Executive Summary

Business taxes represent a significant share of the revenues the federal government raises and spends each year. Businesses are taxed in many ways, but since 1913 U.S. tax law has recognized the importance of allowing business to depreciate (write-off) the cost of replacing old or obsolete plant and equipment with newer, more productive assets. In other words, depreciation—like labor and supplies—is a standard cost of doing business.

Over the years, depreciation policies have been disjointed. Seeking to spur investment, depreciation rules have been liberalized, only later to be scaled back in an effort to raise new taxes. After years of "one foot on the accelerator and the other on the brake," today's depreciation policies are not only arbitrary but they also inhibit economic growth and job creation.

Pro-growth depreciation policies are more important today than ever before. In 1974, depreciation accounted for 61 percent of total investment. Today, replacing worn out or obsolete plant and equipment requires 72 percent of total investment. The current tax depreciation system has four problems that lower the level of capital investment and lead to inefficient investment decisions.

- Current depreciation schedules are biased against longer-lived assets because future deductions are worth less than current deductions.

- *Economic* depreciation is the rate at which an asset wears out or becomes obsolete while *tax* depreciation is an artificial construct which arbitrarily specifies the rate at which the original cost of an asset can be deducted from income for tax purposes.

- Tax lives and depreciation schedules are determined through the political process. Government tax analysts usually set "appropriate" tax lives and the Congress generally sets depreciation schedules. The potential for political influence opens the system to abuse.

- Depreciation deductions are not indexed for inflation, magnifying the bias generated by the other three problems.

Representative Nick Smith (R-MI) has introduced "The Investment Tax Incentive Act" which would address these problems and put capital investment on an equal footing through a "Neutral Cost Recovery" system of depreciation. Neutral Cost Recovery would allow investments to be indexed for inflation and would allow investors to recover a normal 3.5 percent rate of return on invested principal. These changes would lower the cost of capital by 16 percent, spurring economic growth, job creation, and tax revenues for government. By the year 2000:

- Higher investment would increase capital formation in the U.S. by $8.9 trillion.

- The almost $9 trillion expansion in the stock of U.S. capital would lead to the creation of 2.7 million new jobs. Furthermore, increases in productivity and wages would give existing workers an average $4,826 more in annual pretax wages and $3,332 more in take-home pay by the year 2000.

- More capital and labor would yield an extra $3.5 trillion in gross domestic product between 1995 and 2000. By the year 2000, annual GDP would be $1 trillion higher than otherwise.

- This greater economic activity would increase federal revenues by $597.2 billion.

- Including higher state and local revenues means government at all levels would pick up $1 trillion in additional revenue.

Neutral Cost Recovery: Investing for Growth, Not Planning for Taxes

Problems with Tax Depreciation

Tax depreciation specifies how much of the original cost of an asset a business can deduct from income in a particular year. (See the Appendix for a discussion of the current depreciation rules.) There are four major ways in which the current tax depreciation system can adversely affect the mix of assets and the level of the U.S. stock of capital.

1. Inherent time bias

Current depreciation schedules are biased against longer-lived assets because future deductions are worth less than current deductions. An investor faced with a choice between a $1 deduction today versus $1 tomorrow would always choose today. At the very least, $1 taken today could be put in the bank and earn interest. Moreover, the erosion in value gets worse the longer the deduction is delayed.

In response to this bias, the mix of U.S. capital has moved toward shorter-lived assets. During the 1950s and early 1960s, structures composed roughly 40 to 50 percent of fixed nonresidential investment. Today, however, structures make up only 28 percent [See Figure 1]. While some of this decline may be due to technological and other reasons, part of it is tied to the tax depreciation system.

Figure 1

Investment in Longer-Lived Assets and Tax Depreciation Schedules
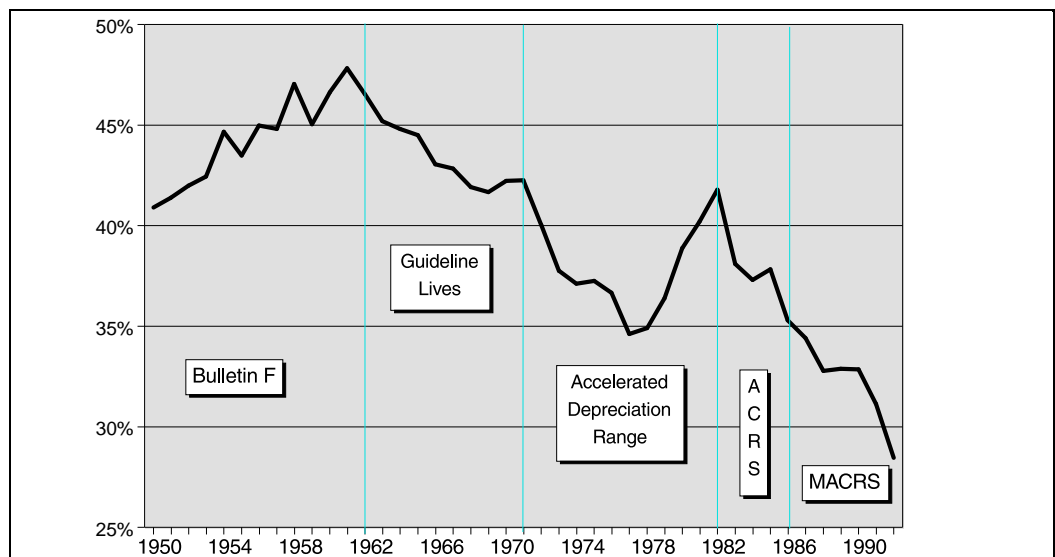
2. Tax life errors

Economic depreciation is the rate at which an asset wears out or becomes obsolete. Recovery of economic depreciation is the largest single cost of most assets. *Tax* depreciation, on the other hand, is an artificial construct which specifies in law the rate at which the original cost of an asset can be deducted from income for tax purposes. Because economic depreciation depends on market conditions and technology, it can never coincide with tax depreciation. Inevitable errors made in determining the appropriate tax lives of assets lead to an inefficient mix of capital and become permanent impediments to growth.

3. Political influence

Tax lives and depreciation schedules are determined through the political process. Government tax analysts usually set "appropriate" tax lives and the Congress generally sets depreciation schedules. The potential for political influence opens the system to abuse.

4. Inflation

Depreciation deductions are not indexed for inflation. This shortcoming magnifies the bias generated by the other three problems.

Table 1 shows how these problems reduce the value of depreciation deductions. In a world with no inflation, failure to adjust for the normal rate of return reduces the value of depreciation deductions by 5.9 percent for a 5-year asset, by 8.4 percent for a 7-year asset and by 44.9 percent for a 39-year asset. To overcome this loss in value, longer-lived assets must earn a considerably higher return over their lifetimes. This higher return is equal to the loss in depreciation value times the tax rate. For example, assuming a tax rate of 33 percent, a 39-year asset would have to earn 13 percent more than a 5-year asset simply due to the lower value of depreciation deductions.

Higher inflation magnifies the loss in value. At a 10 percent inflation rate, the total loss in depreciation deductions ranges from 19.4 percent for a 5-year asset to 80.3 percent for a 39-year asset.

Inflation	5-Year Life	7-Year Life	39-Year Life
0%[1]	5.9%	8.4%	44.9%
3%	10.5%	14.7%	63.2%
5%	13.3%	18.4%	70.4%
10%	19.4%	26.4%	80.3%

Table 1

Loss in Value of Depreciation Write-Offs

[1]*Represents the loss due to failure to adjust for the normal, real aftertax rate of return on capital.*

Neutral Cost Recovery as a Solution

An alternative is to move toward a cost recovery system which assures that all types of capital are treated in exactly the same manner. Expensing has long been an academic model for the perfectly neutral tax system. Expensing allows the business to deduct the entire cost of a new investment immediately. Under current law, small businesses can expense only $17,500 in capital acquisition costs in any year.

Transition problems, however, have always been the basis for rejecting this approach. First, expensing would result in an immediate tax write-off of all investment, completely wiping out most business taxes. The revenue loss would be prohibitive with today's budget deficits. Furthermore, some businesses would not have enough taxable income to use the expanded depreciation deductions, as happened in 1982 when the Accelerated Cost Recovery System (ACRS) was put into place.

H.R. 539, The Investment Tax Incentive Act

Representative Nick Smith (R-MI) has introduced "The Investment Tax Incentive Act" (H.R. 539). The bill would reduce the taxation of capital by reforming the cost recovery system for depreciable assets. Reduced taxes on capital would lower the cost of capital, promote capital formation and spur job creation and economic growth.

Provisions of H.R. 539

H.R. 539 would make federal tax depreciation write-offs for equipment and structures *neutral* with respect to inflation and the time value of money. The specific neutral cost recovery provisions of H.R. 539 are as follows:

- Allow businesses to index depreciation for investments in plant and equipment based on the GDP deflator and an annual rate of return of 3.5 percent.

- Limit the method of depreciation to 150 percent declining balance for indexed investments.

- Provide businesses with the option to continue using current law instead of indexing.

- Effective for investments made after December 31, 1994.

- Eliminate the requirement that taxable income under the Alternative Minimum Tax (AMT) be further increased by an amount equal to 75 percent of the difference between 150 percent declining balance and straight-line depreciation.

Although the complicated adjustment under the adjusted current earnings (ACE) provision was repealed in 1993, the bill allows businesses to deduct previously denied allowances on a prorated basis over the next five years.

Neutral Cost Recovery offers a benefit equivalent to expensing to business without the undesirable side effects. Although based on the current schedules of tax lives, it would make two adjustments that would remove all four problems with the present system. (See the Appendix for the proposed schedules.) First, allowable deductions would be indexed for inflation. On average, this adjustment would allow investors to maintain their principal at original values by augmenting write-offs to reflect the higher replacement cost of the same investment solely due to inflation.

The second adjustment would allow an investor to recover a normal 3.5 percent rate of return on invested principal. Adjusting for the time value of money puts the value of future deductions on an equal footing with current deductions. Making one arbitrary schedule the same as any other neutralizes the inherent bias among competing assets, errors in effective tax life measurement and political influence.

A third adjustment assures that the revenue effects of the change will be positive in the near term. The new write-off pattern would be based on a slower method—150 percent declining balance versus current law's 200 percent declining balance—for most assets.

Table 2 compares the depreciation deductions for a $50,000 machine under current law and under neutral cost recovery. Assuming a 5-year asset life and 3 percent inflation, the present value of the $50,000 in depreciation deductions under current law is only $44,762. Under neutral cost recovery, the present value of the $57,820 in write-offs would equal the original cost of the machine. If the machine were incorrectly classified as a 7-year asset, the present value of depreciation deductions under current law would fall to $42,644. Such misclassification would not matter under neutral cost recovery, however, because the present value of the $61,643 in deductions would still be $50,000.

The practical impact of neutral cost recovery is to provide owners of capital with the equivalent of a $100 billion tax incentive to invest with no short-term revenue loss. By stretching out the write-offs, future income and tax benefits would be in balance. It would effectively eliminate taxes on the "normal" return to capital. Business taxable income would not go to zero, however, because taxes would still apply to the returns from intangible assets such as patents, goodwill, trade names, market presence, and so

forth. Further, because the new depreciation system would be limited to new investments, it would not provide a windfall to existing capital. Taxes would continue to be collected on the return to existing assets as long as they remain in service.

Table 2

Depreciation Write-Offs for a $50,000 Machine: Present Law vs. Neutral Cost Recovery

Year	Schedule	Write-off	Inflation Adjustment[1]	Net Present Value[2]
Current Law, 5-Year Life				
1	0.2000	$ 10,000	$ 10,000	$ 10,000
2	0.3200	16,000	15,534	15,009
3	0.1920	9,600	9,049	8,447
4	0.1152	5,760	5,271	4,754
5	0.1152	5,760	5,118	4,460
6	0.0576	2,880	2,484	2,092
Total	1.0000	$ 50,000	$ 47,456	$ 44,762
Neutral Cost Recovery, 5-Year Life				
1	0.1500	$ 7,500	$ 7,.500	$ 7,500
2	0.2550	13,592	13,196	12,750
3	0.1785	10,143	9,561	8,925
4	0.1666	10,092	9,236	8,330
5	0.1666	10,759	9,559	8,330
6	0.0833	5,735	4,947	4,165
Total	1.0000	$ 57,820	$ 53,998	$50,000
Current Law, 7-Year Life				
1	0.1429	$ 7,145	$ 7,145	$ 7,145
2	0.2449	12,245	11,888	11,486
3	0.1749	8,745	8,243	7,695
4	0.1249	6,245	5,715	5,155
5	0.0893	4,465	3,967	3,457
6	0.0892	4,460	3,847	3,239
7	0.0893	4,465	3,739	3,042
8	0.0446	2,230	1,813	1,425
Total	1.0000	$ 50,000	$ 46,358	$ 42,644
Neutral Cost Recovery, 7-Year Life				
1	0.1071	$ 5,355	$ 5,355	$ 5,355
2	0.1913	10, 197	9,900	9,565
3	0.1503	8,541	8,050	7,515
4	0.1225	7,421	6,791	6,125
5	0.1225	7,911	7,029	6,125
6	0.1225	8,433	7,275	6,125
7	0.1225	8,990	7,529	6,125
8	0.0613	4,796	3,900	3,065
Total	1.0000	$ 61,643	$ 55,828	$ 50,000

[1]Assumes 3% inflation
[2]Assumes 3.5% normal rate of return

Economic and Revenue Effects from H.R. 539

The economic and revenue effects of H.R. 539 were estimated using the Fiscal Associates general equilibrium model of the U.S. economy. Simulating the economic effects of the proposal is done in two stages. First, we used the economic assumptions contained in Clinton administration's February budget to produce a *baseline* forecast of future GDP, employment and investment. Next comes a *dynamic* simulation that forecasts how the economy would behave if H.R. 539 were adopted.

Economic Effects of H.R. 539

H.R. 539 would reduce the economy-wide marginal tax rate on capital by 24 percent and lower the cost of capital by 16 percent [See Figure 2]. Tables 3 and 4 show that by the year 2000:

- Higher investment would increase capital formation in the U.S. by $8.9 trillion [See Figure 3].

- This larger stock of U.S. capital would lead to the creation of 2.7 million new jobs [See Figure 4].

Table 3

Changes in the Economy H.R. 539, Neutral Cost Recovery

Baseline forecast uses economic assumptions contained in Clinton administration's February budget, which assumes real GDP growth of 2.8%, 2.7%, 2.6%, 2.6% and 2.5% for 1995 through 1999, respectively.

	Percentage Change from Baseline in:*					
Year	Tax on Capital	Cost of Capital	GDP	Jobs	Capital	Real Growth Rate
1995	-21.6%	-16.1%	1.6%	0.1%	4.2%	1.6%
1996	-22.1%	-16.1%	4.2%	0.5%	11.2%	2.1%
1997	-22.6%	-16.1%	6.7%	0.9%	18.0%	2.2%
1998	-23.0%	-16.1%	8.7%	1.4%	23.3%	2.1%
1999	-23.4%	-16.2%	10.5%	1.9%	27.8%	2.0%
2000	-23.8%	-16.2%	11.4%	2.3%	30.0%	1.8%

Table 4

Changes in the Economy H.R. 539, Neutral Cost Recovery

Baseline forecast uses economic assumptions contained in Clinton administration's February budget, which assumes real GDP growth of 2.8%, 2.7%, 2.6%, 2.6% and 2.5% for 1995 through 1999, respectively.

	Change from Baseline in:*		
Year	GDP ($bil. Nom.)	Jobs (mil.)	Capital ($bil. Nom.)
1995	101.6	0.157	968.7
1996	286.7	0.539	2,697.5
1997	493.4	1.078	4,571.8
1998	687.4	1.675	6,246.0
1999	878.4	2.252	7,847.0
2000	1,022.1	2.717	8,936.6
1995-2000	3,469.7		

Figure 2

Reduction In The Cost Of Capital & The Marginal Tax Rate On Capital
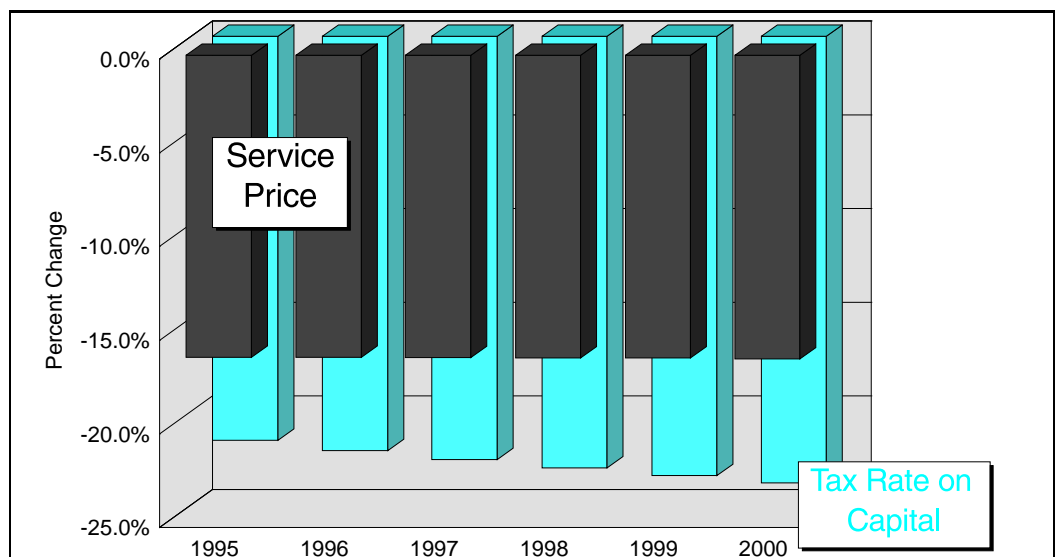
- More capital and labor would yield an extra $3.5 trillion in gross domestic product between 1995 and 2000. By the year 2000, annual GDP would be $1 trillion higher than otherwise.

- This greater economic activity would boost the long-term annual growth rate by 1.8 percentage points [See Figure 5].
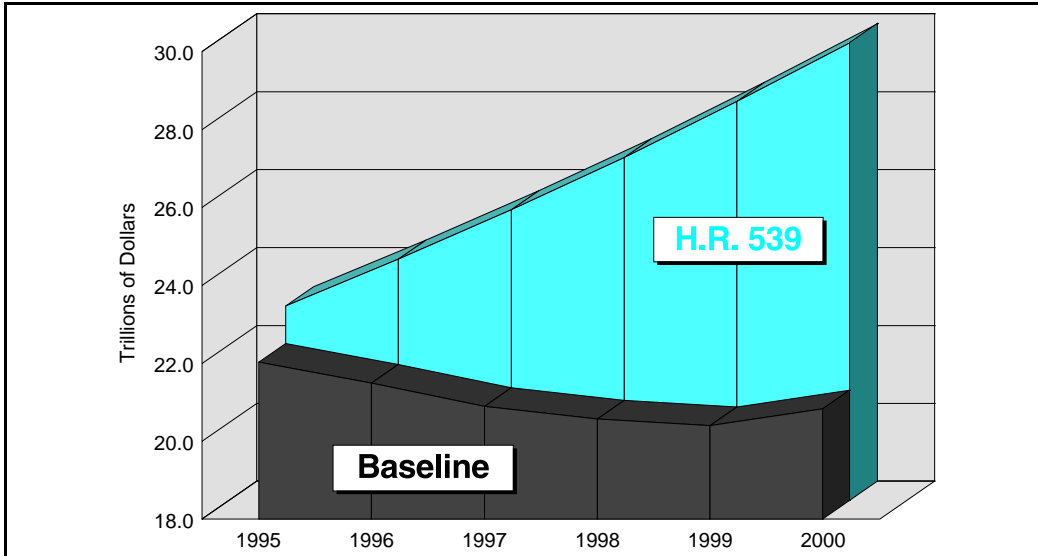
Figure 3

Increase In The Stock Of U.S. Capital

Chart: Trillions of Dollars (18.0–30.0), 1995–2000, showing H.R. 539 and Baseline areas.
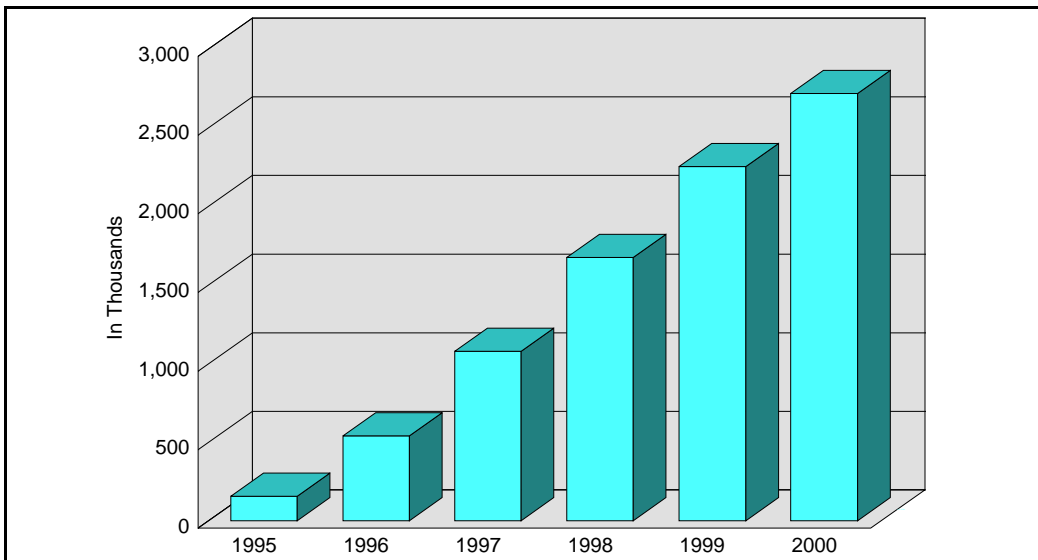
Figure 4

New Jobs From H.R. 539

Bar chart: In Thousands (0–3,000), 1995–2000.
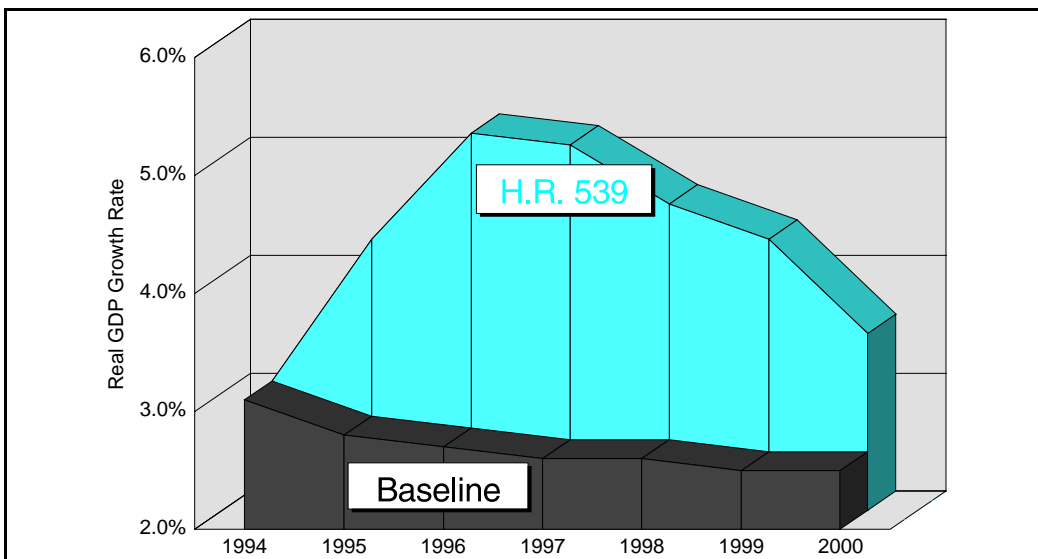
Figure 5

Added Real GDP Growth From HR 539

Chart: Real GDP Growth Rate (2.0%–6.0%), 1994–2000, showing H.R. 539 and Baseline areas.

Revenue Effects from H.R. 539

Even on a static basis H.R. 539 would pick up revenue during the early years. This is because the switch from the double-declining method to 150-percent declining balance initially reduces depreciation deductions. Higher depreciation deductions in later years due to indexing adjustments start producing static revenue losses by the fifth year.

By that time, however, added revenues from an additional two percentage points to the long-term U.S. growth path would continue to greatly outweigh any static losses. As Tables 5 and 6 show:

- Even ignoring economic growth effects, H.R. 539 would pick up $1.1 billion in federal tax revenues between 1995 and 2000.

- In addition, higher economic growth would generate an extra $596.1 billion in federal payroll, corporate and personal income, and excise taxes

- As a result, federal revenues would grow by $597.2 billion over 1995 to 2000 [See Figure 6].

- Including higher state and local revenues from added growth means government at all levels would pick up $1 trillion in additional revenue between now and the end of the decade [See Figure 7].

Table 5

Dynamic Revenue Changes
H.R. 539, Neutral Cost Recovery
($bil. nominal)

Year	Federal Soc. Sec. Tax	Federal Corporate Income Tax	Federal Personal Income Tax	Other Federal Taxes	Federal Total	State and Local	Total Government
1995	8.6	0.4	15.8	1.7	26.4	15.9	42.3
1996	24.2	1.1	23.8	4.2	53.3	36.0	89.4
1997	41.7	2.3	33.3	7.0	84.2	58.9	143.1
1998	58.1	3.8	43.6	9.6	115.2	81.1	196.3
1999	74.2	5.6	53.9	12.3	146.0	103.0	249.0
2000	86.3	7.7	62.5	14.3	170.9	120.1	291.0
1995-2000	293.1	20.9	233.0	49.0	596.1	415.0	1,011.0

Table 6

Revenue Changes
H.R. 539, Neutral Cost Recovery
($bil. nominal)

Year	Static Federal Tax Change	Dynamic Federal Tax Change	Net to Federal Government	Net to All Governments
1995	1.0	26.4	27.4	43.5
1996	7.6	53.3	60.9	98.9
1997	9.2	84.2	93.4	154.5
1998	4.4	115.2	119.6	201.8
1999	-5.6	146.0	140.4	242.0
2000	-15.4	170.9	155.5	271.8
1995-2000	1.1	596.1	597.2	1,012.5
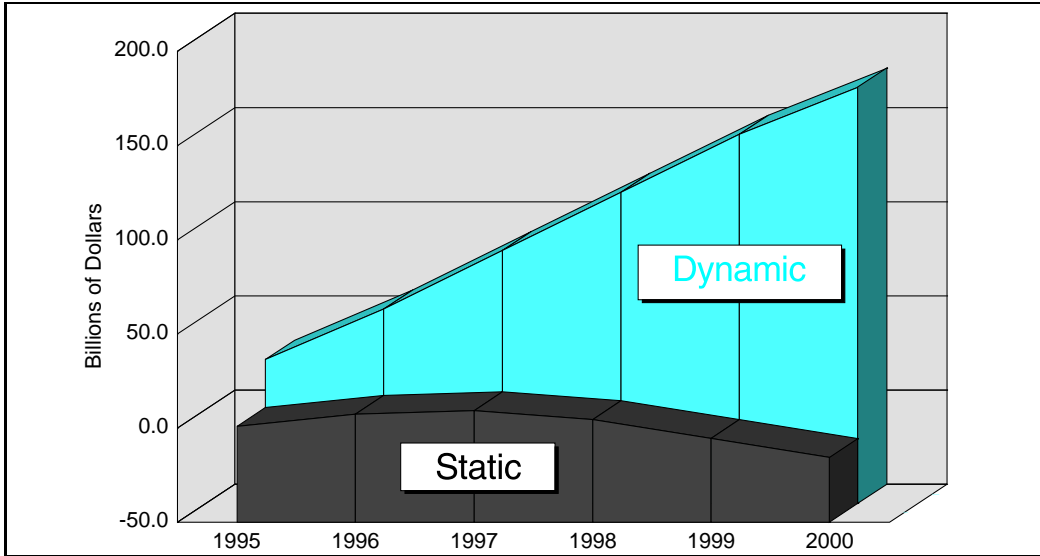
Figure 6

Static vs. Dynamic Revenue Effects from H.R. 539
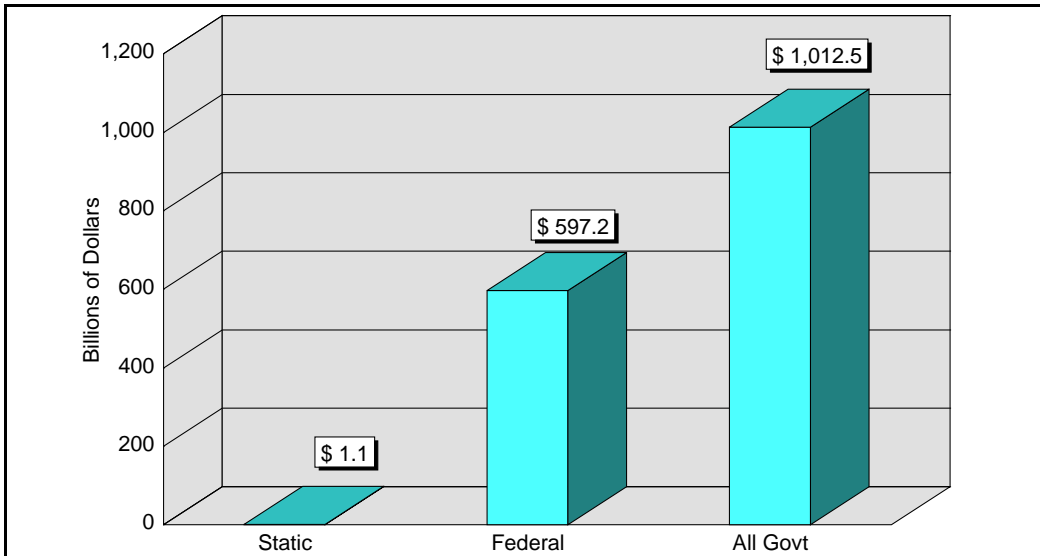
Figure 7

H.R. 539 Cumulative Revenue Effects, 1995-2000

TaxAction Analysis

H.R. 539 Would Benefit Workers

H.R. 539 would add 2.7 million jobs to the economy by the year 2000. Furthermore, the almost $9 trillion expansion in the stock of U.S. capital over the same period would raise the productivity and wages of existing workers. As Table 7 shows, that would amount to an average $4,826 more per worker in annual pretax wages and $3,332 more in take-home pay by the year 2000 [See Figure 8].

Moreover, the gains by workers would be many times more than those received by investors. As Table 8 shows, 68 percent of the $1 trillion addition to GDP in the year 2000 would translate into higher income for workers, government and investors. The bulk — 63 percent — would go to workers as higher take-home pay [See Figure 9]. Federal, state and local governments would receive 39 percent of the increase in higher revenues. Investors would actually take a 2 percent loss due to changing asset values. They would be willing to take short-term losses because they expect to recoup and make profits in the future.

Table 7

Labor Market Effects H.R. 539, Neutral Cost Recovery

Year	Percentage Change in Jobs	Change in Jobs (mil.)	Percentage Change in Aftertax Wage Rate	Change in Aftertax Wage Rate (annual)	Change in Pretax Wage Rate (annual)
1995	0.1%	0.157	1.4%	$ 408	$ 596
1996	0.5%	0.539	3.6%	1,110	1,618
1997	0.9%	1.078	5.6%	1,816	2,641
1998	1.4%	1.675	7.1%	2,425	3,521
1999	1.9%	2.252	8.2%	2,953	4,285
2000	2.3%	2.717	8.8%	3,332	4,826

Figure 8

Increase in Take Home Pay From HR 539
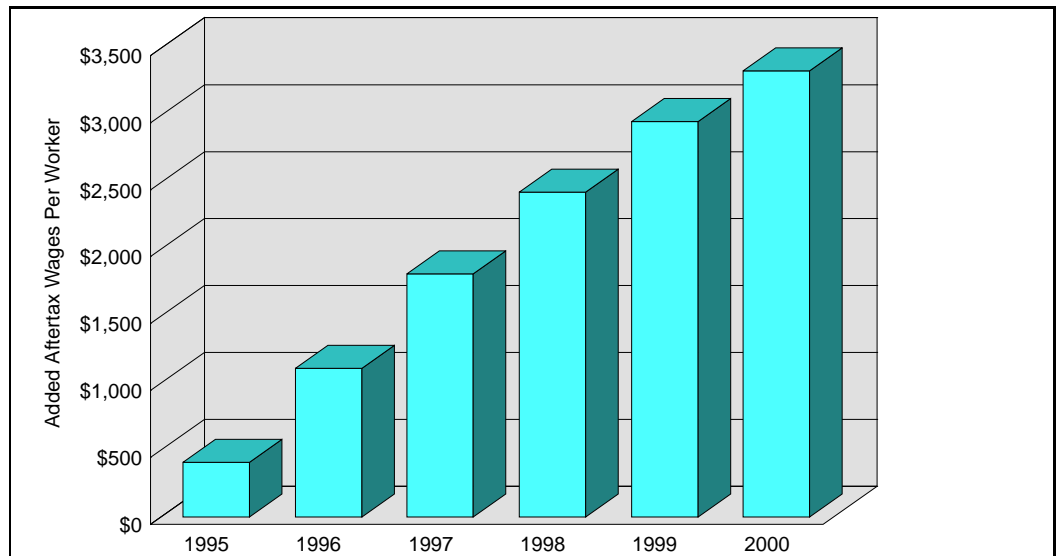
Year	Change in GDP	Change in Capital Consumption Allowances*	Change in National Income	Change in Aftertax Labor Compensation	Change in Government Revenue	Change in Net Aftertax Capital Income**
1995	101.6	34.8	66.8	42.6	43.5	-19.4
1996	286.7	97.6	189.0	120.5	98.9	-30.3
1997	493.4	166.6	326.8	207.9	154.5	-35.6
1998	687.4	229.2	458.3	290.0	201.8	-33.6
1999	878.4	289.8	588.7	370.8	242.0	-24.2
2000	1,022.1	332.0	690.1	432.2	271.8	-13.9
1995-2000	3,469.7	1,150.0	2,319.7	1,464.1	1,012.5	-156.9

Table 8

Composition of Net Changes in Income Flows H.R. 539, Neutral Cost Recovery ($bil. nominal)

*Replacement of capital assets that have worn out or become obsolete.

**Can be negative because it does not account for changes in asset values. Investors may be willing to accept a
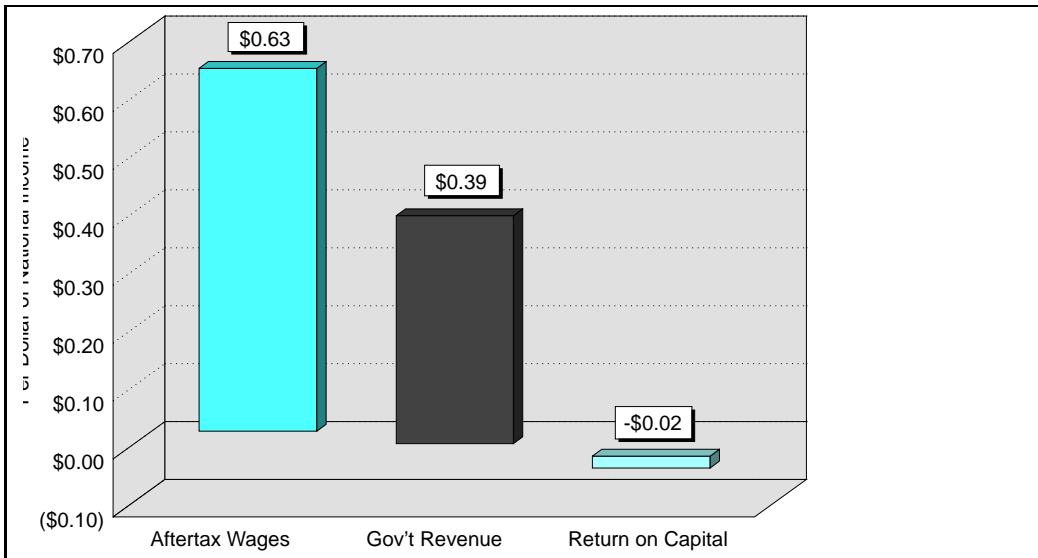
Figure 9

Gains to Labor, Government & Investors From H.R. 539

Conclusion

For policymakers interested in growing the economy and jobs, taking the tax bias out of investment decisions and raising new revenues, Neutral Cost Recovery is a winning combination.

Appendix

Classes of Recovery Property Under MACRS

The Tax Reform Act of 1986 established the Modified Accelerated Cost Recovery System (MACRS) as the basis for depreciating tangible property for tax purposes. The property's "class life" is used in determining the recovery class to which MACRS property belongs. In some cases MACRS arbitrarily assigns certain assets to a specific recovery class regardless of its class life. Property placed in service after May 1993 falls into one of the following MACRS recovery classes;

- 3-year property,
- 5-year property,
- 7-year property,
- 10-year property,
- 15-year property,
- 20-year property,
- 27.5-year residential rental property,
- 39-year nonresidential real property,
- and 50-year railroad grading or tunnel bore.

The 3-year MACRS recovery class includes depreciable personal property with a class life of 4 years or less, race horses over 2 years old when placed in service by the taxpayer and other horses over 12 years old when placed in service by the taxpayer.

The 5-year MACRS recovery class includes depreciable personal property with a class life of more than 4 years but less than 10 years. In addition, the following property is arbitrarily included in this class;

- automobiles or light-general purpose trucks,
- semi-conductor manufacturing equipment,
- computer-based telephone central office switching equipment (excluding PBX equipment),
- qualified technological equipment,
- research and experimentation property,
- equipment used to produce, distribute, or use electrical energy derived from geothermal deposit,
- certain equipment which can convert ocean thermal energy into electrical or other useful energy,
- certain equipment that converts biomass into a useful form of energy,
- and cargo containers.

The 7-year MACRS recovery class includes depreciable personal property with a class life of more than 10 years but less than 16 years and property which does not have a class life and which is not specifically assigned to any other MACRS class. Also, specifically included in this class are railroad tracks.

The 10-year MACRS recovery class includes depreciable personal property with a class life of more than 16 years but less than 20 years. Single purpose agriculture and horticultural structures and any tree or vine-bearing fruit or nuts is in the 10-year category.

The 15-year MACRS recovery class includes depreciable personal property with a class life of more than 20 years but less than 25 years. This category relates primarily to public utilities and includes municipal wastewater treatment plants and telephone distribution plants and comparable equipment used for 2-way exchange of voice and data communications. The category uses 150 percent declining balance.

The 20-year MACRS includes municipal sewers with a class life of 50 years and property with an ADR midpoint of 25 years or more. MACRS provides 150 percent declining balance over 20 years.

The 27.5-year class for business and residential buildings includes residential rental property, mobile homes, elevators, and escalators. Low-income housing falls into this category. MACRS also applies a straight line write-off.

Most nonresidential real property falls into the 39-year class. This includes most structures used by businesses.

Year	3-Year	5-Year	7-Year	10-Year	15-Year	20-Year	27.5-Year	39-Year
1	0.3333	0.2000	0.1429	0.1000	0.0500	0.03750	0.01818	0.01282
2	0.4445	0.3200	0.2449	0.1800	0.0950	0.07219	0.03636	0.02564
3	0.1481	0.1920	0.1749	0.1440	0.0855	0.06677	0.03636	0.02564
4	0.0741	0.1152	0.1249	0.1152	0.0770	0.06177	0.03636	0.02564
5		0.1152	0.0893	0.0922	0.0693	0.05713	0.03636	0.02564
6		0.0576	0.0892	0.0737	0.0623	0.05285	0.03636	0.02564
7			0.0893	0.0655	0.0590	0.04888	0.03636	0.02564
8			0.0446	0.0655	0.0590	0.04522	0.03636	0.02564
9				0.0656	0.0591	0.04462	0.03637	0.02564
10				0.0655	0.0590	0.04461	0.03636	0.02564
11				0.0328	0.0591	0.04462	0.03637	0.02564
12					0.0590	0.04461	0.03636	0.02564
13					0.0591	0.04462	0.03637	0.02564
14					0.0590	0.04461	0.03636	0.02564
15					0.0591	0.04462	0.03637	0.02564
16					0.0295	0.04461	0.03636	0.02564
17						0.04462	0.03637	0.02564
18						0.04461	0.03636	0.02564
19						0.04462	0.03637	0.02564
20						0.04461	0.03636	0.02564
21						0.02231	0.03637	0.02564
22							0.03636	0.02564
23							0.03637	0.02564
24							0.03636	0.02564
25							0.03637	0.02564
26							0.03636	0.02564
27							0.03637	0.02564
28							0.03636	0.02564
29								0.02564
30								0.02564
31								0.02564
32								0.02564
33								0.02564
34								0.02564
35								0.02564
36								0.02564
37								0.02564
38								0.02564
39								0.02564
40								0.01282

Table 9

Current Law General Depreciation Schedules, Half-Year Convention

Table 10

Proposed Basic 150% Declining Balance Before Adjustment

Year	3-Year	5-Year	7-Year	10-Year	15-Year	20-Year	27.5-Year	39-Year
1	0.2500	0.1500	0.1071	0.0750	0.0500	0.03750	0.02727	0.01923
2	0.3750	0.2550	0.1913	0.1388	0.0950	0.07219	0.05306	0.03772
3	0.2500	0.1785	0.1503	0.1179	0.0855	0.06677	0.05016	0.03627
4	0.1250	0.1666	0.1225	0.1002	0.0770	0.06177	0.04743	0.03488
5		0.1666	0.1225	0.0874	0.0693	0.05713	0.04484	0.03353
6		0.0833	0.1225	0.0874	0.0623	0.05285	0.04239	0.03225
7			0.1225	0.0874	0.0590	0.04888	0.04008	0.03100
8			0.0613	0.0874	0.0590	0.04522	0.03790	0.02981
9				0.0874	0.0591	0.04462	0.03583	0.02867
10				0.0874	0.0590	0.04461	0.03387	0.02756
11				0.0437	0.0591	0.04462	0.03262	0.02650
12					0.0590	0.04461	0.03262	0.02548
13					0.0591	0.04462	0.03262	0.02450
14					0.0590	0.04461	0.03262	0.02356
15					0.0591	0.04462	0.03262	0.02310
16					0.0295	0.04461	0.03262	0.02310
17						0.04462	0.03262	0.02310
18						0.04461	0.03262	0.02310
19						0.04462	0.03262	0.02310
20						0.04461	0.03262	0.02310
21						0.02231	0.03262	0.02310
22							0.03262	0.02310
23							0.03262	0.02310
24							0.03262	0.02310
25							0.03262	0.02310
26							0.03262	0.02310
27							0.03262	0.02310
28							0.03263	0.02310
29								0.02310
30								0.02310
31								0.02310
32								0.02310
33								0.02310
34								0.02310
35								0.02310
36								0.02310
37								0.02310
38								0.02310
39								0.02310
40								0.01154

Year	3-Year	5-Year	7-Year	10-Year	15-Year	20-Year	27.5-Year	39-Year
1	0.2500	0.1500	0.1071	0.0750	0.0500	0.0375	0.0273	0.0192
2	0.3998	0.2718	0.2039	0.1480	0.1013	0.0770	0.0566	0.0402
3	0.2841	0.2029	0.1708	0.1340	0.0972	0.0759	0.0570	0.0412
4	0.1514	0.2018	0.1484	0.1214	0.0933	0.0748	0.0575	0.0423
5		0.2152	0.1582	0.1129	0.0895	0.0738	0.0579	0.0433
6		0.1147	0.1687	0.1203	0.0858	0.0728	0.0584	0.0444
7			0.1798	0.1283	0.0866	0.0717	0.0588	0.0455
8			0.0959	0.1368	0.0923	0.0708	0.0593	0.0466
9				0.1458	0.0986	0.0744	0.0598	0.0478
10				0.1554	0.1049	0.0793	0.0602	0.0490
11				0.0828	0.1120	0.0846	0.0618	0.0502
12					0.1192	0.0902	0.0659	0.0515
13					0.1273	0.0961	0.0703	0.0528
14					0.1355	0.1025	0.0749	0.0541
15					0.1447	0.1092	0.0799	0.0566
16					0.0770	0.1164	0.0851	0.0603
17						0.1242	0.0908	0.0643
18						0.1323	0.0968	0.0685
19						0.1411	0.1032	0.0730
20						0.1504	0.1100	0.0779
21						0.0802	0.1172	0.0830
22							0.1250	0.0885
23							0.1332	0.0943
24							0.1420	0.1006
25							0.1514	0.1072
26							0.1614	0.1143
27							0.1721	0.1219
28							0.1835	0.1299
29								0.1385
30								0.1476
31								0.1574
32								0.1678
33								0.1789
34								0.1907
35								0.2033
36								0.2167
37								0.2310
38								0.2463
39								0.2625
40								0.1398

Table 11

Neutral Cost Recovery (H.R. 539) With Constant 3% Inflation

TaxAction Analysis

Methodology

The Fiscal Associates Model explicitly incorporates detailed information on tax policy and how it affects the economy, capital investment, output and jobs. Taxes on labor income consist of personal income taxes, payroll taxes and labor's share of indirect business taxes, such as sales and excise taxes. Taxes on capital consist of those levied on assets directly, on the output produced by assets and on the return accruing to owners. The tax treatment for the 20 capital classifications in the Fiscal Associates Tax Model is the average of 5,000 specific assets, weighted by their capital stocks.

We use the service price to measure the cost of capital. The service price of capital relates the components of the investment decision to the supply price of capital. First popularized by Harvard professor Dale Jorgenson, it is based on a multi-period representation of the income and expenses associated with an investment. The expenses associated with an investment are economic depreciation, taxes and the aftertax real rate of return that must be paid to investors.

About the Authors

Gary Robbins is President of Fiscal Associates, a Washington D.C.-based economic consulting firm, and Senior Research Associate of TaxAction Analysis. Mr. Robbins has developed a general equilibrium model of the U.S. economy that specifically incorporates the effects of taxes and government spending. He was Chief of the Applied Econometrics Staff at the U.S. Treasury Department from 1981 to 1982, and Assistant to the Director of the Office of Tax Analysis from 1976 to 1981. Recent publications include IPI Policy Report #124: *Putting Capital Back to Work for America*, and IPI Policy Report #111: *Playing Politics with Government Forecasts.* Mr. Robbins' articles and analysis frequently appear in the financial press. He received his master's degree in Economics from Southern Methodist University.

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About TaxAction Analysis

TaxAction Analysis is the tax policy arm of the Institute for Policy Innovation, a non-profit, non-partisan public policy organization. TaxAction Analysis recognizes that changing tax policy affects incentives to work, save, and invest. These changes in economic behavior are frequently ignored in static government forecasts, resulting in policy decisions that negatively affect economic growth, capital formation, employment, and local, state, and federal revenues. TaxAction Analysis publishes **Economic Scorecard**, a quarterly newsletter, as well as additional commentary on tax policy.

Nothing written here should be construed as necessarily reflecting the views of the Institute for Policy Innovation, or as an attempt to aid or hinder the passage of any bill before Congress.