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Indexing Capital Gains Taxes for Inflation

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Summary

Recently, proposals to index capital gains for inflation have reentered the public debate. The proposed change would eliminate the part of capital gains that reflects inflation by increasing the basis (i.e., the amount subtracted from sales price to determine capital gains) by inflation occurring since acquisition of the asset. President Trump's head of the White House National Economic Council, Larry Kudlow, has long proposed the indexation of capital gains for inflation through regulation, and Americans for Tax Reform has urged Treasury Secretary Steven Mnuchin to index capital gains. Senators Ted Cruz and James Inhofe have introduced S. 2688, the Capital Gains Inflation Relief Act of 2018, which would index the basis of assets for purposes of the capital gains tax. Similar bills, H.R. 2017 and H.R. 6444, have been introduced in the House by Representative Tom Emmer and Representative Devin Nunes. Chairman of the House Ways and Means Committee Kevin Brady has indicated that some discussion of this issue is ongoing.

Capital gains already receive benefits including (along with dividends) lower tax rates, tax deferral until assets are sold, and gains exclusion on assets passed on at death. Capital gains earned in retirement and pension plans are also effectively exempt from income tax. Other types of earnings from capital (such as interest and business investments) are also taxed on nominal income, but those effects are also offset by other tax benefits.

The effects of capital gains indexing depend on a variety of features: the choice of the price index, assets covered (by type and holding period), whether indexing generates or increases losses, whether indexing applies to past as well as future inflation, and whether indexing is in addition to or a substitute for current tax benefits.

Past legislative proposals to index capital gains for inflation have never been enacted, although in some cases proposals led to alternatives such as exclusions or lower rates. In 1992, a proposal advanced to index capital gains for inflation by regulation was eventually rejected based on findings that the Department of the Treasury does not have the authority to index capital gains.

Compared with an exclusion or lower rate, indexing favors short-term assets relative to long-term ones. Indexing provides the smallest exclusion equivalents to growth stocks that pay little or no dividends and the largest equivalents to gains from land, commercial buildings, and to a lesser extent residential buildings and stocks that pay substantial dividends. Some of these patterns may not be consistent with policy objectives that may favor lower rates on stocks and assets held for a long period. Compared to an exclusion, inflation indexing would favor risky assets.

The analysis of various economic issues depends on whether indexing is in addition to or a substitute for current benefits. Questions arise as to whether interest, depreciation, and inventories should also be indexed.

As an additional provision, depending on the design, estimates suggest a range of $10 billion to $30 billion per year in revenue costs. Economic growth effects would be relatively small, with even the largest revenue estimate pointing to a decrease in the cost of capital of 6 to 7 basis points (lower required returns of 0.06% to 0.07%). Evidence also suggests that the savings effect would be small and likely to be offset by crowding out of private investment by government borrowing if debt-financed. The change would favor high-income individuals, with about 60% benefiting the top 0.1% and around 90% benefiting the top 1% in the income distribution.

Favorable treatment for capital gains on stocks has been advanced due to the double taxation of dividends, but the 2017 tax changes have made that justification less persuasive. Capital gains indexing would reduce the distortion between debt and equity but increase the favoritism of retaining earnings over paying dividends. It would reduce the lock-in effect that causes

individuals to retain current assets because of the tax, although not as much as an exclusion equivalent. Administrative and compliance costs would increase because each vintage of assets would require a different exclusion, but improved computing facilities make that issue less burdensome.

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Proposals to index capital gains for inflation have recently reentered the public debate. The proposed change would eliminate taxes on the part of capital gains that reflects inflation. It would increase the basis (the amount subtracted from sales price to determine capital gains) by inflation occurring since acquisition of the asset. President Trump's head of the White House National Economic Council, Larry Kudlow, has long proposed the indexation of capital gains for inflation through regulation, and Americans for Tax Reform has written a letter urging Treasury Secretary Steven Mnuchin to index capital gains.[1] Past analyses (as discussed in "History of Proposals to Index Capital Gains" section below) indicate that the change would require legislation. Senators Ted Cruz and James Inhofe have introduced S. 2688, the Capital Gains Inflation Relief Act of 2018, which would index the basis of assets for purposes of the capital gains tax. Similar bills, H.R. 2017 and H.R. 6444, have been introduced in the House by Representative Tom Emmer and Representative Devin Nunes. Chairman of the House Ways and Means Committee Kevin Brady has indicated that some discussion of this issue is ongoing.[2]

Current Tax Treatment of Capital Gains and Other Assets

Under the current system, taxable income from investments is not adjusted for inflation, a treatment applying not only to capital gains, but to dividends, interest, and returns from depreciating assets (because depreciation is based on original cost). Although there is general agreement that measuring real income from capital assets requires an adjustment for inflation, all of these types of income receive other tax benefits that tend to offset the lack of inflation indexing and, in some cases, were explicitly adopted for that purpose.

Capital Gains

Capital gains reflect the change in value of an asset and are measured as the sale price minus the basis. Basis is generally the cost of acquiring the asset, but that cost is reduced by depreciation and increased by improvements in the case of assets such as buildings.

Assets yielding capital gains have a number of tax benefits that reduce their effective tax rates, including a lower rate, deferral of tax until gains are realized, and exclusion of gain at death.

Taxes on long-term capital gains held for at least a year (and dividends) are currently lower than those imposed on ordinary income, with 0%, 15%, and 20% rates. Those tax rules were not altered by the recent tax revision, as they remain linked to prior-law income levels. Taxpayers whose income would have fallen in the 15% or lower tax rate under the prior system pay no tax

[1] See, e.g., Kudlow's Corner, "Index Capital Gains for Inflation, Mr. President," *CNBC*, August 11, 2017, https://www.cnbc.com/2017/08/11/index-capital-gains-for-inflation-mr-president.html. Also see Americans for Tax Reform, "ATR Urges Treasury Secretary Mnuchin to Index the Calculation of Capital Gains Taxes to Inflation," January 23, 2018, https://www.atr.org/atr-urges-treasury-secretary-mnuchin-index-calculation-capital-gains-taxes-inflation. For a subsequent opinion editorial in the *Wall Street Journal*, see Kimberly A. Strassel, "Trump Alone Can Cut Taxes," July 13, 2018, https://www.wsj.com/articles/trump-alone-can-cut-taxes-1531436546.

[2] See Stephen K. Cooper, "Brady Weighs Indexing Capital Gains for Tax Reform," *Tax Notes*, July 16, 2018, p. 419. Treasury Secretary Steven Mnuchin has indicated that he would rather Congress consider indexing first. See Richard Rubin, "Treasury Chief Calls Changing Capital-Gains Rule a Job for Congress First," *Wall Street Journal*, June 29, 2018, https://www.wsj.com/articles/treasury-chief-calls-changing-capital-gains-rule-a-job-for-congress-first-1530270120.

on capital gains and dividends.[3] Taxpayers otherwise will pay a 15% tax rate except for those whose income would have fallen in the 39.6% bracket, who pay 20%. For married couples in 2018, the 15% rate applies at $77,200 of taxable income and the 20% rate applies at $479,000 of taxable income.

A married couple with more than $250,000 of taxable income ($200,000 for a single) is also subject to a 3.8% tax (equivalent to the Medicare tax on labor income) on passive income, including capital gains (as well as dividends, interest, rents, royalties, and annuities and passive income from partnerships and Subchapter S firms) up to the amount in excess of $250,000 ($200,000 for a single) that is equivalent to the Medicare tax paid on self-employment income.

Corporations pay taxes on gains at ordinary rates, now 21%.

Certain types of capital gains have special rules. Gain that results from depreciation of assets is subject to tax at ordinary rates to the extent of the gain, although gain arising from depreciation of real property is subject to a 25% ceiling. Gain on collectibles is taxed at 28%. Gain on the sale of a home is eligible for a $500,000 exclusion for a married couple and a $250,000 exclusion for a single person.

Capital gains receive two benefits not available to other forms of passive income, such as interest and dividends. First, tax is not paid until an asset is sold, allowing for a delay in tax payments; this deferral of tax is beneficial because of the time value of money. Second, assets that are held until death do not pay capital gains tax on the appreciation during the decedent's lifetime (and longer if, in turn, the decedent inherited appreciated assets). Assets received from inheritances are stepped-up, and the basis in the hands of the heir is the value at the time of death. (Thus, if the asset were immediately sold, there would be no capital gain.) Although evidence is limited, about half of capital gains are estimated to never be taxed because of the step-up in basis provision.[4]

Capital gains on corporate stock are also largely effectively exempt from income tax when they are held in a pension or individual retirement plan. Evidence indicates that about two-thirds of stocks owned by Americans are held in such an exempt form.[5]

The U.S. tax code contains restrictions on losses: although losses can offset gains (first netting against each type, long or short term, and then overall), the amount that can offset ordinary income is limited to $3,000 (which can be carried forward to the future). Allowing net short-term losses to offset net short-term gains dollar for dollar confers an advantage because short-term gains are taxed at ordinary rates and long-term gains are taxed at a lower rate. The limit prevents taxpayers from selectively selling assets with losses and not gains. The limit has become more restrictive because it has not been indexed for inflation since 1978.

[3] Going forward, however, rate brackets will be affected by the adoption of an inflation measure, the chained Consumer Price Index for All Urban Consumers (CPI-U), which results in a smaller inflation measure than the CPI-U used in prior law. As a result, the income levels at which each tax applies will be lower than what would otherwise have been the case.

[4] See CRS Report 91-250, *Limits to Capital Gains Feedback Effects*, by Jane G. Gravelle. The report is out-of-print CRS report but is available to congressional clients from the author upon request and also published in *Tax Notes*, April 22, 1991, pp. 363-371. See also Congressional Budget Office, *Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options*, December 2014, at https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49817-Taxing_Capital_Income_0.pdf.

[5] See CRS Report R44638, *Corporate Tax Integration and Tax Reform*, by Jane G. Gravelle for a discussion. Distributions from pensions and individual retirement plans are taxed, but contributions are excluded from or deductible from income. Given a constant tax rate, the benefit of the deduction offsets the tax payment in present value.

Dividends

Dividends are also eligible for the same lower rates available for capital gains and the benefits of being held in pension and retirement plans. In addition, in most cases, dividends are not affected by the lack of inflation indexing because they are generally smaller than the real gain (as some real returns are typically reinvested and result in real appreciation of stocks).

Interest

Taxes are levied on nominal interest at ordinary rates. However, inflation overall is beneficial to borrowers who are able to deduct nominal interest, thus bidding up the interest rate and compensating lenders. This benefit tends to be larger than the penalty for interest income because of the large share of interest-bearing assets in pension and retirement funds and indexing interest would increase the tax burden on interest financial assets (or rather, reduce the current subsidy that exists). In addition, some income from lending through bank accounts is never taxed because it is received as imputed income in the form of the value of banking services.[6] Under tax law prior to the 2017 tax revision (P.L. 115-97), the effect was also due to higher tax rates of the corporations and businesses borrowing funds compared to the rates of the lenders. This effect arising from the rate differentials may have been reversed, or at least reduced, because the tax revision reduced the tax rates on corporate and business incomes more than the rates on individuals.

Depreciable Assets

Depreciation deductions are taken on the asset's original cost, and the undepreciated basis (i.e., the amount of the cost left after depreciation deductions) is not increased by inflation. Nevertheless, depreciation is accelerated enough to offset or more than offset the effects of inflation, depending on the asset. Many depreciable assets are expensed (i.e., the cost deducted immediately), including investments in intangible assets and investments in equipment up to $1 million for smaller businesses (this expensing is phased out at $2.5 million). Since 2008, all equipment has been eligible for bonus depreciation (generally 50% of the cost could be expensed). Under the 2017 tax revision, P.L. 115-97, equipment can be expensed through 2022, with expensing then phased out by 20% per year (each year 20% will be subject to depreciation over several years rather than being immediately deductible).

Inventory

Allowing a deduction for the cost of goods sold without indexing also results in taxation of the nominal return. Last-in, first-out (LIFO) inventory methods that treat the item sold as the last item acquired can roughly compensate for inflation (although the LIFO method also excludes real gain or loss in the value of the good, such as might occur, for example, with crude oil). Most firms do not use LIFO because the tax accounting method must be the same as the financial accounting method and using LIFO tends to reduce stated profits for financial purposes.

[6] Only about 20% of interest received is reported on tax returns. See CRS Report R44638, *Corporate Tax Integration and Tax Reform*, by Jane G. Gravelle for a discussion.

Explanation of Indexing for Capital Gains

Indexing would increase the basis of the asset (i.e., the amount deducted from the sales price to determine gain or loss) by the change in the price level between the date of acquisition and the date of sale. For example, if the inflation rate is 2% and the real rate of return is 7%, an asset purchased for $100 would sell for $109.14 a year later if interest is compounded annually. The nominal gain is 9.14%. Without indexing, the gain if the asset were sold would be $9.14. With indexing, the basis would be increased from $100 to $102, and the gain would be $7.14, which is a 7% return on $102.

For assets such as common stock, the basis is the purchase price. For assets that depreciate, such as machines and buildings, the basis is the purchase price minus cumulative depreciation plus improvements. For assets that are fully or almost fully depreciated, indexing the basis would increase taxes given the higher recapture tax rate on the gain reflecting depreciation (unless an exception were made).

The Price Index

The effect of indexing for inflation depends on the measure of inflation used. There are several such measures, including the Consumer Price Index for All Urban Consumers (CPI-U), the chained CPI-U, and the gross domestic product (GDP) deflator (or implicit price deflator).[7] Elements of tax code that are indexed (such as rate brackets and the standard deduction) use the chained CPI-U, but until 2018 used the standard CPI-U. The consumer price index is based on a basket of consumer goods that is fixed in the CPI-U and varies in the chained CPI-U to reflect changes in consumption as relative prices change. Inflation rates as measured by the chained CPI-U are generally smaller than those measured by the standard CPI-U. The GDP deflator reflects all domestically produced goods and services with the weights changing as the mix of goods changes. From 2008 to 2017, the CPI-U increased by 15%, the chained CPI-U by 12.9%, and the GDP deflator by 14.3%. One reason for using the GDP deflator for capital gains is that much of this gain might be reinvested rather than consumed and a broader index may be more appropriate. There may, however, be an advantage for using a common price index for all elements of the tax code that are indexed.

Asset Coverage

The effect of the indexing also depends on what assets are included and whether the provision applies to both short-term and long-term gains, or some other category based on holding period.

Types of Assets

In recent years, the largest share of net gains has been from partnerships whose underlying assets could be a mix of tangible and financial assets.[8] In 2012, partnerships accounted for 45.5% of net gains, followed by corporate stock at 24.9%, and unincorporated business and trust interests at 7.5%. The other categories accounting for more than 1% were interests in mutual funds at 2.9%, capital gains distributions at 2.8%, land at 2.5%, business real property (e.g., commercial and

[7] The CPI-U and chained CPI-U data are from the Bureau of Labor Statistics (BLS) and can be found at https://www.bls.gov/data/. The gross domestic product (GDP) deflator is in Table 1.4 of the National Income and Product Accounts, at https://bea.gov/.

[8] See Janette Wilson and Pearson Liddell, "Sales of Capital Assets Data Reported on Individual Tax Returns, 2007-2012," *Statistics of Income Bulletin*, Internal Revenue Service, at https://www.irs.gov/pub/irs-soi/soi-a-inca-id1604.pdf.

industrial buildings) at 1.9%, and residential rental property at 1.8%. Gains on other financial assets of all types (public and private bonds and notes, put and call options, and futures contracts) totaled 1.6%. Residences account for only 0.8%; although residences are likely a significant source of capital gains, there is a $500,000 exclusion for married couples ($250,000 for singles) that limits their importance (although their basis could nevertheless also be indexed for inflation). This exclusion was set in 1997 and thus has not been indexed for 20 years, which would strengthen the case for including these assets (or, alternatively, indexing the exclusion amount).

Holding Period and Application to Losses

Indexing could apply to both short-term gains currently taxed at full rates and long-term gains subject to lower rates.[9] It could be applied to assets yielding gains or to assets producing losses. In 2012, transactions yielding gains amounted to $844 billion, with losses of $204 billion, for net gains of $640 billion. For short-term assets, gains were 11.6% of the total, losses were 63.7%, and short-term net gains were 3.9%. Of assets with long-term gains, 11% were held less than 2 years, 20% less than 3 years, a third less than 5 years, and half less than 10 years. About a quarter of gains were from assets held for 20 years or more. Corporate stock has a similar holding pattern. Real estate (residential rental property, business structures, and land) has longer holding periods with less than 2% held less than 2 years, 14% less than 5 years, and 32% less than 10 years. Gains from assets held for 20 years or more accounted for 36%.

Inclusion of Corporate Capital Gains

A proposal can index gains regardless of the type of taxpayer, or it can exclude corporate gains. The current lower rates on capital gains apply only to individuals.

Indexing for Past Inflation as Well as Future Inflation

Another issue is whether indexing applies to past as well as future inflation or only to inflation going forward, or whether it applies to existing assets or only on inflation for newly acquired assets. The consequences for revenue effects, lock-in effects, and investment incentives would vary.

Current Proposals

Current proposals (with the exception of legislative proposals such as S. 2688) are general in nature and do not specify what assets are to be affected or what measure of inflation to use, although indexing by regulation would seem to be questionable if not applied generally. S. 2688 limits the application to assets held for more than three years and uses the implicit price deflator for GDP as the measure of inflation. The bill would index based on the change in the GDP deflator from the quarter preceding acquisition to the quarter preceding the sale. It would apply to common stock in a C corporation (i.e., a corporation treated as such under the income tax)[10] and tangible assets (such as plant and equipment) used in the trade or business. Indexing would not apply to capital gains earned by corporations. The adjustment cannot create or expand a loss. It applies to both past and future inflation.[11] S. 2688 also has provisions to deal with special

[9] Assets bought and sold within a quarter would not have an index available.

[10] Some types of firms are incorporated but not taxed under the corporate tax, including Subchapter S corporations that elect to be treated as a passthrough business, with income taxed under the individual tax, and limited liability corporations, also taxed as passthroughs.

[11] The bill is similar to H.R. 1215, implementing the Contract With America proposal in 1995 (104th Congress).

circumstances (such as stock held in mutual funds and real estate investment trusts), as well as antiabuse provisions relating to hedging and short sales.

History of Proposals to Index Capital Gains

This section explains the history of proposals to index capital gains beginning with the high inflation rates in the 1970s. It also discusses the claims made in the early 1990s that capital gains could be indexed for inflation by regulation.

Legislative Proposals

Capital gains have generally been taxed at lower rates, either through an exclusion of part of the gain or a lower rate.[12] Although concerns about taxing nominal capital gains date back to 1918,[13] the high inflation rates of the 1970s resulted in considerable attention to indexing capital gains. An indexing proposal applying to assets held for a year was passed by the House during consideration of the Revenue Act of 1978, but the final bill instead increased the exclusion of gain from 50% to 60%. (The exclusion was eventually eliminated in 1986 when tax rates were reduced.)

The Senate adopted capital gains indexing via a floor amendment to the Tax Equity and Fiscal Responsibility Act in 1982, but the provision was dropped in conference.

During consideration of the Tax Reform Act of 1986, the original Treasury Study (often referred to as Treasury I) proposed to tax capital gains at ordinary rates and index them for inflation.[14] That proposal would have broadly indexed the return to investment including depreciation, inventories, and interest. The proposal as it emerged from the White House (sometimes referred to as Treasury II) gave individuals an option of a 50% exclusion or, after 1991, indexing for inflation.[15] It dropped the other indexing proposals except for inventories. The 1986 act did not contain indexing and taxed capital gains at ordinary rates (no exclusion).

In 1989, President George H. W. Bush proposed a top rate of 15% on capital gains, roughly halving top rates. The Ways and Means Committee considered two proposals: (1) Chairman Dan Rostenkowski proposed to index capital gains, and (2) Representatives Ed Jenkins, Ronnie Flippo, and Bill Archer proposed a 30% capital gains exclusion through 1991 followed by inflation indexation. The latter measure was approved by the committee, but it was not enacted.

President Bush continued to propose exclusions, but they were not enacted into law, although the capital gains tax rate was capped at 28% in 1990 when the ordinary rate structure was slightly revised.

In 1991, the President again proposed a 30% exclusion, but no action was taken. In 1992, the President proposed a 45% exclusion. The House adopted a proposal for indexation for inflation for newly acquired assets. The Senate passed a separate set of graduated rates on capital gains that

[12] For an overview of the history of capital gains taxation, see CRS Report 96-769, *Capital Gains Taxes: An Overview*, by Jane G. Gravelle.

[13] See Reed Shuldiner, "Indexing the Tax Code," *Tax Law Review*, vol. 48, 1993, pp. 537-659.

[14] *Tax Reform for Fairness, Simplicity, and Economic Growth*, The Treasury Department Report to the President, 1984, at https://archive.org/details/taxreformforfair02unit.

[15] *The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity*, May 1985, at https://www.treasury.gov/resource-center/tax-policy/Documents/Report-Reform-Proposal-1985.pdf.

tended to benefit more moderate-income individuals. The latter provision was included in a bill (H.R. 4210) containing many other tax provisions that was vetoed by the President.

In 1994, the Republican "Contract With America" campaign proposed a 50% exclusion for capital gains, and indexing the basis for all subsequent inflation, while eliminating the 28% cap; this exclusion would be about a 40% reduction on average from current rates. The Ways and Means Committee reported out H.R. 1215, which restricted inflation indexing to newly acquired assets (individuals could "mark to market"—pay tax on the difference between fair market value and basis as if the property were sold to qualify for indexation), did not allow indexation to create losses, and provided a flat 25% tax rate for corporations. The 1995 reconciliation bill (H.R. 2491, 104th Congress) that was vetoed by the President included these revisions but delayed the indexation provision until 2002.

In 1997, President Clinton and the 105th Congress agreed to a tax cut as part of the reconciliation (P.L. 105-34). The Administration's tax cut proposal included a change in tax treatment of owner-occupied housing (moving from existing provisions and rollover provisions to a larger exclusion), which was adopted in the final law. The House bill included a reduction in the 15% and 28% rates to 10% and 20% for capital gains, about a 30% cut. Capital gains would also be indexed for assets acquired after 2000 and held for three years; mark-to-market would also be allowed. The Senate and the final bill did not include indexing, although a floor amendment proposed indexing. President Clinton had indicated that he would veto a bill that included capital gains indexing, as it would violate the budget agreement. Under the final law, there was a maximum tax of 20% on capital gains held for a year. The law change also would have taxed gain from assets held five years and acquired after 2000 at a maximum rate of 18%. For gain in the 15% bracket and below, an 8% rate would apply to any gain on assets held for five years and sold after 2000, with no required acquisition date. These changes based on holding period never went into effect because they were superseded by changes in 2003.

The 1999 House bill (H.R. 2488, 106th Congress) would have cut the rates to 15% and 10%: the conference version cut rates to 18% and 8% and proposed indexing of future gains, but the bill was vetoed. Capital gains were discussed during the consideration of the economic stimulus bill at the end of 2002, but not included in any legislative proposal (and no proposal was adopted). Subsequent changes involved further rate reductions in 2003 (during the 108th Congress) on a temporary basis that were extended and finally made permanent except for very high incomes. Although bills continued to be introduced, capital gains indexing was no longer part of the capital gains debate, perhaps because inflation rates had become so low and because the tax rates were lower.

Indexing by Regulation

Indexing by regulation appeared on the scene in January 1992 in a column by Paul Roberts in the *Washington Times* and an editorial in the *Wall Street Journal*.[16] The Tax Section of the New York State Bar Association, in February 1992, sent a memorandum discussing not only the problems of indexing by regulation but also taking the position that such indexation by regulation was invalid.[17]

[16] Paul Craig Roberts, "Instant Way to Cut Capital Gains Tax," *Washington Times*, January 22, 1992, p. F; "Presidential Indexation," Editorial, *Wall Street Journal*, January 28, 1992, p. A1. The debate is also described in Reed Shuldiner, "Indexing the Tax Code," *Tax Law Review*, vol. 48, 1993, pp. 537-659.

[17] Tax Section New York State Bar Association, *Memorandum in Opposition to Proposal to Index Capital Gains for Inflation by Regulation*, February 13, 1992, at http://www.nysba.org/Sections/Tax/Tax_Section_Reports/

Reportedly, the issue was considered by the George H. W. Bush Administration with some disagreement among officials. According to Larry Zelenak, the news reports indicated that regulatory indexing was favored by Budget Director Richard Darman, but opposed by Treasury Secretary Nicholas Brady and White House Counsel C. Boyden Gray. The latter argued that the Administration lacked the authority to index by regulation.[18]

A Congressional Research Service (CRS) report issued initially in March 1992 reviewed case law and indicated that the President did not have the authority.[19] A May 1992 article by Zelenak also concluded that indexing by regulation would be invalid.[20] Both analyses, however, questioned whether such a change would be subject to judicial challenge because there might be no one with standing to challenge the new regulation.

The ability to index by regulation claim was supported by a study commissioned by the National Taxpayers Union Foundation and the National Chamber Foundation on August 17, 1992. The study was coauthored by Cooper, Carvin, and Colatriano and subsequently published in the *Virginia Tax Review*.[21] A brief version of the argument was published in the *Wall Street Journal* on August 31, 1992.[22]

About the same time, the Department of the Treasury reportedly prepared an internal analysis (reached independently), which was referenced in a Justice Department memorandum that concurred with the Treasury's opinion that the Administration did not have the authority to index by regulation.[23] Up until that time, the Bush Administration had continued to consider indexing by regulation but, according to news reports, dropped the idea after the two legal analyses.[24]

In a subsequent article about the role of the Attorney General, then-Attorney General William P. Barr, in making the point that the role is as a detached legal advisor, used the indexation issue as an example, stating that "the question was clear, can we, simply through administrative action, index capital gains?" and that "not only did I not think we could, I did not think that a reasonable argument could be made to support that position."[25]

Tax_Reports_1992/Tax_Section_Memorandum_Report_710.html.

[18] Larry Zelenak "Does the Treasury Have Authority to Index Basis for Inflation?" *Tax Notes*, May 11, 1992.

[19] CRS Report 92-226A, *The Question of Indexing Capital Gains by Regulation*, by Harry G. Gourevich was written March 18, 1992 and revised September 10, 1992. (The out-of-print report is available to congressional clients upon request.)

[20] Larry Zelenak "Does the Treasury Have Authority to Index Basis for Inflation?" *Tax Notes*, May 11, 1992.

[21] Charles J. Cooper, Michael A. Carvin, and Vincent J. Colatriano, "The Legal Authority of the Department of Treasury to Promulgate a Regulation Providing for Indexation of Capital Gains, *Virginia Tax Review*, vol. 12, Spring 1993, pp. 631-732.

[22] Charles J. Cooper, "Capital Gains Tax and Presidential Power," *Wall Street Journal*, August 31, 1992, at http://www.taxguru.org/incometax/CapGains/CJCooper.htm.

[23] The Treasury opinion is not available but was apparently dated August 28, 1992. Bruce Bartlett indicates that he confirmed with Treasury's then-general counsel, Jeanne Archibald, that she had come to this conclusion independently. See Bruce Bartlett, "Indexing Capital Gains by Fiat," *Tax Analysts*, May 14, 2012, http://www.taxhistory.org/www/features.nsf/Articles/661D8E7FDCE7F39D852579FE00531B33?OpenDocument. The Department of Justice opinion, "Legal Authority of the Department of the Treasury to Issue Regulations Indexing Capital Gains for Inflation," September 1, 1992, is at https://www.justice.gov/file/20536/download.

[24] As reported in Reed Shuldiner, "Indexing the Tax Code," *Tax Law Review*, vol. 48, 1993, pp. 537-659.

[25] William P. Barr. "Attorney General's Remarks," Benjamin Cardozo School of Law, November 15, 1992, *Cardozo Law Review*, vol. 15, 1993, p. 35.

Although there was no further consideration of indexing by regulation, Bob Dole, the 1996 Republican presidential nominee, indicated that he would immediately index capital gains if elected, and *Wall Street Journal* editorials argued that such authority existed.[26]

In 2012, after a 14-year hiatus, interest was briefly revived in the issue, perhaps due to the presidential election[27] and Cooper and Colatriano's second analysis claiming the right to index.[28] Until recently, there was another hiatus in interest to index capital gains.[29]

More recent articles have addressed this issue. Law professors Daniel Hemel and Davin Kamin argued that the executive does not have the right to index, challenged some of the arguments in the more recent Cooper and Colatriano analysis, and suggested several possible parties with the standing to challenge any administrative decision.[30] These legal issues were also discussed in a recent article by Lee Sheppard, who concluded that Treasury does not have the authority to index capital gains for inflation.[31]

How Indexing Capital Gains Compares with Fixed Exclusions or Rates

This section compares, using effective tax rates, indexing capital gains to alternative tax benefits (exclusions or lower rates) by holding period, using examples of an appreciating asset with deferral such as corporate stock, and a depreciating asset such as real estate, and a fixed asset such as land (which yields current income). It also estimates the share of nominal gain excluded by indexing by asset type and holding period and discusses other differences between the two approaches.

Effective Tax Rates by Asset and Holding Period

Table 1 shows the effective tax rates for investors subject to the maximum capital gains tax under present law with and without indexing for five types of assets:

1. a no-dividend stock (a purely appreciating asset that pays no current return),
2. a stock that pays a dividend and appreciates more slowly,
3. a commercial building that earns rent and depreciates,
4. a residential building that earns rent and depreciates, and

[26] As reported by Bruce Bartlett, "Indexing Capital Gains by Fiat," *Tax Analysts*, May 14, 2012, at http://www.taxhistory.org/www/features.nsf/Articles/661D8E7FDCE7F39D852579FE00531B33?OpenDocument.

[27] For a discussion, see Bruce Bartlett, ibid.

[28] Charles J. Cooper and Vincent Colatriano, "The Regulatory Authority of the Treasury Department to Index Capital Gains for Inflation: A Sequel," *Harvard Journal of Law and Public Policy*, vol. 35, no. 2, 2012, pp. 488-523, at http://www.harvard-jlpp.com/wp-content/uploads/2013/10/35_2_487_Cooper_Colatriano.pdf. For a brief response to their article, see Ramesh Ponnuru, "Two Conservative Causes, in Conflict," *National Review*, March 21, 2018, at https://www.nationalreview.com/corner/two-conservative-causes-in-conflict/.

[29] In addition to references in the introduction, see John Motta, "President Trump Can Follow Reagan by Indexing Capital Gains to Inflation," *Investor's Business Daily*, April 17, 2018, at https://www.investors.com/politics/commentary/president-trump-can-follow-reagan-by-indexing-capital-gains-tax-to-inflation/.

[30] Daniel Jacob Hemel and David Kamin, "The False Promise of Presidential Indexation, *SSRN*, June 2018, at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3184051.

[31] Lee A. Shepard, "Irony Abounds in Capital Gains Indexing Effort, *Tax Notes*, June 25, 2018.

5. an asset that earns a rent and neither appreciates nor depreciates in real value (illustrated by land).

The effective tax reflects the total burden, and thus for buildings and land the effective ordinary income rates as well as the effective capital gains tax rates.

Table 1. Effective Tax Rates With and Without Indexing, Maximum Capital Gains Rate, by Asset Type and Holding Period

(in percentages)

Rate and Years Held	Corporate Stock, Without Dividends	Corporate Stock, With Dividends	Commercial Building	Residential Building	Land
Current Rate					
1	27.5	28.1	34.7	34.3	33.9
5	23.5	26.3	33.9	32.6	33.2
10	19.5	24.3	32.9	30.6	32.5
15	16.5	22.7	32.0	28.9	31.9
20	14.2	21.3	31.3	27.6	31.3
25	12.3	20.2	30.8	26.5	30.0
30	10.9	19.2	30.3	25.4	30.6
Indexed					
1	23.0	23.5	29.6	29.3	29.6
5	20.1	22.5	29.9	28.7	29.6
10	17.3	21.4	30.0	28.6	29.6
15	15.0	20.5	30.1	27.5	29.6
20	13.1	19.6	30.1	26.9	29.6
25	11.6	18.9	30.0	26.3	29.6
30	10.3	18.3	30.0	25.4	29.6

Source: Congressional Research Service (CRS) calculations.

Notes: All estimates assume a 2% inflation rate and a 7% real return. The corporate stock pays a dividend of 4% and appreciates (net of tax) at a 3% real rate. For buildings and land, the rents are subject to a tax of 29.6% (80% of the top individual rate of 37%). This estimate assumes an investor is eligible for the 20% deduction and not subject to the additional 3.8% tax. The economic depreciation rate for a commercial building is 2.5% and the depreciation rate for a residential building is 1.4%. Gains on corporate stock and land are subject to a 23.8% rate. Gains on commercial and residential buildings are subject to a 28.8% rate, as the gain is less than depreciation taken and subject to the higher rate. Tax depreciation is taken on the commercial building at a straight-line rate over 39 years and is taken on the residential building at a straight-line rate over 27.5 years.

Given the assumed top statutory tax rate of 23.8%, even without indexing, assets held for five years or more in which all of the return is a gain (corporate stock, no dividends) has a lower effective tax rate due to the value of deferral. For stock paying dividends, the benefits of deferral are smaller (because dividends are taxed currently), but eventually (at around 10 years) deferral of the remaining gain leads to lower effective tax rates. The last three assets have no real gain, with capital gains tax applying only to prior depreciation and inflation. For the commercial building (representing nonresidential buildings in general), the economic depreciation rate is higher than inflation, so this asset declines in nominal value whereas the residential building and

land increase in nominal value. Residential buildings have a favorable treatment compared with commercial buildings and land because of their faster depreciation (compare tax rates after 30 years to the 29.6% tax rate on rents), but they are also more affected by selling earlier, because the capital gains tax is applied to a larger depreciation amount.

Exclusion Equivalents by Asset Type and Holding Period

Table 2 shows how much of the nominal gain is excluded due to indexing for each of the five assets using the same assumptions as in **Table 1** about rates of return and tax rates.

Table 2. Exclusion of Nominal Gain Due to Indexing by Asset Type and Holding Period

(in percentages)

Years Held	Corporate Stock, Without Dividends	Corporate Stock, With Dividends	Commercial Building	Residential Building	Land
1	21.5	39.4	95.3	45.9	100.0
5	18.5	37.0	88.6	40.5	100.0
10	15.2	34.1	79.3	31.5	100.0
15	12.2	31.3	68.9	24.9	100.0
20	9.7	28.6	57.4	25.7	100.0
25	7.6	26.0	44.5	5.5	100.0
30	5.9	23.6	30.1	0.0	100.0

Source: CRS calculations.

Notes: All estimates assume a 2% inflation rate and a 7% real return, with continuous compounding. The corporate stock pays a dividend of 4% and appreciates (net of tax) at a 3% real rate. For buildings and land, the rents are subject to a tax of 29.6% (80% of the top individual rate of 37%). This estimate assumes an investor is eligible for the 20% deduction and not subject to the additional 3.8% tax. The economic depreciation rate for a commercial building is 2.5% and the depreciation rate for a residential building is 1.4%. Gains on corporate stock and land are subject to a 23.8% rate. Gains on commercial and residential buildings are subject to a 28.8% rate, as the gain is less than depreciation taken and subject to the higher rate. Tax depreciation is taken on the commercial building at a straight-line rate over 39 years and is taken on the residential building at a straight-line rate over 27.5 years.

Although the absolute amount of gain due to inflation is larger over time, the share of gain that reflects inflation declines over time as well as varying by asset (with the exception of land, in which all of the gain is due to inflation).[32] For example, if instead of lower rates, gains were taxed at ordinary rates (37%) and indexed, the result is equivalent, for corporate stock with no dividend, to applying a lower rate of 29% for an asset held for a year, 31.4% for an asset held for 10 years, and 34.8% for an asset held for 30 years. These are smaller than the effective exclusion from allowing a 20% rate rather than a 37% rate, which is equivalent to a 46% exclusion. The rates would be lower for stock paying dividends, but except for land (assuming no real appreciation) and commercial buildings held less than 25 years, the current lower rates more than compensate for inflation. The most generous benefits from indexing (as compared with rate changes) would apply to gains from land and commercial buildings.

[32] This pattern over time is due to the compounding of the nominal return, which grows more quickly than the compounding of the inflation rate.

The variation in exclusion equivalents across assets reflects the size of the real gain relative to inflation. For example, the corporate stock with no dividends has the largest real appreciation rate and thus the smallest share reflecting inflation except for residential structures held for 25 and 30 years. If part of the return is paid in dividends, the real capital gain becomes smaller and thus inflation more important as part of the nominal gain. Land with no real appreciation has all of its gain reflecting inflation. For a commercial building, tax depreciation slightly exceeds economic depreciation only in the first year so that most of the nominal gain is due to inflation. The excess of tax depreciation over economic depreciation rises each year so that more of the gain over time reflects depreciation, with a smaller share due to inflation. A similar pattern happens, but more quickly, for residential buildings. Once a building is fully depreciated there is no basis to index (hence no benefit to the residential building held for 30 years).

Risk-Taking Effects

Indexing the basis for inflation is more favorable for riskier assets than a lower rate or an exclusion. Indexing the basis reduces the expected effective tax rate by allowing a fixed exemption, but does not change the rate of the variation in return. Higher rates on the variation in return mean that the government shares in more of the risk. With indexing, the return is increased but the risk is reduced in the same amount as before. A reduction in the tax rate would increase the return but also increase the riskiness in the after-tax return. Thus indexing causes the same reduction in burden to the taxpayer for an exclusion with the same expected revenue loss, but produces a more risky revenue stream than would a lower rate or exclusion.

Holding Period and Asset Type Effects

Indexing for inflation as a revenue-neutral replacement of the lower rate would lower tax rates on assets held over a shorter period and raise them on assets held for a long period. It would benefit buildings that are sold more frequently and favor nonresidential buildings over residential ones. Land that does not appreciate in real value would receive the greatest benefit. It would favor stocks that pay dividends over growth stocks. Residential buildings would receive less benefit than other real estate, and their benefit relative to stocks depends on whether they are held long enough to have little or no basis to index.

Some of these patterns may not be consistent with the objectives of capital gains relief, as discussed in more detail in the following sections. In particular, some proposals in the past (and provisions that were a part of the law, although never in effect, such as those enacted in 1997) provided more beneficial treatment to assets held longer. The proposed legislation also limits the benefits to assets held for at least three years. Some justifications for favoring assets held over a longer period of time are to reduce the lock-in effect (the incentive to retain investments to avoid the capital gains tax), because capital gain grows as a share of the sales price over time. Tax benefits for land would likely receive the largest relative tax cut on gains and be capitalized into the value.

Issues in Providing Inflation Adjustments for Capital Gains

This section examines issues associated with providing tax benefits to capital gains through inflation indexing either as an addition or a substitute for current provisions.

Should Indexing Capital Gains be Added to or Substitute for Existing Benefits?

The history of indexing capital gains for inflation indicates that indexing was considered but eventually an alternative benefit in the form of exclusions and lower rates was enacted. As a result, the argument that it is fair to index gains because part of the income is unreal may be considered less compelling in the light of current benefits. Alternatively, indexing could be substituted in a revenue-neutral way for existing rates, which would then be increased. The analysis of a variety of issues depends on whether indexing is an addition or a substitute, not only in the types of assets affected, but in concerns such as revenue cost, distribution, and lock-in effects.

Indexing Capital Gains but Not Other Elements

An issue also arises if capital gains are indexed and other elements of the tax law are not. For that matter, indexing capital gains by regulation to measure the true cost as deemed determined by the tax code would imply indexing a broad range of capital assets, including indexing of the basis for interest deductions and payments, depreciation, and inventory. In addition, if dividends are paid in excess of real earnings, an adjustment to the portion taxed as dividends versus being treated as a return of capital might be considered.

As mentioned, most of these assets have other benefits in the tax code that offset the effects of inflation, and a broader inflation adjustment approach might consider cutting back on some of those benefits (such as accelerated depreciation). (Note, however, that as long as expensing is retained for equipment and research investments, there is no basis to index.) A particular concern is that, absent other changes, tax sheltering may be available by borrowing while deducting nominal interest to invest in capital gains with indexing. This arbitrage possibility already exists due to the benefits currently available to capital gains, but it would be increased if indexing were an addition to rather than a substitute for the current lower rates.

Fundamentally, however, the question is why capital gains should be singled out for indexation, but not other assets?

Revenue Effects

If indexing of capital gains is added to current benefits, then a revenue loss would occur. One estimate indicated that in 2012, the last year for which data on the distribution of gains by holding period were available, the revenue loss was a third of capital gains revenue. In that year, capital gains revenue was $82.8 billion, so the revenue loss was around $27 billion.[33] The revenue loss would be smaller if losses could not expand or be converted into losses rather than gains, and taxpayers might sell more assets, although there would be more sheltering opportunities. Under these circumstances, the estimated losses were projected at between $10 billion and $20 billion, 12% to 24% of the total revenue.

A second source, using the CPI-U, estimated conservatively a revenue loss of $102 billion over 10 years, which (given some growth) would indicate less than $10 billion per year.[34] Another

[33] Len Burman, "Should Treasury Index Capital Gains?" *Forbes Magazine*, May 10, 2018, at https://www.forbes.com/sites/beltway/2018/05/10/should-treasury-index-capital-gains/#3c8d7b7f270d.

[34] John Ricco, "Indexing Capital Gains to Inflation," *Penn Wharton Budget Model*, March 23, 2018, at http://budgetmodel.wharton.upenn.edu/economic-matters/2018/3/23/indexing-capital-gains-to-inflation. One

estimate found failure to index resulted in $34 billion in additional taxes (a quarter of the $134 billion collected in FY2017) was from inflation.[35]

Because capital gains fluctuate much more than inflation, the share of gain eliminated due to inflation indexing will vary over time,[36] so that the upper limit of the estimates is consistent between the first and third sources at around $30 billion. The loss due to an indexation proposal would, however, depend on the coverage of assets (both by type and longevity) and whether the indexation could be used to produce or expand losses.

The revenue loss might also be reduced (as noted in the first estimate) to the extent that lower rates cause more sales (i.e., reduce the lock-in effect, which is the payment of tax to sell an asset and acquire another). Estimates of the amount of revenue loss offset by increased sales based on statistical studies range widely, from 20% to 70%.[37] Many of these statistical studies, however, appear to find responses that are larger than would be feasible given the ratio of realizations and may be more consistent with a lower end, or a 20% offset. It is also unclear whether indexing would yield as large an effect on sales as an exclusion or lower rate with the same revenue consequence. The lock-in effect is largest for assets that have been held for a longer period of time and thus have accumulated gains, and for assets in which gains are larger relative to sales price (such as stocks with no dividends). These assets, however, are the ones that receive the smallest exclusions and thus may lead to a more modest lock-in reduction.

Revenue losses would be smaller in the short and medium term if indexing were confined to future inflation or a more restrictive approach of applying it to newly acquired assets (the latter was proposed in the past). Such a change would lead to an initially small but rapidly growing revenue loss. Allowing gains only for future inflation would do less to reduce the lock-in effect. Allowing indexation only on newly acquired assets would reduce the lock-in effect by making the sale and purchase of new assets desirable in order to qualify for inflation indexing.

Economic Growth

An argument has been made that lowering the taxes on capital gains via inflation indexing would boost economic growth.[38] This growth effect would presumably occur only if indexing were an addition to current tax benefits and not a revenue-neutral substitute. It is unlikely, however, that a significant, or any, effect on economic growth would occur from a stand-alone indexing proposal.

Revenue collected because of the lack of indexing of capital gains, using the largest estimate above, was $34 billion for FY2017. Two methods are used for projecting the effects of indexation. The first uses a rule of thumb that capital income is approximately 25% of net national product. Using this approach, the revenue loss amounts to 0.8% of total income from capital, and, assuming a real rate of return of 7%, an increase in the cost of capital (net of

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assumption that makes the estimate conservative is that the holding period for the longest period is set at 20 years, whereas some gains will have been held longer.

[35] Larry Kudlow and James Carter, "Index Capital Gains for Inflation, Mr. President," *National Review*, August 11, 2017, at https://www.nationalreview.com/2017/08/index-capital-gains-inflation/.

[36] See Congressional Budget Office historical estimates and projections at https://www.cbo.gov/about/products/budget-economic-data#7.

[37] See CRS Report R41364, *Capital Gains Tax Options: Behavioral Responses and Revenues*, by Jane G. Gravelle.

[38] Articles making that argument quote economist Gary Robbins but do not appear to provide a source explaining how estimates were arrived at. See, for example, Larry Kudlow and James Carter, "Index Capital Gains for Inflation, Mr. President," *National Review*, August 11, 2017, at https://www.nationalreview.com/2017/08/index-capital-gains-inflation/.

depreciation) of 0.06%, or about 6 basis points. The second approach divides the revenue estimate by the estimated capital stock to provide a direct estimate of the change in the cost of capital, which is 0.07%, or 7 basis points.[39] These effects are quite modest, and they would be smaller still with more restrictive proposals that limited the application to losses, included only some types of assets, or provided minimum holding periods.

In addition, unlike some other tax cuts (such as expensing or corporate rate cuts) that occur at the firm level and have the potential to draw capital from abroad as well as potentially increase saving, capital gains are on the savers side, which means their effects operate solely through saving with some of that saving leaking into investments in other countries. Capital gain effects are also limited because of evidence that savings is not very responsive to changes in rates of return.[40] Additionally, the increase in debt from crowding out would lead, in the absence of other changes, to an offsetting effect that would eventually be expected to reduce the capital stock.[41]

Although the effects would still be small, larger effects might be retained per dollar of revenue loss by applying indexation to newly acquired assets, thus avoiding a windfall gain from lowering taxes on existing assets.

Distributional Effects

If enacted as a stand-alone policy, inflation indexation would favor higher-income individuals. According to the Tax Policy Center, 60.4% of capital gains taxes are paid by the top 0.1% of taxpayers, 80.1% by the top 1%, and 90.2% by the top 5%.[42] The Penn Wharton Budget Model estimate for the effect of indexing shows 63.1% of the tax cut is received by the top 0.1%, 86.1% by the top 1%, and 95.0% by the top 5% of taxpayers.[43]

A measure of how a tax change affects the relative distribution is to consider the percentage change in after-tax income. Penn Wharton has a relatively low estimate of the revenue cost and found that for the top 0.1% after-tax income increases by approximately 1%. For the remainder of the top 1%, the increase is 0.3%, whereas the bottom 95% has virtually no change. The higher end of the estimates cited above would suggest a magnitude about three times this size, with a 3% increase for the top 0.1% and a 1% increase for the remainder of the top 1%. Note that any reduction in revenue due to unlocking should not reduce this estimate, as individuals who are now

[39] Based on data from the National Income and Product Accounts, at https://www.bea.gov/national/index.htm. The first approach is based on 2017 data, and uses, under National Data, GDP and Personal Income, Table 1.1.5 for nominal gross domestic product (GDP) and Table 1.17.6, which relates net and GDP. Nominal GDP was $19,390.6 billion in 2017. Net domestic product was 83.92% of GDP. Thus the revenue effect as a share of capital income is 34/(0.25*0.8392*19390.6), or 0.8%. Assuming a net cost of capital of 7%, the result is a 0.06% change or 6 basis points. For the second approach, using the growth in nominal GDP from 2016 to 2017 and applying it to the latest private stock of fixed assets in Table 1.1 under Fixed Assets increases the capital stock from $42,932.7 billion to $44,626.8 billion. Dividing $34 billion by that amount yields 0.07%, or 7 basis points.

[40] See CRS Report R43381, *Dynamic Scoring for Tax Legislation: A Review of Models*, by Jane G. Gravelle for a review of the empirical evidence.

[41] Unless increases in the capital stock produce enough growth to completely offset the revenue loss, a tax cut for capital income if not paid for from some other change will grow without limit and eventually contract the capital stock.

[42] Tax Policy Center, "Table T18-0053 Distribution off Individual income Tax on Long-Term Capital Gains by Expanded Cash Income Percentile, 2018," *Model Estimates*, at https://www.taxpolicycenter.org/model-estimates/distribution-individual-income-tax-long-term-capital-gains-and-qualified-28.

[43] John Ricco, "Indexing Capital Gains to Inflation," *Penn Wharton Budget Model*, March 23, 2018, at http://budgetmodel.wharton.upenn.edu/economic-matters/2018/3/23/indexing-capital-gains-to-inflation.

induced to sell assets and pay offsetting taxes nevertheless receive a benefit from the tax reduction (in the form of a more desirable portfolio) that is at least worth the taxes.

Economic Efficiency Issues

Several issues relate to economic efficiency, or the degree to which decisions about the type of investments to make are distorted by taxes.

Double Taxation of Corporate Profits

An argument that can be made for providing relief for capital gains on corporate stocks and dividends is the additional layer of tax due to taxation at both the corporate and the noncorporate levels. This additional tax discourages investment in the corporate sector in favor of investment in noncorporate business and owner-occupied housing. That concern has diminished due, in part, to recent tax changes.

While investment in stocks remains more heavily taxed than owner-occupied housing (generally taxed at close to a relatively low, and in some circumstances, negative rates),[44] the tax rate has declined, changing the relative tax position of corporate and noncorporate businesses.

Examining the top statutory rates, under prior law, a corporation would pay a tax of 35% and the individual would pay 23.8% on the remaining 65%, for a total rate of 50.5%.[45] An investment in a passthrough business would pay either 39.6% or 43.4% if subject to the 3.8% tax. Under the new law, the corporate tax is 21% plus 23.8% of the remaining 79%, for a total of 39.8%. This rate can be compared with several alternative rates. First, for passthrough businesses that are eligible for the 20% deduction, the new top 37% rate is reduced to 29.6%.[46] Each of these types of businesses may or may not be subject to the 3.8% Medicare/net investment tax;[47] with these taxes, the rates are 40.8% and 33.4%. In all four cases, the passthrough tax rate has declined relative to the corporate rate (and for individuals not eligible for the passthrough deduction and subject to the 3.8% tax, the passthrough rate is higher).

Aside from this change, the tax rate on corporate-sector investments is lower to the extent capital gains are held until death; assuming a 4% dividend and a 3% real appreciation rate, with half of gains excluded at death, the combined corporate rate falls to 38.2% bringing the passthrough and corporate combined rates closer together.

Corporate-sector investments also tend to make intangible (i.e., research) and equipment investments more tax favored than noncorporate-sector investments, which are more concentrated in structures. Taking those effects into account, the corporate sector was taxed at effective rates similar to the noncorporate sector prior to the change, and, at least in the short term, the favorable

[44] Imputed rent from equity investments in owner-occupied housing is exempt, and homeowners are able to deduct property taxes against income. The Congressional Budget Office estimates a -3% effective tax rate for equity investment in owner-occupied housing prior to the 2017 tax changes. See Congressional Budget Office, *Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options*, December 2014, at https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49817-taxingcapitalincome0.pdf. While the 2017 individuals provisions are in place (through 2025), the tax rate will rise to around a positive 3%. See Tax Parameters and Effective Marginal Tax Rates, https://www.cbo.gov/about/products/budget-economic-data#10.

[45] This rate assumes deferral offsets the lack of inflation indexing.

[46] High-income individuals who have certain specified personal service businesses, such as doctors and lawyers, have the deduction phased out. Other high-income individuals can claim the benefit only to the extent of the higher of 50% of wages paid to employees or 25% of wages plus 2.5% of depreciable assets.

[47] Passthrough income is subject to this 3.8% tax, with the exception of active partners in a Subchapter S corporation.

treatment of equipment was increased.[48] The corporate sector is also less likely to be subject to property taxes compared with the passthrough sector and owner-occupied housing.

On the whole, there does not appear to be a case for further lowering of the capital gains tax rates based on the tax burden on the corporate sector.

Debt Versus Equity Finance

One of the largest distortions in the tax code, which remains even after the tax changes in P.L. 115-97, although it is somewhat moderated, is the favoritism of debt over equity.[49] Debt-financed investments are generally subject to negative effective tax rates because nominal interest can be deducted at the statutory rate, whereas the investment income it generates is taxed at a lower effective rate. In addition, whereas interest income is taxed too heavily because of inflation, most interest income is not subject to tax because it is in retirement plans or received as untaxed banking services. This favoritism has been somewhat reduced in the corporate sector due to the lower corporate rate and tighter restrictions on the deduction of interest, and indexing capital gains for inflation can bring these rates closer together by reducing the tax on equity. However, there are alternatives that can also accomplish the same purpose, such as indexing interest for inflation, which would raise rather than lose revenue. Another option might be to disallow a percentage of interest deductions in a revenue-neutral package with capital gains indexing.

Differential Treatment of Dividends and Capital Gains and Corporate Payout and Retention Policies

Another distortion that occurs because of taxes is the discouragement of paying dividends. Although dividends and capital gains are taxed at the same rate, capital gains still benefit from being taxed only on realization or not taxed at all. The result leads to retaining too much income in the firm or using stock buy backs instead of dividend payments (which prevents those who prefer a steady source of dividend income from receiving it). Indexing capital gains for inflation would increase that distortion. The differential treatment would also favor firms that tend to retain earnings compared with those that are growing more slowly and paying more dividends.

The Lock-In Effect

Inflation indexing may reduce the lock-in effect, which distorts portfolio choices of individuals. This issue has already been discussed in the revenue section, and, as indicated there, inflation indexing may be an inferior tool to reduce this effect given that it favors short-lived assets.

Speculation and "Short Termism" in the Stock Market

Over the years, some have expressed concerns about speculation and shortened investment horizons, which may lead to volatility and instability in the market and cause firms to focus too much on short-term earnings rather than long-term objectives. Their concerns have sometimes led to proposals for financial transaction taxes or provided capital gains benefits that rise the longer an asset is held.[50] It is unclear whether it would be appropriate to intervene in markets for this reason, because speculators (those concerned about short-term prices rather than underlying

[48] See CRS Report R44823, *The "Better Way" House Tax Plan: An Economic Analysis*, by Jane G. Gravelle.

[49] See CRS Report R44823, *The "Better Way" House Tax Plan: An Economic Analysis*, by Jane G. Gravelle for tax rates under prior law, and CRS Report R45186, *Issues in International Corporate Taxation: The 2017 Revision (P.L. 115-97)*, by Jane G. Gravelle and Donald J. Marples for changes in corporate level taxes that are debt financed.

[50] See CRS Report R42078, *Financial Transactions Taxes: In Brief*, by Mark P. Keightley.

fundamentals) also provide market liquidity. (For example, the commodities market in pork bellies would be highly illiquid if the only participants were farmers and meat processors.) If speculation were a concern, however, general inflation indexing without some holding period would be inferior to a rate reduction because it is more beneficial to short-lived assets.

Administrative and Compliance Issues

Indexing capital gains for inflation would be more complicated than an exclusion or lower rate, because a different inflation adjustment would have to be applied to each vintage of investments. If done quarterly, it would require four different adjustments for each year for a dividend reinvestment plan. This type of complex adjustment is of less concern now than it was in the past, with vastly improved computing facilities so that brokers could be required to make adjustments. It would, however, increase their compliance burden as well as the Internal Revenue Service's audit burden. Real estate investors would have to adjust basis each year and homeowners would have to adjust original acquisition costs and improvements if these assets were included. Mutual funds with both covered and excluded assets would have to allocate their basis to determine what share could be indexed.

Compliance would be easier if applied to future inflation, because those holding older assets may have more difficulties knowing the date of acquisition.

Complications could also arise for partnerships in which there is considerable flexibility in allocating income, assets, and in tracing covered and noncovered assets through multiple layers of ownership; and for corporations (if included) in which the basis of stocks in subsidiaries is adjusted after dividend payments.

Appendix. Formulas for Estimating Tax Rates and Exclusion Factors

This appendix provides formulas for estimating effective tax rates and exclusion factors for various assets.

Corporate stock with no dividend is a purely appreciating asset, where using continuous compounding for each dollar of investment:

(1) $e^{(R+p)T} = e^{(r+p)T}(1-t) + t$, or, with indexing $e^{(R+p)T} = e^{(r+p)T}(1-t) + te^{pT}$

where e is a natural constant, R is the after-tax real return, p is the inflation rate, r is the pretax return, T is the holding period, and t is the tax rate. With indexing, the original cost is increased for inflation.

This equation can be solved by rearranging to:

(2) $e^{(r+p)r)} = (e^{(R+p)T} - t)/(1-t)$, or with indexing, $e^{(r+p)r)} = (e^{(R+p)T} - te^{pT})/(1-t)$

and taking the natural log of both sides, leading to:

(3) $r = \ln [(e^{(R+p)T} - t)/(1-t)]/T - p$, or with indexing, $r = \ln [(e^{(R+p)T} - te^{pT})/(1-t)]/T - p$

The effective tax rate is (r-R)/r.

For determining the exclusion, equate an *inclusion* rate, x, times the tax without indexing with the tax paid with indexing and then subtract from 1 to get an exclusion rate:

(4) $xt(e^{(R+p)T} - 1) = t(e^{(R+p)T} - e^{pt})$

With a dividend or rent, as is the case with the other assets, the user cost of capital modified to allow for finite life and capital gains taxation is used.

The standard formula for a solution for the user cost of capital for a depreciating asset is:

(5) $r = (R+d)(1-uz)/(1-u) - d$

where d is the economic depreciation rate, z is the present value of depreciation, and u is the ordinary tax rate applied to the flow of current earnings.

The assets cover three types of different current yield assets: those that appreciate (a stock that pays dividends), assets that depreciate (such as a building) and assets that have no change in real value (such as land whose value only grows with inflation). Land that grows in real value would be similar to a dividend paying stock.

A stock that pays a dividend (taxed at rate t) and also appreciates rather than depreciating and has no depreciation can be solved (replacing the value of d with –g, where the growth rate is g) as:

(6) $r = [(R-g)(1-e^{-(R-g)T}(1-t)+te^{-(R+p)T})]/[(1-e^{-(R-g)T})(1-t)] + g$

Note that this formula is in present value unlike the one for a completely appreciating asset in (1) that is in future value, so that the deduction of basis is discounted by the nominal after-tax discount rate, R+p.

With indexing, the relationship is:

(7) $r = [(R-g)(1-e^{-(R-g)T}(1-t)+te^{-RT})]/[(1-e^{-(R-g)T})(1-t)] + g$

The extra terms in the equation are to capture the finite dividend period, the gain on sale, and the capital gain tax on the sale. There is also no z, tax depreciation. Note that without capital gains

tax, the pretax return would be (R-g)/(1-t) +g, indicating that the dividend part of the return is subject to the full tax rate and the gain is not taxed at all. Indexing causes the return of basis to be discounted at the real rate, R, rather than the nominal rate, R+p.

The exclusion would be determined in a similar manner to (4) as:

(8) $xt(e^{-(R-g)T} -1) = t(e^{-(R-g)T}-e^{pT})$

For a depreciating asset using straight line depreciation as used for buildings that is sold before the depreciation period is completed:

(9) $r =[(R+d)(1-uz – e^{-(R+d)T}(1-t)-t(1-T/T^*)e^{-(R+p)T})]/[(1- e^{-(R-d)T})(1-u)] –d$

and with indexing,

(10) $r =[(R+d)(1-uz – e^{-(R-d)T}(1-t)-t(1-T/T^*)e^{-RT}]/[(1- e^{-(R-d)T})(1-u)] –d$

(1-T/T*), where T* is the depreciation period, is the basis which becomes zero when depreciation is completed. In this case and with land, u is the ordinary tax rate and t is the capital gains tax rate.

The exclusion equivalent is determined by the inclusion rate x:

(11) $xt(e^{-(R+d)T}-(1-T/T^*)e^{-(R+p)T)}) = t(e^{-(R+d)T}-(1-T/T^*)e^{-RT})$

For land, the formula is:

(12) $r =[R(1 – e^{-RT}(1-t)-te^{-(R+p)T})]/[(1- e^{-R)T})(1-u)]$

and with indexing,

(13) $r =[R(1 – e^{-RT}(1-t)-te^{-RT})]/[(1- e^{-R)T})(1-u)]$

The inclusion rate is determined by the include rate x

14) $xt(e^{-RT}-e^{-(R+p)T)}) = t(e^{-(R)T}-e^{-RT})$.

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