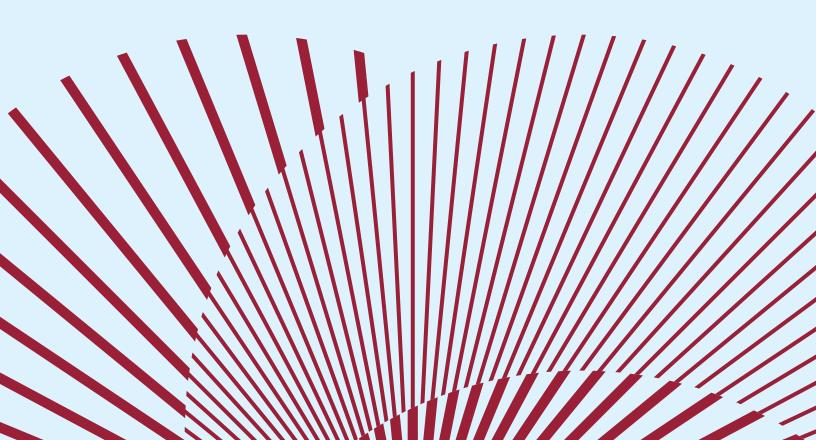
Capital Gains:

Economic Impacts of the Biden Administration's Proposed Changes to the Taxation of Long-Term Capital Gains

Winter 2022



This report was prepared jointly by the U.S. Chamber of Commerce and Ernst & Young LLP (EY).



Executive Summary

Capital gains and other forms of capital income represent the reward for placing investment capital at risk. Investment capital such as capital gains is a critical element as businesses seek to form and expand operations.

A capital gain is a measure of the rise in an asset's value over time. In the usual case, a capital gain is the difference between the amount received when an asset is sold and the asset's basis, which is the asset's cost or purchase price plus allowable adjustments such as depreciation and the value of improvements. Businesses and individuals may both be subject to taxes on their capital gains. Typically, capital gains are taxed only when an asset is sold.

The United States currently has one of the highest long-term capital gains tax rates, at 29.7%, ninth among the 38 Organisation for Economic and Co-operation and Development (OECD) countries and Brazil, Russia, India, and China (collectively referred to as BRIC countries). The U.S. capital gains rate is comprised of several elements, including the long-term federal statutory capital gains tax rate, net investment income tax, and state-level capital gains taxes. Short-term gains are generally taxed as ordinary income. Under current law, when a business owner dies, the assets are transferred to heirs untaxed and the basis for future capital gains on such assets is increased or "stepped up" to the present fair market value without payment of capital gains taxes.

Top statutory capital gains tax rate = 20%

Net investment income tax = 3.8%

Weighted average state tax rate = 5.9%

Step-up of basis for inherited assets = 0%

Total capital gains rate = 29.7%



There are, however, policymakers who support raising the capital gains tax rate despite the U.S. having one of the highest rates in the world. In particular, the Biden administration's Fiscal Year (FY) 2022 Budget includes three provisions that would drastically increase long-term capital gains rates in the United States. Those three policy proposals would

- tax long-term capital gains as ordinary income for taxpayers with incomes over \$1 million,
- 2. increase the top ordinary income tax rate from 37% to 39.6% (on long-term capital gains), and
- **3.** repeal the step-up of basis and tax capital gains at death.

In the case of capital gains accruing on corporate equities, the tax impact of capital gains should account for the double taxation of corporate income. The integrated capital gains tax rate reflects both the corporate income tax on corporate earnings and capital gains taxes (and dividend taxes) imposed on shareholders. The FY 2022 Budget would also increase the corporate tax rate from 21% to 28%, which impacts the taxation of corporate earnings that ultimately are taxed as capital gains.

This report compares the top longterm capital gains tax rates in the U.S. with those of the OECD and BRIC countries based on both current rates and under a scenario where the U.S. adopts the proposals in the Biden administration's FY 2022 Budget. This report also estimates the macroeconomic impacts of the capital gains proposals on key areas of the U.S. economy.

While proponents of capital gains tax rate increases contend that only a few Americans would pay or remit the higher taxes, in actuality, many Americans and businesses would feel the effects through the taxes' impacts on jobs, wages, and gross domestic product (GDP). Existing taxes on capital gains discourage domestic savings. The increase in capital gains taxes proposed in the FY 2022 Budget would leave the U.S. with the highest top capital gains tax rate among OECD and BRIC countries and a top tax rate that is 30.6 percentage points (two and half times) the average, further discouraging domestic saving and the potential for investment in American businesses.



i. The macroeconomic model and the modeling approach are described in more detail in Appendices A and B.

Key findings

Existing rates on capital gains discourage domestic savings. If enacted, the proposals in the Biden administration's FY 2022 Budget increasing capital gains taxes would reduce jobs, wages, and U.S. GDP relative to current law.

Comparison of rates

- Current U.S. capital gains rates are already higher than average.
 The U.S. has a top capital gains rate of 29.7%. This is the ninth highest among the OECD and BRIC countries and 9.5 percentage points higher than the GDP-weighted average of 20.2% among these countries.
 - » The U.S. also compares unfavorably when accounting for the double taxation of corporate income—first occurring at the corporate level and then at the shareholder level. After incorporating double taxation, the U.S. has the seventh highest top capital gains rate among the OECD and BRIC countries. The U.S. has a top integrated capital gains rate, which includes the top federal and state corporate income tax rates, of 47.8%. The U.S. integrated rate is 6 percentage points higher than the GDP-weighted average of 41.8% among the OECD and BRIC countries.
- The U.S. will have the highest top capital gains tax rate if it adopts the Biden administration's FY 2022 Budget proposals. The changes proposed in the Biden administration's FY 2022 Budget would increase the top capital gains tax rate to 50.8%, leaving the U.S. with the highest top capital gains tax rate among the OECD and BRIC countries and 30.6 percentage points above the average among these countries.
 - » The proposed rate increases under the FY 2022 Budget would increase the top integrated capital gains tax rate to 66.9%, leaving the U.S. with the highest top integrated capital gains tax rate among OECD and BRIC countries and 25.1 percentage points above the GDP-weighted average among these countries.

Impacts of higher capital gains tax rates on the U.S. economy

Higher capital income taxes deter savings and investment because those taxes make capital investments less profitable. Individuals and businesses small and large will invest less in capital if the returns are taxed at a higher rate. As a result of less investment, over time there would be a reduction in the amount of capital stock available in the economy, and entrepreneurs would have fewer funds to launch their businesses and grow or to hire workers. Even for established businesses, a reduction in the capital stock would reduce the productivity of their operations and workers, leading to a lower supply of goods and services, as well as reduced wages. Ultimately, less capital investment in the U.S. would reduce the productive capacity of the U.S. economy, job creation, and economic growth—all of which mean lower standards of living than would occur otherwise. Higher capital gains taxes would have similar adverse effects by reducing the after-tax reward to savings.

Implementing the proposals in the Biden administration's FY 2022 Budget would result in a variety of negative consequences:

• Fewer jobs for Americans. This report estimates that the total hours worked in the U.S. economy would decrease by 0.8% in the first 10 years and 0.05% in the long run relative to current law. In 2022, this would translate into 215,000

- fewer full-time-equivalent jobs and approximately \$20 billion in lost wages relative to current law. Additionally, the after-tax wage in the U.S. economy would decrease by 0.06% in the first 10 years and 0.16% in the long run (i.e., beyond 10 years) relative to current law.
- **Lost wages for American workers** outweigh revenue gained. The analysis indicates that the reduction in wages is roughly 2.7 times larger than the revenue the U.S. government would raise by increasing the top statutory capital gains tax rate to 39.6% and repealing the step-up of basis and taxing capital gains at death. The analysis estimates the lost wages from these policies would be approximately \$310 billion by 10 years, while only raising \$115 billion in revenue. This means that for each \$1 billion in federal revenue raised, wages would be over \$2.7 billion lower in the long run.
- Reduction in the size of the U.S. economy. This report estimates that in the first 10 years of the proposed policies, GDP would be 0.11% lower relative to current law. In 2022, this would mean \$30 billion less in GDP, or \$175 less per U.S. household per year, relative to current law. In the long run, GDP losses would expand to 0.15% lower relative to current law. In 2022 dollars, this would be \$35 billion less in GDP or \$225 less per U.S. household.



ii. The large ratio of the reduction in wages per dollar of revenue likely reflects the significant behavior associated with taxing capital gains at ordinary tax rates embedded in the official estimates from the U.S. Department of the Treasury for the FY 2022 Budget.

- Reduction in U.S. investment. In the first 10 years of the policies, this report estimates that investment would be 0.58% lower relative to current law. In 2022, this would mean approximately \$25 billion less investment in machines, equipment, and supplies. In the long run, investment would be 0.29% lower and the capital stock would be 0.28% lower relative to current law.
- U.S. investors may look for opportunities in other jurisdictions.
 Because higher U.S. capital gains taxes reduce the returns to domestic savings, investors may seek more attractive returns in other countries.
- Inefficient allocation of capital assets due to lock-in effect. Higher capital gains tax rates also create a tax incentive for taxpayers to hold

- capital assets longer. Longer holding periods for their investments means that capital gains assets will be less efficiently allocated throughout the economy because of their tax treatment. The longer holding periods are sometimes referred to as the lockin effect and reflect the interference of taxes with the redeployment of assets to their best and highest use.
- Repeal of step-up of basis would harm U.S. businesses and future investment. The FY 2022 Budget would repeal step-up of basis so that capital gains taxes are triggered upon death. U.S. businesses, including small, family-owned businesses, would be hit with damaging tax bills instead of being able to reinvest in their business and workers.

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Introduction

Capital gains and other forms of capital income represent the rewards for placing investment capital at risk. Investment capital such as capital gains is a critical element as businesses seek to form and expand operations.

There are policymakers, however, who support raising the capital gains tax rate despite the U.S. having one of the highest rates in the world. While proponents of capital gains tax rate increases contend that only a few Americans will pay the higher taxes, many Americans and businesses would feel the effects through the taxes' impacts on jobs, wages, and gross domestic product (GDP). Higher capital income taxes would deter savings and investment in the U.S. and reduce the capital stock. Ultimately, less capital investment in the U.S. would reduce the productive capacity of the U.S. economy, job creation, and economic growth all of which means lower standards of living than would otherwise occur. Higher capital gains taxes would have similar adverse effects by reducing the after-tax reward to savings.

Existing rates on capital gains discourage domestic savings. This report compares the top long-term capital gains and long-

term integrated tax rates in the U.S. with those among Organisation for Economic and Co-operation and Development (OECD) countries and Brazil, Russia, India, and China (BRIC countries). In particular, the analysis compares capital gains rates today against those in place in 2000, showing that U.S. capital gains rates have increased.

The report also considers how the top U.S. long-term capital gains tax rate further increases under the Biden administration's Fiscal Year (FY) 2022 Budget and estimates the macroeconomic impacts of the proposed changes to the taxation of long-term capital gains included in President Biden's FY 2022 Budget. This report evaluates three specific components of the proposal in estimating the macroeconomic impacts:

- taxing long-term capital gains as ordinary income for joint taxpayers with incomes over \$1 million,
- 2. increasing the top ordinary income tax rate from 37% to 39.6% (on long-term capital gains), and
- repealing step-up of basis and taxing capital gains at death.

Taxing capital gains

A capital gain is a measure of an asset's appreciation in value above the asset's cost or basis. In the U.S. and most countries, capital gains are generally taxed upon sale of an asset on the difference between its sales price and its cost or basis—referred to as the realization-based system of taxing capital gains. Adjustments to basis are generally allowed for depreciation and the value of improvements. Businesses and individuals may both be subject to taxes on their capital gains. Typically, capital gains are taxed only when an asset is sold.

Currently, at the federal level, long-term capital gains are taxed at a top statutory tax rate of 23.8%, comprising a top 20% tax rate under the federal income tax and the 3.8% Medicare net investment income tax. Capital gains may also be subject to taxation at the state level.¹

Rather than being taxed at the ordinary income rate, currently 37%, the lower tax rates on capital gains (combined with lower tax rates on dividends) are intended, in part, to lessen the impact of the double tax on corporate profits,

which arises from subjecting corporate income to tax at both the corporate and shareholder levels. The double tax on corporate profits is of concern because it distorts a number of economic decisions. It discourages capital investment, particularly in the corporate sector, leading to both a reduction in capital formation generally and the misallocation of capital within the economy.

Another aspect of capital gains taxation is how assets are treated when the owner of the assets dies. A longstanding provision of the Internal Revenue Code, in place since the Revenue Act of 1921, allows for the transfer of assets at death to an heir to occur without triggering a capital gains tax (instead of requiring realization of the capital gains tax upon death). Further, the heir is allowed to increase to fair market value his or her basis in the bequeathed assets for purposes of future capital gains payments. As a result, the heir would be taxed on the sales price of the assets less its value at the time that the stepped-up basis was realized. This tax treatment of capital gains is often referred to as the step-up of basis at death.2



^{1.} The 3.8% tax on investment earnings applies to taxpayers with modified adjustable gross income over \$200,000 who file individually or \$250,000 for married couples filing jointly.

^{2.} In this report, in most instances "step-up of basis" means "tax-free step-up of basis."

President Biden's budget

The Biden administration's FY 2022
Budget proposes significant changes to the taxation of capital gains.
First, it would require that long-term capital gains (and qualified dividends) for taxpayers with adjusted gross income exceeding \$1 million be taxed at ordinary income tax rates.

Second, with regard to ordinary rates, the FY 2022 Budget also proposes increasing the top individual income tax rate from 37% to 39.6%. The Tax Cut and Jobs Act of 2017 lowered the top rate from 39.6% to 37%, but only through 2026. However, the FY 2022 Budget would increase the top rate to 39.6% in 2022. Including the 3.8% net investment income tax under current law, these proposed changes would increase the top long-term capital gains tax rate to 43.4%.

Third, the FY 2022 Budget would also repeal the step-up of basis and tax capital gains at death. Under current law, there would be no tax on the appreciation that

accrued during the owner's lifetime. The proposal would instead treat the event as a realized capital gain from the original basis. For example, if a business was originally purchased for \$1 million and valued at \$5 million at the time of the founder's death, the heirs would be taxed on the \$4 million gain under the proposal. This tax would be imposed regardless of whether the heirs sell the business. This analysis estimates that these changes would raise \$113 billion in revenues over the next 10 years.³

The FY 2022 Budget also proposes to increase the top federal corporate income tax rate to 28% starting in 2022. This is a substantial increase from the current corporate income tax rate of 21% that was enacted in 2017 under the Tax Cuts and Jobs Act. The U.S. Treasury Department estimates this change would raise nearly \$858 billion over the next 10 years.⁴



^{3.} This analysis allocates the official revenue estimates for the FY 2022 Budget as reported by the U.S. Department of the Treasury, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021, using information on the decomposition by provision from the Penn Wharton Budget Model, "Revenue Effects of President Biden's Capital Gains Tax Increase," April 23, 2021, available at https://budgetmodel.wharton.upenn.edu/issues/2021/4/23/revenue-effects-of-president-bidens-capital-gains-tax-increase.

^{4.} U.S. Department of the Treasury, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021, available at https://home.treasury.gov/system/files/131/General-Explanations-FY2022.pdf.

International Comparison of Capital Gains Taxes

This section compares top long-term capital gains and integrated capital gains tax rates among OECD and BRIC countries in 2021 and since 2000.⁵

Top U.S. long-term capital gains tax rate

As shown in Table 1, under current law, the United States has a top long-term capital gains rate of 29.7%. This rate includes the current top federal long-term capital gains tax rate of 20%, the net investment tax of 3.8%, and a weighted average of states' top long-term capital gains tax rates. As Figure 1 shows, the U.S. long-term capital gains tax rate is one of the highest among OECD and BRIC countries.

Table 1. Top U.S. long-term capital gains tax rate under current law and the Biden administration's FY 2022 Budget

	2021
Current Law	
Top statutory long-term capital gains rate	20.0%
Net investment income tax	3.8%
Weighted average state tax rate	5.9%
Top capital gains rate	29.7%
Biden administration FY 2022 Budget	
Long-term capital gains taxed as ordinary income for taxpayers with incomes over \$1 million	39.6%
Net investment income tax	3.8%
Income tax equivalent of repeal of step- up of basis via tax at death	1.5%
Weighted average state tax rate	5.9%
Proposed top capital gains rate	50.8%

Source: EY analysis.

Note: The income tax equivalent is estimated using Social Security data on life expectancy, annual stock market returns during holding periods, asset data, and estate tax deductions.



^{5.} The top capital gains tax rate data is from the *EY Personal Income Tax and Immigration Guides* with information on subnational tax capital gains tax rates added in where applicable. For the top corporate income tax rates, the report uses data from the OECD and the *EY Worldwide Tax Guide*, available at https://www.ey.com/en_gl/tax-guides/world-wide-personal-tax-and-immigration-guide. The average state capital gains tax rate in the United States is based on the top long-term capital gains tax rate in each state weighted by state gross domestic product.

Under the Biden administration's FY 2022 Budget, the U.S. top long-term capital gains rate would increase to 50.8%. The largest increase in the U.S. long-term capital gains rate under the FY 2022 Budget comes from taxing long-term capital gains at ordinary tax rates (39.6%) rather than the current 20% capital gains tax rate. This change contributes 19.6 percentage points to the increase.

The total proposed top capital gains rate of 50.8% includes an estimate of the income tax equivalent rate for the repeal of step-up of basis and taxing capital gains at death, which this analysis report estimates would increase the long-term capital gains by approximately 1.5%.

U.S. long-term capital gains tax rate compared with OECD and BRIC countries

Existing rates on capital gains discourage domestic savings. If enacted, the proposals in the Biden administration's FY 2022 Budget increasing capital gains taxes would leave the U.S. with the highest long-term capital gains tax rate among OECD and BRIC countries. Because higher U.S. capital gains taxes will raise the cost of investment capital, investors could seek more attractive returns in other countries.

As shown in Figure 1, the current top U.S. long-term capital gains rate is the ninth highest among OECD and BRIC countries and 9.5 percentage points above the GDP-weighted average of

20.2% for OECD and BRIC countries. Currently, Denmark has the highest top capital gains rate of 42%. Other than Denmark, only seven other countries levy capital gains taxes at rates exceeding the U.S.—Chile, Finland, France, Ireland, Norway, the Netherlands, and Sweden.

Under the Biden administration's FY 2022 Budget, the top U.S. long-term capital gains tax rate of 50.8% would be the highest among OECD and BRIC countries. It would exceed the top rate in Denmark, the second highest, by 8.8 percentage points and the GDP weighted average among OECD and BRIC countries by 30.6 percentage points.



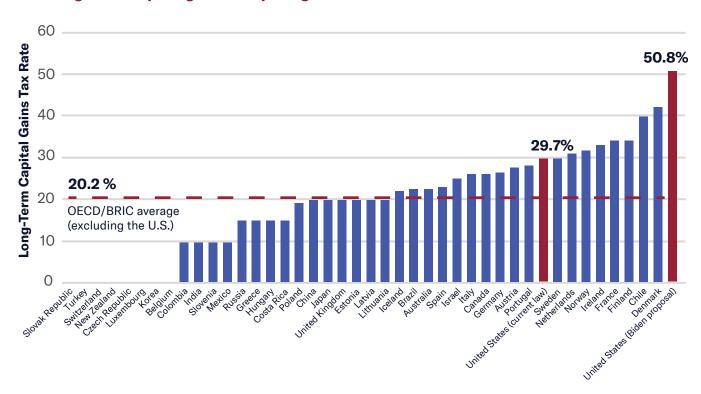


Figure 1. Top long-term capital gains tax rates for OECD and BRIC countries

Note: Weighted average based on each country's GDP (excluding the United States). Capital gains tax rates include taxes imposed by both central and subnational governments. The Biden proposal includes the tax on capital gains at ordinary income rates with a top rate of 39.6%, the 3.8% net investment tax, and an income tax equivalent tax rate for step-up of basis and taxing capital gains at death.

Source: OECD, EY Worldwide Personal Tax and Immigration Guide 2020-21, state tax forms, and EY analysis.

U.S. integrated long-term capital gains tax rates compared with OECD and BRIC countries

The U.S. also compares unfavorably when accounting for the double taxation of corporate income—first occurring at the corporate level and then at the shareholder level.

The rates displayed above in Table 1 and Figure 1 account only for individual-level taxation and do not account for taxes at the corporate level, which the Biden administration's FY 2022 Budget proposes to increase from 21% to 28%. Corporate earnings that are retained will eventually be realized as capital gains at the shareholder level upon sale or disposition. These two layers of tax applied to corporate earnings—the

corporate income tax and capital gains (or dividend) taxes—are reflected in the integrated capital gains tax rate.⁶

As shown in Figure 2, the U.S.—at 47.8%—currently has the seventh highest top integrated long-term capital gains tax rate among OECD and BRIC countries. This is 6 percentage points above the 41.8% top GDP-weighted average integrated capital gains tax rate among OECD and BRIC countries. Denmark has the highest integrated top long-term capital gains tax rate of 54.8% and the Czech Republic has the lowest integrated top long-term capital gains tax rate of 19%.



^{6.} Alternatively, a company may choose to distribute corporate earnings to shareholders as dividends.

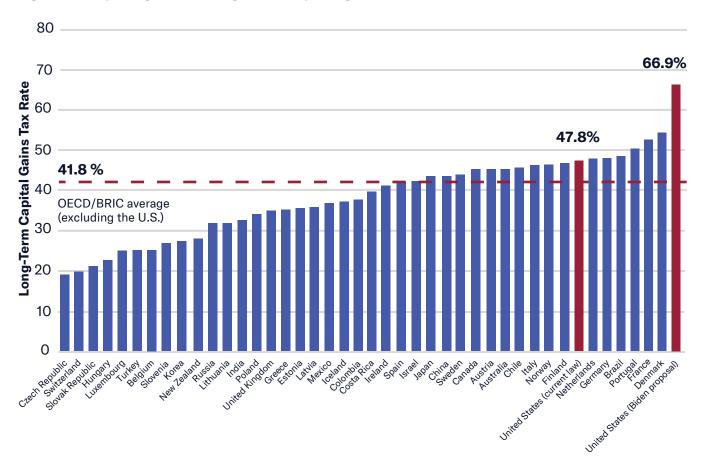


Figure 2. Top long-term integrated capital gains tax rates for OECD and BRIC countries

Note: Weighted average based on each country's GDP (excluding the United States). Rates include taxes imposed by both central and subnational governments. The integrated rates reflect the taxation of corporate profits and the top capital gains tax rate when shareholders sell their shares. The Biden proposal includes a top corporate income tax rate of 28%, a tax on capital gains at ordinary income rates with a top rate of 39.6% plus the 3.8% net investment tax, and an income tax equivalent tax rate for step-up of basis and taxing capital gains at death.

Source: OECD, EY Worldwide Personal Tax and Immigration Guide 2020-21, state tax forms, and EY analysis.

The Biden administration's FY 2022
Budget would increase the top U.S.
integrated long-term capital gains rate
by over 19 percentage points to 66.9%. As
shown in Table 2 below, the significant
majority of this increase comes from
both taxing long-term capital gains
at ordinary rates and increasing the
corporate income tax rate. The 66.9% top
integrated long-term capital gains tax

rate under the FY 2022 Budget would be the highest among OECD and BRIC countries and 25.1 percentage points higher than the GDP-weighted average.

The rules governing capital gains, such as holding periods, special rates, and other special rules for particular assets, vary widely among countries. A summary of these rules is provided in Appendix C.

Table 2. Top U.S. long-term integrated capital gains tax rate under current law and the Biden administration's FY 2022 Budget

	Current Law	Biden administration's FY 2022 Budget proposal
Pre-tax corporate earnings	\$100.00	\$100.00
Corporate income tax		
Corporate income tax rate (federal and state)	25.8%	32.8%
Corporate income taxes paid	\$25.76	\$32.76
After-tax corporate earnings	\$74.24	\$67.24
Individual income taxes		
Top federal capital gains tax rate	20.0%	39.6%
Net investment income tax	3.8%	3.8%
Income tax equivalent of repeal of step-up of basis via tax at death		1.5%
Weighted average state tax rate	5.9%	5.9%
Federal individual income taxes paid	\$17.67	\$30.19
State individual income taxes paid	\$4.38	\$3.97
Total individual taxes paid	\$22.05	\$34.16
Total after-tax income	\$52.19	\$33.08
Top integrated capital gains tax rate	47.8%	66.9%

Note: Table values may not sum due to rounding. The analysis assumes after-tax corporate earnings are either retained or used to buy back shares of stock, which would create a capital gain for the shareholder upon sale. The above table does not account for dividend taxation, which is an alternative way to distribute corporate earnings. The income tax equivalent is estimated using Social Security data on life expectancy, annual stock market returns during holding periods, asset data, and estate tax deductions.

Source: EY analysis.



International comparison of capital gains tax rates in 2021 and 2000

Long-term capital gains tax rates

Between 2000 and 2021, U.S. long-term capital gains tax rates have increased, and fewer countries now stand between the U.S. and the country with the highest long-term capital gains rate. Data is displayed in Table 3.

2000 highlights

- The U.S. had a top long-term capital gains rate of 25%.
- The U.S. tax rate was approximately 6 percentage points higher than the GDP-weighted average of OECD and BRIC countries of 18.9%.
- The U.S. had the 17th highest top long-term capital gains tax rate among OECD and BRIC countries.
- Israel and Slovenia had the highest rates in 2000, at 50%.
- Fourteen countries did not have a tax on long-term capital gains.

Changes between 2000 and 2021

- The U.S. top long-term capital gains tax rate increased 4.7 percentage points.
- Nineteen countries in the OECD and BRIC increased their longterm capital gains tax rate, while 14 countries lowered their tax rate.
- Only eight countries had the same rate in 2000 and 2021.
- Six fewer countries did not tax long-term capital gains.
- The GDP-weighted average of developed nations increased by 1.3 percentage points to 20.2%.



^{7.} The top tax rates include contemporary subnational rates where appropriate and data is available.

Long-term integrated capital gains tax rates

Between 2000 and 2021, U.S. long-term integrated capital gains tax rates have decreased. As shown in Table 3, 41 of the 42 nations lowered their corporate income tax rates between 2000 and 2021. The decline in corporate income tax rates contributed to the significant number of countries with a lower integrated tax rate and the decline in integrated capital gains tax rates.

2000 highlights

- The U.S. had a top long-term integrated capital gains rate of 54.5%.
- The U.S. tax rate was approximately
 5.8 percentage points higher than the GDP-weighted average among
 OECD and BRIC countries.
- Sixteen countries had higher top integrated capital gains rates compared with the U.S.
- Israel had the highest rate, at 68%.
- Switzerland had the lowest top integrated capital gains rate, at 24.9%.

Changes between 2000 and 2021

- The U.S. top integrated capital gains rate was 6.7% lower in 2021 than in 2000.
- Since 2000, 29 countries lowered their top integrated rate while only 13 increased their rates.
- The GDP-weighted average rate fell by 6.9 percentage points.

Table 3. Top integrated long-term capital gains tax rate by country, 2000 and 2021

Country	Top long-term capital gains tax rate (2000)	Integrated capital gains tax rate (2000)	Top long-term capital gains tax rate (2021)	Integrated capital gains tax rate (2021)
GDP-weighted Average				
OECD and BRIC (excl. U.S.)	18.9	48.7	20.2	41.8
OECD (excl. U.S.)	19.0	49.0	21.3	41.7
Unweighted Average				
OECD and BRIC (excl. U.S.)	18.5	44.6	18.8	37.7
OECD (excl. U.S.)	18.4	44.3	18.6	37.8
OECD countries				
Australia	47.0	65.0	22.5	45.8
Austria	0.0	34.0	27.5	45.6
Belgium	0.0	40.2	0.0	25.0
Canada	36.7	63.5	26.1	45.4
Chile	15.0	27.8	40.0	46.0
Colombia	35.0	57.8	10.0	37.9
Costa Rica	0.0	30.0	15.0	40.5
Czech Republic	32.0	53.1	0.0	19.0
Denmark	40.0	59.2	42.0	54.8
Estonia	26.0	45.2	20.0	36.0
Finland	28.0	48.9	34.0	47.2
France	26.0	53.9	34.0	52.7
Germany	0.0	43.3	26.4	48.4
Greece	0.0	35.0	15.0	35.4
Hungary	20.0	34.4	15.0	22.7
Iceland	38.3	56.8	22.0	37.6
Ireland	20.0	39.2	33.0	41.4
Israel	50.0	68.0	25.0	42.3
Italy	12.5	44.9	26.0	46.6
Japan	26.0	56.2	20.0	43.8
Korea	20.0	44.6	0.0	27.5
Latvia	0.0	25.0	20.0	36.0
Lithuania	15.0	35.4	20.0	32.0
Luxembourg	0.0	37.5	0.0	24.9
Mexico	0.0	35.0	10.0	37.0
Netherlands	0.0	35.0	31.0	48.3
New Zealand	0.0	33.0	0.0	28.0

Country	Top long-term capital gains tax rate (2000)	Integrated capital gains tax rate (2000)	Top long-term capital gains tax rate (2021)	Integrated capital gains tax rate (2021)
Norway	28.0	48.2	31.7	46.7
Poland	0.0	30.0	19.0	34.4
Portugal	0.0	35.2	28.0	50.7
Slovak Republic	42.0	58.8	0.0	21.0
Slovenia	50.0	62.5	10.0	27.1
Spain	20.0	48.0	23.0	42.3
Sweden	30.0	49.6	30.0	44.4
Switzerland	0.0	24.9	0.0	19.7
Turkey	0.0	33.0	0.0	25.0
United Kingdom	24.0	46.8	20.0	35.2
United States (current law)	25.0	54.5	29.7	47.8
United States (Biden proposal)	N/A	N/A	50.8	66.9
BRIC countries				
Brazil	15.0	46.5	22.5	48.9
Russia	30.0	51.0	15.0	32.0
India	10.0	44.7	10.0	32.7
China	20.0	46.4	20.0	44.0

Note: Weighted average based on each country's GDP (excluding the United States). Rates include taxes imposed by both central and subnational governments. The Biden proposal includes a top corporate income tax rate of 28%, a tax on capital gains at ordinary income rates with a top rate of 39.6%, the 3.8% net investment tax, and an income tax equivalent tax rate for repeal of step-up of basis and taxing capital gains at death.

Source: EY, Worldwide Personal Tax and Immigration Guide 2020-21, and EY analysis.



Higher capital gains taxes adversely impact economic incentives

As this report shows, the U.S. currently has one of the highest long-term capital gains tax rates, at 29.7%, ninth among the OECD and BRIC countries. After incorporating double taxation of corporate income, the U.S. has the seventh highest top capital gains rate among the OECD and BRIC countries, at 47.8%, and its integrated rate is 6 percentage points higher than the GDP-weighted average of 41.8%. Further, in comparing U.S. capital gains rates between 2000 and 2021, the analysis shows that U.S. capital gains rates have been increasing.

The U.S. will have the highest top capital gains tax rate if it adopts the Biden administration's FY 2022 Budget proposals. The changes proposed by the Biden administration's FY 2022 Budget would increase the top capital gains tax rate to 50.8%, leaving the U.S. with the highest top capital gains tax rate among the OECD and BRIC countries and 30.6 percentage points above the average among these countries. After incorporating double taxation of corporate income, the proposed rate increases under the FY 2022 Budget would increase the top integrated capital gains tax rate to 66.9%, leaving the U.S. with the highest top integrated capital gains tax rate among OECD and BRIC countries and 25.1 percentage points above the GDPweighted average among these countries.

If policymakers were to implement the proposals in the Biden administration's FY 2022 Budget, the higher capital gains tax rate could discourage domestic

savings, which helps support investment in U.S. businesses and jobs. Higher capital income taxes deter savings and investment because those taxes make capital investments less profitable. Individuals and businesses will invest less in capital if the returns are taxed at a higher rate. As a result of less investment, over time there would be a reduction in the amount of capital stock available in the economy, and entrepreneurs would have fewer funds to launch their businesses and grow or to hire workers. Even for established businesses, a reduction in the capital stock would reduce the productivity of their operations and workers, leading to a lower supply of goods and services and reduced wages. Ultimately, less capital investment in the U.S. would reduce the productive capacity of the U.S. economy, job creation, and economic growth—all of which mean lower standards of living than would occur otherwise. Higher capital gains taxes would have similar adverse effects by reducing the after-tax reward to savings.

In addition to the general economic cause and effect explained above, there are three specific points from adopting the Biden administration's FY 2022 Budget worth highlighting.

Reduction to domestic savings. As noted above, the tax changes in the Biden administration's FY 2022 Budget would leave the U.S. with the highest top capital gains tax rate and integrated capital gains tax rate among the OECD and BRIC nations. The top capital gains tax rate of

50.8% would mean that for every \$100 of appreciation, domestic savers would only receive just over \$49 after taxes. This is almost 30% lower than what savers would receive after taxes under current law. Because of this reduction to domestic saving, U.S. investors may seek more attractive returns in other countries.

Inefficient allocation of capital assets due to lock-in effect. As noted above, higher capital gains tax rates combined with the realization-based system for taxing capital gains creates a tax incentive for taxpayers to hold capital assets longer. Longer holding periods for their investments means that capital gains assets will generally be less efficiently allocated throughout the economy because of their tax treatment. The longer holding periods are sometimes referred to as the lockin effect and reflect the interference of taxes with the redeployment of assets to their best and highest use.8

Decrease in future investment due to repeal of step-up of basis. Further, the elimination of step-up of basis and immediate realization of capital gains upon death could present a significant tax increase for U.S. businesses. For example, many family-owned businesses, such as farms, have value tied up in illiquid land, structures, and equipment that may need to be liquidated, or leveraged to finance loans, to pay for the new tax burden at death. This is because the size of this one-time capital gains tax can be much larger than the annual income of the business, necessitating liquidation of key assets or taking on significant new debt—limiting the business's viability as an ongoing concern.9 These changes could affect the decisions of businesses with aging owners and how they choose to invest, expand, or hire going forward.



^{8.} While the realization-based system for taxing capital gains combined with higher tax rates on capital gains encourages longer holding periods, the provision allowing the step-up of basis at death also works to lengthen holding periods.

^{9.} EY Report, "Repealing Step-Up of Basis on Inherited Assets: Macroeconomic Impacts and Effects on Illustrative Family Businesses," April 2021, available at https://www.fb.org/files/FBETC Stepped-Up Basis Report 2021.

Estimates of the Macroeconomic Impacts of Higher Taxes on Long-Term Capital Gains

The top long-term capital gains tax rate also has significant implications for the U.S. economy, affecting the decisions of both households and businesses through changes in the after-tax return to investment and after-tax reward to work. The increase in the cost of capital is the primary way in which the higher taxes on capital gains proposed in the Biden administration's FY 2022 Budget would affect the broader U.S. economy.

Higher cost of capital means less investment

A higher cost of capital deters investment—it not only impacts the investment decisions of wholly domestic firms, but it also impacts the attractiveness of the United States as a place to invest. With less investment, the higher capital gains taxes reduce the capital stock, which means less capital is available to workers. The less productive capital stock translates into lower labor productivity and real wages. Ultimately, higher capital gains taxes would reduce output and living standards compared with what otherwise would occur.

This report translates the cost of capital impacts into the marginal effective tax rate (METR) on new investment, a measure frequently used to evaluate the impact of policy changes on the

incentive to invest. A higher METR implies less investment. This analysis finds that the higher capital gains taxes proposed in the Biden administration's FY 2022 Budget would increase the METR for new business investment by 0.8 percentage points (from 7.6% to 8.4%) in 2021 and by 0.7 percentage points (from 17.5% to 18.2%) in the longer term after 100% expensing enacted under the Tax Cuts and Jobs Act is fully phased out. A more complete discussion of the cost of capital/METR estimates is provided in Appendix B.

While the increase in the cost of capital is the major input that drives the estimated macroeconomic impacts presented below, the higher capital gains tax rates also affect portfolios and the holding periods



for capital gains assets. Holding periods are important because shorter holding periods translate into a more agile capital stock that is more easily redeployed as economic circumstances change. Having capital assets, in effect, locked up in

specific uses because of a higher capital gains tax means they will not necessarily be put to their best and highest use—whether it be for plant, equipment, land, or labor—thereby reducing the efficiency of the capital stock.¹⁰

Macroeconomic estimates of higher capital gains taxes

This report estimates the macroeconomic impacts of taxing long-term capital gains as ordinary income for taxpayers with incomes over \$1 million, increasing the top ordinary income tax rate from 37% to 39.6% (on long-term capital gains), and repealing the step-up of basis and taxing capital gains at death. The analysis below reflects on (1) economy-wide impacts (2) industry-level economic impacts and (3) state-level economic impacts.

Economy-wide impacts

A significant portion of the burden of a higher top capital gains tax rate would fall on workers through reduced wages and employment. The reductions in

investment and capital stock contribute to lower productivity, wages, and job equivalents. Estimated macroeconomic impacts from the proposed increase in capital gains taxes are shown in Table 4.

Reduced hours worked. The analysis estimates that hours worked would decline on average 0.08% in the first 10 years and 0.05% in the long run relative to the level that would have occurred under current law. This is primarily a result of the decline in the after-tax wage rate, which is estimated to decline on average 0.06% over the first 10 years and 0.16% in the long run relative to what would have occurred under current law.



^{10.} Part of the sensitivity that capital gains exhibit to taxes comes from the "lock-in" effect on investment that capital gains taxes combined with the realization-based system can cause. Capital gains taxes are realized only upon the sale of an asset, and instead of selling the asset, owners can choose to hold the asset if the tax exceeds the cost of inflation. This locks in investment and capital that could be better deployed throughout the economy in more productive assets (or ways).

^{11.} The macroeconomic model and the modeling approach are described in more detail in Appendices A and B. Estimates are relative to the size of the U.S. economy in 2022.

Table 4. Estimated macroeconomic impacts from proposed increases in capital gains taxes

	First 10 years	Long run		
GDP	-0.11%	-0.15%		
After-tax wage rate	-0.06%	-0.16%		
Hours worked	-0.08%	-0.05%		
Job equivalents	-0.14%	-0.20%		
Investment	-0.58%	-0.29%		
Capital stock	-0.12%	-0.28%		
Annual impacts relative to 2022 U.S. economy				
GDP (\$ bil)	-30	-35		
GDP per household (\$)	-175	-225		
Job equivalents (thousands)	-215	-320		

Note: Estimates reflect impacts from taxing long-term capital gains as ordinary income, increasing the top ordinary income tax rate for taxpayers with incomes of more than \$1 million (on long-term capital gains), and repeal of step-up of basis and taxing gains at death. Job-equivalent impacts are defined as the change in labor income divided by baseline average income per job. Estimated impacts are relative to the 2022 U.S. economy. Long run denotes when the economy has fully adjusted to policy change; generally, two-thirds to three-quarters of this adjustment occurs within 10 years. Source: EY analysis.

Decline in job equivalents. The labor market impacts—a decline in hours worked plus a decline in the aftertax wage rate—are summarized in the estimate of the decrease in job equivalents. This measure represents the equivalent change in jobs, holding the average wage rate relative to current law constant. When scaled to the 2022 U.S. economy, job equivalents are estimated to decline by 215,000 jobs (0.14%) in each of the first 10 years and 320,000 jobs (0.20%) in the long run relative to current law. In 2022, the reduced number of jobs would lead to approximately \$20 billion in lost wages.

Lost wages outweigh revenue gained.

Another way to quantify the labor impact of these tax increases is to compare the reduction in wages against the tax revenue raised from the higher capital gains taxes—that is, the wages lost per dollar of revenue raised. Over 10 years, the reduction in wages would be approximately \$310 billion. The tax increases are estimated to generate \$113 billion in revenue over the budget window. The ratio of total wages lost in the long run to the revenue raised is approximately 2.7. This means that,



^{12.} Revenue estimate from Penn Wharton Budget Model, "Revenue Effects of President Biden's Capital Gains Tax Increase," April 23, 2021, available at https://budgetmodel.wharton.upenn.edu/issues/2021/4/23/revenue-effects-of-president-bidens-capital-gains-tax-increase.

for every \$1 billion in tax revenue raised, wages will be over \$2.7 billion lower relative to current law. 13,14

Reduction in the size of the U.S. economy. GDP is estimated to be lower in the first 10 years by 0.11%. This would be equivalent to \$30 billion less GDP in 2022. In the long run, it is estimated that U.S. GDP would be 0.15% lower relative to current law, or \$35 billion in 2022 GDP. On a per household basis, GDP would be \$175 lower in 2022 and \$225 lower in the long run.

Reduction in U.S. investment and capital stock. The estimates indicate that the higher tax rates on capital gains would have significant effects on U.S. investment and the capital stock. In the first 10 years, it is estimated that investment and the capital stock would be 0.58% and 0.12% lower, respectively, relative to current law. This would translate into approximately \$25 billion

less investment in 2022 relative to current law. In the long run, investment and the capital stock are estimated to be 0.29% and 0.28% lower, respectively.

Industry-level economic impacts

The analysis further disaggregates the GDP and full-time job equivalents estimates by industry. 15 As shown in Figure 3, increases to long-term capital gains as a result of the FY 2022 Budget proposals would have the largest negative impact on the finance, insurance, and real estate industry, with \$15.1 billion in product below baseline relative to current law in 2022. This change is approximately 0.26% lower than the current law baseline. Since finance, insurance. and real estate businesses tend to be capital intensive, changes in the capital gains tax rates will likely impact these industries significantly. The services industry would also experience a large decrease in GDP of \$7.2 billion in 2022.

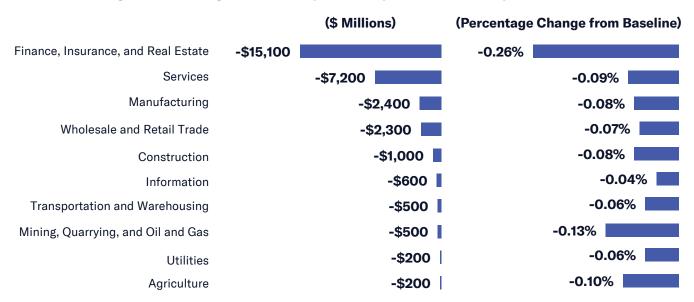


^{13.} The total wages lost estimate uses Congressional Budget Office economic projections of total employee compensation in the economy; see Congressional Budget Office, *An Update to the Budget and Economic Outlook: 2021 to 2031*, July 1, 2021, available at https://www.cbo.gov/publication/57218.

^{14.} The large ratio of the reduction in wages per dollar of revenue likely reflects the significant behavior associated with taxing capital gains at ordinary tax rates embedded in the official estimates from the U.S. Department of the Treasury for the FY 2022 Budget.

^{15.} The analysis disaggregates the results by industry by two-digit North American Industry Classification System (NAICS) codes using Internal Revenue Service Statistics of Income data and the Congressional Budget Office's July 2021 base-line economic forecasts.

Figure 3. Changes in GDP by industry in the first 10 years, 2022



Note: The dollar figures are scaled to the 2022 U.S. economy. The business sector is the combination of the corporate sector (e.g., C corporations) and the pass-through sector (e.g., S corporations, partnerships, limited liability companies, sole proprietorships); it excludes owner-occupied housing.

Source: EY analysis.

While the finance, insurance, and real estate industry has the largest absolute GDP and relative impacts, two other industry sectors also experience significant impacts: (1) mining, quarrying, and oil and gas; and (2) agriculture. The analysis indicates the mining, quarrying, and oil and gas industry would experience a \$500 million decrease in production in 2022, which represents an approximately 0.13% decrease. The agriculture industry will experience similar effects. Agriculture would produce approximately \$200 million less in 2022, a change of 0.10% less than it would produce relative to current law.

As noted in the discussion on economywide impacts, the proposed policies would lead to 215,000 fewer jobs in 2022. As shown in Table 5, more than half of these job loses would occur in the finance, insurance, and real estate sector, a change of over 1% lower relative to current law. The services industry would also experience a significant level of fulltime-equivalent job losses, at over 51,000 fewer jobs in 2022. The industry with the second largest percentage change in employment is mining, quarrying, and oil and gas, with 0.54% fewer jobs as a result of the Biden administration's FY 2022 Budget proposals on capital gains relative to current law.

Table 5. Changes in GDP and full-time-equivalent jobs by industry, 2022

Industry	Change in GDP (\$ mil)	Percentage change in GDP	Change in full-time- equivalent jobs	Percentage change in full-time- equivalent jobs
Agriculture	-230	-0.10%	-1,640	-0.18%
Mining, Quarrying, and Oil and Gas	-500	-0.13%	-3,585	-0.54%
Utilities	-240	-0.06%	-1,705	-0.30%
Construction	-955	-0.08%	-6,860	-0.09%
Manufacturing	-2,370	-0.08%	-17,005	-0.13%
Wholesale and Retail Trade	-2,305	-0.07%	-16,530	-0.07%
Transportation and Warehousing	-530	-0.06%	-3,790	-0.06%
Information	-595	-0.04%	-4,275	-0.15%
Finance, Insurance, and Real Estate	-15,050	-0.26%	-107,865	-1.17%
Services	-7,220	-0.09%	-51,750	-0.08%
Total	-30,000	-0.11%	-215,000	-0.14%

Note: Table values may not sum due to rounding.

Source: EY analysis.

State-level economic impacts

The estimates on changes in GDP and full-time job equivalents can further be disaggregated to the state level, as shown in Table 6. As some of the largest states in the U.S., it is not surprising that the largest GDP and job impacts, in absolute dollars and percentage change, occur in California, New York, and Texas. New York, specifically, would experience more GDP and job loss effects than Texas because of the effects of the proposed capital gains policy changes on the finance, insurance, and real estate sector. Further state level breakdowns in GDP and jobs can be found in Table 6.

Table 6. State-level GDP and job-equivalent estimates

State	Change in GDP (\$ mil)	Percentage change in GDP	Change in full-time- equivalent jobs	Percentage change in full-time- equivalent jobs
Alabama	-290	-0.10%	-2,690	-0.12%
Alaska	-65	-0.09%	-415	-0.13%
Arizona	-550	-0.12%	-4,580	-0.15%
Arkansas	-170	-0.10%	-1,595	-0.12%
California	-4,435	-0.11%	-25,330	-0.15%
Colorado	-560	-0.11%	-4,450	-0.15%
Connecticut	-455	-0.12%	-2,830	-0.17%
Delaware	-150	-0.15%	-770	-0.16%
District of Columbia	-150	-0.08%	-690	-0.09%
Florida	-1,640	-0.12%	-14,795	-0.16%
Georgia	-880	-0.11%	-6,510	-0.14%
Hawaii	-125	-0.10%	-825	-0.14%
Idaho	-115	-0.11%	-1,080	-0.13%
Illinois	-1,300	-0.11%	-8,565	-0.14%
Indiana	-500	-0.10%	-3,955	-0.12%
Iowa	-290	-0.12%	-2,225	-0.14%
Kansas	-235	-0.10%	-1,990	-0.14%
Kentucky	-275	-0.10%	-2,465	-0.12%
Louisiana	-325	-0.10%	-2,785	-0.14%
Maine	-95	-0.11%	-830	-0.13%
Maryland	-575	-0.11%	-3,700	-0.13%
Massachusetts	-890	-0.12%	-5,245	-0.14%
Michigan	-715	-0.10%	-6,005	-0.14%
Minnesota	-545	-0.11%	-4,030	-0.13%
Mississippi	-140	-0.09%	-1,475	-0.12%
Missouri	-450	-0.11%	-3,925	-0.13%
Montana	-75	-0.11%	-715	-0.14%
Nebraska	-190	-0.11%	-1,400	-0.13%
Nevada	-260	-0.11%	-2,055	-0.14%
New Hampshire	-125	-0.11%	-940	-0.14%
New Jersey	-895	-0.11%	-6,485	-0.15%
New Mexico	-130	-0.10%	-1,030	-0.12%
New York	-2,890	-0.13%	-15,025	-0.16%
North Carolina	-820	-0.11%	-6,230	-0.13%

State	Change in GDP (\$ mil)	Percentage change in GDP	Change in full-time- equivalent jobs	Percentage change in full-time- equivalent jobs
North Dakota	-80	-0.11%	-630	-0.14%
Ohio	-985	-0.11%	-7,320	-0.13%
Oklahoma	-245	-0.09%	-2,450	-0.14%
Oregon	-360	-0.11%	-2,580	-0.13%
Pennsylvania	-1,105	-0.11%	-8,230	-0.14%
Rhode Island	-90	-0.11%	-695	-0.14%
South Carolina	-315	-0.10%	-2,895	-0.13%
South Dakota	-85	-0.12%	-665	-0.14%
Tennessee	-500	-0.10%	-4,165	-0.13%
Texas	-2,480	-0.11%	-20,135	-0.15%
Utah	-285	-0.12%	-2,455	-0.14%
Vermont	-45	-0.10%	-400	-0.13%
Virginia	-745	-0.10%	-5,130	-0.12%
Washington	-785	-0.10%	-4,505	-0.13%
West Virginia	-100	-0.10%	-805	-0.11%
Total	-30,000	-0.11%	-215,000	-0.14%

Note: Table values may not sum due to rounding.

Source: EY analysis.



Conclusion

This report compares the top U.S. long-term capital gains tax rate against OECD and BRIC countries. The U.S. currently has a top capital gains rate of 29.7%. This is the ninth highest among the OECD and BRIC countries and 9.5 percentage points higher than the GDP-weighted average among these countries. The higher taxes on capital gains proposed by the Biden administration's FY 2022 Budget would leave the U.S. with the highest top capital gains tax rate among these countries, at 50.8%.

Currently, the U.S. has the seventh highest integrated rate, the rate that reflects both the corporate tax rate imposed on corporate earnings at the corporate level and investor level taxes on capital gains (and company dividends), among the OECD and BRIC countries, at 47.8%. The Biden administration's FY 2022 Budget would increase the top integrated capital gains tax rate to 66.9% and leave the U.S. with the highest top integrated capital gains tax rate among OECD and BRIC countries.

This report further estimates the macroeconomic impacts of three proposals included in the Biden administration's FY 2022 Budget that increase capital gains taxes: (1) taxing long-term capital gains as ordinary income for taxpayers with incomes over \$1 million, (2) increasing the top

ordinary income tax rate from 37% to 39.6% (on long-term capital gains), and (3) repealing the step-up of basis and taxing capital gains at death. This report estimates that the changes would translate into 215,000 fewer full-timeequivalent jobs and approximately \$20 billion in lost wages in 2022 relative to current law. It also estimates that wages would be \$310 billion lower in 10 years and after-tax wages would be 0.16% lower in the long run. The analysis also estimates that the proposed changes would reduce 2022 GDP by \$30 billion or \$175 less per household. In the first 10 years of the policies, it is estimated that investment would be 0.58% lower relative to current law. In 2022, this would mean approximately \$25 billion less investment in machines, equipment, and supplies.

Higher capital gains taxes increase the cost of capital and deter investment and, over time, can be expected to reduce the capital stock. A reduction in the capital stock means that workers would have less capital to work with, which would reduce their productivity and real wages. Ultimately, the reduction in the productive capacity of the U.S. economy would result in less output and lower standards of living for Americans.

Appendix A: Caveats and Limitations

Analysis of the capital gains rates was conducted by EY. Any modeling effort is only an approximate depiction of the economic forces it seeks to represent, and the economic model developed for this analysis is no exception. Although various limitations and caveats might be listed, several are particularly noteworthy.

Macroeconomic modeling

- Estimated macroeconomic impacts are limited by calibration. This model is calibrated to represent the U.S. economy and then forecast forward. However, because any particular year may reflect unique events and also may not represent the economy in the future, no particular baseline year is completely generalizable.
- Estimates are limited by available public information. The analysis relies on information reported by government agencies (primarily the Bureau of Economic Analysis and Internal Revenue Service). The analysis did not attempt to verify or validate this information using sources other than those described in Appendix B.
- Estimates depend on revenue impacts, behavioral responses, and details for proposed tax increases.
 This analysis relies on the revenue estimates used and the behavioral responses to the policy changes

- modeled. Both the estimated revenue effects and behavioral responses for each of the policy changes are uncertain. The analysis also is dependent on the details of the policies analyzed. The estimates might differ, perhaps significantly, if the proposals were changed in important ways.
- Industries are assumed to be responsive to normal returns on investment. The industries comprising the U.S. economy in the EY Macroeconomic Model of the U.S. Economy are assumed to be responsive to the normal returns on investment. This contrasts with industries that earn economic profits and thereby have an increased sensitivity to statutory tax rates relative to marginal effective tax rates.

- The analysis assumes a full employment model. The EY Macroeconomic Model of the U.S. Economy, like many general equilibrium models, focuses on the longer-term incentive effects of policy changes. It also assumes that all resources throughout the economy are fully employed—that is, there is no slackness in the economy (i.e., a full employment assumption with no involuntary unemployment). Any decrease in labor supply is a voluntary response to a change in income or the return to labor that makes households choose to substitute between consumption and leisure. To provide a high-level measure of the potential employment impacts, a job equivalents measure has been estimated. Job-equivalent impacts are defined as the change in total labor income divided by the baseline average labor income per job.
- The analysis does not consider explicitly the economic effects of taxing gains at death on asset holding periods and portfolio reallocations. By reducing the tax benefit of holding assets until death, taxing gains at death reduces tax considerations in portfolio trading decisions and so may encourage more efficient portfolio allocations. Carryover basis has a similar, but attenuated, effect on asset holding periods and portfolio reallocations.

- The analysis does not explore the effects of taxing gains at death on the distribution of the tax burden across income groups.
- The estimated effects on GDP depend to an extent on how the tax revenue is used by the government.
 The estimates in this report assume that the revenue is returned to the private sector by an increase in government transfer payments, which is a standard assumption.
- The analysis does not reflect the impacts of COVID-19. This analysis does not reflect any potential impacts of the COVID-19 health crisis.
- The analysis does not reflect all changes in capital taxation in the Biden administration's FY 2022 Budget. The analysis focused on three specific policies. Other policies within the budget other than those modeled in this report could impact the overall results.

International comparison of capital gains tax rates

- Different assets could face different capital gains tax rates. Most countries' tax laws have provisions that provide preferential treatment for certain capital gains, such as primary residences. This analysis approximated only generalized sale of domestic assets at top rates.
- Short-term capital gains were not examined in this analysis, and holding periods vary across countries. This report examined only long-term capital gains as broadly defined. It does not attempt to examine short-term capital gains or model capital gains taxation of assets at varying holding periods. Holding periods vary across countries (see Appendix C for details).
- International assets likely experience different capital gains tax rates.
 This analysis assumed the sale of domestic assets by a domestic shareholder. Each country has different rules, regulations, and tax rates for the sale of international assets. Additionally, the Biden administration's FY 2022 Budget would also modify international provisions.
- Subnational governments may tax capital gains at different rates. The analysis used a 50-state GDP-weighted average to estimate state-level taxation of long-term capital gains. Each state has its own unique tax laws

- governing these transactions, and that rate likely varies from the average. The analysis included subnational tax rates for other countries where applicable, and similar caveats apply to those estimates as well.
- Other shareholder distributions experience different tax rates. This report analyzed only one avenue in which shareholders might receive corporate earnings, through retained earnings that result in the appreciation of the value of a firm and that are eventually taxed as capital gains as shareholders dispose of company stock. Instead of retaining corporate earnings, a company may also distribute earnings to shareholders as dividends. Dividends face different tax treatment than do capital gains that will vary by jurisdiction.
- Tax deferral is not reflected. Longterm capital gains are generally taxed when realized. Consequently, the tax on gains is generally deferred until a taxpayer disposes of an asset. The benefit of tax deferral, which depends on the length of holding periods, can be significant, but is not accounted for in the tax rate presented in this report.

Appendix B: EY Macroeconomic Model of the U.S. Economy

Estimates are produced using the EY Macroeconomic Model of the U.S. Economy. In particular, the proposed policies are modeled as a change in the cost of capital and then the EY Macroeconomic Model of the U.S. Economy simulates how households and businesses would respond to such a policy shock.

Cost of capital/marginal effective tax rate on new investment

In general, companies will make new investments as long as they earn a pretax return that exceeds what is required to cover taxes and compensate investors for the use of their capital. A company would not make an investment that earns less than the cost of taxes and compensation to investors because such an investment would be unprofitable. As a result, companies would continue to make (successively less profitable) new investments up to the point at which the last investment earns just enough to cover the taxes due plus enough to compensate investors for the use of their funds. This investment is referred to as the marginal investment. The pre-tax return that it earns is called the cost of capital. As the cost of capital increases. fewer investments are feasible because costs are higher. As a result, as the cost of capital increases, less investment occurs.

Taxes are an important component of the cost of capital. Taxes raise a company's cost of capital because the company has to earn enough to cover taxes and still pay a competitive return to its investors. Taxes also can increase the return investors demand on their investments because they have to cover their tax obligations out of the payments they receive from the companies in which they invest. Higher taxes discourage investment by raising the cost of capital.

The Congressional Budget Office (CBO), Congressional Research Service, Joint Committee on Taxation (JCT), and U.S. Treasury Department frequently use the cost of capital framework to quantify the impact of tax changes on investment incentives. The cost of capital framework accounts for the major features of the federal income tax system (e.g., tax depreciation, tax rates, investor-level taxes).



Formally, the cost of capital is the real before-tax rate of return that a barely profitable new investment needs to earn to both cover taxes over its life and provide investors their required after-tax rate of return. The change in taxation on a new, barely profitable investment is a key margin on which to measure the impact of a policy change. For example, an investment that is profitable prior to a policy change and becomes less so, but still profitable, would likely occur with or without the policy change. Consequently, whether this investment occurs is largely unaffected by the policy change. A barely profitable investment, however, could become unprofitable with a policy change and, consequently, whether it occurs can be affected by the policy change.

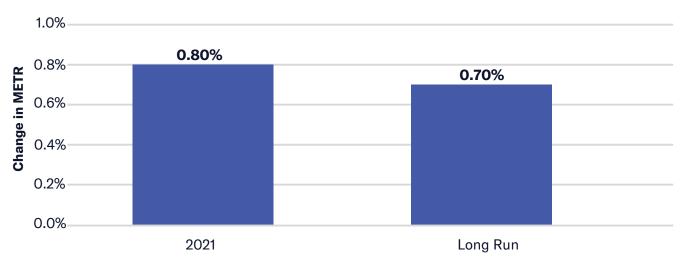
The cost of capital is translated to and expressed as the marginal effective tax rate (METR) to provide a more accessible measure for determining how investment responds (whether it rises or falls) in response to tax policy changes. The METR is the tax cost of a new investment as a percent of the pretax return, all measured in present value. In general, a higher (lower) METR means a lower (higher) incentive to invest.

Figure B-1 presents the estimated change in METR for new investment with enactment of the three specified tax increases on long-term capital gains:

- taxing long-term capital gains at ordinary income tax rates for taxpayers with incomes of \$1 million or more,
- 2. increasing the top ordinary income tax rate from 37% to 39.6% (on long-term capital gains), and
- **3.** repealing step-up of basis and taxing capital gains at death.

In 2021, the estimated METR would be 0.8 percentage point higher relative to current law. In the long run (i.e., 2031 and beyond), the analysis estimates that these policies would increase METR by 0.7 percentage point or a tenth of a percentage point lower than in 2021.

Figure B-1. Change in METR from current law from changes in capital tax rates in the Biden administration's FY 2022 Budget



Note: The EY QUEST macroeconomic model of the U.S. economy is used to estimate the METR relative to the current law. Relative to current law forecast, the METR on new investment in the business sector is 7.6% in 2021 and 17.5% in the long run. This model includes behavioral changes related to leverage and organizational form, plus interest rate changes related to potential crowding out, among other considerations. Notably, when aggregating the cost of capital across industries to compute the METR, current law baseline forecast weighting is used. These weights are used to more clearly isolate the impact from the change in law. The business sector does not include owner-occupied housing or government but does include the entirety of the corporate and pass-through sectors. In the context of the METR estimates, long run refers to the fully phased-in policy in 2031 and beyond. Figures are rounded.

Source: EY analysis.

As shown in Table B-1, taxing long-term capital gains at ordinary income rates for taxpayers with incomes over \$1 million would increase the METR by 0.2 percentage point in 2021. Increasing the top ordinary income tax rate to 39.6% would further increase the METR by approximately 0.1 percentage point in 2021. Repealing the step-up of basis and taxing capital gains at death would increase the METR by 0.5 percentage point in 2021. This combination would increase the METR on the business sector by 0.8 percentage point in 2021.

In the long run, taxing long-term capital gains at ordinary income tax rates for taxpayers with incomes over \$1

million would increase the METR by 0.2 percentage point. Increasing the top ordinary income tax rate to 39.6% would further increase the METR by approximately 0.1 percentage point in the long run. Repealing the stepup of basis and taxing capital gains at death would increase the METR by 0.5 percentage point in the long run. This combination would increase the METR on the business sector by 0.7 percentage point in the long run or 0.1 percentage point lower than in 2021. It is important to note that the baseline law will be changing to allow full expensing for investment in equipment in 2021, a provision that is fully phased out by 2027.

Table B-1. Impact of capital gains tax changes on the METR

	2021	Long run						
METR								
Current law	7.6%	17.5%						
Long-term capital gains taxed as ordinary income for taxpayers with incomes over \$1 million	7.9%	17.7%						
Top ordinary income tax rate increased to 39.6%	7.9%	17.7%						
Repeal of step-up of basis via tax at death	sis via tax at death 8.5%							
Percentage-point change in the METR from current law								
Current law								
Long-term capital gains taxed as ordinary income for taxpayers with incomes over \$1 million	0.2%	0.2%						
Top ordinary income tax rate increased to 39.6%	0.3%	0.2%						
Repeal of step-up of basis via tax at death	0.8%	0.7%						

Note: The EY QUEST Macroeconomic Model of the U.S. economy is used to estimate the METR relative to the current law. Relative to the current law forecast, the METR on new investment in the business sector is 7.6% in 2021 and 17.5% in the long run. This model includes behavioral changes related to leverage and organizational form, plus interest rate changes related to potential crowding out, among other considerations. Notably, when aggregating the cost of capital across industries to compute the METR, current law baseline forecast weighting is used. These weights are used to more clearly isolate the impact from the change in law. The business sector does not include owner-occupied housing or government but does include the entirety of the corporate and pass-through sectors. Figures are rounded.

Source: EY analysis.

Changes in the METR on new investment directly impact investment decisions. Increases in the tax rates on capital income decrease return to investment. When saving and investing, households consume less now for more goods and services later and effectively increase the capital stock. The higher capital stock leads to better equipment, faster

machines, new software, and other productivity-increasing gains for workers and higher real wages as workers become more productive. Higher capital taxes discourage that process and could lead to lower labor productivity and real wages, and, ultimately, lower economic output and living standards than would otherwise occur.

EY Macroeconomic Model of the U.S. Economy

The EY Macroeconomic Model of the U.S. Economy is an overlapping generations (OLG) dynamic computable general equilibrium model similar to those used by the CBO, JCT, and U.S. Treasury Department. The general equilibrium framework accounts for changes in equilibrium prices in factor (i.e., capital and labor) and goods markets and simultaneously accounts for the behavioral responses of individuals and businesses to changes in tax treatment. Included in this framework is a foreign sector that responds to both the United States' after-tax rate of return (for investment choices) and after-tax prices in goods markets (for import/export decisions).

The OLG model used for this analysis is similar to those used by the CBO, JCT, and U.S. Treasury Department. In this model, tax policy affects the incentives to work, save and invest, and to allocate capital and labor among competing uses. Representative individuals and firms incorporate the after-tax return from work and savings into their decisions on how much to produce, save, and work.

The general equilibrium methodology accounts for changes in equilibrium prices in factor (i.e., capital and labor)

and goods markets and simultaneously accounts for the behavioral responses of individuals and businesses to changes in taxation. Behavioral changes are estimated in the OLG framework, whereby representative individuals with perfect foresight incorporate changes in current and future prices when deciding how much to consume and save in each period of their lives.

Production

Firm production is modeled with the constant elasticity of substitution functional form, in which firms choose the optimal level of capital and labor subject to the gross-of-tax cost of capital and gross-of-tax wage. The model includes industry-specific detail through use of differing costs of capital, factor intensities, and production function scale parameters. Such a specification accounts for differential use of capital and labor between industries as well as distortions in factor prices introduced by the tax system. The cost of capital measure models the extent to which the tax code discriminates by asset type, organizational form, and source of finance.

The industry detail included in this model corresponds approximately with



^{16.} See, for example, Shinichi Nishiyama, "Fiscal Policy Effects in a Heterogeneous-Agent Overlapping-Generations Economy with an Aging Population," Congressional Budget Office, Working Paper 2013-07, December 2013, available at https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/workingpaper/44941-Nishiyama_1.pdf; Joint Committee on Taxation (JCT), Macroeconomic Analysis of the "Tax Reform Act of 2014," February 2014 (JCX-22-14), available at https://www.jct.gov/CMSPages/GetFile.aspx?guid=9201df45-57c6-4161-840b-67aa5f684d47; JCT, Macroeconomic Analysis of Various Proposals to Provide \$500 Billion in Tax Relief, March 2005 (JCX-4-05), available at https://www.jct.gov/CMSPages/GetFile.aspx?guid=ab2809ab-57a5-4273-a58f-5375920fc8bb; and U.S. Department of the Treasury, The President's Advisory Panel on Federal Tax Reform, Simple, Fair, & Pro-Growth: Proposals to Fix America's Tax System, November 2005, available at https://home.treasury.gov/system/files/131/Report-Fix-Tax-System-2005.pdf.

three-digit North American Industry Classification System (NAICS) codes and is calibrated to a stylized version of the 2014 U.S. economy. Each of 36 industries has a corporate and pass-through sector except for owner-occupied housing and government production. Because industry outputs are typically a combination of value added (i.e., the capital and labor of an industry) and the finished production of other industries (i.e., intermediate inputs), each industry's output is modeled as a fixed proportion of an industry's value added and intermediate inputs to capture inter-industry linkages. These industry outputs are then bundled together into consumption goods that consumers purchase.

Consumption

Consumer behavior is modeled through use of an OLG framework that includes 55 generational cohorts (representing adults aged 21 to 75). Thus, in any one year, the model includes a representative individual optimizing lifetime consumption and savings decisions for each cohort aged 21 through 75 (i.e., 55 representative individuals) with perfect foresight. The model also distinguishes between two types of representative individuals: those who have access to capital markets (savers) and those who do not (nonsavers or rule-of-thumb agents).

Non-savers and savers face different optimization problems over different time horizons. Each period, non-savers must choose the amount of labor they supply

and the amount of goods they consume. Savers face the same tradeoffs in a given period, but they must also balance consumption today with the choice of investing in capital or bonds. The model assumes 50% of U.S. households are permanently non-savers and 50% are permanently savers across all age cohorts.

The utility of representative individuals is modeled as a constant elasticity of substitution function, allocating a composite commodity consisting of consumption goods and leisure over their lifetimes. Representative individuals optimize their lifetime utility through their decisions of how much to consume, save, and work in each period subject to their preferences, access to capital markets, and the after-tax returns from work and savings in each period. Representative individuals respond to the after-tax return to labor, as well as their overall income levels, in determining how much to work and thereby earn income that is used to purchase consumption goods or to consume leisure by not working. In this model the endowment of human capital changes with age—growing early in life and declining later in life.¹⁷

Government

The model includes a simple characterization of federal as well as state and local governments. Government spending is assumed to be used for either (1) transfer payments to representative individuals, or (2) the provision of public goods. Transfer payments are assumed



^{17.} This calculation follows the estimate of David Altig, Alan Auerbach, Laurence Koltikoff, Kent Smetters, and Jan Walliser, "Simulating Fundamental Tax Reform in the United States," *American Economic Review* 91(3) (2001): 574-595.

to be either Social Security payments or other transfer payments. Social Security payments are calculated in the model based on the 35 years in which a representative individual earns the most labor income. Other transfer payments are distributed on a per capita basis. Public goods are assumed to be provided by the government in fixed quantities through the purchase of industry outputs as specified in a Leontief function.

Government spending in the model can be financed by collecting taxes or borrowing. Borrowing, however, cannot continue indefinitely in this model. Eventually, the debt-to-GDP ratio must stabilize so

that the government's fiscal policy is sustainable. The model allows government transfers, government provision of public goods, or government tax policy to be used to achieve a selected debt-to-GDP ratio after a selected number of years. This selected debt-to-GDP ratio could be, for example, the initial debt-to-GDP ratio or the debt-to-GDP ratio a selected number of years after policy enactment. The baseline of the model is calibrated such that federal revenue as a share of GDP, federal spending on Social Security as a share of GDP, and the federal debtto-GDP ratio matches the CBO's The 2019 Long-Term Budget Outlook.18



^{18.} See Congressional Budget Office, *The 2019 Long-Term Budget Outlook*, June 2019, available at https://www.cbo.gov/publication/55331.

Modeling the United States as a large open economy

The model, whose parameters are described in Table B-2, is an open economy model that includes both capital and trade flows between the United States and the rest of the world. International capital flows are modeled through the constant portfolio elasticity approach.¹⁹ This approach assumes that international capital flows are

responsive to the difference in after-tax rates of return in the United States and the rest of the world through a constant portfolio elasticity expression. Trade is modeled through use of the Armington assumption, wherein products made in the United States versus the rest of the world are imperfect substitutes.

Table B-2. Key model parameters

Intertemporal substitution elasticity	0.4
Intratemporal substitution elasticity	0.6
Leisure share of time endowment	0.4
International capital flow elasticity	3.0
Capital-labor substitution elasticity	0.8
Adjustment costs	2.0

Source: Key model parameters are generally from Joint Committee on Taxation, Macroeconomic Analysis of the Conference Agreement for H.R. 1, The 'Tax Cuts and Jobs Act,' December 22, 2017 (JCX-69-17) and Jane Gravelle and Kent Smetters, "Does the Open Economy Assumption Really Mean that Labor Bears the Burden of a Capital Income Tax?" Advances in Economic Analysis and Policy 6(1) (2006): Article 3.



^{19.} See Jane Gravelle and Kent Smetters, "Does the Open Economy Assumption Really Mean That Labor Bears the Burden of a Capital Income Tax?" Advances in Economic Analysis and Policy 6(1) (2006): Article 3.

Appendix C: International Capital Gains Rates

	Country	Top statutory capital gains rate (2021)	Exemp- tion Rate	Top effective capital gains rate (2021)	Holding period for long-term capital gain	Other Key Details
<u> </u>	<u>Australia</u>	45	50	22.5	1 year	For an asset held at least 12 months (not including the dates of purchase and sale), only 50% of the capital gain resulting from the disposal is subject to tax.
	<u>Austria</u>	27.5		27.5	1 year	Gains derived from the sale of shares in a corporation are taxed at a rate of 27.5%. If the assets are held less than a year, the gains are taxed at ordinary rates.
J	<u>Belgium</u>	0		0	N/A	In general, capital gains on assets that are not used for a professional activity are not taxable. As of the 2018 income year, a stock exchange transaction tax of 0.35% applies to any transaction (purchase or sale) carried out by Belgian residents through professional intermediaries established in and outside Belgium.
	<u>Brazil</u>	22.5		22.5	N/A	Capital gains are defined as the difference between the sale price of an asset and its acquisition price. The top tax rate is 22.5% for gains greater than R\$30M.
	<u>Canada</u>	53.3	50	26.1	N/A	The statutory rate is the median top tax rate on ordinary income. Only 50% of the year's capital gains are included in taxable income, to the extent that the amount exceeds 50% of capital losses for the year. The capital gains rate is a weighted average of the rates throughout the provinces.
	<u>Chile</u>	40		40	N/A	Capital gains arising from the sale of shares are subject to the general tax regime with a top marginal tax rate of 40%. However, for residents complying with certain requirements, the tax paid can be allocated to the number of years during which the shares were held by the owner, up to a maximum of 10 years. Alternatively, the taxpayer may choose to pay a 10% flat rate on the amount of the capital gains under certain conditions.

Country	Top statutory capital gains rate (2021)	Exemp- tion Rate	Top effective capital gains rate (2021)	Holding period for long-term capital gain	Other Key Details
<u>China</u>	20		20	N/A	After deducting costs and related expenses, income derived from the sale or transfer of movable or immovable property in China is taxed at a flat 20% rate. Capital gains derived from transfers of shares listed on China stock exchanges in the secondary market are temporarily exempt from China individual income tax.
<u>Colombia</u>	10		10	N/A	Capital gains are taxed at a fixed rate of 10%. This rate is applied separately from ordinary income. In determining the amount of capital gains, the acquisition costs of shares and real estate are calculated in Colombian pesos and adjusted for inflation, regardless of whether the asset is used in a trade or business.
Costa Rica	15		15	N/A	Capital gains on the sale of tangible or intangible assets are subject to the capital gains tax at a 15% rate. For the first sale of goods and rights acquired before July 1, 2019, taxpayers are allowed to apply a capital gains tax of 2.25% over the gross purchase price.
Czech Republic	0		0	3 years	Effective from 2014, income from sale of securities is exempt from personal income tax if the total gross income from the sale of securities (without taking into account costs or deductions) does not exceed Kč100,000 in a calendar year. In addition, if the gross income from the sale of securities exceeds Kč100,000 on an annual basis, income from the sale of securities is exempt from tax if the securities have been held for a period of more than 3 years. Capital gains realized from the sale of real estate or personal property not acquired for resale are generally exempt from income tax if the minimum required holding periods are 12 months for automobiles, two years for a primary residence, and five years for other immovable property. Other holding periods apply to other types of personal property.
<u>Denmark</u>	42		42	N/A	Gains derived from the disposal of shares are taxable as share income at a maximum rate of 42%.
<u>Estonia</u>	20		20	N/A	Capital gains derived from the sale of business property or securities are taxable at a rate of 20%. Capital gains derived by resident individuals with respect to the following sources are not subject to income tax: movable property, land, dwelling house or apartment, summer cottage or garden house.



Country	Top statutory capital gains rate (2021)	Top effectiv Exemp- capita tion Rate gains ra (2021)	l long-term	Other Key Details
<u>Finland</u>	34	34	N/A	Capital gains on property are taxed as capital income at a rate of 30%. If the capital income received during a calendar year exceeds €30,000, the excess income is taxed at a rate of 34%. A taxable capital gain is computed by deducting from the disposal proceeds the greater of the acquisition cost plus the sales cost, or 20% of the proceeds (40% for property owned for at least 10 years before disposal).
<u>France</u>	34	34	N/A	Capital gains realized by a taxable household on the sale of listed or unlisted shares, bonds or related funds are taxed at a flat rate of 30% (12.8% income tax and 17.2% of contribution sociale généralisée (CSG) / contribution reimboursement de la dette sociale (CRDS) and additional social charges). In some cases, taxpayers can elect to be taxed at progressive tax rates with a discount based on the holding period if more favorable. France has a surtax of 4% for individuals with taxable income above €500,000.
<u>Germany</u>	26.375	26.375	5 N/A	Gains derived from the sale of shares acquired after December 31, 2008 are subject to a 25% withholding tax, regardless of the holding period. Germany levies a 5.5% solidarity surcharge in the income tax liability of all taxpayers.
Greece	15	15	N/A	Capital gains from the transfer of capital are taxed at a rate of 15%. They include gains from the transfer of securities if such transfers are not classified as business activities.
<u>Hungary</u>	15	15	N/A	Capital gains are taxed at a flat rate of 15%.
<u>lceland</u>	22	22	N/A	Capital gains tax is levied on individuals at a rate of 22%. In general, a withholding tax at a rate of 22% is levied on all capital gains realized by nonresidents.
<u>India</u>	10	10	1 year	Long-term capital gains (gains derived from listed securities held longer than one year) derived in excess of ₹100,000 from the transfer of equity shares or units of an equity-oriented fund listed on a recognized stock exchange in India or units of a business trust in India, on which Securities Transaction Tax (STT) has been paid at the time of transfer and acquisition, are taxed at a rate of 10% (plus surcharge, if applicable, and health and education).



Country	Top statutory capital gains rate (2021)	Exemp- tion Rate	Top effective capital gains rate (2021)	Holding period for long-term capital gain	Other Key Details
<u>Ireland</u>	33		33	N/A	Capital gains are taxed at a rate of 33% for disposals on or after December 6, 2012.
<u>Israel</u>	25		25	N/A	Israeli residents are taxed at a rate of 25% on the real (inflation-adjusted) gains derived from sales of traded securities in Israel and abroad, or 15% on the nominal gain on the sale of certain bonds not linked to the consumer price index or a foreign currency.
<u>ltaly</u>	26		26	N/A	The taxation of capital gains from the sale of securities not related to business activities are subject to Italian taxation in accordance with the following: if the transaction involves a nonqualified percentage of the company's shares, the related capital gain is subject to substitute taxation at a rate of 26%; if the transaction involves nonqualified shares of a listed company residing in a country (other than European Union or European Economic Area countries) with a nominal tax rate lower than half of the Italian rate, the related capital gain is taxed separately at a rate of a 26%; other rules apply for unlisted shares and other special cases.
<u>Japan</u>	20		20	N/A	Capital gains derived from the sale of shares are generally taxed at 20% (15% national tax plus 5% local inhabitant tax).
<u>Korea</u>	0		0	N/A	Although capital gains derived from the transfer of shares in a company listed on the Korean stock market are not taxable, the shareholder of a listed company is subject to a capital gains tax on gains derived from the transfer of the shares if the shareholder, together with related parties, owned at least 1% (2% for Korean Securities Dealers Automated Quotations [KOSDAQ]-listed companies and 4% for Korea New Exchange [KONEX]-listed companies) of the total outstanding shares or at least \(\forall 1\) billion worth of the shares based on the market value at the end of the preceding year for shares transferred by March 31, 2021 (\(\forall 300\) million for shares transferred on or after April 1, 2021). The transfer of unlisted shares is subject to the capital gains tax, regardless of the quantity or value of the shares. Korea is expected to raise its capital gains rate in future years.
<u>Latvia</u>	20		20	N/A	Capital gains are taxed at a rate of 20% in Latvia.



Country	Top statutory capital gains rate (2021)	Exemp- tion Rate	Top effective capital gains rate (2021)	Holding period for long-term capital gain	Other Key Details
<u>Lithuania</u>	20		20	N/A	Capital gains are generally taxable at a rate of 15% on the amount up to 120 average monthly salaries (AMS) or 20% on the amount exceeding 120 AMS. Capital gains from the sale of securities that does not exceed €500 in a calendar year are exempt from taxable income (additional criteria apply).
Luxembourg	0		0	6 months	Capital gains on non-substantial shareholdings (10% or less) and other securities, such as shares in investment funds, are tax-free if they are realized more than 6 months after acquisition. This tax rate does not include municipal taxes that may be levied.
<u>Mexico</u>	10		10	N/A	In general, gains derived from the sale of shares and real estate are treated as capital gains. Capital gains are taxed as ordinary income at the rates set forth in Rates. The gain calculation includes adjusting the cost basis for inflation. Gains derived from the sale of shares of Mexican or foreign companies listed on Mexico's stock exchanges are subject to a 10% income tax (before 2014, these sales were exempt from tax). The tax payment is considered final and cannot be credited on the annual taxpayer's income tax return. The taxpayer calculates this 10% tax on the net gain at the end of the year by using information provided by brokers.
<u>Netherlands</u>	31		31	N/A	Capital gains for non-substantial holdings are included as "Box 3" income and taxed at a flat rate of 31%.
New Zealand	0		0	N/A	New Zealand has no general capital gains tax, but profits from the sale of real and personal property may be subject to income tax in certain circumstances.
<u>Norway</u>	31.68		31.68	N/A	Effective from 2020, capital gains from the disposal of shares are multiplied by an adjustment factor of 1.44, and the adjusted basis is then taxed as ordinary income at a rate of 22%. As a result, the effective tax rate for capital gains from the disposal of shares is 31.68%.
<u>Poland</u>	19		19	N/A	Income derived from the sale of shares is subject to tax at a rate of 19%.
<u>Portugal</u>	28		28	N/A	Gains derived from disposals of securities and derivative financial products are subject to tax at a rate of 28% (a 50% exclusion from tax applies to gains from shares in unlisted micro and small companies) if an exemption does not apply.



Country	Top statutory capital gains rate (2021)	Exemp- tion Rate	Top effective capital gains rate (2021)	Holding period for long-term capital gain	Other Key Details
Russia	15		15	3 years	Capital gains are included in regular income. A taxpayer is allowed to deduct the amount of capital gain from the sale or redemption of securities circulating on a Russian stock exchange that were owned for more than 3 years and acquired after January 1, 2014. A separate capital gains tax does not exist in the Russian Federation. Four flat tax rates of 13%, 15%, 30%, and 35% apply to different baskets of income. A flat rate of 13% applies to all income for which another rate is not specified, including salary, dividends and other income earned by tax resident individuals. Beginning in 2021, the tax rate for Russian tax residents was increased to 15% applicable to incomes exceeding \$\frac{9}{5}\$ million.
<u>Slovak</u> <u>Republic</u>	0		0	1 year	Income derived from the sale of securities that are traded on a regulated market or similar foreign market for at least 1 year is exempt from tax if the period between acquisition and sale of the securities exceeds 1 year and if such securities had not been included in the business assets.
<u>Slovenia</u>	10		10	5 years, 10 years, and 15 years	Capital gains are taxed at a flat rate of 27.5% with a reduction of the tax rate for every completed 5-year period of ownership of the capital. As a result, the following are the tax rates: 20% after five years, 15% after 10 years, and 10% after 15 years.
<u>Spain</u>	23		23	N/A	Capital gains are calculated as the difference between the transfer price of an asset and its acquisition price. Capital gains are taxed at a rate of 19% on the first €5,999.99, at a rate of 21% on the amount from €6,000 to €49,999.99, and at a rate of 23% on the amount from €50,000 onward.
Sweden	30		30	N/A	Capital gains are treated as investment income. Gains on listed shares are taxed at a rate of 30%. The rate is 25% for gains on unlisted shares.
Switzerland	0		0	N/A	Private capital gains derived from sales of movable assets are not taxed at the federal level or at the cantonal level. Capital gains derived from sales of immovable assets located in Switzerland are subject to a separate tax in all cantons.



Country	Top statutory capital gains rate (2021)	Exemp- tion Rate	Top effective capital gains rate (2021)	Holding period for long-term capital gain	Other Key Details
Turkey	0		0	2 years	Under a Council of Ministers' Decree, the withholding tax rate is reduced to 0% for capital gains derived by resident and nonresident individuals from the sale of shares traded at the Istanbul Stock Exchange (ISE). Capital gains derived from the disposal of the shares without the intermediation of a bank or an intermediary institution are subject to tax at the general progressive income rates and reported in the annual income tax return. However, if the shares are issued by Turkish resident companies and held for more than 2 years, the gain is not subject to income tax.
<u>United</u> <u>Kingdom</u>	20		20	N/A	For gains realized on all disposals other than those realized on residential property disposals made during the 2020-21 tax year, a 10% rate applies to chargeable gains that fall within the individual's basic rate band limit, after taking into account income as calculated for income tax purposes. Chargeable gains in excess of the basic rate band are charged at a rate of 20%.
United States (Current Law)	23.8		29.7	1 year	Net capital gain income is taxed at ordinary rates, except that the maximum rate for long-term gains is limited to the following: 0% for married individuals filing jointly, with a maximum taxable income of \$80,000 (\$40,000 for single individuals); 15% for married individuals filing jointly, with a maximum taxable income of \$496,600 (\$441,450 for single individuals); and 20% for married individuals filing jointly, with taxable income of more than \$496,600 (\$441,450 for single individuals). Net capital gain is equal to the difference between net long-term capital gains over net short-term capital losses. Long term refers to assets held longer than 12 months. The top effective tax rate includes a weighted average of state-level tax rates.

Source: EY Worldwide Personal Tax and Immigration Guide 2020-21, available at https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/tax/tax-guides/2021/ey-worldwide-personal-tax-and-immigration-guide-4-february-2021.pdf#page=70?download





