] Ibid.

[57] U.S. Congress, Joint Committee on Taxation, "Estimated Budget Effects of the Provisions Relating to the 'Contract with America Tax Relief Act of 1995,'" April 28, 1995.

It should be noted that even if the capital gains cut were a money loser, as the JCT argues, the policy change might still be justified if it generated the level of capital investment and expanded output that has been predicted by the previously cited studies. The federal government spends upward of $75 billion annually to assist U.S. businesses, through loans, cash subsidies, technical assistance, and special tax incentives. The highest potential "cost" of the GOP capital gains plan is a fraction of the that amount but potentially would yield substantially greater economic benefits.

[58] U.S. Congress, Joint Committee on Taxation, Letter to Sen. Orrin Hatch (R-Utah), July 14, 1995.

[59] A study by economist James Poterba finds that "a one percent change in the marginal tax rate leads to a one percent change in reported income, so even without any change in the true tax base, capital gains tax cuts would be essentially self-financing." James M. Poterba, "Tax Evasion and Capital Gains Taxation," American Economic Review, May 1987.

[60] On the effect of the 1969 rate increase, see Gerald Auten, "Empirical Evidence on Capital Gains Taxes and Revenues," U.S. Department of the Treasury, 1979; and Gary Brannon, "The Lock-in Problem for Capital Gains: An Analysis of the 1970-71 Experience," in The Effect of Tax Deductibility on the Level of Charitable Contributions and Variations on the Theme (Washington: Fund for Policy Research, 1974).

On the effects of the 1978 and 1981 rate reductions, see Michael R. Darby, Robert Gillingham, and John S. Greenlees,

"The Direct Revenue Effects of Capital Gains Taxation: A Reconsideration of the Time-Series Evidence," *Treasury Bulletin*, June 1988.

On the 1986 rate hike, see Lawrence B. Lindsey, "Capital Gains Taxes under the Tax Reform Act of 1986: Revenue Estimates under Various Assumptions," National Bureau of Econometric Research Working Paper no. 2215, April 1987.

[61] Joseph J. Minarik, "The New Treasury Capital Gains Study: What Is in the Black Box?" *Tax Notes*, June 28, 1988.

[62] Jane G. Gravelle, "Capital Gains Tax Proposals," Statement before the Senate Finance Committee, February 15, 1995.

[63] Robbins and Robbins, "Putting Capital Back to Work for America"; Sinai; Robert Gillingham, John Greenlees, and Kimberly Zieschang, "New Estimates of Capital Gains Realization Behavior: Evidence from Pooled, Cross Section Data," Office of Tax Analysis, Department of the Treasury, May 1989; and Michael Darby et al., "The Direct Revenue Effects of Capital Gains Taxation," *Treasury Bulletin* (Spring 1988).

[64] See Martin Feldstein, Joel Slemrod, and Shlomo Yitzhaki, "The Effects of Taxation on the Selling of Corporate Stock and the Realization of Capital Gains," *Quarterly Journal of Economics*, June 1980.

[65] Congressional Budget Office, "How Capital Gains Tax Rates Affect Revenues: The Historical Evidence," 1988, p. xi.

[66] Canto and Hirschorn,This is a third spelling. Please check. 1994

[67] Canto and Hirschorn estimate that the economic impact of the current investment lock-in is to raise the cost of new capital by 1.64 percent per year. They calculate that "unlocking the capital gains could increase household income between $115 and $230 billion per year" (p. 6). That's an increase in per household income of $1,000 to $2,000.

[68] U.S. Congress, Joint Economic Committee, "Capital Crimes: The Impact of the 1986 Capital Gains Tax Hike," 1993.

[69] Ibid., p. ???. Emphasis in original.

[70] Congressional Budget Office, "How Capital Gains Tax Rates Affect Revenues: The Historical Evidence," March 1988.

[71] Gary Robbins and Aldona Robbins, "Reducing Capital Gains Tax Rates," Institute for Policy Innovation Issue Brief, Lewisville, Texas, 1995.

[72] Cited in U.S. Congress, Joint Economic Committee, "Capital Crimes: The Impact of the 1986 Capital Gains Tax Hike."

[73] Alan Reynolds, "Time to Cut the Capital Gains Tax," *Supply Side Analytics*, Polyconomics Inc., 1989. Emphasis in original.

[74] Quoted in American Council for Capital Formation.

[75] Robert Stein, "Is Cutting Capital Gains Taxes Fair?" *Investors Business Daily*, December 23, 1994, p. 1.

[76] Lucinda Harper, "Treasury, Congress Disagree How Much GOP's Gains Tax Cut Benefits the Rich," *Wall Street Journal*, January 5, 1995, p. 2.

[77] Joseph J. Minarik, "Capital Gains," in *How Taxes Affect Economic Behavior*, ed. Henry J. Aaron and Joseph A. Pechman (Washington: Brookings Institution, 1981).

[78] Mark A. Bloomfield, American Council for Capital Formation, Testimony before the U.S. Senate Finance Committee, March 28, 1990.

[79] The share of gains reported by Americans with incomes above $200,000 fell from 39.6 percent to 22 percent when incomes were averaged over the four years 1981-84 rather than just one year. Joel Slemrod, "Who Realizes Capital Gains?" *Tax Notes*, October 23, 1989, p. 494.

[80] Bloomfield, testimony of March 28, 1990.

[81] Ibid.

[82] John Goodman, Aldona Robbins, and Gary Robbins, "Elderly Taxpayers and the Capital Gains Tax Debate," National Center for Policy Analysis, Dallas, Texas, 1990.

[83] Congressional Budget Office, "How Capital Gains Tax Rates Affect Revenues," 1988, p. 2.

[84] Ed Rubenstein, "Gunning for Gains," *National Review*, July 19, 1993, p. 16.

[85] Gerald Auten and Joseph Cordes, "Policy Watch: Cutting Capital Gains Taxes," *Journal of Economic Perspectives* 5, no. 1 (1991): 25-28.

[86] Arthur P. Hall, "Issues in the Indexation of Capital Gains," Tax Foundation Special Report, April 1995.

[87] For a more detailed explanation of how inflation affects the real tax rate on capital gains, see Brian Wesbury and Jeffrey Given, "Capital Gains Tax: Fairness?" in U.S. Congress, Joint Economic Committee, *Economic Policy Update*, May 1995.

[88] Wayne Angell, Governor, Federal Reserve Board, Statement before the Republican members of the Joint Economic Committee, June 22, 1993.

[89] Ibid.

[90] Congressional Budget Office, p. 24.

[91] Leonard Burman and Eric Toder, "Indexing vs. Exclusion of Capital Gains: Effects on Income Distribution and Economic Efficiency," unpublished manuscript, 1993.

[92] One explanation for that finding is that less wealthy investors are probably less financially flexible than are wealthy investors in terms of timing the sale of their assets to maximize their rate of return.

[93] This assumes that the tax treatment of debt would also be fixed by ending the deductibility of interest expenses.

[94] Dick Armey, "The Tax Freedom and Fairness Restoration Act," 1994.

[95] Robbins and Robbins, "Putting Capital Back to Work for America."