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# Evaluating Mark-to-Market Taxation of Capital Gains

**Scott Eastman**
Federal Research Manager

**Taylor LaJoie**
Policy Analyst

**Chad Qian**
Research Assistant

## Key Findings

- Several politicians have suggested eliminating deferral of capital gains (appreciation in an asset's price over original purchase price) via a mark-to-market system as one way to generate revenue in a progressive manner and reduce inequality.

- A mark-to-market system would tax accrued gains on assets annually and eliminate the deferral advantage of the current capital gains tax system.

- A mark-to-market system would increase revenue, especially in the short term, as the government would be able to access a previously untaxed base. A mark-to-market tax regime would also provide a more accurate measure of fluctuations in wealth due to capital gains and losses year over year.

- Taxing capital gains annually would improve economic efficiency by removing the lock-in effect that currently reduces government revenue and deters investors from reinvesting capital gains earnings.

- A mark-to-market system would increase the tax code's burden on saving and reduce the incentive to save, potentially resulting in lower levels of saving and national income (GNI).

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Editor, Rachel Shuster
Designer, Dan Carvajal

Tax Foundation
1325 G Street, NW, Suite 950
Washington, DC 20005

202.464.6200

taxfoundation.org

## Introduction

Wealth and income inequality are rising concerns among policymakers and presidential candidates, prompting discussions about whether the tax code should be more progressive to combat inequality.[1] Policymakers have introduced a variety of proposals to tax wealthy and high-income taxpayers, including changes to capital gains taxes. Specifically, eliminating deferral of capital gains taxes, which allows taxpayers to delay taxes on asset appreciation, is being proposed as one way to generate revenue in a progressive manner and reduce inequality.[2]

Currently, capital gains are not taxable until a taxpayer sells the asset, and by delaying taxes on accrued gains, investors can reduce their effective tax rate. For example, a taxpayer can purchase a stock, hold it as the value of the stock rises, and until it is sold, the taxpayer is not liable to pay taxes on the accrued increase in value.

Taxing capital gains as they accrue, rather than only when they are realized, could increase tax revenue relative to current law and would be a progressive change. This could be accomplished by establishing a mark-to-market system[3] that taxes capital gains annually, or a retroactive tax system that imposes an extra charge (often called a look-back charge or retrospective capital gains tax) to account for deferral benefits.

A mark-to-market system would lead to increased revenue, especially in the short term, as the government would be able to access a previously untaxed base,[4] and provide a more accurate measure of fluctuations in wealth year over year. However, there are economic and administrative effects that must be reckoned with, such as the difficulty of valuing illiquid assets with scant information to determine an accurate price.

This paper discusses the tax code's current treatment of capital gains and its effects and describes mark-to-market taxation and the trade-offs policymakers should consider as they weigh various proposals to eliminate the deferral advantage for capital gains.

1 Progressivity refers to the relationship between the tax rate and income. If the effective tax rate increases as income rises, the tax is said to be "progressive." See Robert Bellafiore, "America Already Has a Progressive Tax System," Tax Foundation, Jan. 11, 2019, https://taxfoundation.org/america-progressive-tax-system/.

2 Julián Castro, "People First Economic Plan for Working Families," Julián Castro 2020, issues.juliancastro.com/working-families-first/?source=medium-release, as well as Senate Finance Committee Democrats, "Treat Wealth Like Wages," 2019, https://www.finance.senate.gov/imo/media/doc/Treat%20Wealth%20Like%20Wages%20RM%20Wyden.pdf.

3 Also known as "accrual" taxation, a "mark-to-market" system calculates assets at their most recent market price rather than their original sale price or book value.

4 A recent estimate by Congressional Research Service scholar Jane Gravelle predicts that a mark-to-market system "should raise around $180 billion per year in addition revenue." See Jane Gravelle, "Mark-to-Market Taxation of Capital Gains," Conference on Taxing Capital Income: Mark-to-Market and Other Approaches, Tax Policy Center (TPC), Nov. 15, 2019, 6, https://www.taxpolicycenter.org/sites/default/files/mark-to-market_taxation_of_capital_gains.pdf; Cf. mark-to-market estimate of $1.7 trillion over 10 years (2021-2030) with a 15 percent tax avoidance rate in Lily L. Batchelder, and David Kamin, "Taxing the Rich: Issues and Options," Sept. 18, 2019), 13, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3452274.

## The Current Treatment of Capital Gains

The tax code currently taxes any increase in a capital asset's price over the asset's basis (a capital gain) when the asset is sold.[5] Capital assets include everything from investments traded frequently in financial markets like stocks, to property and heirlooms that are sold less frequently, like jewelry or art. Capital gains are taxed when they are realized, instead of every year on accrued value.

Capital gains that are realized within a year of acquiring an asset, classified as short-term capital gains, are taxed at the same statutory rates as ordinary income, which range from 10 percent to 37 percent. Long-term capital gains, which are gains from assets held for more than one year, are taxed at lower rates: 0 percent, 15 percent, and 20 percent, depending on the filer's taxable income. The Affordable Care Act[6] also created a Net Investment Income Tax (NIIT), which imposes an additional 3.8 percent tax on the long-term capital gains of single filers who have modified adjusted gross income (MAGI) higher than $200,000, and married filers with MAGI of more than $250,000.[7]

**TABLE 1.**

### 2020 Tax Rates on Long-Term Capital Gains

| | For Unmarried Individuals | For Married Individuals Filing Joint Returns | For Heads of Households |
|---|---|---|---|
| | | Taxable Income Over | |
| 0% | $0 | $0 | $0 |
| 15% | $40,000 | $80,000 | $53,600 |
| 20% | $441,450 | $496,600 | $469,050 |
| | | **Additional Net Investment Income Tax** | |
| 3.8% | MAGI above $200,000 | MAGI above $250,000 | MAGI above $200,000 |

Source: Tax Foundation, "2020 Tax Brackets," Tax Foundation, Nov. 14, 2019, https://taxfoundation.org/2020-tax-brackets/; IRS, "Net Investment Income Tax," https://irs.gov/taxtopics/tc559.

If an asset is sold for less than its basis, resulting in a capital loss, taxpayers may use that loss to offset capital gains. If capital losses are more than capital gains, taxpayers can deduct the difference on their tax return to offset up to $3,000 of taxable income per year, or $1,500 if married filing separately.[8] If the total amount of the net capital loss is greater than the limit, it can be carried over to the next year's tax return.[9]

There are a few notable exclusions in the tax code's treatment of capital gains.[10] The first is the owner-occupied housing exclusion. Single filers can exclude up to $250,000 (married filers can

5 The IRS defines basis as "the amount of your capital investment in property for tax purposes. In most situations, the basis of an asset is its cost to you. The cost is the amount you pay for it in cash, debt obligations, and other property or services. Cost includes sales tax and other expenses connected with the purchase." See IRS, "Topic No. 703, Basis of Assets," Aug. 1, 2019, https://IRS.gov/taxtopics/tc703.

6 Patient Protection and Affordable Care Act (P.L. 111-148)

7 See IRC Section 1411 for the NIIT. Author's note: the NIIT contains a marriage penalty. A marriage penalty occurs when two individuals with equal incomes marry and the change in a couple's total tax bill is higher merely as a result of getting married and filing jointly. See Kyle Pomerleau, "Understanding the Marriage Penalty and Marriage Bonus", Tax Foundation, Apr. 23, 2015, https://taxfoundation.org/understanding-marriage-penalty-and-marriage-bonus/; For a more comprehensive treatment on the subject of marriage penalties, see Daniel Jacob Hemel, "Beyond the Marriage Tax Trilemma," *Wake Forest Law Review* 54 (2019), 102-144. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3438075; See also Erica York, "An Overview of Capital Gains Taxes," Apr. 16, 2019, https://taxfoundation.org/capital-gains-taxes/.

8 IRS, "Helpful Facts to Know About Capital Gains and Losses," June 28, 2019, https://www.irs.gov/newsroom/helpful-facts-to-know-about-capital-gains-and-losses.

9 Ibid.

10 Exclusions remove income from the individual income tax base.

exclude up to $500,000) of the sale of their primary residence if they lived in that house for at least two of the previous five years.

The other major exclusion is step-up in basis at death. Under current law, when a taxpayer dies and transfers assets to heirs, the cost basis of those assets is increased, or stepped-up, to their fair market value. This applies to all assets, not just to real estate and housing. Step-up in basis excludes from capital gains taxation any appreciation in the property's value that occurred during the decedent's lifetime. If the asset is sold immediately after it is transferred to an heir, there is no capital gains tax owed.[11] If the taxpayer sells the asset at a later time, the taxpayer would only owe capital gains tax on the increase in the asset's value since the taxpayer inherited the asset.

## Effects of the Current Tax Code's Treatment of Capital Gains

Capital gains taxes can be thought of as a double tax on corporate earnings. When corporations make a profit, it is first subject to the corporate income tax, and notably, corporations are not allowed to deduct dividend payments when calculating their taxable income. After the entity level tax, this income is taxed a second time at the shareholder level, either when a corporation distributes its post-tax earnings to shareholders via dividends, or when a corporation's stockholders sell shares and realize a capital gain.[12]

One justification for long-term capital gains and dividends being taxed at a lower rate than ordinary income is to partially compensate for double taxation of corporate income. However, taxpayers can also reduce their effective tax burden by deferring when they realize capital gains and incur tax liability.[13] If the taxpayer never realizes the gain, that income remains untaxed. Deferral treatment reduces effective tax rates for taxpayers in real terms. The ability to defer taxation on capital gains allows taxpayers to receive what may be thought of as an interest-free loan from the government.[14]

To illustrate this, let us consider taxing the same income ($89 million) which arises from asset holdings that appreciate 5 percent every year for 25 years and are then sold using two different schemes: deferral and mark-to-market. While the taxpayer is nominally required to remit the same amount of tax in either scheme, the value to the taxpayer of deferring the tax until the asset is realized is $4.31 million saved in present value terms. Additionally, the present value effective tax rate is lower under deferral than in mark-to-market because the taxpayer is not required to remit the tax until it is realized rather than every year an its accrued gain.

11 See Erica York, "An Overview of Capital Gains Taxes," and Scott Eastman, "The Trade-offs of Repealing Step-Up in Basis," Tax Foundation, Mar. 13, 2019, https://taxfoundation.org/step-up-in-basis/.

12 Erica York, "An Overview of Capital Gains Taxes." The double tax on corporate equity income also encourages companies to debt finance, (that is, selling bonds to banks and other investors). Since the interest on bonds is deductible, this income is only taxed once. And because the tax code preferences debt financing, more companies use it than would otherwise. There is a tax wedge between equity financing and debt financing, which generates a market distortion. See, for example, Eric Toder and Alan D. Viard, "Major Surgery Needed: A Call for Structural Reform of the U.S. Corporate Income Tax," Tax Policy Center, Apr. 3 2014, https://www.taxpolicycenter.org/publications/major-surgery-needed-call-structural-reform-us-corporate-income-tax/full.

13 See the methodology section of Kyle Pomerleau, "Economic and Budgetary Impact of Indexing Capital Gains to Inflation," Tax Foundation, Sept. 4, 2018, https://taxfoundation.org/economic-budget-impact-indexing-capital-gains-inflation/.

14 See Senate Finance Committee Democrats, "Treat Wealth Like Wages," and Garrett Watson, "Measuring the Value of Deferral in Capital Gains Tax Proposals," Tax Foundation, Sept. 25, 2019, https://taxfoundation.org/measuring-the-value-of-deferral-in-capital-gains-tax-proposals/.

**TABLE 2.**

**Effective Tax Rates under Deferral and Mark-to-Market**

| Tax Proposal | Deferral | Mark-to-Market |
|---|---|---|
| Asset Income | $89 million | $89 million |
| Statutory Tax Rate | 23.8 percent | 23.8 percent |
| Tax Paid | $21.18 million | $21.18 million |
| Present Value Effective Tax Rate | 14.37 percent | 23.8 percent |
| Present Value Tax Paid | $6.57 million | $10.88 million |

Note: Present value estimates use a discount rate of 5 percent. Uses current law top statutory rate on capital gains of 23.8 percent for comparison.
Source: Tax Foundation calculations

Similarly, step-up in basis allows heirs to avoid capital gains tax on gains that accrued during a decedent's life.[15] Step-up in basis preserves deferral treatment on inherited assets and prevents capital gains in estates from being subject to both the capital gains tax and the estate tax, mitigating the higher tax rate on saving that would otherwise occur.

The benefits of the current capital gains tax regime primarily accrue to wealthier individuals.[16] These policies discourage taxpayers from realizing gains, which is known as the lock-in effect. Investors have an incentive to hold assets for a long period in order to minimize their tax liability. Ultimately, because taxpayers can decide when to realize their gains, capital gains are highly responsive, or elastic, to taxation.

In fact, research suggests the permanent, or long-run, elasticity of capital gains with respect to taxation is between -0.6 and -0.79. This means a 10 percent increase in the tax rates on capital gains would lead to approximately a 7.9 percent reduction in capital gains realizations.[17] Higher-income individuals are possibly more responsive to changes in the capital gains tax rate than lower-income individuals.[18]

This has implications for policymakers as they consider changing capital gains tax rates. At a certain point, the marginal rate increase on capital gains becomes inefficient and counterproductive to raising revenue. For example, some research suggests that the revenue maximizing rate on capital gains is around 30 percent, and anything above the revenue maximizing rate would lead to enough deferral to actually reduce tax revenue.[19]

Under the current capital gains tax system, deferral treatment reduces effective tax rates, revenue, and the progressivity of the tax code. Allowing certain types of income to avoid taxation leads to forgone revenue for the federal government—eliminating deferral would increase revenue.

15 See Erica York, "An Overview of Capital Gains Taxes," and Scott Eastman, "The Trade-offs of Repealing Step-Up in Basis," Tax Foundation, Mar. 13, 2019, https://taxfoundation.org/step-up-in-basis/.

16 Committee on the Budget, United States Senate, "Tax Expenditures: Compendium of Background Material on Individual Provisions," Congressional Research Service, December 2012, III; 1031, https://www.govinfo.gov/content/pkg/CPRT-112SPRT77698/pdf/CPRT-112SPRT77698.pdf.

17 Scott Eastman, "JCT Report Shows Capital Gains are Sensitive to Taxation," Tax Foundation, Sept. 25, 2019, https://taxfoundation.org/jct-report-shows-capital-gains-are-sensitive-to-taxation/.

18 Sven-Olov Daunfeldt, Ulrika Praski-Ståhlgren, and Niklas Rudholm. "Do High Taxes Lock-in Capital Gains? Evidence from a Dual Income Tax System," *Public Choice* 145:1/2 (October 2010), 25-38, http://www.jstor.org/stable/40835522. Cf. Martin Jacob, "Tax Regimes and Capital Gains Realizations," *European Accounting Review* 27:1 (2018), http://dx.doi.org/10.2139/ssrn.1825147.

19 Lily L. Batchelder and David Kamin, "Taxing the Rich: Issues and Options," 14.

# How Can Deferral Be Taxed?

The advantage provided by the deferral of capital gains can be eliminated by establishing a mark-to-market system that would tax appreciation in an asset's value annually. Taxing capital gains annually would remove the lock-in effect that currently reduces government revenue and deters investors from reinvesting capital gains earnings but would also increase the tax burden on saving. Additionally, policymakers must deal with several administration and compliance issues that would come with moving to a mark-to-market system of capital gains taxation.

## Overview of Mark-to-Market System

Unlike deferral, a mark-to-market system would impose taxes annually on the change in an asset's value year-over-year. The key feature of a mark-to-market system is that it effectively eliminates deferral treatment. Expressed inversely, a mark-to-market system applies annual taxes on asset appreciation irrespective of the taxpayer's realization behavior.

Mark-to-market also requires regular accounting and value assessment over time. For assets which are difficult to account for annually or little knowledge exists to make a determinative value assessment, proponents of mark-to-market taxation have proposed a "lookback charge" rule, which would tax certain assets upon realization as though they had experienced accrued gains between the time they were acquired and when they were sold. [20]

## Administration and Compliance

Transitioning to a mark-to-market system of taxation would come with administrative and compliance challenges.

Mark-to-market taxation might not be suitable for illiquid, or non-tradable assets, which are not traded on the open market like stocks or other financial assets.[21] Part of the difficulty arises from the fact that in many cases there is scant information available to determine the basis of the asset being taxed because it is not openly traded or is difficult to quantify. Examples of these difficult-to-value assets include a company's intellectual property, reputation, or "brand value."

The Joint Committee on Taxation (JCT) anticipated this administrative challenge in the context of evaluating the market price of derivatives in a mark-to-market system: "Many mandatory convertible securities may not have a readily ascertainable fair market value, e.g. where they are not actively traded on an exchange. Determining a value at which to mark the securities to market each year could present challenges for both taxpayers and the IRS in those circumstances."[22]

20 A "look-back charge" allows tax authorities to review or "look back" on the price of an underlying asset over its lifespan after it was purchased. Lookback charge rules and calculations vary by the type of asset being evaluated. For example, "in a look-back treatment, the ratio of sales price to acquisition, along with holding period, could be used to determine the average rate of gain, with net proceeds recalculated to assume that gain was taxed on an accrual basis, leading to a smaller appreciation. An additional tax would be collected by reducing the basis to make the proceeds equal to that net of tax gain." See Jane Gravelle, "Capital Gains Tax Options: Behavioral Responses and Revenues," Congressional Research Service, Apr. 30, 2019, 2, note 5, https://www.everycrsreport.com/files/20190430_R41364_509fe16e26bb50a7abc41bf35ac2b510b725a29c.pdf.

21 Kyle Pomerleau, "A Property Tax is a Wealth Tax, but…" Tax Foundation, Apr. 30, 2019, https://taxfoundation.org/property-tax-wealth-tax/.

22 Joint Committee on Taxation, "Present Law and Analysis Relating to the Tax Treatment of Financial Derivatives," JCX-21-08, Mar. 4, 2008, 32.

Some mark-to-market proposals have escaped this issue by exempting non-tradable assets altogether.[23] However, such a decision would likely lead to an investment shift away from "tradable" assets to those classified as "non-tradable." Ultimately, it will be difficult for the IRS to track accrual taxation on non-publicly traded businesses and assets.

In the case of taxpayer compliance, there are also some challenges. All taxpayers subject to a mark-to-market policy will use resources to comply with the tax. This means that more hours will be spent filling out paperwork and remitting tax each year than other more productive activities. Additionally, paying annual taxes on capital gains could present compliance issues as some taxpayers might not have enough cash or other liquid assets on hand to pay an annual tax. These taxpayers may have to sell some of their underlying assets or not pay the tax.[24]

As a solution to these concerns, some researchers have suggested retrospective capital gains taxation, or a type of look-back charge on illiquid assets that could be assessed when a taxpayer realizes a capital gain on a non-tradable asset.[25] To this point, Samuel Brunson, tax law professor at Loyola University of Chicago, commented:

> A realization system has one distinct advantage: when a taxpayer is taxed only after she disposes of an appreciated asset, she has liquid assets with which to pay her tax bill. Having the liquid assets necessary to pay the tax bill promotes both fairness and compliance: compliance because the taxpayer is more likely to pay when she has cash on hand, and fairness because she is capable of paying her tax liability.[26]

Like an annual tax on accrued value, a look-back charge would also limit the incentive to hold on to capital gains in non-tradable assets by imposing an interest charge on top of capital gains taxes to offset the advantages of tax deferral.[27]

## Economic Effects

A mark-to-market system (or a retrospective capital gains taxation system) would increase the tax code's burden on saving by limiting the deferral advantage. Currently, the tax code taxes future consumption (or saving) at a higher rate than present consumption, resulting in lower saving. By favoring present over future consumption, saving is discouraged, which decreases national income. Eliminating deferral's advantage would further reduce the incentive to save, increasing the tax code's bias against saving, potentially resulting in a lower savings rate and lower national income.

23 Eric Toder and Alan D. Viard, "A Proposal to Reform the Taxation of Corporate Income," Tax Policy Center, June 2016, https://www.taxpolicycenter.org/sites/default/files/alfresco/publication-pdfs/2000817-a-proposal-to-reform-the-taxation-of-corporate-income.pdf.

24 "Under a mark-to-market regime, tax is imposed annually, whether or not the taxpayer has sold any securities or otherwise received any money, and even if the taxpayer's investments are entirely in illiquid assets." See Samuel D. Brunson, "Taxing Investors on a Mark-to-Market Basis," *Loyola of Los Angeles Law Review* 43:2 (Jan 1, 2010), 516, http://digitalcommons.lmu.edu/cgi/viewcontent.cgi?article=2686&context=llr.

25 See, for instance, Alan J. Auerbach, "Retrospective Capital Gains Taxation," NBER Working Paper No. 2792, December 1988, https://www.nber.org/papers/w2792.

26 Samuel D. Brunson, "Taxing Investors on a Mark-to-Market Basis."

27 Harry Grubert and Rosanne Altshuler, "Shifting the Burden of Taxation from the Corporate to the Personal Level and Getting the Corporate Tax Rate Down to 15 Percent," *National Tax Journal* 69:3 (September 2016), 643-676, https://pdfs.semanticscholar.org/f65d/f26223c7f1e800a6ac55f5bf95c87fb995d8.pdf?_ga=2.38516963.1517617420.1571855189-1775045693.1569870907.

Moving to a mark-to-market system would eliminate the lock-in effect inherent in the current system of capital gains taxation with deferral. David Shakow, professor of law at University of Pennsylvania Law School, once remarked: "A [mark-to-market] system would be more efficient because the current system's deviations from an ideal income tax encourage undesirable economic activity. Under the current method of taxing gains only on sale, taxpayers are 'locked in' to appreciated assets, resulting in decreased liquidity in the marketplace."[28]

While policies that discourage realization of capital gains, such as deferral or step-up in basis, discourage capital flows and create a lock-in effect, eliminating these policies would likely have a minimal impact on the overall level of U.S. investment. This is because the U.S. is an open economy with access to global savings that can fund investment opportunities.[29] However, any increase on the burden on U.S. savers would lead to a lower level of U.S. saving; foreign ownership of U.S. assets would increase and domestic ownership and income would fall.

## Conclusion

The success of any mark-to-market system lies in its ability to accurately value tangible and non-tangible (or non-tradable) assets such as intellectual property and brand-value recognition.[30] Administrative regulations, guidance, and enforcement are the Achilles' heel of any plan to annually tax accrued gains. These administrative challenges as well as the increase of the tax burden on U.S. saving and resulting decrease in national income must be weighed against concerns of addressing wealth and income inequality with more progressive taxation. Overall, moving to a mark-to-market system without lowering capital gains tax rates would increase the tax burden on U.S. savers, leading to a reduction in national income.

28 David J. Shakow, "Taxation without Realization: A Proposal for Accrual Taxation," *University of Pennsylvania Law Review* 134 (1986), 1111-1205. https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=4003&context=penn_law_review.

29 Scott Eastman, "The Trade-offs of Repealing Step-Up in Basis."

30 "An accrual tax system cannot succeed without a satisfactory method of valuing assets," from David Shakow, "Taxation without Realization: A Proposal for Accrual Taxation."