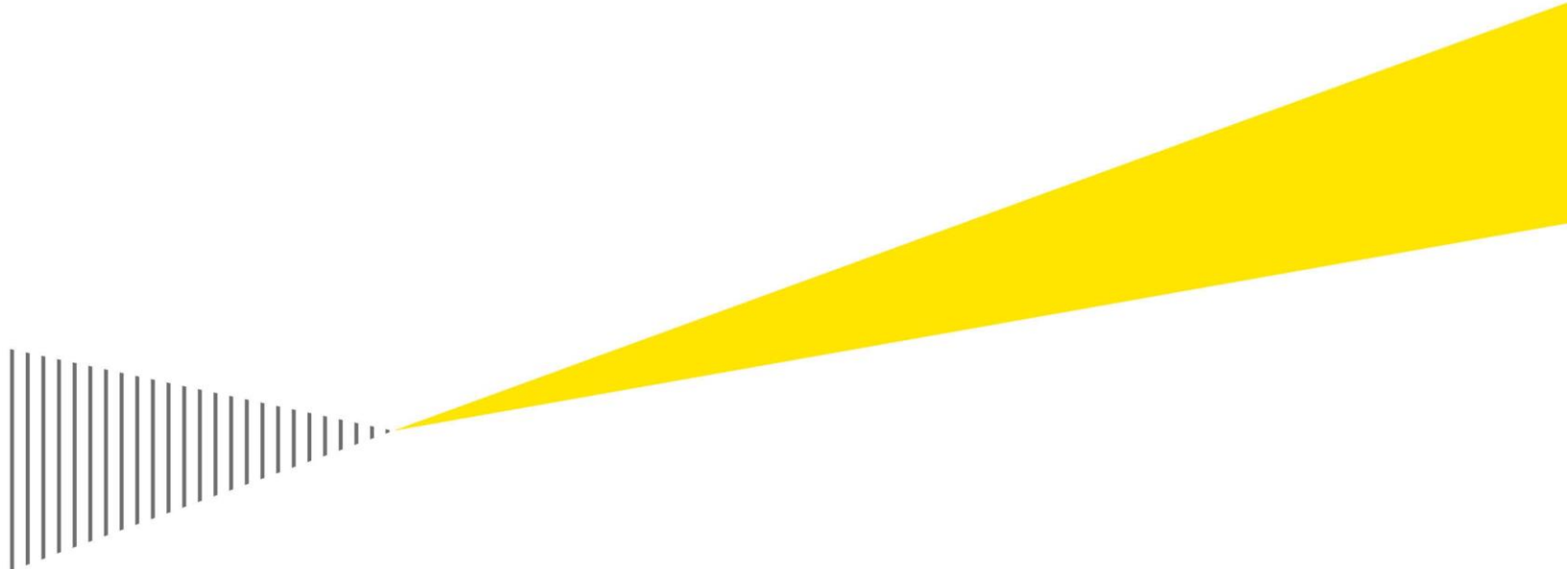


Economic impacts of the expiration of tax policies that encourage manufacturing in the United States

Prepared on behalf of the National Association of Manufacturers

January 2025



Executive summary

Congress and President Trump enacted the Tax Cuts and Jobs Act (TCJA) in 2017 with the intention, among other objectives, of promoting domestic economic growth and enhancing US competitiveness. The TCJA included significant changes to business taxation, such as a reduction in the corporate income tax rate from 35% to 21%, modifications to the taxation of foreign-source income, and changes to the individual income tax system that reduced taxes for pass-through businesses.

However, certain TCJA provisions related to corporations, globally engaged companies, and individuals (including those operating pass-through businesses) changed or began to phase out in 2022 and 2023, with further changes and expirations scheduled for the end of 2025. These changes, phase outs, and expirations result in a significant increase in tax liability for US businesses.

Specifically, this report analyzes nine tax provisions (see Box ES-1):ⁱ

Provisions that expired or began phasing out in 2022 and 2023

1. Immediate R&D expensing
2. Full expensing
3. Interest deductibility

Domestic provisions that expire or revert to pre-TCJA law at the end of 2025

4. Pass-through deduction
5. Individual income tax rates and brackets
6. Estate tax exemption

International tax changes scheduled to take effect at the end of 2025

7. Foreign-Derived Intangible Income (FDII)
8. Global Intangible Low-Taxed Income (GILTI)
9. Base Erosion and Anti-Abuse Tax (BEAT)

Collectively, allowing these tax policies to change, phase out, or expire: (1) decreases after-tax compensation, which creates a disincentive to work, leading to fewer jobs and/or hours worked, (2) decreases the return on investment via a higher cost of capital, thereby incentivizing less investment, (3) reduces the after-tax return on investments made within the United States, making investments abroad relatively more attractive and leading to less investment in domestic economic activity, and (4) decreases the return on the international operations of US companies, thereby incentivizing less global engagement and reduced complementary domestic US economic activity, such as US jobs and US GDP.

Scope of analysis

To provide a full view of the potential economic impacts of the expiration of these tax policies, this analysis assumes that the provisions that expired or began to phase out in 2022 and 2023 remain expired or become fully phased out and that the changes scheduled for the end of 2025 are

ⁱ See the end of the executive summary for a brief description of each of these policies and how they change, phase out, or expire and the body of the report for a longer description.

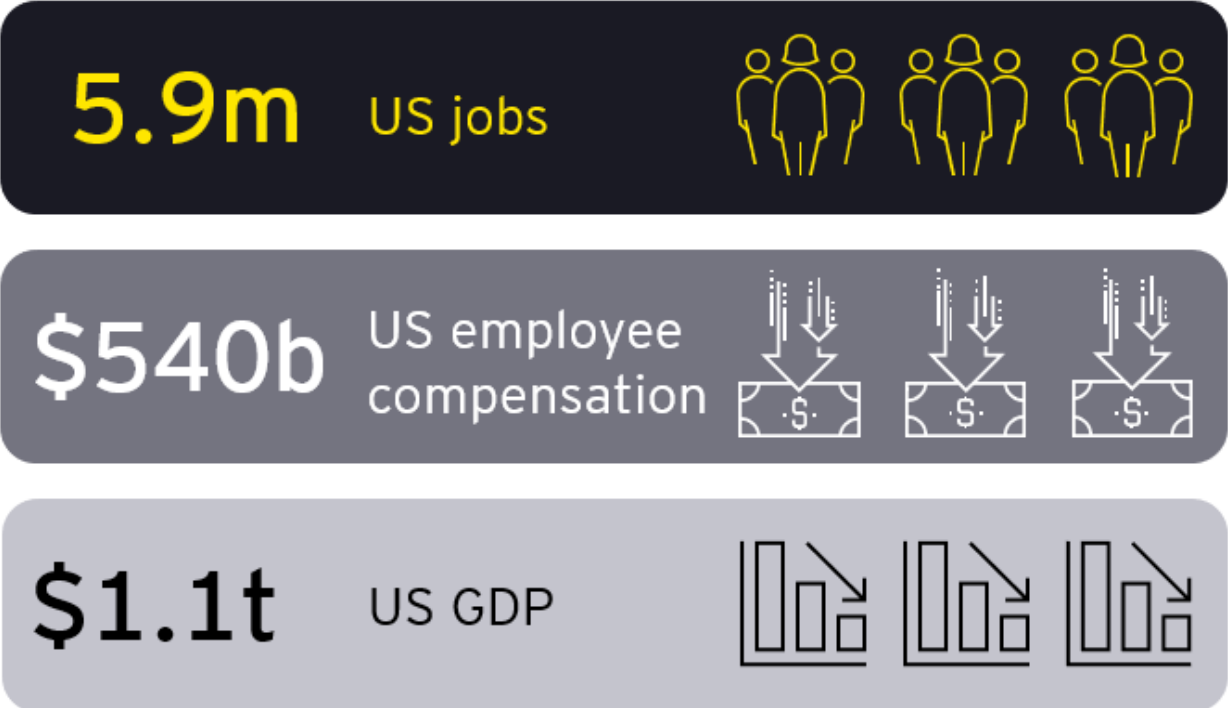
allowed to take effect. Estimates are produced relative to a baseline where these provisions do not change, expire, or phase out (“baseline”).

Two sets of estimates are reported: (1) the economic activity disrupted, and (2) the macroeconomic impacts. Both approaches estimate how the expiration of the tax policies considered affect jobs, employee compensation, and GDP due to changes in taxpayers’ economic decision-making regarding work, saving, and investment, among other behavioral responses.

Estimated economic activity disrupted

This analysis estimates the economic activity disrupted by the expiration of these tax policies, relative to the baseline.ⁱⁱ Overall, this report estimates that the expiration of these policies could put 5.9 million US jobs, \$540 billion of US employee compensation, and \$1.1 trillion of US GDP at risk (Figure ES-1).

Figure ES-1. Estimated economic activity disrupted by the expiration of tax policies that encourage manufacturing in the United States
Estimates are relative to the size of the US economy in 2025

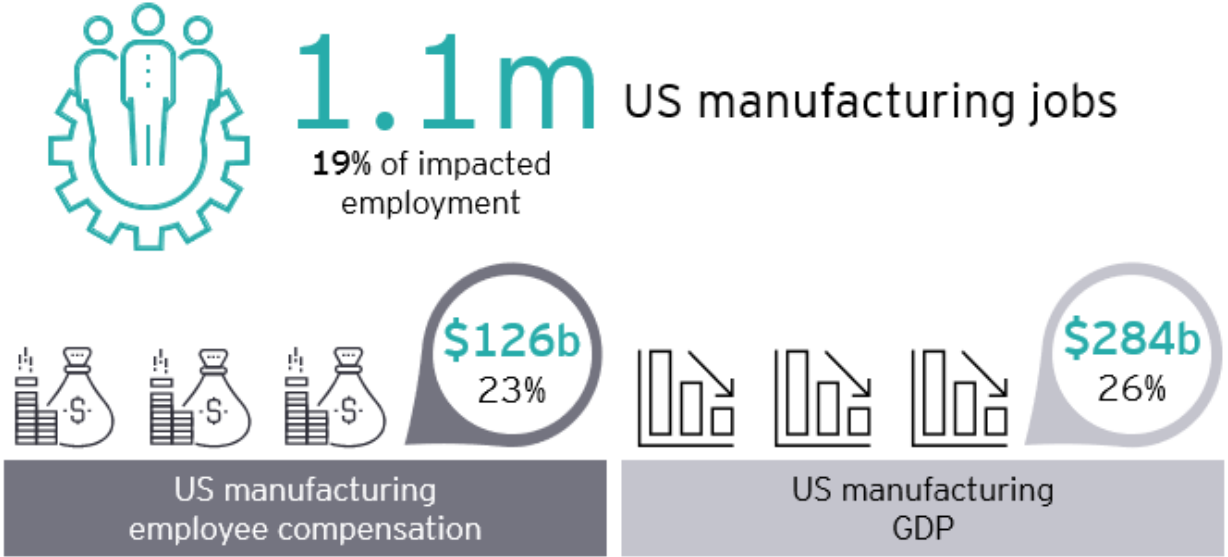


Note: Estimates are the change in level relative to the baseline. Figures are rounded.
Source: EY analysis.

ⁱⁱ This is a partial equilibrium analysis that focuses on the tax incentive effects on affected taxpayers of a policy change, such as how certain business tax increases might incentivize businesses to decrease investment or how increased individual marginal tax rates might discourage workers from supplying more labor. This approach does not take into account the shifting or netting of economic activity across industries and sectors due to the policy changes. The main advantage of this approach is that it isolates and helps provide understanding of the potential economic activity that may be disrupted by the policy change, as well as the extent by which the tax policies might influence taxpayer behavior.

The largest share of the disrupted economic activity is estimated to be in manufacturing and related industries (Figure ES-2). Specifically, this report estimates that the expiration of these policies could put 1.1 million US jobs, \$126 billion of US employee compensation, and \$284 billion of US GDP at risk in the manufacturing, transportation, information, and mining industries.

Figure ES-2. Estimated economic activity disrupted by the expiration of tax policies that encourage manufacturing in the United States, manufacturing and related industries
Estimates are relative to the size of the US economy in 2025



Note: Estimates are the change in level relative to the baseline. Manufacturing and related industries includes manufacturing, transportation, information, and mining. Figures are rounded.
 Source: EY analysis.

Estimated macroeconomic impacts

Separately, this analysis uses the EY Macroeconomic Model to estimate the macroeconomic impacts of the expiration of these tax policies. Specifically, this model simulates how markets adjust to policy changes and how labor and capital shifts within the economy in response to the changes in the after-tax returns on labor and capital (e.g., workers leaving one business may then be employed by a different business, albeit at a potentially lower wage). This analysis estimates that, using this methodology, the expiration of tax policies that encourage manufacturing in the United States could, on average, reduce the total level of employment in the US economy by 2.9 million jobs during the first decade and by 2.5 million jobs thereafter. Additionally, these expirations could reduce US GDP, on average, by \$470 billion in each of the first ten years and \$780 billion each year thereafter.

Note that it is not possible to separate entirely the impact of a given tax increase from the impact of how the revenue raised is used. The additional revenue must eventually be used in some way, which can affect the estimated impacts. Typical revenue uses in analyses like this have included lower government deficits, increases in government spending or transfers, decreases in other taxes, or a combination thereof. This analysis assumes that the additional revenue associated with the expiration of tax policies that encourage manufacturing in the United States fund

government transfers, a standard assumption for macroeconomic analyses of tax changes as it generally isolates the tax incentive effects.

Box ES-1. Tax policies that encourage manufacturing in the United States

This report analyzes the economic impact of the expiration of nine tax policy provisions:

Provisions that expired or began phasing out in 2022 and 2023

1. **Immediate R&D expensing.** Prior to 2022, companies could immediately deduct their R&D expenses. However, beginning in 2022, companies were required to capitalize and amortize R&D expenses. Immediate R&D expensing supports R&D investments by manufacturers and other businesses by reducing the after-tax cost of research; on the other hand, amortizing R&D expenses over multiple years effectively raises the after-tax cost of undertaking R&D activities, thereby increasing the cost of capital and discouraging R&D spending.
2. **Full expensing.** Full expensing permits businesses to immediately deduct the entire cost of qualifying capital expenditures (generally business property with a lifespan of 20 years or less such as equipment, vehicles, and machinery). The TCJA enacted full expensing with a phase out beginning in 2023; it will sunset completely at the end of 2026. Full expensing reduces the upfront costs of qualifying investments (e.g., equipment and machinery), which are used significantly by capital-intensive industries such as manufacturing. The phase out of full expensing increases the cost of capital for these investments.
3. **Interest deductibility.** The TCJA generally disallowed the deductibility for net interest expense exceeding 30% of earnings before interest, taxes, depreciation, and amortization (EBITDA). Beginning in 2022, a stricter limitation based on earnings before interest and taxes (EBIT) went into effect. This stricter EBIT-based interest expense limitation affects businesses such as manufacturers with significant depreciable assets and amortizable intellectual property assets, thus increasing the cost of capital for these companies' debt-financed investments.

Domestic provisions that expire or revert to pre-TCJA law at the end of 2025

4. **Pass-through deduction.** The TCJA created a 20% deduction for pass-through income, subject to limitations. This provision is set to sunset at the end of 2025. A large majority of businesses in manufacturing and related industries are organized as pass-through businesses; the pass-through deduction reduces these businesses' tax obligations. The sunset of the pass-through deduction increases the cost of capital for pass-through businesses and discourages investment. It also reduces the after-tax compensation for self-employed workers.

5. **Individual income tax rates and brackets.** The TCJA generally lowered individual income tax rates and expanded individual income tax brackets. Notably, pass-through businesses – which include sole proprietorships, partnerships, and S corporations – are generally taxed at their owner’s income tax rate, so the reduced TCJA rates and brackets resulted in tax reductions for these businesses. The individual income tax rates and brackets are scheduled to generally revert to pre-TCJA levels at the end of 2025, decreasing after-tax compensation, as well as the after-tax return on investment for pass-through businesses.
6. **Estate tax exemption.** The TCJA doubled the estate tax exemption threshold, which allows assets to be passed to heirs tax-free up to a certain level. Estates can include family-owned businesses with high-value, illiquid assets, such as family-owned manufacturers and family farms; the increased exemption helps reduce the need to liquidate assets to cover the estate tax. The increased exemption is scheduled to revert to pre-TCJA levels at the end of 2025, increasing tax obligations at the time of an owner’s death.

International tax changes scheduled to take effect at the end of 2025

7. **Foreign-Derived Intangible Income (FDII).** The TCJA created a 37.5% deduction for FDII that reduces the effective tax rate on certain foreign-derived sales and service income. The FDII deduction creates a financial incentive for a company’s intangible assets (e.g., patents and trademarks) and high-return operations to be moved to or developed and retained in the United States rather than being offshored. The FDII deduction is scheduled to be reduced to 21.875% at the end of 2025, lessening the incentive to locate intellectual property and high-return operations in the United States.
8. **Global Intangible Low-Taxed Income (GILTI).** The tax on GILTI operates as a minimum tax on certain foreign earnings of globally engaged US companies. The minimum GILTI tax rate is generally 10.5% through 2025 and 13.125% thereafter, increasing taxes on globally engaged US companies. The increase in the minimum GILTI tax rate decreases the return on the international operations of US companies, thereby incentivizing less global engagement and reduced complementary domestic US economic activity, such as US jobs and US GDP
9. **Base Erosion and Anti-Abuse Tax (BEAT).** The BEAT is a minimum tax imposed on large US corporations that make certain deductible payments to related foreign parties. Currently, the BEAT tax rate is 10%; at the end of 2025, it is scheduled to increase to 12.5%. This will increase the costs of intra-company payments made by globally engaged businesses. Additionally, the BEAT minimum tax calculation effectively excludes some or all of certain credits (e.g., the R&D tax credit) but only until the end of 2025. These scheduled changes would increase globally engaged companies’ BEAT liabilities and discourage investment.

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Economic impacts of the expiration of tax policies that encourage manufacturing in the United States

I. Introduction

The Tax Cuts and Jobs Act (TCJA), enacted in 2017, introduced broad changes to the US tax system, targeting objectives such as spurring domestic economic growth and strengthening the nation's economic competitiveness. Key changes included significant reductions to the corporate income tax rate, adjustments to the taxation of foreign-source income, and provisions designed to benefit individual taxpayers and pass-through businesses.

Many of these provisions have already begun to change, expire, or phase out, with further expirations scheduled for the end of 2025. These changes could significantly impact both tax liability for US businesses and overall economic activity in the United States.

This report examines the economic impact of nine TCJA-related provisions across three categories:

- ▶ Provisions that expired or began phasing out in 2022 and 2023: These include immediate R&D expensing, full expensing, and interest deductibility.
- ▶ Domestic provisions that expire or revert to pre-TCJA law at the end of 2025: These include the pass-through deduction, individual income tax rates and brackets, and estate tax exemption.
- ▶ International tax changes scheduled to take effect at the end of 2025: These include changes for Foreign-Derived Intangible Income (FDII), Global Intangible Low-Taxed Income (GILTI), and the Base Erosion and Anti-Abuse Tax (BEAT).

To provide a full view of the potential economic impacts of the expiration of these tax policies, this analysis assumes that the provisions that expired or began to phase out in 2022 and 2023 remain expired or become fully phased out and that the changes scheduled for the end of 2025 are allowed to take effect. Estimates are produced relative to a baseline where these provisions do not change, expire, or phase out ("baseline").

Two sets of estimates are reported: (1) the economic activity disrupted, and (2) the macroeconomic impacts.¹ Both approaches estimate how the expiration of the tax policies considered affect jobs, employee compensation, and GDP due to changes in taxpayers' economic decision-making regarding work, saving, and investment, among other behavioral responses. "Economic activity disrupted" is a partial equilibrium analysis focusing on the impacts of the policy change on investment or labor supplied through changes in their after-tax returns, but not reflecting broader impacts across markets or the shifting of economic activity across the economy. The "macroeconomic impact" estimates reflect the broad economic impacts of the policy change on the US economy, reflecting how various markets interact and adjust (i.e., the shifting of economic activity across the broader economy in a general equilibrium framework).

II. Overview of tax provisions

This report analyzes nine tax provisions that encourage manufacturing in the United States. These provisions are categorized into (1) provisions that expired or began phasing out in 2022 and 2023, (2) domestic provisions that expire or revert to pre-TCJA law at the end of 2025, and (3) international tax changes scheduled to take effect at the end of 2025.

These provisions are described below:

Provisions that expired or began phasing out in 2022 and 2023

Immediate R&D expensing

Prior to the enactment of the TCJA, Section 174 of the Internal Revenue Code (IRC) permitted companies to fully expense their R&D expenditures in the tax year in which they were incurred. However, under the TCJA, beginning in 2022, companies were required to capitalize and amortize R&D expenditures over a 5-year period for domestic expenses and a 15-year period for foreign expenses. Amortizing R&D expenses over multiple years effectively raises the after-tax cost of undertaking R&D activities, thereby increasing the cost of capital and discouraging R&D spending.

This report analyzes the economic impacts of R&D amortization, as compared to a baseline with immediate R&D expensing. Amortizing R&D expenses over multiple years effectively raises the after-tax cost of undertaking R&D activities, thereby increasing the cost of capital and reducing incentives for R&D spending.

Full expensing

Full expensing permits businesses to immediately deduct the full cost of qualifying capital expenditures, as opposed to depreciating the asset over its prescribed recovery period.² Typically, depreciation deductions are taken over at least several years, broadly reflecting the useful life of the property. Full expensing accelerates this process by allowing businesses to claim a larger deduction in the year the asset is placed into service.

The TCJA temporarily enacted full expensing for qualified property acquired and placed into service after September 27, 2017, and before January 1, 2023. Eligible property includes both new and used tangible personal property with a recovery period of 20 years or less, such as equipment and vehicles. Full expensing began phasing out in 2023. That is, the percentage of a property's cost that is immediately deductible will continue to decrease by 20% per year until it is fully phased out in 2027 (i.e., 80% in 2023, 60% in 2024, 40% in 2025, 20% in 2026, and 0% in 2027).

This report analyzes the economic impacts of a scenario without full expensing, whereby qualifying property would generally be depreciated under the Modified Accelerated Cost Recovery System (MACRS) (as would be the case when full expensing sunsets completely in 2027), as compared to a baseline with full expensing for qualifying property.

Interest deductibility

Section 163(j) of the IRC limits the deduction for business interest expense. The TCJA significantly altered Section 163(j) by generally disallowing the deductibility for net interest expense exceeding 30% of earnings before interest, taxes, depreciation, and amortization (EBITDA). Beginning in 2022, and as enacted under the TCJA, a stricter limitation based on earnings before interest and taxes (EBIT) went into effect. The post-2021 limitation, generally equivalent to net interest expense exceeding 30% of EBIT, excludes companies' depreciation and amortization from the limitation calculation. This significantly reduces the total amount of interest that can be deducted.

This report analyzes the economic impacts of the more stringent post-2021 EBIT-based limitation, as compared to a baseline with the less stringent EBITDA-based limitation. By raising the tax burden on investment, limiting the deductibility of interest expense generally increases the cost of capital, discourages investment, and results in less capital formation.

Domestic provisions that expire or revert to pre-TCJA law at the end of 2025

Pass-through deduction

The TCJA included a new deduction for pass-through businesses, allowing a deduction of 20% of qualified business income (QBI) for individuals, estates, and trusts with pass-through business income (i.e., Section 199A).³ The computation of QBI, as well as other items necessary to calculate the deduction, are determined at the operating business level, but the deduction is taken by the owner of a sole-proprietorship, partner of a partnership, or shareholder of an S corporation (hereinafter referred to as the "business owner"). The pass-through deduction is scheduled to sunset at the end of 2025.

The pass-through deduction cannot exceed 20% of a business owner's taxable income, excluding net capital gains. Additionally, the pass-through deduction has other limitations to determine the maximum deduction allowed. If the business owner has taxable income below a threshold (\$383,900 in 2024 for a joint filer) then the business owner can generally claim the full amount of the pass-through deduction. If the business owner's taxable income exceeds this threshold, then the pass-through deduction can be limited by the specified service trade or business (SSTB) limitation and the wage and property limitation. These limitations phase in as taxable income increases (fully phased in at \$483,900 for a joint filer in 2024).⁴

This report analyzes the economic impacts of the expiration of the pass-through deduction, as compared to a baseline with the 20% pass-through deduction enacted by the TCJA. Sunsetting the pass-through deduction increases capital and labor taxes.⁵ Raising the tax burden on investment increases the cost of capital, discourages investment, and results in less capital formation in the United States. Additionally, reducing after-tax compensation for self-employed workers creates a disincentive to work, leading to fewer jobs and/or hours worked.

Individual income tax rates and brackets

The TCJA generally lowered individual income tax rates and expanded individual income tax brackets. Notably, pass-through businesses – which include sole proprietorships, partnerships,

and S corporations – are generally taxed at their owner’s income tax rate. The individual income tax rates and brackets are scheduled to generally revert to pre-TCJA levels at the end of 2025.

Table 1 summarizes the change in the individual income tax rates and brackets.

Table 1. Individual income tax rates and brackets, TCJA and post-TCJA

	Single	Married	Rate
TCJA rates and brackets	\$0 - \$11,925	\$0 - \$23,850	10%
	\$11,926 - \$48,475	\$23,851 - \$96,650	12%
	\$48,476 - \$103,350	\$96,651 - \$206,700	22%
	\$103,351 - \$197,300	\$206,701 - \$394,600	24%
	\$197,301 - \$250,525	\$394,601 - \$501,050	32%
	\$250,526 - \$626,350	\$501,051 - \$751,600	35%
	\$626,351 and over	\$751,601 and over	37%
Post-TCJA rates and brackets	\$0 - \$12,200	\$0 - \$24,400	10%
	\$12,201 - \$49,600	\$24,401 - \$99,200	15%
	\$49,601 - \$120,100	\$99,201 - \$200,100	25%
	\$120,101 - \$250,450	\$200,101 - \$304,950	28%
	\$250,451 - \$544,550	\$304,951 - \$544,550	33%
	\$544,551 - \$546,750	\$544,551 - \$615,100	35%
	\$546,751 and over	\$615,101 and over	39.6%

Note: TCJA rates and brackets reflect rates and brackets for 2025 as announced by the Internal Revenue Service. Post-TCAJ rates and brackets reflect rates and brackets for 2026 as projected by the Congressional Budget Office.

Source: Internal Revenue Service and Congressional Budget Office, *An Update to the Budget and Economic Outlook: 2024 to 2034*, June 2024.

This report analyzes the economic impacts of the post-TCJA rates and brackets, as compared to a baseline with the TCJA rates and brackets. Relative to TCJA rates and brackets, post-TCJA rates and brackets will decrease after-tax compensation, as well as the after-tax return on investments.

Estate tax exemption

The estate tax is a federal transfer tax imposed on the fair market value of a deceased person’s taxable estate at the time of death.⁶ The taxable estate includes the total value of all assets owned by the decedent, such as real property, investments, business interests, and personal property, reduced by allowable deductions such as debts, funeral expenses, and charitable contributions. The estate tax is assessed on the portion of the estate that exceeds the applicable exclusion amount, which represents the value that can be transferred to heirs free of federal estate tax. Estates with values exceeding this threshold are subject to the estate tax at graduated rates, with a top rate of 40%.

The TCJA significantly increased the estate tax exemption, effectively reducing the number of estates, including those with family-owned businesses, subject to the tax. In 2017 (i.e., before the TCJA), the estate tax exemption was \$5.49 million per individual and \$10.98 million for married couples and adjusted for inflation annually. After the law’s passage, the exemption doubled to

\$11.18 million for individuals and \$22.36 million for married couples in 2018, with inflation adjustments annually. This increase in the exemption allowed more estates to pass on assets to heirs without incurring estate tax liability. In 2024, the estate tax exemption is \$13.61 million for individuals and \$27.22 million for married couples. The increase in the estate tax exemption is temporary, scheduled to expire at the end of 2025, and will generally revert to the lower pre-TCJA levels (i.e., 2017 levels adjusted for inflation)..

This report analyzes the economic impacts of the estate tax exemption's post-TCJA levels, as compared to a baseline with the higher estate tax exemption enacted by the TCJA. The lower estate tax exemption increases the cost of capital, which in turn discourages investment, and reduces the capital stock.

International tax changes in 2026

Foreign-Derived Intangible Income (FDII) deduction

The TCJA created a 37.5% deduction for FDII that reduces the effective tax rate on certain foreign-derived sales and service income. Under the 37.5% FDII deduction, the effective rate on this category of income is 13.125%.

The FDII deduction is targeted at the income earned from the sale of goods and services to foreign markets that is considered attributable to a company's US-based intangible assets. The FDII deduction creates a financial incentive for a company's intangible assets (e.g., patents and trademarks) and high-return operations to be moved to or developed and retained in the United States rather than being offshored.⁷

The FDII deduction is scheduled to be reduced to 21.875% at the end of 2025, increasing the effective FDII rate to 16.4%. This report analyzes the economic impacts of a 21.875% FDII deduction, as compared to a baseline with a 37.5% FDII deduction. The lower FDII deduction increases the cost of capital and can be expected to lower investment and GDP.

Global Intangible Low-Taxed Income (GILTI)

GILTI is a definition of certain earnings of foreign affiliates of US-based multinational enterprises (MNEs) – referred to as controlled foreign corporations (CFCs) – that was adopted as part of the TCJA. The GILTI rules operate as a form of tax on the profits of US-based MNEs. The rationale for the provision when enacted under the TCJA was to subject a portion of the foreign earnings of US MNEs operating in low-tax jurisdictions to a minimum tax to reduce the incentive for shifting corporate profits to low-taxed jurisdictions.

The GILTI tax is imposed currently (without deferral) and implemented by allowing a deduction of 50% of the income, resulting in an implied minimum GILTI rate of 10.5%. At the end of 2025, the GILTI deduction is scheduled to be reduced to 37.5%, increasing the implied minimum GILTI rate to 13.125%.⁸

This report analyzes the economic impacts of a 37.5% GILTI deduction, as compared to a baseline with a 50% GILTI deduction. Academic research suggests that the foreign operations of US MNEs are generally complementary to their US domestic operations.⁹ That is, when the foreign investment and employment of US MNEs increase, so do the US MNE's domestic

investment and employment. Increasing the tax burden on US MNEs' foreign earnings by increasing the effective GILTI rate is expected to reduce foreign investment and employment, thus resulting in less US MNE domestic investment and employment.

Base Erosion and Anti-Abuse Tax (BEAT)

The BEAT was introduced under the TCJA as a mechanism intended to reduce profit shifting by large US corporations making deductible payments to related foreign parties. BEAT applies only to corporations with gross receipts exceeding \$500 million (calculated as a three-year average) and for whom payments to foreign related parties account for more than 3% of total deductible payments.

The BEAT works by recalculating a corporation's tax liability to include certain payments made to foreign related parties, which are otherwise deductible. These payments—such as interest, royalties, and certain service fees—are added back into the tax base under the BEAT calculation. The BEAT tax is then determined by comparing a company's regular corporate tax liability (at the 21% corporate income tax rate) with its BEAT tax liability, which is based on the alternative BEAT rate. If the BEAT liability is higher, the company must pay the difference. Currently, the BEAT tax rate is 10%, with the regular tax liability reduced by some, but not all, credits. For instance, the R&D tax credit, portions of the Low-Income Housing Tax Credit (LIHTC), renewable energy production credits, and energy investment credits are excluded from BEAT's calculation.

The BEAT rate is scheduled to increase to 12.5% at the end of 2025; additionally, taxpayers will be required to reduce their regular corporate income tax liability for BEAT calculation purposes by all credits (as opposed to excluding some or all of the R&D credit, the LIHTC, and certain energy credits).

This report analyzes the economic impacts of a 12.5% BEAT rate with regular tax liability reduced by all credits, as compared to a baseline with a 10% BEAT rate where regular tax liability is reduced by some, but not all, credits. These changes will increase the amount of BEAT liability a company can face. Increasing companies' BEAT liabilities is expected to raise the cost of capital, reduce corporate investment, and result in slower economic growth.

III. Estimated economic activity disrupted

This section presents the estimated economic activity that could be disrupted by the expiration of tax policies that encourage manufacturing in the United States. This is a partial equilibrium analysis focusing on the impacts of the policy change on investment or labor supplied through changes in their after-tax returns, but not reflecting broader impacts across markets or the shifting of economic activity across the economy. The main advantage of this approach is that it isolates and helps provide understanding of potential economic activity that may be disrupted or is “at risk” from the policy change, as well as the extent by which the tax policies might influence taxpayer behavior.¹⁰ The economic activity disrupted analysis does not model how various markets interact and adjust (i.e., the shifting of economic activity across the broader economy), which is simulated in the macroeconomic analysis (see section IV).

The economic activity disrupted is measured in terms of jobs, employee compensation, and GDP:

- ▶ **Jobs.** Jobs are measured as the total headcount of US workers, which includes full-time, part-time, and self-employed workers.
- ▶ **Employee compensation.** Employee compensation includes employee cash compensation and benefits. Employee compensation income is a component of GDP.
- ▶ **GDP.** GDP is the total market value of final goods and services produced in the United States.

Estimated economic activity disrupted

This analysis estimates the economic activity disrupted by the expiration of these tax policies, relative to the baseline. Overall, this report estimates that the expiration of these policies could put 5.9 million US jobs, \$540 billion of US employee compensation, and \$1.1 trillion of US GDP at risk.

This is because allowing these tax policies to change, phase out, or expire:

- ▶ Decreases after-tax compensation, which creates a disincentive to work, leading to fewer jobs and/or hours worked;
- ▶ Decreases the return on investment via a higher cost of capital, thereby incentivizing less investment;
- ▶ Reduces the after-tax return on investments made within the United States, making investments abroad relatively more attractive and leading to less investment in domestic economic activity; and
- ▶ Decreases the return on the international operations of globally engaged US companies, thereby incentivizing smaller international operations and less complementary domestic US economic activity.

Estimated economic activity disrupted, by industry

The largest share of the disrupted economic activity is estimated to be in manufacturing and related industries (Table 2). Specifically, this report estimates that the expiration of these policies could put 1.1 million US jobs, \$126 billion of US employee compensation, and \$284 billion of US GDP at risk in the manufacturing, transportation, information, and mining industries.

A large share of the total economic activity disrupted is concentrated in manufacturing and related industries, partly because these sectors are capital-intensive and heavily reliant on investment in machinery and equipment. For example, the expiration of full expensing, which allows immediate deductions for qualifying capital expenditures, directly increases the after-tax cost of such investments. Similarly, the change to a stricter interest deductibility limitation increases the costs of debt financing these investments. Additionally, the shift to capitalizing and amortizing R&D expenses and the reduction in the FDII deduction increase costs for manufacturers that invest heavily in innovation. More broadly, changes to the individual income tax rates and brackets reduce the US labor supply and, consequently, increase labor costs for these companies.

Table 2. Estimated economic activity disrupted by the expiration of tax policies that encourage manufacturing in the United States, by industry
Estimates relative to the size of the US economy in 2025

Industry	Employment	Employee compensation	GDP
Manufacturing, transportation, information, and mining	-1,137,000	-\$126b	-\$284b
Retail trade	-719,000	-\$39b	-\$82b
Accommodation and food services	-658,000	-\$27b	-\$43b
Health care and social assistance	-634,000	-\$52b	-\$63b
Professional, scientific, and technical services	-584,000	-\$87b	-\$122b
Admin & support, waste mgmt & remediation services	-482,000	-\$34b	-\$45b
Construction	-470,000	-\$46b	-\$71b
Real estate, finance, and insurance	-395,000	-\$61b	-\$232b
Wholesale trade	-318,000	-\$39b	-\$90b
Other services	-269,000	-\$17b	-\$23b
Arts, entertainment, and recreation	-87,000	-\$6b	-\$11b
Educational services	-67,000	-\$5b	-\$6b
Agriculture, forestry, fishing, and hunting	-49,000	-\$3b	-\$10b
Utilities	-8,000	-\$2b	-\$7b
Total	-5,900,000	-\$540b	-\$1,090b

Note: Industry definitions follow the North American Industry Classification System (NAICS). Figures are rounded.
Source: EY analysis.

Estimated economic activity disrupted, by state

This analysis also estimates the economic activity that could be disrupted by the expiration of these tax policies for each of the fifty states and the District of Columbia (Table 3). Differences in the estimated amount of economic activity disrupted by state result from differences in each state's total amount of economic activity and the composition of that economic activity (e.g., differences in the types of industries that operate in that state and the size and legal form of organization of the businesses).

Table 3. Estimated economic activity disrupted by the expiration of tax policies that encourage manufacturing in the United States, by state
Estimates relative to the size of the US economy in 2025

	Employment	Employee comp.	GDP		Employment	Employee comp.	GDP
United States	-5,900,000	-\$540b	-\$1,090b	Missouri	-108,000	-\$10b	-\$20b
Alabama	-80,000	-\$7b	-\$14b	Montana	-20,000	-\$2b	-\$4b
Alaska	-11,000	-\$1b	-\$2b	Nebraska	-37,000	-\$3b	-\$7b
Arizona	-119,000	-\$11b	-\$22b	Nevada	-60,000	-\$5b	-\$10b
Arkansas	-49,000	-\$4b	-\$9b	New Hampshire	-27,000	-\$3b	-\$5b
California	-708,000	-\$67b	-\$134b	New Jersey	-162,000	-\$15b	-\$32b
Colorado	-113,000	-\$11b	-\$22b	New Mexico	-29,000	-\$3b	-\$5b
Connecticut	-65,000	-\$6b	-\$12b	New York	-337,000	-\$32b	-\$66b
Delaware	-17,000	-\$2b	-\$3b	North Carolina	-184,000	-\$17b	-\$33b
DC	-20,000	-\$2b	-\$3b	North Dakota	-15,000	-\$1b	-\$3b
Florida	-399,000	-\$36b	-\$73b	Ohio	-208,000	-\$19b	-\$37b
Georgia	-198,000	-\$18b	-\$36b	Oklahoma	-63,000	-\$6b	-\$12b
Hawaii	-23,000	-\$2b	-\$4b	Oregon	-75,000	-\$7b	-\$14b
Idaho	-33,000	-\$3b	-\$6b	Pennsylvania	-223,000	-\$21b	-\$40b
Illinois	-228,000	-\$21b	-\$42b	Rhode Island	-18,000	-\$2b	-\$3b
Indiana	-122,000	-\$11b	-\$21b	South Carolina	-86,000	-\$8b	-\$15b
Iowa	-57,000	-\$5b	-\$10b	South Dakota	-17,000	-\$1b	-\$3b
Kansas	-53,000	-\$5b	-\$10b	Tennessee	-129,000	-\$11b	-\$23b
Kentucky	-74,000	-\$6b	-\$13b	Texas	-547,000	-\$51b	-\$107b
Louisiana	-76,000	-\$7b	-\$15b	Utah	-65,000	-\$6b	-\$13b
Maine	-25,000	-\$2b	-\$4b	Vermont	-12,000	-\$1b	-\$2b
Maryland	-102,000	-\$9b	-\$18b	Virginia	-149,000	-\$14b	-\$27b
Massachusetts	-139,000	-\$13b	-\$26b	Washington	-131,000	-\$13b	-\$25b
Michigan	-170,000	-\$15b	-\$30b	West Virginia	-23,000	-\$2b	-\$4b
Minnesota	-107,000	-\$10b	-\$19b	Wisconsin	-110,000	-\$10b	-\$19b
Mississippi	-46,000	-\$4b	-\$8b	Wyoming	-11,000	-\$1b	-\$2b

Note: Figures are rounded.

Source: EY analysis.

IV. Estimated macroeconomic impacts

This analysis also uses the EY Macroeconomic Model to estimate the broader economic impacts of the tax increases on the US economy, focusing on how various markets interact and adjust (i.e., the shifting of economic activity across the broader economy in a general equilibrium framework).

For example, if a policy increases marginal tax rates on income, people might choose to work less because they keep less of what they earn (i.e., labor supply is reduced). While partial equilibrium models might isolate the impact of this change in labor supply incentives, a general equilibrium analysis recognizes that businesses facing a smaller pool of workers may respond by offering higher wages to attract more people back into the labor force. This wage adjustment can offset some of the initial decline in labor supply.

Similarly, if a policy raises taxes on investment income, reducing the after-tax return for savers and the US capital supply, businesses might still need funds to invest in new projects. To attract this now-scarcer capital, businesses may offer higher pre-tax returns to savers. However, these higher returns increase the overall cost of financing for businesses, which could limit how much they are willing or able to invest.

Additionally, in contrast to the partial equilibrium analysis, the general equilibrium analysis simulates the shifting of economic activity across the broader economy.

EY Macroeconomic Model

Economic impacts are estimated using the EY Macroeconomic Model, an overlapping generations model similar to models used by the Joint Committee on Taxation (JCT), Congressional Budget Office (CBO), and US Department of the Treasury to analyze changes in tax policy.

The EY Macroeconomic Model includes a detailed modeling of industries and inter-industry linkages. Businesses choose the optimal mix of capital and labor based on relative prices and industry-specific characteristics. Each industry has a different relative size of capital, labor, and intermediate inputs associated with its output.

The model is designed to include key economic decisions of businesses and households affected by tax policy, as well as major features of the US economy. The post-tax returns from work and savings are incorporated into business and household decisions on how much to produce, save, and work. A description of the EY Macroeconomic Model can be found in the appendix.

Estimated macroeconomic impacts

This analysis estimates that, using this methodology, the expiration of tax policies that encourage manufacturing in the United States could, on average, reduce the total level of employment in the US economy by 2.9 million jobs throughout the first decade and by 2.5 million jobs thereafter. Additionally, these expirations could reduce US GDP by \$470 billion in each of the first ten years and \$780 billion each year thereafter.

The negative economic impact on GDP is estimated to grow over time due to less investment that, over time, reduces the overall US capital stock. That is, over time there is less capital (e.g., machinery and technology) available to workers, which makes workers less productive and, in turn, reduces overall economic activity (GDP). The impact on jobs is seen more quickly, as businesses can more quickly reduce the number of workers to lower costs and production, while adjusting their capital (such as selling equipment or reducing their overall amount of capital through lowered levels of investment) takes longer.

Note that it is not possible to separate entirely the impact of a given tax increase from the impact of how the resulting revenue is used. The additional revenue must eventually be used in some way, which can affect the estimated impacts. Typical revenue uses in analyses like this have included lower government deficits, increases in government spending or transfers, decreases in other taxes, or a combination thereof. This analysis assumes that the additional revenue associated with the expiration of tax policies that encourage manufacturing in the United States fund government transfers, a standard assumption for macroeconomic analyses of tax changes as it generally isolates the tax incentive effects.¹¹

V. Caveats and limitations

Any modeling effort is only an approximate depiction of the economic forces it seeks to represent, and the economic models developed for this analysis are no exception. Although various limitations and caveats might be listed, several are particularly noteworthy:

- ▶ **Estimated macroeconomic impacts are based on a stylized depiction of the US economy.** The economic models used for this analysis are, by their very nature, stylized depictions of the US economy. As such, they cannot capture all of the detail of the US economy, the existing US tax system, or the tax policy changes.
- ▶ **Estimates are limited by available public information.** The analysis relies on information reported by government agencies (primarily the Bureau of Economic Analysis, CBO, Internal Revenue Service, and JCT). The analysis did not attempt to verify or validate this information using sources other than those described in this report.
- ▶ **Macroeconomic estimates are sensitive to how tax revenue from the policy change is used.** It is not possible to separate entirely the impact of a given tax increase from the impact of how the revenue raised is used. Revenue increases must eventually be used in some way, which can affect the estimated impacts. Typical revenue uses in analyses like this have included lower government deficits, increases in government spending or transfers, decreases in other taxes, or a combination thereof. This analysis assumes that the revenue increases associated with the expiration of tax policies that encourage manufacturing in the United States fund government transfers, a standard assumption for macroeconomic analyses of tax changes as it generally isolates the tax incentive effects.
- ▶ **Full employment model.** The EY Macroeconomic Model 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 slack in the economy (i.e., a full employment assumption with no involuntary unemployment). Any increase 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. This is a common assumption used in many macroeconomic models, including some used by the CBO, JCT, and US Department of the Treasury to analyze tax policy.
- ▶ **Industries are assumed to be responsive to normal returns on investment.** The industries comprising the United States economy in the EY Macroeconomic Model are assumed to be responsive to the normal returns on investment. This contrasts to industries that earn economic profits and thereby have an increased sensitivity to statutory tax rates relative to marginal effective tax rates.
- ▶ **GILTI calculations are high-level approximations.** A limitation to this analysis is the limited publicly available company-level data ideal for doing an analysis of changes to the international tax regime. Additionally, there is significant uncertainty surrounding the responsiveness of domestic activity to changes in foreign activity and some papers find that domestic and foreign activities are substitutes, rather than complements.

- ▶ **Estimates depend on the assumed policy baseline.** To provide a full view of the potential economic impacts of the expiration of these tax policies, this analysis assumes that the provisions that expired or began to phase out in 2022 and 2023 remain expired or become fully phased out and that the changes scheduled for the end of 2025 are allowed to take effect. Estimates are produced relative to a baseline where these provisions do not change, expire, or phase out (“baseline”). Assuming a different policy baseline could result in different macroeconomic estimates than those produced by this analysis.
- ▶ **Estimates depend on assumed economic baseline.** This model is calibrated to represent the US 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. Note that, in contrast to the approach used for this analysis, looking at economic aggregates over time to determine the impact of a policy change is often misleading because it does not isolate the effects of the policies being examined since it does not control for other factors that affect the economic variables being examined. For example, when creating a synthetic control group for US publicly traded firms before (2011-2017) and after (2018-2019) the TCJA, one paper found that the capital expenditures in the control group declined relative to their pre-TCJA values; this suggests that examining macroeconomic aggregates without a properly constructed counterfactual could produce misleading conclusions in the context of the TCJA.¹²

Appendix. EY Macroeconomic Model

The EY Macroeconomic Model used for this analysis is similar to those used by the CBO, JCT, and US Department of the Treasury.¹³ In this model, changes in tax policy affect 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, savings, and investment, 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 (or other policies). Behavioral changes are estimated in an overlapping generations (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.

High-level description of model's structure

Production

Firm production is modeled with the constant elasticity of substitution (CES) 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 three-digit North American Industry Classification System (NAICS) codes and is calibrated to a stylized version of the US 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 that have access to capital markets (savers) and those that do not (non-savers 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 US households are permanently non-savers and 50% are permanently savers across all age cohorts.

The utility of representative individuals is modeled as a CES 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 — following the estimate of Altig et al. (2001).¹⁴

Government

The model includes a simple characterization of both federal and 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 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.

Modeling the United States as a large open economy

The model 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 of Gravelle and Smetters (2006).¹⁵ 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 A-1. 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.

Table A-2. Estimated macroeconomic impacts of the expiration of tax policies that encourage manufacturing in the United States

	First ten years	Long run
GDP	-1.5%	-2.5%
Consumption	0.3%	-2.6%
Investment	-9.4%	-4.5%
After-tax wage rate	-4.0%	-6.5%
Labor supply	-1.8%	-1.5%
Private capital	-1.1%	-4.5%
<i>Annual impacts relative to 2025 US economy</i>		
GDP (\$bil)	-\$470	-\$780
Jobs	-2,900,000	-2,500,000

Note: Long run denotes when the economy has fully adjusted to policy change; generally, 2/3 to 3/4 of this adjustment occurs within 10 years. Figures are rounded.

Source: EY analysis.

Endnotes

¹ Formally, the economic activity disrupted is a partial equilibrium analysis and the macroeconomic impact is a general equilibrium.

² For more information see: Congressional Research Service, (2024), “The Section 179 and Section 168(k) Expensing Allowances: Current Law, Economic Effects, and Selected Policy Issues,” Report No. RL31852. <https://sgp.fas.org/crs/misc/RL31852.pdf>

³ For more information, see: Congressional Research Service, (2024), “The Section 199A deduction: How it works and illustrative examples,” Report No. R46402. <https://crsreports.congress.gov/product/pdf/R/R46402>

⁴ The SSTB limitation reduces (and, once fully phased in, eliminates) the Section 199A deduction for certain service-intensive business income. Service-intensive businesses include health, law, accounting, actuarial science, performing arts, consulting, athletics, financial services, investing and investment management, trading or dealing in certain assets, or any trade or business where the principal asset is the reputation or skill of one or more of its employees or owners. The wage and property limitation caps the maximum Section 199A deduction at the greater of: (1) 50% of the business owner’s W-2 wages for the business, or (2) 25% of those wages plus 2.5% of the business owner’s share of the unadjusted basis of tangible capital assets placed in service in the past 10 years.

⁵ Pass-through income can reflect either returns to capital or labor. It is difficult to determine how much of pass-through profits represent returns to capital invested by the business owner or returns from the owners’ labor. For example, if an entrepreneur starts a new manufacturing business as a pass-through and earns a profit, it is difficult to estimate how much of the business profit is attributable to the investment in machines and facilities (capital) versus the expertise and skills of the entrepreneur (labor). Some research suggests that approximately 75% of pass-through income can be considered as labor income. See, for example, Matthew Smith, Danny Yagan, Owen M. Zidar and Eric Zwick, “Capitalists in the Twenty-First Century”, NBER Working Paper 25442, June 2019. <https://www.nber.org/papers/w25442>.

The analysis estimates the labor share of proprietors’ income using the ratio of total compensation paid to employees (wages, salaries, and supplemental benefits) to gross domestic income (GDI) excluding proprietors’ income. This ratio is applied to proprietors’ income and the result is considered the labor share. This follows CBO’s methodology. For more details see, Congressional Budget Office, “How CBO Projects Income,” July 2013.

⁶ For more information, see: Congressional Budget Office, (2021), “Understanding Federal Estate and Gift Taxes.” <https://www.cbo.gov/system/files/2021-06/57129-Estate-and-Gift-Tax.pdf>

⁷ The FDII deduction promotes tax parity with the global intangible low-taxed income (GILTI) regime, which in isolation may incentivize a company to locate its intangible assets and high-return operations outside the United States. Note, however, that increasing domestic tangible capital in isolation (e.g., without also increasing income) reduces the amount of the FDII deduction and, consequently, increase income taxes. This is because the FDII deduction applies to the export share of income in excess of 10% of domestic tangible capital. For the mechanics of the FDII deduction calculation, see the example in Table 1 of the body of the report.

⁸ GILTI also includes a high-tax exclusion that can generally be elected when foreign income is taxed at an effective rate greater than 18.9% (i.e., 90% of the 21% US corporate income tax rate). Under current law, GILTI allows US MNEs to take a credit against US tax for taxes paid to foreign jurisdictions to prevent double taxation. GILTI is applied on a worldwide basis, so that taxes paid to higher tax jurisdictions may be used to offset US tax liability from income earned in low tax jurisdictions. However, the tax credit that the United States allows for foreign taxes paid on GILTI is limited to 80%. Because of this GILTI “haircut,” GILTI effectively taxes at a rate of 13.125% even though the (after-deduction) statutory rate is 10.5%. That is, the credit can eliminate GILTI related tax liability if the foreign tax rate is at least equal to 13.125% ($13.125\% \times 80\% = 10.5\%$). Foreign tax credits are further limited by the application of pre-existing rules requiring the allocation of a portion of US expenses, like interest expense, to foreign source earnings, meaning that foreign earnings subject to even higher foreign tax rates are subject to the GILTI tax. In addition, currently unused foreign tax credits related to GILTI income cannot be carried back or forward – they expire unused. Formally, at a high level, GILTI requires the inclusion of the active income of a US parent’s controlled foreign corporations (CFCs) that exceeds 10% of the CFCs’ basis in their depreciable tangible property (so-called Qualified Business Asset Investment (QBAI)). GILTI also puts GILTI-related foreign taxes in a separate basket, gives a 20% haircut to the credit allowed for foreign taxes, and does not allow unused credits to be carried back or forward. GILTI does not apply to Subpart F income, foreign oil and gas income, or income effectively connected to a US business. GILTI also does not apply to the dividends from related foreign affiliates. But this is to prevent double counting in the measurement of GILTI income, not to subject such income to an alternative tax regime. GILTI also allows a deduction against taxable income for a 10% rate of return on tangible assets used in a US MNE’s foreign operations as a high-level measure of the normal return on tangible assets. It is through this deduction that GILTI attempts to measure and tax only the intangible foreign income (rather than all income) of US MNEs.

⁹ For a summary of this research see EY, *Estimated impacts of Pillar Two and potential policy responses on US domestic economic activity*, April 2023 and EY, *Estimated impacts of proposed changes to GILTI provision on US domestic economic activity*, August 2021.

¹⁰ Investment incentives are commonly modeled using a cost of capital framework that calculates the after-tax cost of investing in new capital by considering factors such as tax depreciation and tax rates. This framework is widely used in tax policy modeling and quantifies how changes in tax policy affect businesses' investment incentives. Labor supply incentives are commonly modeled with both the substitution effect (where lower marginal tax rates increase the return on labor, potentially encouraging more work) and the income effect (where lower taxes increase disposable income, potentially reducing the need to work as much).

This analysis also captures the incentive effects related to international tax policy changes. For example, academic research suggests that the foreign operations of US multinational enterprises (MNEs) are generally complementary to their US domestic operations. That is, when the foreign investment and employment of US MNEs increase, so do the US MNE's domestic investment and employment. Moreover, some academic research suggests that shifting profits from domestic investment abroad to lower-tax jurisdictions reduces the tax cost of domestic investment, resulting in increased domestic investment.

¹¹ This is discussed, for example, in Congressional Research Service, "*Dynamic Scoring for Tax Legislation: A Review of Models*," CRS Report R43381, June 20, 2023. For papers modeling a tax increase where changes in revenue are offset by changes in government spending (transfers or government consumption) see, for example, Rachel Moore and Brandon Pecoraro, "Quantitative analysis of a wealth tax for the United States: Exclusions and expenditures," *Journal of Macroeconomics* 78 (2023); Shinichi Nishiyama, "Fiscal Policy Effects in a Heterogeneous-Agent Overlapping-Generations Economy With an Aging Population," Congressional Budget Office, Working Paper 2013-07; and US Department of the Treasury, *A Dynamic Analysis of Permanent Extension of the President's Tax Relief*, July 25, 2006.

¹² See Gabriel Chodorow-Reich, Matthew Smith, Owen M. Zidar, and Eric Zwick, (2024), "Tax Policy and Investment in a Global Economy," NBER Working Paper 32180, (March). <https://www.nber.org/papers/w32180>

¹³ 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; Joint Committee on Taxation (JCT), *Macroeconomic Analysis of the 'Tax Reform Act of 2014'*, February 2014 (JCX-22-14); JCT, *Macroeconomic Analysis of Various Proposals to Provide \$500 Billion in Tax Relief*, March 2005 (JCX-4-05); and, US 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.

¹⁴ See 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.

¹⁵ 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): 1-42.