FISCAL FACT
No. 577
Mar. 2018

Getting "Real" with Capital Gains Taxes by Adjusting for Inflation

Stephen J. Entin
Senior Fellow

Key Findings

- Inflation-related gains on the sale of assets are not a real increase in wealth. Indexing the purchase price (tax basis) for inflation would provide savers some relief for this type of tax on fictitious income.

- Failure to index the purchase price (tax basis) of assets increases the effective tax rate on saving and investment. Less capital is formed, depressing wages and employment.

- Adverse effects of inflation on reported capital gains and the capital gains tax get worse the higher the inflation rate and the longer an asset is held. In the inflationary 1970s, many sales of stock that appeared to be gains were, in fact, real losses.

- Inflation is low today, but that may not always be the case. Indexing provides important protection for all citizens, even those who have no capital gains, by reducing government's ability and incentive to raise effective tax rates by inflating the currency.

- Indexing assets prices for determining capital gains is good policy, but it would not end all the anti-saving biases in the tax code.

- Ordinary saving is inherently double-taxed, except for the portion of saving done in tax-deferred Individual Retirement Accounts (IRA) and pension arrangements, or in Roth IRAs and tax-exempt bonds, or certain education savings accounts. These arrangements should be expanded.

- Ending the inflation bias would also require immediate expensing of capital outlays (on plant, equipment, structures, inventories, etc.), instead of depreciating them over time. Depreciation allowances are not adjusted for inflation, which can seriously depress real returns on investment and retard capital formation.

Editor, Rachel Shuster
Designer, Dan Carvajal

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

202.464.6200

taxfoundation.org

Introduction

It is time to "get real" with capital gains taxes. Many elements of the income tax are adjusted for inflation, such as tax brackets, standard deductions, and income thresholds or dollar amounts of some tax credits. However, the purchase price of assets later sold for capital gains or losses is not adjusted for inflation. As a result, inflation can do a real number on savers by turning real losses into taxable nominal gains. To avoid such outcomes, it would make sense for the government to allow an inflation adjustment for the cost of assets held outside of tax-preferred saving arrangements. (In pensions, retirement plans, and education savings plans, the problem is handled by other means, either by tax deferral or by exclusion of tax on gains.)

The Issue for Savers

To the extent that the prices of stocks, houses, or other assets rise only in line with inflation, there is no real increase in wealth. During the late 1960s and 1970s, when inflation was high and the stock market was flat, it was not uncommon for people who sold assets to report inflated nominal capital gains that were negative in terms of purchasing power. In effect, the savers were taxed on a real loss.

The Dow Jones average briefly touched 1,000 in the mid-1960s. It then fell back, and mostly traded between 800 and 1,000 between 1965 and 1981, before breaking out above 1,000 on a permanent basis. Suppose one had bought $100 of stock in the XYZ Corporation in 1965, and sold it in 1981, for $110. This looks like a $10 gain. But because of inflation, it took $2.86 in 1981 to buy the same goods and services one could get for $1.00 in 1965. The stock would have had to rise to $286 just to keep pace with inflation. Adjusting the purchase price for inflation, we see that the investor lost $176, in 1981 dollars ($286 - $110). Any tax collected on the nominal $10 gain was, in fact, a tax on a real loss.

Capital gains was not the only tax area hurt by inflation during the same period. Most importantly, inflation damaged investment by eroding the value of capital cost recovery allowances (tax depreciation). The purchase price and depreciation write-offs for capital outlays are not adjusted for inflation. With inflation, real costs are understated, taxable income is inflated, and tax rates on real earnings rise. Many firms in the late 1970s were paying taxes even as they were experiencing real losses. This contributed to the economic "malaise" of the time.

Individual income taxes were also affected as wage inflation pushed people into higher marginal tax brackets. Income tax revenues rose 17 percent for each 10 percent rise in prices, rewarding the government for inflation with more revenue to spend. The bracket creep problem was eliminated by the tax indexing provision of the 1981 Economic Recovery Tax Act. Another problem was that the inflation component of interest is subject to tax, a serious issue in the late 1970s with inflation and interest rates in double digits. This problem is still with us.

Taxation of fictitious gains or other capital income reduces saving and raises the cost of capital, thereby retarding investment, productivity growth, and wage growth. Bracket creep further discouraged working and hiring. These effects were visible by the late 1970s. Capital formation lagged labor force growth, and labor productivity and real after-tax wages were falling.

A Capital Gains Example Tracking a Less Extreme Situation

Let us look at less extreme cases in Table 1. Asset values are assumed to rise in real terms, but include additional increases due to inflation. The examples assume a ten-year period in which consumer prices rise 50 percent in ten years and real values double, which triples nominal values (1.5 x 2 = 3). These increases result from annual inflation of 2.26 percent, real gains of 4.125 percent, and nominal increases of 6.478 percent.

Suppose an individual in the 22 percent income tax bracket earns $128.20 and pays income tax of $28.20. He/she has $100 left to save. Under the current tax treatment of a capital gain, stock bought at the start of the period for $100 will sell for $187 in ten years. The government imposes a capital gains tax on the $87 nominal gain. (See column 1 of the table.) If the capital gains tax rate is 15 percent, the tax is $13, and the saver retains $174 after-tax.

If the tax code allowed the saver to adjust the purchase price for inflation, the cost for tax purposes (tax basis) would be $125 in year 10, not $100. (See column 2 of the table.) The taxable real gain would be only $62, the tax would be $9, and the saver would retain $178 after-tax.

TABLE 1.

Taxation of Capital Gains in the Presence of Inflation - A Ten-Year Time Frame

*with no inflation adjustment, with inflation indexing, and in regular and Roth IRAs**

	column 1: tax on capital gain, nominal basis	column 2: tax on capital gain, indexed basis**	column 3: tax on capital gain, IRA or pension***	column 4: tax on capital gain, Roth IRA****
Initial income	$128	$128	$128	$128
Tax at 22% tax rate on ordinary income	$28	$28	tax deferred	$28
Amount left to save/cost of asset purchased	$100	$100	$128	$100
Value of asset ten years later, asset sold	$187	$187	$240	$187
Tax basis (cost) of asset, regular tax or indexed	$100	$125	all taxable	all exempt
Nominal profit or withdrawal	$87	$62	$240	$187
Tax rate, assuming 15% on nominal gains, 22% on income	15%	15%	22%	n.a., tax prepaid
Tax on gain or withdrawal	$13	$9	$53	no tax due
Value after tax	$174	$178	$187	$187
Shortfall in value versus neutral IRA tax treatment of saving	$(13)	$(9)	$-	$-
Share of shortfall versus neutral tax treatment saved by indexing		29%		

* Assume annual inflation 2.26%, real growth 4.125%, nominal growth 6.478%. In ten years, prices rise 25%, real values 50%, nominal values 87%.
** The indexed tax basis (cost) of the asset is boosted 25% to reflect inflation, reducing the taxable gain by 29%.
*** Initial income put into an IRA is tax-deferred. Its tax basis is zero (no tax has been paid), so the entire withdrawal is taxable.
**** Initial income going into a Roth IRA is taxed. Since the tax was prepaid, all subsequent income is tax-exempt.
Source: Author's calculations.

Should Capital Gains Be Taxed Differently?

Some might argue that capital gains receive preferred tax treatment under current law, because the gain is deferred until realized, and it receives a lower tax rate than ordinary income. The lower rate is the "capital gains differential," which is sometimes rationalized as compensating savers for inflation. However, the capital gain differential does not properly adjust for the excess real tax burden due to inflation. If the nominal gain is really a loss, then even a reduced tax rate is too high. If the gain is in part a real gain, but a small one, then the reduced rate is helpful, but still inadequate. Here's why.

In an ideal tax system, saving would not be treated worse than consumption. The income tax is not ideal. It treats saving much worse than consumption, and thereby impedes capital formation, employment, and wage growth. When we earn income and pay tax, and use the after-tax income for consumption, the federal government generally leaves the consumption alone, except for a few excise taxes on gasoline, alcohol, tobacco, telephone services, and a handful of sporting goods. The earnings are taxed, but not the enjoyment of the subsequent purchases. Saving is a purchase too. It lets us "buy" a stream of future income with after-tax money. But if we buy a bond, the stream of interest is taxed. If we buy a share of stock, the dividends are taxed, and any reinvested earnings that increase the value of the company are taxed as capital gains. In that way, the income tax hits saving harder than consumption.[1]

The ideal tax treatment of capital gains (indeed, of all saving) is to allow the purchase of any asset that adds to savings to be tax-deferred, as in a pension or regular Individual Retirement Account (IRA). When the asset is sold, and the funds withdrawn for consumption, the whole amount is subject to tax. The capital gain embedded in the sale is fully taxable, because the initial saving was not taxed. Its tax basis is zero, and the sales price less zero is entirely taxable. An alternative approach would follow the treatment of saving in a Roth IRA or tax-exempt bond. The purchase would not be deductible, but the sale or withdrawal from savings would not be taxed. In either case, the saving would be treated no more harshly than consumption. These systems are called "saving-consumption neutral."[2]

Regular tax-deferred IRA treatment and returns-exempt Roth IRA treatment are shown in columns 3 and 4 of the table. In the regular IRA case, the tax on the initial $128 of earnings is deferred. The whole amount is saved. It grows to $240 in ten years. If withdrawn, it is subject to tax at ordinary income tax rates, here assumed to be 22 percent. The tax is $53, and the after-tax value is $187. In the Roth case, the initial earnings are taxed, the savings grow to $187, and there is no additional tax when that is withdrawn. In either case, the $187 in after-tax value is $13 higher than the $174 value in the ordinary tax case in column 1, and $9 higher than the $178 after-tax value in the indexed basis case in column 2. Indexing the tax basis saves the taxpayer 29 percent of the excess tax on saving under the income tax compared to ideal tax treatment ($4 out of $13), but not all of it.

1 Getting more technical, taxing capital gains on assets bought with after-tax saving is double taxation. Any rate is too high. An asset's value today is just the current value of its future expected after-tax income, discounted at an appropriate interest rate. If the expected future earnings rise, so will the current price of the asset. If the higher future income comes to pass, it will be taxed as income when earned. To also tax the rise in the present price of the asset is to tax the future income twice.

2 Business investment is another area in which inflation wreaks tax havoc. Purchases of depreciable assets, such as plant, equipment, structures, and purchases of inventory, must be written off as business costs with a delay, which reduces their value due to inflation and the time value of money. Indexing the write-offs in the case of these assets would better define real income, and greatly increase capital formation, productivity, and wages.

Indexing the initial purchase amount saves the taxpayer more (in dollar terms) the higher the rate of inflation and the longer the asset is held. However, in percentage terms, indexing does less well for assets held a longer time. The reason is that more and more of the buildup in value over time of an asset such as stocks and bond mutual funds comes from reinvested earnings, which are not indexed under the usual indexing proposals. Consider the case of a thirty-one-year holding period in Table 2. The same real growth and inflation assumptions are in use. In thirty-one years, consumer prices double, real values rise 150 percent, and nominal values rise seven-fold to $700. The ordinary capital gains tax is $90, or $75 with indexing. The taxpayer keeps $610 after-tax under ordinary capital gains treatment, $625 with indexed gains, and $700 under ideal neutral treatment. Indexing the basis recovers about 17 percent of the shortfall in asset value versus the neutral IRA treatments ($15 out of $90), compared to 29 percent in the ten-year example.

TABLE 2.

Taxation of Capital Gains in the Presence of Inflation - A Thirty-One-Year Time Frame

*with no inflation adjustment, with inflation indexing, and in regular and Roth IRAs**

	column 1: tax on capital gain, nominal basis	column 2: tax on capital gain, indexed basis**	column 3: tax on capital gain, IRA or pension***	column 4: tax on capital gain, Roth IRA****
Initial income	$128	$128	$128	$128
Tax at 22% tax rate on ordinary income	$28	$28	tax deferred	$28
Amount left to save/cost of asset purchased	$100	$100	$128	$100
Value of asset thirty-one years later, asset sold	$700	$700	$897	$700
Tax basis (cost) of asset, regular tax or indexed	$100	$200	all taxable	all exempt
Nominal profit or withdrawal	$600	$500	$897	$700
Tax rate, assuming 15% on nominal gains, 22% on income	15%	15%	22%	n.a., tax prepaid
Tax on gain or withdrawal	$90	$75	$197	no tax due
Value after tax	$610	$625	$700	$700
Shortfall in value versus neutral IRA tax treatment of saving	$(90)	$(75)	$-	$-
Share of shortfall versus neutral tax treatment saved by indexing		17%		

* Assume annual inflation 2.26%, real growth 4.125%, nominal growth 6.478%. In ten years, prices rise 25%, real values 50%, nominal values 87%.
** The indexed tax basis (cost) of the asset is boosted 25% to reflect inflation, reducing the taxable gain by 29%.
*** Initial income put into an IRA is tax-deferred. Its tax basis is zero (no tax has been paid), so the entire withdrawal is taxable.
**** Initial income going into a Roth IRA is taxed. Since the tax was prepaid, all subsequent income is tax-exempt.
Source: Author's calculations.

Capital Gains in Estates

Capital gains may be attached to assets in estates. Capital gains in estates are forgiven under the provision that allows step-up in basis at death. Step-up means that the beneficiary of an estate can claim the higher value of the asset at the time he/she receives it as the "stepped-up" tax basis, rather than the original purchase price paid by the decedent. If the beneficiary sells the asset immediately, before any further price increase, there would be no capital gains tax. Step-up covers both inflation and real buildup in asset value, and is more powerful than indexing the basis alone.[3]

Step-up was provided to prevent the imposition of both an estate tax and a capital gains tax on the same assets. It is sometimes rationalized as protecting against inflation, but that is making it appear to do double duty. The right rationale for step-up is that of a Roth IRA. Ordinary after-tax savings accumulated in an estate were taxed earlier; there should be no additional tax on it. If a regular IRA is inherited, no tax has yet been paid, but the recipient is required to withdraw the assets and pay tax over a five-year period beginning a year after the inheritance.

Step-up in basis is a reasonable tax treatment, but limited as it is to the special case of death, it creates a lock-in effect. People approaching death may hold onto assets they would otherwise sell. The estate tax distorts saving and investment decisions to a greater degree the older people get. In an ideal saving-deferred tax system, the initial saving done by the decedent would have been tax-deferred, and would be passed to the beneficiary on that basis. While the beneficiary keeps the savings invested, the earnings and assets would continue to be tax-deferred. As the beneficiary sells the assets and withdraws the proceeds from savings, the withdrawals would be taxable to the beneficiary as ordinary income.

If the estate tax is ever fully repealed, Congress would have to choose between allowing a step-up in basis or not, which would affect past or future capital gains on the asset. If a capital gains tax is imposed after repeal of the estate tax, it would be good policy to adjust the inherited capital gains basis for inflation.

Owner-occupied Housing

The biggest investment many people make is in their homes. Housing prices are affected by inflation, but there are changes in real value over time as well. Some areas experience real gains, as in the decades when people moving to the suburbs raised suburban values faster than in central cities. At other times, as commuting became more difficult with rising traffic, people returned to the cities, and bid up prices downtown. In either case, determining real gains or losses in property requires adjusting the purchase price for inflation.

3 Step-up is sometimes denounced as a giveaway to the decedent, who has avoided the tax by dying before spending the money. It might better be described as a benefit to the beneficiaries, who live to enjoy the added savings. In constructing "burden tables" to measure how the benefits of the tax provision are distributed across income levels, the benefits of step-up should be assigned to the heirs, not to the decedent.

There has been some tax relief for the sale of an owner-occupied home for many years. Years ago, one could roll over a capital gain in a home by buying a more-costly one within two years. That is no longer an option. Also, before 1997, there was a one-time lifetime exclusion of $125,000 on capital gains from a home sale. It was sometimes rationalized as relief from inflation for people who had owned their homes for a long time.

The current tax relief was enacted in the Taxpayer Relief Act of 1997. It ended the roll-over deferral, but provided a $250,000 exclusion of capital gains for single filers, and $500,000 for a married couple, where the filers had lived in the home for at least two of the previous five years. The exemption may be taken only once every two years. These exempt amounts have not been increased since. In today's dollars, they would need to be $382,000 and $764,000, respectively, to provide the same relief.

A fixed exempt amount protects a fixed amount of gains, regardless of the amount of the sale price that is due to inflation. The exemption might overcompensate or under-compensate for the inflation portion of the gain, and is therefore an imperfect offset to inflation, if that is the intent. However, it does extend saving-consumption neutral tax treatment to the investment in the home. In effect, the house is bought with after-tax income, and the annual shelter service provided by the home and the sales price are untaxed returns, as in a Roth IRA. For people who move often enough, the current policy shelters more of the gains in a home than would be covered by indexing. People who remain in one home for many decades or who bought high-priced homes on which subsequent price gains are large in dollar terms may find that they have gains greater than the exempt amounts. These homeowners would benefit from additional indexing of the initial cost basis and any improvements made over the years.

Conclusion

Inflation raises the price of many assets acquired by savers. When they sell the assets, much of their capital gains may be due only to inflation. Inflation-related gains are not a real increase in wealth. Indexing the purchase price (tax basis) for inflation would provide savers some relief for this type of tax on fictitious income. Indexing provides a further protection for all citizens, even those who have no capital gains, by reducing the government's ability and incentive to raise effective tax rates by inflating the currency.

Indexing assets prices alone would not resolve all the anti-saving biases in the tax code. The real and inflation-related biases against saving would be eliminated if all saving were to be accorded the tax-deferred or returns-exempt treatment found in regular IRAs and pensions, or in Roth IRAs and tax-exempt bonds. Ending the inflation and real biases would also require immediate expensing of capital outlays (on plant, equipment, structures, inventories, etc.), and ending the estate and gift taxes. Until we achieve a saving-consumption neutral tax system, it would be sensible to adjust asset prices and capital consumption (depreciation) allowances for inflation.