Large S Corporations and the Tax Cuts and Jobs Act

The economic footprint of the pass-through sector and the impact of the TCJA

Final version

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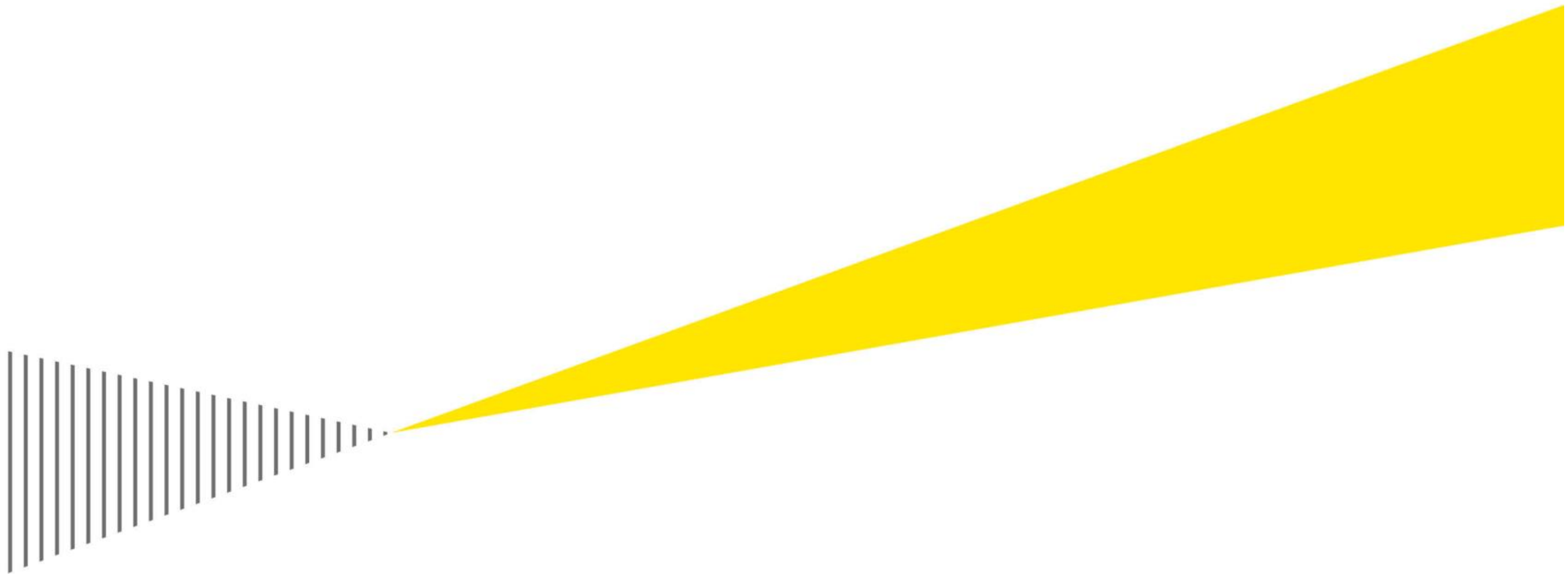

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Executive summary

This report examines both the economic footprint and the impact of the Tax Cuts and Jobs Act (TCJA) on the pass-through sector in the US economy, with a focus on large S corporations.

Key points

- In terms of economic impact, pass-through businesses comprise a significant share of economic activity, employ a majority of private sector workers (58%), and pay a significant share of all business taxes (51%).
- Large S corporations, defined here as those with 100 or more workers, employed 13.1 million workers, or 10% of the 133 million private sector workers in 2016. Large S corporations paid 20% of all business taxes.
- In terms of both effective and marginal tax rates, the analysis shows that prior to TCJA, large S corporations and C corporations faced similar tax rates. Rough parity remained following enactment of the TJCA. However, the sector will face significantly higher tax rates in 2026 than C corporations with the expiration of key TCJA provisions, such as the 20% Section 199A deduction for qualified business income.

Table ES-1. Effective and marginal tax rates under pre- and post-TCJA law

`	Pre-TCJA law	Post-TCJA law (in 2019)	Post-TCJA law (in 2026)
Effective tax rates			
Large S corporations	41.2	33.8	41.2
C corporations:			
Closely held, fully taxable shareholders	43.1	31.2	30.8
Average C corporation	41.3	29.0	28.7
Marginal effective tax rates			
Large S corporations	23.1	16.3	26.2
C corporations	22.6	16.8	22.8

Note: The *effective tax rates* are the average tax rate for hypothetical business earnings received through an S corporation and a C corporation. The *marginal effective tax rates* are for the additional increment of income from a new investment. Figures are rounded.
Source: EY analysis.

Economic footprint of the pass-through sector

Pass-through businesses – S corporations, partnerships, limited liability companies, and sole proprietorships – play an important role in the US economy. They:

- *Comprise a significant share of economic activity*. In 2014, the last year for which complete tax return data are available, pass-through businesses accounted for 95% of business entities, reported 50% of all business net income, and earned 37% of all business receipts.

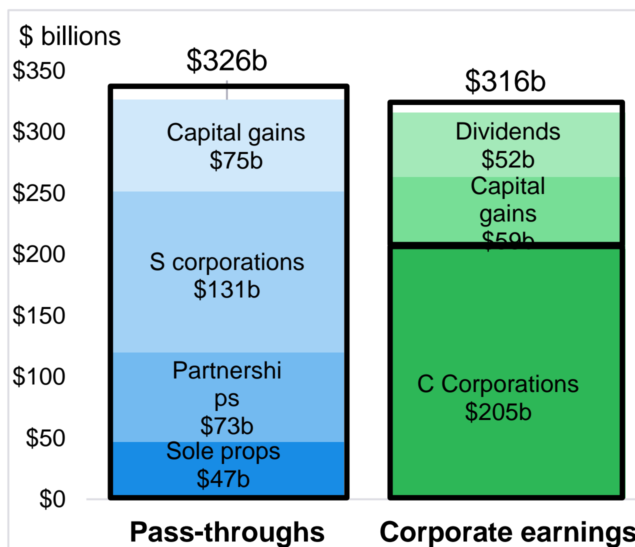
- *Employ a majority of private sector workers*. In 2016, pass-through businesses employed 77.7 million workers. These workers comprised 58% of the private sector work force.

- *Pay a significant share of business taxes*. In 2018, after passage of the TCJA, this report estimates that individual owners of pass-through businesses paid $326 billion in income tax on their business income. These taxes comprised 51% of all federal business income taxes (Figure ES-1). Taxes on corporate earnings are estimated at $316 billion, comprised of $205 billion paid through the corporate income tax, and $111 billion in investor-level taxes paid on corporate dividends and capital gains.

Large S corporations, defined as those with 100 or more workers, employed 13.1 million workers, or 10% of the 133 million private sector workers in 2016.

Pass-through businesses are well represented in all areas of the country. They employ a majority of the private sector workforce in every state and at least 60% of the private sector work force in 17 states.

Figure ES-1. Income taxes paid by individual pass-through business owners



Note: The individual income taxes paid by owners of pass-through businesses on their pass-through income and by individual investors on their corporate dividends and capital gains are estimated with the EY Individual Tax Microsimulation Model assuming such income is earned last. Figures are rounded.
Source: EY analysis.

Impact of the TCJA on large S corporations

The TCJA made significant changes to the US income tax with potential implications for the taxes paid by businesses organized as S and C corporations. The major TCJA provisions impacting the relative taxation of S and C corporations include the 21% corporate income tax rate, the top 37% individual income tax rate, expensing for investment in most equipment, section 179 expensing, the 20% Section 199A pass-through deduction for qualified business income (QBI), and the limitation on the deductibility of state and local taxes. While the lower corporate income tax rate and expanded 179 expensing provisions are permanent changes, the other listed provisions expire, mostly by 2026. Expensing phases down gradually, and expires completely, in 2027.

To measure the relative impact of the TCJA on C corporations, large S corporations, and pass-through businesses generally, the report uses two key measures: 1) a simple average effective tax rate (ETR) calculated for illustrative businesses, and 2) the marginal effective tax rate (METR) for new investment that reflects taxes as a share of an investment's total pre-tax return. These measures capture many major tax provisions, but answer somewhat different questions. The ETR calculations do not reflect expensing because this provision impacts primarily the timing of tax payments and better suited for and reflected under the METR framework.

The ETR reflects the average tax rate on income from the existing activities of a business. This comparison sheds light on whether an operating S corporation pays, on average, lower federal taxes than would a comparable C corporation due to its federal tax treatment. This measure

reflects, in a sense, the average burden of taxes in a given year on a business' operations. It is a cash flow measure that is historical or backward looking in nature – it depends on investment and business choices that have already been made. The METR, in contrast, is a forward-looking measure. It reflects the burden of taxes on a new investment and thus is a measure of the impact of the tax system on the incentive to undertake a new investment. In the context of this analysis, it compares the tax incentive for an S corporation to make new investment with the tax incentives for a C corporation to make the same investment.

Both the ETR and METR provide important insight into tax policy changes. The ETR is effective for comparing the relative burden on existing operations. Businesses may make plans, such as the choice of organizational form, based on overall average taxes based on existing rules and changes in the average tax burden can have significant impacts. The METR, in contrast, is a forward looking measure helpful for evaluating and comparing incentives for new investment.

Comparison of effective tax rates (ETRs)

ETR estimates are shown in Table ES-2 for: 1) large S corporations, whose owners are assumed to face the top individual tax rates, 2) all pass-through business owners, where some owners benefit from the graduated individual tax rate schedule, 3) closely-held C corporation with fully taxable shareholders, and 4) average C corporation. The closely-held C corporation with fully taxable shareholders is intended to better resemble a comparable S corporation, whereas the average C corporation is assumed to have an average share of tax-exempt shareholders and average dividend policy.

Distinguishing large S corporations from other pass-through businesses is an important part of this analysis. While most C corporation income is earned by large public corporations and, upon enactment of the TCJA, subject to the top corporate rate of 21%, about one-third of pass-through income is earned by smaller businesses and taxed at rates below the top individual rate. This lower taxed income reduces the ETR for the overall pass-through sector. By focusing on large S corporations, which could be considered closer substitutes for C corporations, this analysis attempts to offer a helpful additional comparison.

This distinction between large and average pass-through businesses is important to several key patterns that emerge from the analysis:

- Large S and C corporations had a similar federal tax burden prior to the TCJA and during the period in which the TCJA is fully in effect, but will face a tax burden that is 34% to 44% higher than C corporations when most of the individual income tax provisions in the TCJA sunset in 2026.

- By comparison, pass-through businesses more generally were taxed less heavily than were C corporations prior to the TCJA, remain so under the TCJA law, but will have a tax burden slightly above that of C corporations in 2026 and beyond, after most of the TCJA's individual income tax provisions expire.

Table ES-2. Comparison of corporate and pass-through business effective tax rates (ETRs)

	Pre-TCJA law	Post-TCJA law (in 2019)	Post-TCJA law (in 2026)
Large S corporations	41.2%	33.8%	41.2%
Pass-through business	32.9%	27.3%	32.9%
C corporations:			
Closely held, fully taxable shareholders	43.1%	31.2%	30.8%
Average C corporation	41.3%	29.0%	28.7%

Note: Effective tax rates are for hypothetical business earnings received through an S corporation and a C corporation. The ETR for the C corporation reflects both the corporate income tax and investor level shareholder taxes. Closely held, fully taxable C corporation assumes 22% of corporation earnings distributed as dividends and 78% retained and taxed as capital gains, while the average C corporation assumes 44% of corporation earnings distributed as dividends and 56% retained and taxed as capital gains. 75% of pass-through income is assumed to qualify for the qualified business income deduction (199A) and 10% of income is earned by passive owners.
Source: EY analysis.

Comparison of marginal effective tax rates (METRs)

METR estimates are shown in Table ES-3 for the average C corporation, large S corporations, and all pass-through businesses. The METR is useful for summarizing how the overall income tax system impacts the relative burden of taxation on a representative new investment in each business sector taking into account the typical blend of investment in each sector (e.g., equipment versus structures), source of finance (e.g., debt versus equity), and type of investors (e.g., taxable versus tax-exempt). The calculations in Table ES-3 are for representative weighted averages of investments, financing, and investors.

The comparison of METRs gives a picture that is similar to that given by the ETR calculations – large S corporations have a METR similar to C corporations under pre-TCJA law and post-TCJA law in 2019, but have a METR 3.4 percentage points (15%) higher after the sunset of the TCJA's major individual provisions, principally the 20% deduction for QBI and the reinstatement of the 39.6% top individual tax rate.

In contrast, pass-through businesses were generally tax advantaged compared to C corporations prior to the TCJA, remain so under the TCJA, but have a more comparable federal tax burden when several major TCJA provisions impacting pass-through businesses sunset in 2026 The difference in outcomes for large S corporations compared to pass throughs generally (or on average) reinforces the importance of evaluating the impact of large S corporations separately.

Table ES-3. Comparison of corporate and pass-through business METRs

	Pre-TCJA law	Post-TCJA law (in 2019)	Post-TCJA law (in 2026)
Large S corporations	23.1%	16.3%	26.2%
Pass-through business	18.1%	13.2%	20.5%
C corporations	22.6%	16.8%	22.8%

Note: The assumptions used for calculating large S corporation METRs are the same as for pass-through businesses except large S corporations are assumed to pay the top individual income tax rate. Pass-through businesses and large S corporations are assumed to receive the pass-through deduction, on average, on 75% of their income. METRs are estimated by the EY QUEST Overlapping Generations General Equilibrium Model of the US Economy. The results include macroeconomic impacts such as changes in interest rates over time. Notably, when aggregating the cost of capital across industries to compute the METRs for the business, corporate and pass-through sectors baseline forecast weighting is used rather than the post-TCJA composition of the US economy. These weights are used to more clearly isolate the impact from the change in law. Figures are rounded.
Source: EY analysis.

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Large S Corporations and the Tax Cuts and Jobs Act

The economic footprint of the pass-through sector and the impact of the TCJA

I. Introduction

The Tax Cuts and Jobs Act (TCJA) made major changes to the US tax code that could have significant implications for a business' choice to operate as a C corporation or pass-through business. This report summarizes the economic footprint of pass-through businesses and then analyzes how the TCJA impacts the relative tax treatment of S versus C corporations with a focus on large S corporations.

Pass-through businesses – S corporations, partnerships, limited liability companies (LLCs), and sole proprietorships – play an important role in the U.S. economy.[1] The vast majority of businesses in the United States organize as pass-through businesses. In 2014, pass-through businesses comprised 95% of all business entities, employed 58% of the private-sector work force, and reported 50% of all business income and 37% of all business receipts.[2] In 2018, individual owners of pass-through businesses paid 51% of all federal taxes on business and shareholder income when these taxpayers file their individual tax returns.

Large S corporations, defined by this analysis as those with 100 or more workers, employed 13.1 million workers, or 10% of the 133 million private sector workers in 2016.

The TCJA significantly reduced federal taxes for both C corporations and pass-through businesses. However, while the lower corporate income tax rate is permanent, the major provisions benefitting pass-through businesses – the lower individual income tax rates and the 20% deduction for qualified business income (QBI) – sunset in 2026.[3] Thus, under current law, the relative federal taxation of C corporations and pass-through businesses will change again in 2026.

The Internal Revenue Code (the "Code") provides businesses with considerable flexibility in how they organize and structure their business operations. Depending on their ownership and capital needs, businesses can choose between several different organizational forms. This distinguishes the United States in comparison to its major trading partners and provides greater flexibility to the overall economy.[4]

The pass-through business form also helps mitigate the economically harmful effects of the double tax on corporate profits. The double tax distorts behavior, as businesses and shareholders may rearrange their affairs to avoid the second layer of tax, and it imposes a higher cost of capital, distorting firms' financing decisions and the allocation of capital as well as discouraging investment overall and thus economic growth and job creation. Consequently, it is important to understand the impact of the TCJA and the scheduled sunset of its major individual provisions on individual owners of pass-through businesses.

Two measures are used by this report to compare the relative taxation of large S corporations and C corporations: 1) a simple average effective tax rate (ETR) calculated for an illustrative business, and, 2) the marginal effective tax rate (METR) for new investment that reflects taxes as a share of an investment's total pre-tax return. These measures capture many major tax provisions, but answer somewhat different questions.

The ETR reflects the federal taxes paid, on average, on a dollar of S corporation income and compares this amount to the federal taxes paid on the earnings of a comparable C corporation. This comparison sheds light on whether an S corporation pays higher taxes relative to a comparable C corporation. It might be relevant for choosing whether to organize as an S corporation or a C corporations or whether to undertake a large expansion of a firm's existing operations. The METR is a measure of the overall burden of federal taxes on new investment. It is a measure of the impact of the tax system on the incentive to make an additional, marginal investment.

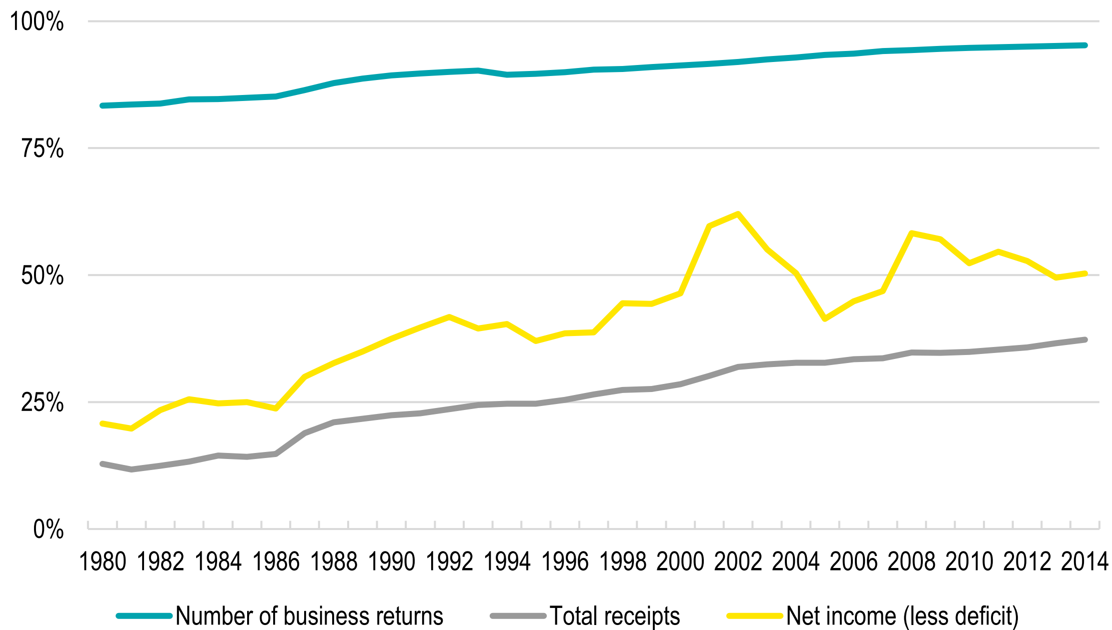
The major provisions of the TCJA impacting S and C corporations analyzed in this report include:

- lowering the corporate income tax rate from 35% to 21%;
- lowering the top individual income tax rate from 39.6% to 37%;
- allowing a 20% pass-through deduction for QBI, with limitations;
- imposing a $10,000 limit on the deductibility of state and local taxes; and
- sunsetting most of the TCJA's individual income tax provisions (i.e., reverting to prior law).

II. Economic footprint of pass-through businesses

The economic footprint of pass-through businesses has grown steadily over the past several decades. The percentage of businesses choosing the pass-through form rose from 83% in 1980 to 95% in 2014 (Figure 1). The share of net income generated by pass-through businesses has more than doubled since the early 1980s with the pass-through share rising from 21% in 1980 to 50% by 2014. The pass-through share of gross receipts also rose significantly from 13% in 1980 to 37% by 2014.[5]

Figure 1. Pass-through shares of all business returns, receipts, and net income, 1980-2014



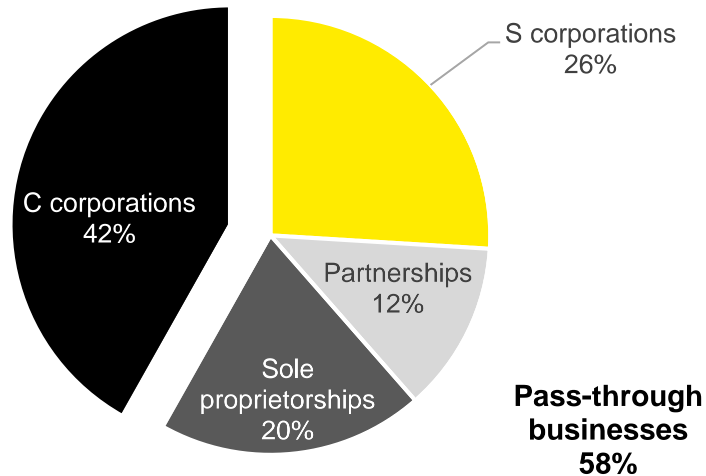
Note: These data include some pass-through entities, primarily partnerships, which are owned by C corporations.
Source: Internal Revenue Service, Statistics of Income, Integrated Business Data.

As shown in Figure 2, pass-through businesses also account for a large fraction of business activity based on the number of workers they employ. In 2016, the pass-through sector employed 58% of the private sector work force, with C corporations employing the remaining 42%. S corporations employed 26% of the private sector work force, partnerships employed 13%, and sole proprietorships accounted for 20%.[6]

Two changes contributed to this growth.[7] First, the individual tax rate was lowered significantly relative to the corporate tax rate under the Tax Reform Act of 1986, which had the effect of making the pass-through form more attractive for many businesses. While the changes made in 1986 are often described as making pass-throughs "tax advantaged," pass-throughs could instead be viewed as disadvantaged prior to the 1986 Tax Reform Act. Second, in the late 1980s and 1990s LLCs combined pass-through tax treatment with limited liability for their owners[8] and the classification of businesses as LLCs was simplified in 1997 by allowing them to "check the box"

on Form 1065-B to elect to be treated as a corporation or partnership (or sole proprietorship) for tax purposes.

Figure 2. Employment of large S corporations, pass-through businesses, and C corporations, 2016



Source: US Bureau of the Census, Statistics of US Businesses and Non-employer Statistics.

As shown in Table 1, large S Corporations, defined by this analysis as those employing 100 or more workers, employed 13.1 million workers, 38% of the 34.7 million workers employed by all S corporations and 10% of the 133 million private sector workers in 2016. Large S corporations comprised 1% of all S corporations.

Table 1. Employment at S corporations by firm size, 2016

Millions of employees

Firm size	Firms		Establishments		Employment	
	Amount	Share	Amount	Share	Amount	Share
0 to 4 employees	3.0	72%	3.0	68%	4.0	12%
5 to 9 employees	0.5	12%	0.5	12%	3.4	10%
10 to 19 employees	0.3	8%	0.3	8%	4.3	12%
20 to 99 employees	0.3	6%	0.3	8%	9.9	29%
100 to 499 employees	*	1%	0.1	3%	6.5	19%
500+ employees	*	*	0.1	2%	6.6	19%
Total	**4.1**	**100%**	**4.4**	**100%**	**34.7**	**100%**

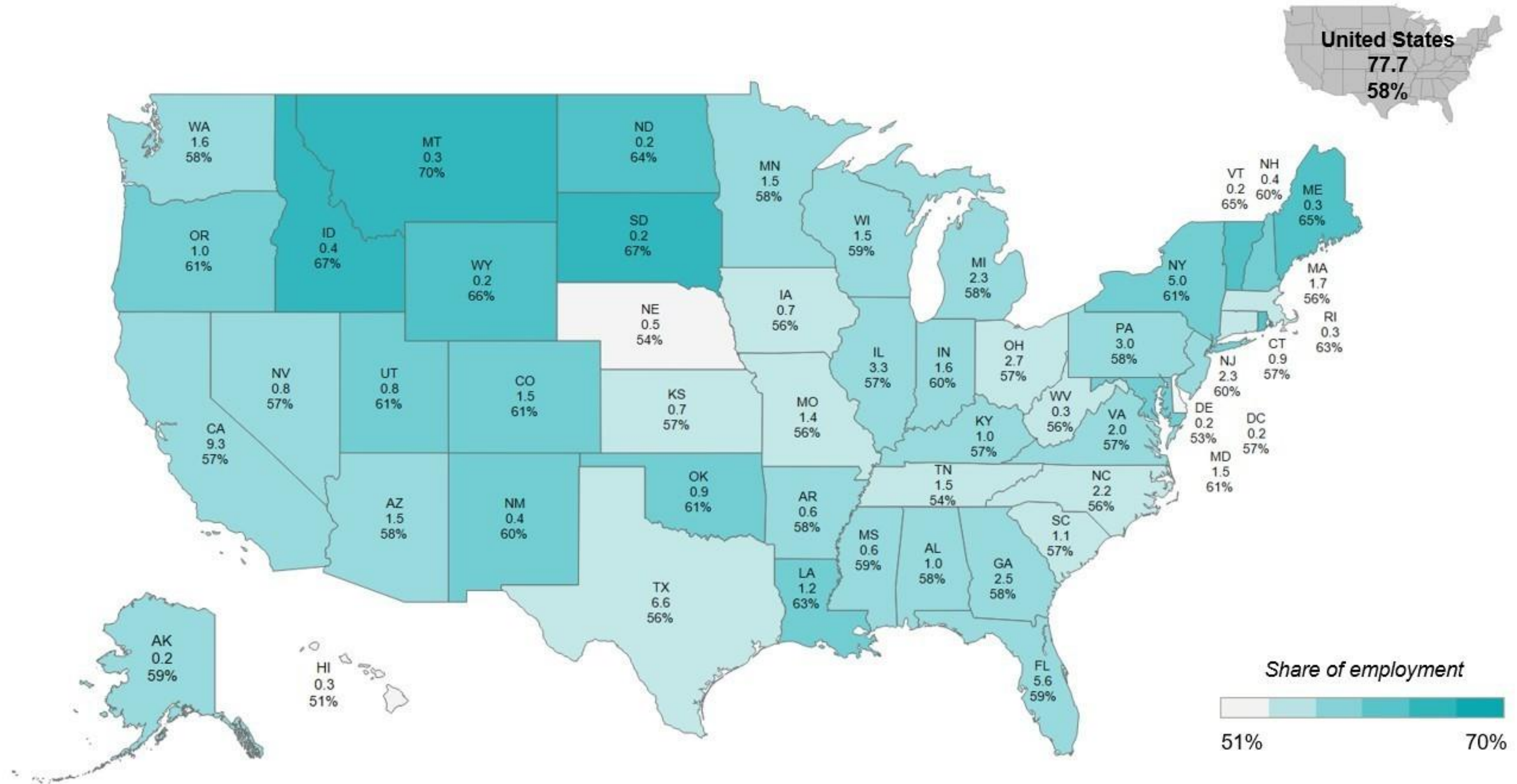
* Less than 50,000 employees or less than 0.5%

Source: US Bureau of the Census, Statistics of US Businesses and Non-employer Statistics.

As shown in Figure 3, pass-through businesses are well represented in all areas of the country. In 2016, they employed a majority of the private sector work force in every state and exceeded 60% of the private sector workforce in 17 states. The top five states by share of pass-through business employment in 2016 were: 1) Montana (69.7%), 2) South Dakota (67.4%), 3) Idaho (67.2%), 4) Wyoming (65.6%), and 5) Vermont (64.9%).

Figure 3. Pass-through business employment as a share of total employment, 2016

Millions of pass-through business employees; share of employment



Note: Nonemployers (i.e., businesses without any employees, but an owner) are treated as one establishment with one employee. Figures are rounded.
Source: US Bureau of the Census, Statistics of US Businesses and Non-employer Statistics.

While the above data provides a sense of the importance of the pass-through sector to the US economy, it is important to note that owners of some pass-through businesses, primarily some partnerships, are corporations, not individuals.[9] As such, a significant amount of partnership income flows through to corporate owners.[10] This income is often associated with various types of joint ventures between corporations.

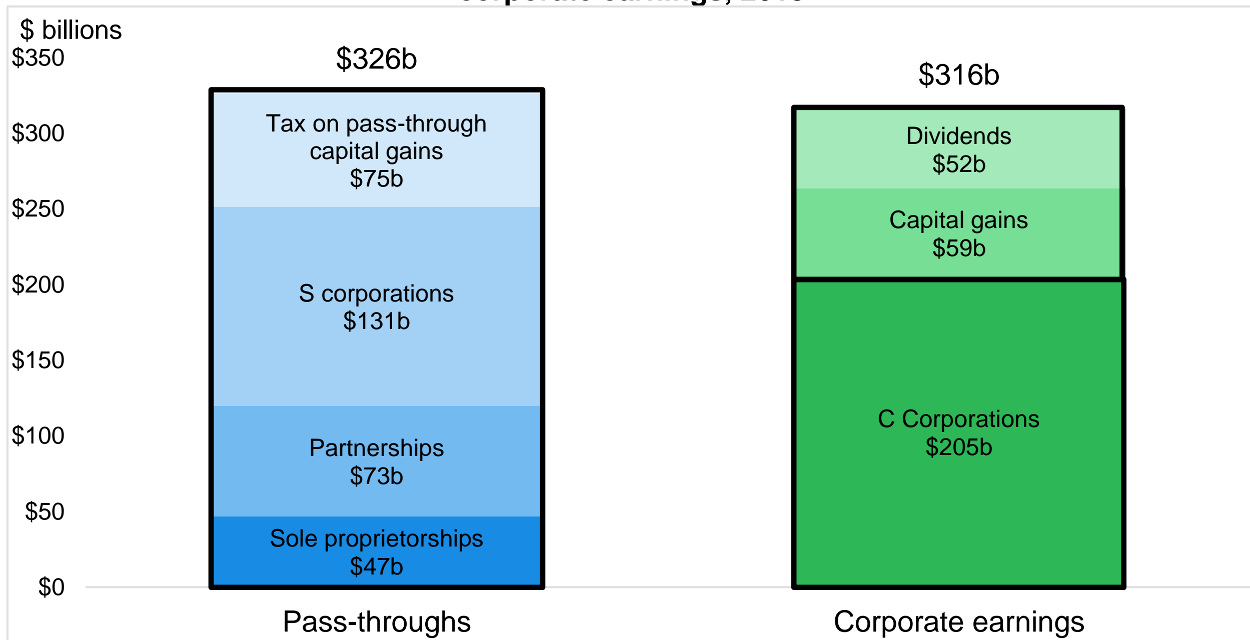
Another important factor that makes comparisons of business entities and the pass-through income received by individual owners difficult is that a considerable share of pass-through income takes forms other than allocated net income reported on an owner's Schedule C or E. For example, individual owners of pass-through businesses can also receive allocated income in the form of capital gains, rents, and royalties. This income is reported separately from allocated net income reported on the Schedule C or E in order for it to maintain its character and receive special tax treatment under the Code (e.g., the special lower tax rate on long-term capital gains and the limitations on passive activity losses).

Figure 4 shows the income taxes paid on pass-through income received by individual owners and on corporate earnings of C corporations and their individual shareholders. EY's Individual Tax Microsimulation Model is used to estimate the individual taxes paid on pass-through income by comparing the taxes of individual owners of pass-through business in 2018 to the taxes they would pay without such income. The individual taxes paid on dividends and capital gains are estimated in a similar fashion (i.e., comparing taxes paid in 2018 to the taxes they would pay without such income). Capital gains attributable to corporate ownership are determined from the Internal Revenue Service Sale of Capital Assets data.

This analysis finds that, in 2018, individual owners of pass-through businesses paid 51% of federal business income taxes ($326 billion), while C corporations and their individual shareholders paid 56% ($316 billion). The $131 billion in individual income taxes paid by owners of S corporations in 2018 comprised 20% of all business taxes and 40% of pass-through business taxes.[11]

The income taxes paid by individual owners of pass-through businesses and C corporations, and the underlying net income, are not directly comparable because the labor compensation of owners of C corporations are generally paid as wages and deductible to the business, while the labor compensation paid to owners of partnerships and sole proprietorships is generally included as part of business entities' allocable net income. S corporations, in contrast, are generally required to pay owners actively involved in a business a reasonable level of compensation, which, similar to C corporations, is a deductible expense by the business.[12]

Figure 4. Income taxes paid by individual pass-through business owners and on corporate earnings, 2018



Note: The individual income taxes paid by owners of pass-through businesses on their pass-through income and by individual investors on their corporate dividends and capital gains are estimated with the EY Individual Tax Microsimulation Model assuming such income is earned last. Figures are rounded.
Source: Internal Revenue Service, Statistics of Income, Corporate Source Book and Individual Tax Returns (publication 1304), selected years; EY analysis.

III. Tax treatment of pass-through businesses and C corporations

Pass-through businesses are subject to a single level of tax on the income earned, whether or not it is distributed. The income and expenses of pass-through businesses are reported by an entity's owners. An individual owner's pass-through business income (or losses) is combined with an owner's other income and deductions and subject to individual income tax rates.[13]

In contrast, the income of C corporations is subject to two levels of tax, first when earned at the corporate level, and again when paid out to shareholders in the form of dividends or retained and later realized by shareholders as capital gains. These two levels of tax are often referred to as the double tax on corporate profits.

The pass-through form provides business owners with different options for organizing their businesses. Sole proprietorships are unincorporated businesses owned by a single individual. Partnerships are unincorporated business entities owned by two or more entities or individuals, without any limit on size or type of partner.

S corporations are domestic corporations that meet certain conditions that generally constrain their ability to raise capital through expansion of ownership and stock issuances. S corporations, for example, are limited to no more than 100 shareholders and one class of stock and are required to be a domestic corporation. Also, partnerships and corporations cannot generally be S corporation shareholders. These restrictions can have the effect of reducing an S corporation's access to capital.

LLCs are pass-through business entities that combine the limited liability feature of the corporate form with the pass-through of income and losses of the partnership form.

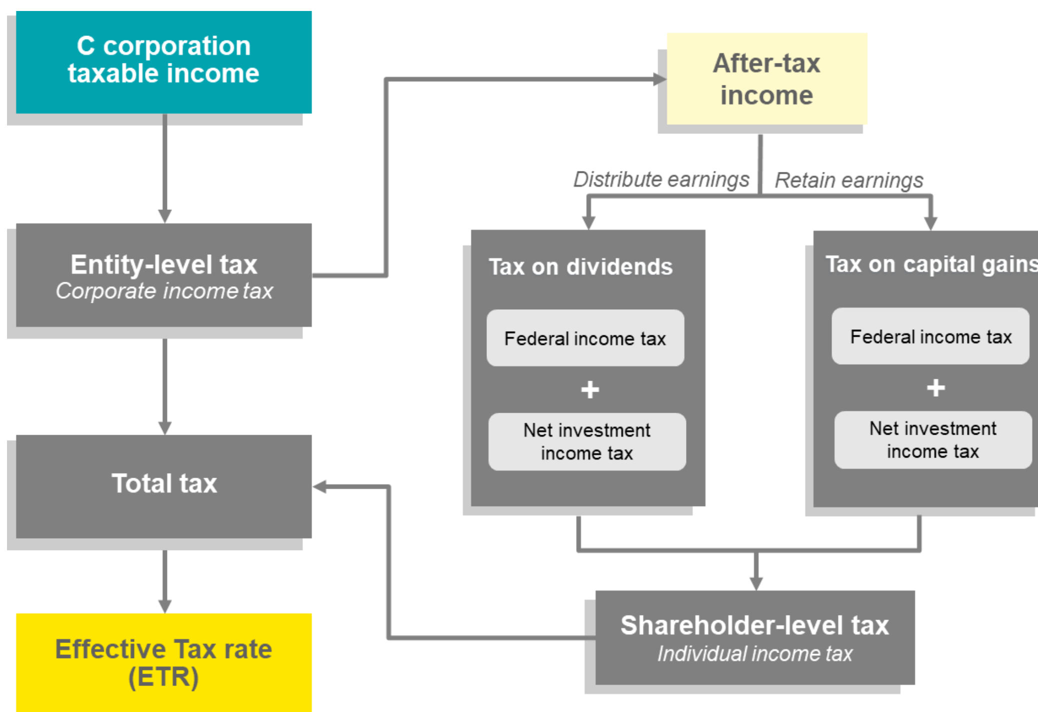
A. Tax treatment of C corporations

Figure 5 illustrates the double tax on corporate profits. Profit is taxed both when earned at the corporate level via the corporate income tax, and again via investor-level taxes when the earnings are paid out to shareholders in the form of dividends or retained and later realized by shareholders as capital gains.

Under current law, the corporate income tax rate is 21% and the top effective tax rate on qualified dividends is 26.0%. This dividend tax rate includes both the 20% individual income tax rate on qualified dividends, the 3.8% net investment income tax rate, and a 2.2% effective tax rate due to the limitation on the deduction for state and local taxes (assuming an average 6.4% state individual income tax rate). Capital gains received by individuals are taxed at the same statutory tax rate as dividends. In contrast to dividends, however, capital gains are taxed upon realization, not when earned or accrued, and as such benefit from the deferral of tax. This reduces, in present value, the top tax rate on capital gains. This report assumes an average holding period of 7 years for corporate stock and a 5% discount rate. This results in a top capital gains rate of 17.8%.[14] In addition, the basis of assets with capital gains held until death receive the benefit of stepping up their basis (i.e., step-up in basis at death). Following longstanding practice, this analysis reduces

the effective tax rate on capital gains by one-half to account for the benefit of step-up of basis at death.[15]

Figure 5. Overview tax treatment of C corporations



Source: EY analysis.

The tax status of a C corporation's shareholders and its dividend policy can have significant implications for the overall level of taxation on a C corporation's earnings. In particular, the shareholders of C corporations may be tax-exempt or lightly taxed (e.g., pension funds, retirement accounts, university endowments, foreign investors). A C corporation entirely owned by tax-exempt entities, for example, would be subject to the 21% CIT rate, but no shareholder-level taxes (i.e., an overall ETR of 21%). Similarly, the taxation on a C corporation's earnings will generally be higher for firms that distribute more of their earnings as dividends.

This analysis estimates the ETR for two alternative C corporations: 1) a closely held C corporation with fully taxable shareholders, and 2) an average C corporation. The closely held, fully taxable C corporation is intended to portray a C corporation that is similar to a large S corporation. In contrast, the average C corporation is assumed to have an average shareholder profile (i.e., 38.9% of shareholders are tax-exempt) and average dividend policy (i.e., 44% of corporate earnings distributed to shareholders as dividends and 56% retained and taxed as capital gains).[16]

For the fully taxable C corporation, and consistent with the dividend policy of closely-held businesses, it is assumed that the share of corporate earnings paid to shareholders is significantly lower. While there is not good information on the precise share of corporate earnings distributed to shareholders as dividends for closely held businesses, this analysis assumes that it is half of the average for C corporations generally (22%). For purposes of sensitivity, these ETR estimates

are supplemented with estimates assuming no corporate earnings are distributed to shareholders as dividends and the average (44%) are paid to shareholders as dividends. Assuming no corporate earnings are distributed to shareholders as dividends could be viewed as more reflective of the dividend policy of a younger, growing firm.

Taking these assumptions and adjustments together, under current law the top ETR for corporate earnings is 31.2% assuming all shareholders are fully taxable and 29.0% assuming, on average, 38.9% of shareholders are tax-exempt.[17]

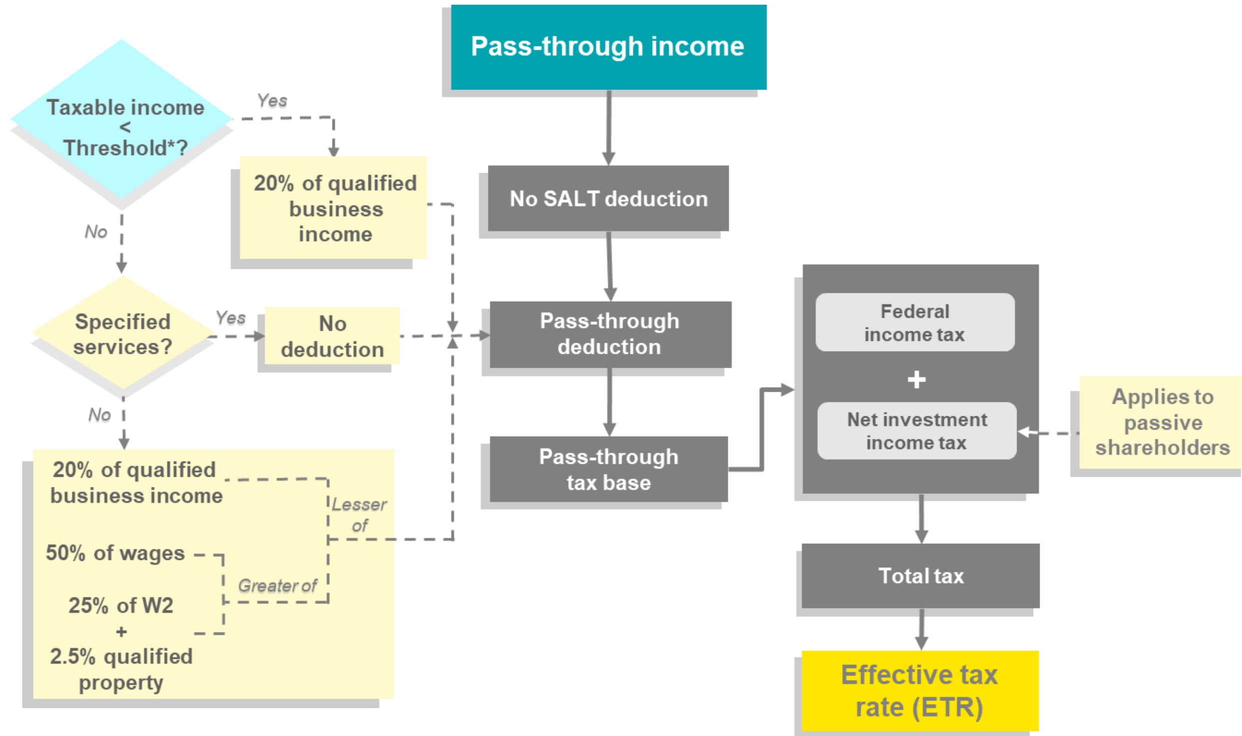
B. Tax treatment of S corporations

For tax purposes, all of the earnings of an S corporation are deemed to be passed through to shareholders each year, regardless of whether they are reinvested in the business. These earnings are taxed at ordinary income rates. However, some S corporate income benefits from the 20% pass-through deduction on QBI. This deduction can substantially reduce the tax on S corporate income, but it also adds complexity to the calculation of tax liability. An overview of the tax treatment of S corporations is displayed in Figure 6.

QBI is the net amount of qualified income, gain, deduction, and loss from a qualified trade or business. If an owner of an S corporation is below a threshold for overall taxable income – $157,500 for single filers and $315,000 if married filing jointly – the owner generally receives the full 20% deduction on their pass-through income, including active income from S corporations. If above the taxable income threshold, the S corporation must then determine if it is a qualified trade or business.[18] If the S corporation is not a qualified trade or business, then the owner's deduction is reduced gradually as income exceeds the threshold and is entirely eliminated once income reaches $207,500 for single filers and $415,000 if married filing jointly. This analysis assumes that 75% of pass-through business income or S corporation income is QBI.[19] The deduction for QBI is also subject to additional limitations based on the W-2 wages paid and capital owned by an S corporation.[20]

Two additional issues are highlighted in the overview of the tax treatment of S corporations in Figure 6. First, in computing federal taxable income, individuals can deduct only up to $10,000 of deductible state and local taxes. This $10,000 limit includes, in addition to state and local taxes on the pass-through income, state and local taxes on other income and real estate taxes. Consistent with the focus on large S corporations, this analysis assumes that the pass-through income earned by the owners of S corporations are after the owner has reached this cap.[21] Second, the characteristics of an S corporation's shareholders can impact the tax on income earned by an S corporation. Non-passive shareholders, who own the business and also participate as an employee or are involved in management, pay at most the top individual income tax rate (37%). Passive shareholders, however, also pay the 3.8% net investment income tax in addition to the 37% individual income tax rate. This analysis assumes 10% of pass-through income is received by passive shareholders.[22]

Figure 6. Overview tax treatment of S corporations



*The threshold is $157,500 for single and $315,000 for married filing jointly. The phase-in is not shown in the flow chart.
Source: EY analysis.

The ETRs for large S corporations, all pass-throughs businesses, and C corporations are shown in Table 2.[23] The ETRs for C corporations show a large decline due to enactment of TCJA, reflecting primarily the reduction in the corporate income tax rate from 35% to 21%. The ETRs are generally somewhat lower for C corporations with tax-exempt shareholders. The ETRs for large S corporations and all pass-through businesses show a similar decline due to enactment of TCJA, reflecting primarily the 20% deduction for QBI and lower individual income tax rates. Their ETRs, however, rise under post-TCJA law in 2026 due to the sunset of these provisions.

The 41.2% ETR for large S corporations is similar to the C corporation ETRs under pre-TCJA law, slightly above the C corporation rates in the first years of the TCJA, and rises significantly above C corporation rates under post-TCJA law in 2026 – an ETR of 41.2% for large S corporations as compared to a 30.8% ETR for the closely held C corporation with fully taxable shareholders and 28.7% ETR for the average C corporation.

In contrast, the ETR for all pass-through businesses begins significantly below the ETR for C corporations under pre-TCJA law and remains slightly below in the first years of the TCJA. The ETR for all pass-throughs is slightly above the ETR for C corporations in 2026 and beyond. As with large S corporations, the sunset of the lower rates and pass-through deduction in 2026 increases their ETR sharply.

Table 2. Comparison of corporate and pass-through business effective tax rates (ETRs)

	Pre-TCJA law	Post-TCJA law (in 2019)	Post-TCJA law (in 2026)
Large S corporations	41.2%	33.8%	41.2%
Pass-through businesses	32.9%	27.3%	32.9%
C corporations:			
Closely held, fully taxable shareholders	43.1%	31.2%	30.8%
Average C corporation	41.3%	29.0%	28.7%

Addendum: ETR estimates for C corporation with fully taxable shareholders – share of corporate earnings distributed to shareholders as dividends:

No dividends distributed	40.8%	28.3%	28.0%
Dividends 44% of earnings	45.4%	34.1%	33.6%

Note: Effective tax rates are for hypothetical business earnings received through an S corporation and a C corporation. The ETR for the C corporation reflects both the corporate income tax and investor level shareholder taxes. Closely held, fully taxable C corporation assumes 22% of corporation earnings distributed as dividends and 78% retained and taxed as capital gains, while the average C corporation assumes 44% of corporation earnings distributed as dividends and 56% retained and taxed as capital gains. 75% of pass-through income is assumed to qualify for the qualified business income deduction (199A) and 10% of income is earned by passive owners.
Source: EY analysis.

IV. Impact of the TCJA on the METR on new investment

This analysis uses the METR to measure the impact of the TCJA on the incentive to undertake new investment in the S and C corporation sectors. The METR is an expansive measure of the burden of federal tax on a new investment that captures the effects on investment incentives of major tax provisions, including statutory tax rates at the company and investor level (including the impact of the deduction for qualified pass-through income), depreciation deductions, interest expense deductions, deferral of tax liability, and the limitation on the deductibility of state and local income taxes. This analysis generally considers federal taxes only.

The METR reflects, over the lifetime of an investment that just breaks even, the share of the pre-tax return that is attributable to federal taxes. The taxation of the return on a new, breakeven investment is a key margin on which to measure and evaluate the impact of policy change. This is because firms will continue making new investments until the return on the last dollar invested just barely breaks even (i.e., covers its opportunity cost). So, it generally is the effect of taxation on this marginal investment that matters for determining how investment responds (whether it rises or falls) to tax policy changes. In general, a higher METR means a lower incentive to invest.

Table 3 presents the METR for an investment made by C corporations, by large S corporations, and pass-through business generally. The C corporation is assumed to have an average asset mix, source of finance (i.e., debt versus equity finance) ,[24] and shareholder distribution policy (i.e., dividends versus retained earnings).[25] The earnings received by owners of large S corporations are assumed to face the top individual tax rates while the earnings received by the owners of pass-through business are assumed to face the average marginal tax rate for all pass-through income.

As shown in Table 3, there are significant shifts in the METRs as the law changes over time reflecting the phase in and out of important TCJA provisions. A number of TCJA provisions are in play here: expensing generally phases out by 2027; the limitation on the deductibility of net interest expense switches from a less stringent definition of adjusted taxable income consisting of earnings before interest, taxes, depreciation, and amortization (EBITDA) to the more stringent earnings before interest and taxes (EBIT) definition in 2022; research and experimentation (R&E) expenditures are required to be capitalized and amortized starting in 2022; and the individual taxpayer provisions generally sunset at the end of 2025, so that the 20% deduction for QBI expires and the higher pre-TCJA individual tax rate schedule and the deduction for state and local taxes, are reinstated at the end of 2025.

The METR for C corporations is 22.6% under pre-TCJA law in 2019, 16.8% under post-TCJA law in 2019, and 22.8% under post-TCJA law in 2026. The METR falls under the TCJA because of the lower corporate income tax rate, 100% expensing for investment in equipment, and the limitation on the deductibility of state and local taxes. The more stringent limitation on the deductibility of certain interest expenses and the amortization of certain research and development expenses, both in 2022, as well as the phase-out of expensing (80% by 2026 and entirely by 2027), cause the METR to rise by 2026. The pass-through sector had a METR 20% below C corporations under pre-TCJA law in 2019 (i.e., an 18.1% METR for pass-through

businesses compared to 22.6% for C corporations) and a 21% lower METR under post-TCJA law in 2019 (i.e., a 13.2% METR for pass-through businesses compared to 16.8% for C corporations). The sunset of the TCJA's major individual provisions, principally the 20% deduction of QBI, significantly increases the METR for pass-through businesses, but their METR remains 10% below the METR of C corporations in 2026 (i.e., a 20.5% METR for pass-through businesses compared to 22.8% for C corporations).

Large S corporations, which are assumed to face the top individual rates have METRs that are similar to that of C corporations (slightly higher under pre-TCJA law in 2019 and slightly lower under post-TCJA in 2019), but have METRs that are 15% higher under post-TCJA law in 2026 (i.e., 26.2% for large S corporations versus 22.8% for C corporations). This implies a significant disadvantage to large S corporations as compared to C corporations from the sunset of the TCJA's major individual provisions, principally the 20% deduction for QBI and the reinstatement of the 39.6% individual tax rate.

Table 3. Comparison of corporate and pass-through business marginal effective tax rates (METRs)

	Pre-TCJA law	Post-TCJA law (in 2019)	Post-TCJA law (in 2026)
Large S corporations	23.1%	16.3%	26.2%
Pass-through business	18.1%	13.2%	20.5%
C corporations	22.6%	16.8%	22.8%

Note: The assumptions used for calculating large S corporation METRs are the same as for pass-through businesses except large S corporations are assumed to pay the top individual income tax rate. Pass-through businesses and large S corporations are assumed to receive the pass-through deduction, on average, on 75% of their income. METRs are estimated by the EY QUEST Overlapping Generations General Equilibrium Model of the US Economy. The results include macroeconomic impacts such as changes in interest rates over time. Notably, when aggregating the cost of capital across industries to compute the METRs for the business, corporate and pass-through sectors baseline forecast weighting is used rather than the post-TCJA composition of the US economy. These weights are used to more clearly isolate the impact from the change in law. Figures are rounded.
Source: EY analysis.

V. Caveats and limitations

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

- The calculations presented in this report are sensitive to underlying assumptions. Assuming different fact patterns or relationships would lead to different results.
- The analysis reflects the TCJA's major domestic provisions. More minor domestic provisions, such as section 179 expensing for pass-through businesses or the TCJA provisions affecting the taxation of foreign source income were not modeled, but could impact the comparisons and conclusions made by this report.
- This analysis compares the taxation of pass-throughs businesses to C corporations under the premise that they should be treated similarly. This is suggestive of income tax principles under which all income would be taxed similarly. The corporate income tax, however, is largely a tax on equity financed investment, while the tax on pass-through business income is a tax on both the return to labor and equity-financed investment. Moreover, under consumption tax principles, some of the returns to investment would be wholly untaxed.
- The income taxes paid by individual owners of pass-through businesses and C corporations, and the underlying net income, are not directly comparable because the labor compensation of owners of C corporations are generally paid as wages and deductible to the business, while the labor compensation paid to owners of partnerships and sole proprietorships is generally included as part of business entities' allocable net income. S corporations, in contrast, are generally required to pay owners actively involved in a business a reasonable level of compensation, which, similar to C corporations, is a deductible expense by the business. Accounting for the amount of labor compensation paid to owners of partnerships and sole proprietorships as allocable net income could have a significant effect on these calculations.
- Some of the statistics related to the economic footprint of the pass-through sector are not able to exclude corporate ownership of partnerships. While providing an accurate indication of the use of the pass-through organizational form, they may overstate the footprint of individual ownership through the pass-through form. The statistics presented that relate to the share of pass-through business taxes do not suffer from this shortcoming because they are derived from pass-through income flows, including capital gains realizations, flowing to individual owners of pass-through businesses.

Appendix A. Description of the cost of capital model

The cost of capital for an investment is estimated using the framework first formalized by Hall and Jorgenson (1967) and later refined by Fullerton and King (1984) and described in detail by Gravelle (1994) and Mackie (2002). The cost of capital (net of depreciation) is given by:

$$c = \frac{(r + \delta - \pi)(1 - uz)}{1 - u} - \delta$$

where c denotes the cost of capital, r is the firm's nominal after-tax discount rate, δ is the rate at which the asset depreciates, π is the rate of inflation, u is the corporate income tax rates, and z is the present value of depreciation allowances. The present value of depreciation, z, reflects the discount rate, the tax life of an asset, the depreciation schedules, and other elements of the depreciation system. The values of δ and z vary by type of asset as depreciation allowances for equipment are typically accelerated as compared to their economic lives. This cost of capital concept is frequently used by the Congressional Budget Office, Congressional Research Service, Joint Committee on Taxation, and US Department of the Treasury to quantify the impact of tax changes on investment incentives.

Investor-level taxes and the deductibility of interest are accounted for by assuming that a firm can arbitrage between debt and real capital following Fullerton and Bradford (1981) and Fullerton, Gillette, and Mackie (1987). Investments are frequently financed with both debt and equity financing. Thus, this study calculates the cost of capital for a hypothetical new investment based on a weighted average of debt and equity financing.[1]

A further issue involves a firm's marginal source of equity finance; that is, whether the old or new view of dividend taxes applies. This analysis follows Auerbach and Hassett (2003) and assumes that one-half of equity finance operates under the old view, whereby dividend taxes affect investment decisions, and the other half of firms operate under the new view, whereby firms rely on retained earnings as the marginal source of finance and dividend taxes are capitalized into firm value.[1]

The cost of capital for equity-financed investment includes the investor-level taxes on capital gains and dividends (i.e., the double tax on corporate profits), whereas the cost of capital for debt-financed investment reflects the deductibility of interest at the corporate level and the assumption that approximately one-half of debt holders are either tax-exempt or lightly taxed (e.g., pension assets/foreigners).

Appendix B. State level pass-through data, 2016

The table below shows employment and the number of establishments for all pass-through businesses, each pass-through organizational form (S corporations, partnerships, and sole proprietorships), and C corporations for each state and the District of Columbia. These data are based on tabulations from the Census Bureau's Statistics of U.S. Business Division and Nonemployer Statistics.

Table B-1. Distribution of employment by legal form of organization by state, 2016

Millions of jobs

Geographic area	C corporations		Pass-through businesses		S corporations		Partnerships		Sole proprietorships	
United States	**55.9**	**42%**	**77.7**	**58%**	**34.7**	**26%**	**16.8**	**13%**	**26.2**	**20%**
Alabama	0.8	42%	1.0	58%	0.5	27%	0.2	11%	0.4	20%
Alaska	0.1	41%	0.2	59%	0.1	26%	0.0	11%	0.1	23%
Arizona	1.1	42%	1.5	58%	0.6	25%	0.4	15%	0.5	18%
Arkansas	0.5	42%	0.6	58%	0.3	27%	0.1	12%	0.2	19%
California	6.9	43%	9.3	57%	4.0	25%	1.7	11%	3.5	22%
Colorado	1.0	39%	1.5	61%	0.7	28%	0.4	14%	0.5	19%
Connecticut	0.7	43%	0.9	57%	0.3	20%	0.2	16%	0.3	21%
Delaware	0.2	47%	0.2	53%	0.1	24%	0.1	15%	0.1	14%
District of Columbia	0.2	43%	0.2	57%	0.1	18%	0.1	22%	0.1	17%
Florida	3.9	41%	5.6	59%	2.6	28%	1.1	11%	1.9	20%
Georgia	1.8	42%	2.5	58%	1.1	26%	0.5	11%	0.9	21%
Hawaii	0.3	49%	0.3	51%	0.1	18%	0.1	11%	0.1	21%
Idaho	0.2	33%	0.4	67%	0.2	31%	0.1	16%	0.1	21%
Illinois	2.4	43%	3.3	57%	1.6	28%	0.7	12%	1.0	17%
Indiana	1.1	40%	1.6	60%	0.8	31%	0.4	13%	0.4	16%
Iowa	0.6	44%	0.7	56%	0.4	29%	0.1	10%	0.2	17%
Kansas	0.5	43%	0.7	57%	0.3	26%	0.2	13%	0.2	18%
Kentucky	0.7	43%	1.0	57%	0.4	26%	0.2	13%	0.3	19%
Louisiana	0.7	37%	1.2	63%	0.5	27%	0.3	15%	0.4	21%
Maine	0.2	35%	0.3	65%	0.2	31%	0.1	10%	0.1	24%
Maryland	0.9	39%	1.5	61%	0.7	28%	0.3	12%	0.5	21%
Massachusetts	1.4	44%	1.7	56%	0.8	26%	0.3	11%	0.6	19%
Michigan	1.7	42%	2.3	58%	1.1	28%	0.5	12%	0.7	18%
Minnesota	1.1	42%	1.5	58%	0.8	32%	0.3	10%	0.4	17%
Mississippi	0.4	41%	0.6	59%	0.2	24%	0.1	12%	0.2	23%
Missouri	1.1	44%	1.4	56%	0.7	26%	0.3	11%	0.5	19%
Montana	0.1	30%	0.3	70%	0.1	34%	0.1	13%	0.1	23%
Nebraska	0.4	46%	0.5	54%	0.2	28%	0.1	10%	0.1	16%
Nevada	0.6	43%	0.8	57%	0.3	23%	0.2	15%	0.2	19%
New Hampshire	0.2	40%	0.4	60%	0.2	27%	0.1	12%	0.1	21%
New Jersey	1.6	40%	2.3	60%	1.0	25%	0.6	16%	0.7	19%
New Mexico	0.3	40%	0.4	60%	0.2	26%	0.1	14%	0.1	21%
New York	3.2	39%	5.0	61%	2.1	26%	1.2	14%	1.7	21%
North Carolina	1.8	44%	2.2	56%	1.1	26%	0.4	10%	0.8	19%
North Dakota	0.1	36%	0.2	64%	0.1	34%	0.0	12%	0.1	18%
Ohio	2.1	43%	2.7	57%	1.3	26%	0.6	12%	0.9	18%
Oklahoma	0.6	39%	0.9	61%	0.4	26%	0.2	15%	0.3	20%
Oregon	0.6	39%	1.0	61%	0.5	29%	0.2	12%	0.3	20%
Pennsylvania	2.2	42%	3.0	58%	1.5	28%	0.6	12%	0.9	18%
Rhode Island	0.2	37%	0.3	63%	0.1	34%	0.0	10%	0.1	19%
South Carolina	0.8	43%	1.1	57%	0.5	26%	0.2	11%	0.4	19%
South Dakota	0.1	33%	0.2	67%	0.1	35%	0.0	13%	0.1	20%
Tennessee	1.3	46%	1.5	54%	0.4	15%	0.5	17%	0.6	22%
Texas	5.1	44%	6.6	56%	2.3	20%	1.8	15%	2.5	21%
Utah	0.5	39%	0.8	61%	0.4	29%	0.2	16%	0.2	16%
Vermont	0.1	35%	0.2	65%	0.1	29%	0.0	10%	0.1	25%
Virginia	1.5	43%	2.0	57%	0.9	27%	0.4	12%	0.6	19%
Washington	1.1	42%	1.6	58%	0.8	28%	0.3	12%	0.5	19%
West Virginia	0.2	44%	0.3	56%	0.1	23%	0.1	13%	0.1	19%
Wisconsin	1.0	41%	1.5	59%	0.8	33%	0.3	10%	0.4	16%
Wyoming	0.1	34%	0.2	66%	0.1	31%	0.0	14%	0.0	21%

Note: Nonemployers (i.e., businesses without any employees, but an owner) treated as one establishment with one employee. Figures are rounded.

Source: US Census Bureau's County Business Patterns and Nonemployer Statistics.

Table B-2. Distribution of establishments by legal form of organization by state, 2016
Millions of jobs

Geographic area	C corporations		Pass-through businesses		S corporations		Partnerships		Sole proprietorships	
United States	**2.5**	**8%**	**29.5**	**92%**	**4.4**	**14%**	**2.7**	**8%**	**22.4**	**70%**
Alabama	0.0	7%	0.4	93%	0.0	12%	0.0	8%	0.3	73%
Alaska	0.0	6%	0.1	94%	0.0	13%	0.0	9%	0.1	72%
Arizona	0.0	7%	0.6	93%	0.1	14%	0.1	10%	0.4	70%
Arkansas	0.0	7%	0.2	93%	0.0	14%	0.0	8%	0.2	70%
California	0.3	8%	3.8	92%	0.5	12%	0.3	7%	3.1	74%
Colorado	0.0	6%	0.6	94%	0.1	17%	0.1	10%	0.4	66%
Connecticut	0.0	8%	0.3	92%	0.0	8%	0.0	14%	0.3	71%
Delaware	0.0	13%	0.1	87%	0.0	15%	0.0	14%	0.0	57%
District of Columbia	0.0	11%	0.1	89%	0.0	8%	0.0	10%	0.1	71%
Florida	0.2	7%	2.4	93%	0.5	20%	0.2	7%	1.7	66%
Georgia	0.1	6%	1.0	94%	0.2	14%	0.1	6%	0.8	73%
Hawaii	0.0	10%	0.1	90%	0.0	10%	0.0	7%	0.1	73%
Idaho	0.0	6%	0.2	94%	0.0	16%	0.0	12%	0.1	67%
Illinois	0.1	8%	1.2	92%	0.2	18%	0.1	7%	0.9	67%
Indiana	0.0	7%	0.5	93%	0.1	16%	0.0	9%	0.4	69%
Iowa	0.0	8%	0.3	92%	0.0	14%	0.0	10%	0.2	68%
Kansas	0.0	8%	0.2	92%	0.0	13%	0.0	10%	0.2	69%
Kentucky	0.0	7%	0.3	93%	0.0	13%	0.0	9%	0.3	71%
Louisiana	0.0	8%	0.4	92%	0.1	11%	0.0	10%	0.3	72%
Maine	0.0	6%	0.1	94%	0.0	15%	0.0	7%	0.1	72%
Maryland	0.0	8%	0.6	92%	0.1	12%	0.0	8%	0.4	72%
Massachusetts	0.1	8%	0.6	92%	0.1	13%	0.1	8%	0.5	71%
Michigan	0.1	8%	0.8	92%	0.1	14%	0.1	8%	0.6	70%
Minnesota	0.0	7%	0.5	93%	0.1	17%	0.0	9%	0.4	68%
Mississippi	0.0	7%	0.2	93%	0.0	10%	0.0	8%	0.2	75%
Missouri	0.0	8%	0.5	92%	0.1	12%	0.1	9%	0.4	71%
Montana	0.0	6%	0.1	94%	0.0	19%	0.0	12%	0.1	63%
Nebraska	0.0	8%	0.2	92%	0.0	16%	0.0	10%	0.1	66%
Nevada	0.0	9%	0.3	91%	0.0	14%	0.0	10%	0.2	66%
New Hampshire	0.0	9%	0.1	91%	0.0	9%	0.0	11%	0.1	72%
New Jersey	0.1	8%	0.8	92%	0.1	11%	0.1	14%	0.6	66%
New Mexico	0.0	8%	0.1	92%	0.0	13%	0.0	9%	0.1	70%
New York	0.2	10%	2.0	90%	0.3	15%	0.2	9%	1.4	66%
North Carolina	0.1	7%	0.9	93%	0.1	14%	0.1	8%	0.7	71%
North Dakota	0.0	8%	0.1	92%	0.0	16%	0.0	13%	0.0	64%
Ohio	0.1	8%	0.9	92%	0.1	12%	0.1	9%	0.7	71%
Oklahoma	0.0	7%	0.3	93%	0.1	14%	0.0	10%	0.3	69%
Oregon	0.0	7%	0.4	93%	0.1	15%	0.0	10%	0.3	68%
Pennsylvania	0.1	8%	1.0	92%	0.1	14%	0.1	9%	0.8	70%
Rhode Island	0.0	7%	0.1	93%	0.0	16%	0.0	8%	0.1	68%
South Carolina	0.0	7%	0.4	93%	0.1	13%	0.0	8%	0.3	71%
South Dakota	0.0	6%	0.1	94%	0.0	15%	0.0	12%	0.1	66%
Tennessee	0.0	8%	0.6	92%	0.0	6%	0.1	9%	0.5	78%
Texas	0.2	7%	2.6	93%	0.3	9%	0.2	8%	2.1	75%
Utah	0.0	6%	0.3	94%	0.1	18%	0.0	16%	0.2	60%
Vermont	0.0	6%	0.1	94%	0.0	13%	0.0	8%	0.1	72%
Virginia	0.1	8%	0.7	92%	0.1	14%	0.1	8%	0.5	69%
Washington	0.0	7%	0.6	93%	0.1	16%	0.1	9%	0.4	68%
West Virginia	0.0	10%	0.1	90%	0.0	11%	0.0	10%	0.1	69%
Wisconsin	0.0	9%	0.4	91%	0.1	14%	0.0	10%	0.3	68%
Wyoming	0.0	9%	0.1	91%	0.0	17%	0.0	15%	0.0	58%

Note: Nonemployers (i.e., businesses without any employees, but an owner) treated as one establishment with one employee. Figures are rounded.
Source: US Census Bureau's County Business Patterns and Nonemployer Statistics.

[1] Sole proprietorships, which are not pass-through entities per se, report their income and deductions on Form 1040, Schedule C, and are subject to the individual income tax on such income.

[2] To the extent the TCJA impacted the relative advantage for businesses to organize as pass-through business as compared to a C corporation, more recent statistics would be different.

[3] The TCJA's expensing provision, which benefits both C corporations and pass-through businesses, is fully phased-out by 2027.

[4] According to the Organisation for Economic Co-operation and Development, the United States has one of the largest non-corporate sectors. See Organisation for Economic Co-operation and Development, "Survey on the Taxation of Small and Medium-Sized Enterprises," September 25, 2007.

[5] As discussed below, it is important to note that the line between activity ultimately subject to the corporate tax or individual tax is blurred because some pass-through businesses, for example, partnerships, can have corporate owners.

[6] Sole proprietors are counted as one "employee."

[7] Limited liability partnerships, which offer limited liability to the limited partners, along with pass-through treatment, were available.

[8] In 1988 the IRS issued a revenue ruling indicating that it would treat LLCs established under Wyoming state law as partnerships for tax purposes. Other states subsequently enacted similar LLCs statutes.

[9] Sole proprietorships are, by definition, owned by individuals and the ownership of S corporations is generally restricted to individual shareholders.

[10] In 2016, about 29.6% of partnership income was allocated to corporate partners. See Ron DeCarlo and Nina Shumofsky, *Partnership Returns, Tax Year 2016,* Statistics of Income Bulletin, Fall 2018.

[11] This analysis does not attempt to allocate capital gains realizations or the resulting taxes across the pass-through forms.

[12] Accounting for the amount of labor compensation paid to owners of partnerships and sole proprietorships as allocable net income could have a significant effect on these calculations.

[13] Both pass-through businesses and C corporations may, with some limitations, deduct the interest expenses associated with debt-financed investment. The ETRs calculated for this analysis to not reflect these deductions. The METRs presented below reflect a weighted average debt-equity financed investment.

[14] The average holding period of 7 years for corporate stock is based on an analysis of the most recent years of Internal Revenue Service Sales of Capital Assets data (i.e., 2010-12). The 7-year holding period at a 5% discount rate results in an approximately 29% haircut (i.e., $1 - 1 / (1 + 5\%)^7$) on the top tax rate in present value.

[15] This analysis does not reflect the exclusion of gains under Section 1202. The 50% assumption for the benefit of step-up of gains at death is generally consistent with calculations by the Congressional Budget Office. See Congressional Budget Office, *Background Paper: Computing Effective Tax Rates on Capital Income*, December 2006, p.65.

[16] These two assumptions are based on Congressional Budget Office, *Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options*, December 2014.

[17] The ETR calculations do not reflect capital cost recovery provisions because they impact primarily the timing of tax payments and are better suited for and reflected under the METR framework.

[18] Generally, a business is a qualified trade or business if it is not a specified service trade or business. A specified service trade or business provides services in the fields of health, law, consulting, athletics, financial services, brokerage services, or is a trade or business where the principal asset of such trade or business is the reputation or skill of one or more of its employees or owners.

[19] The share of pass-through income that is QBI is derived by comparing the Congressional Budget Office's baseline estimates for QBI to pass-through income. See Congressional Budget Office, *The Budget and Economic Update: 2019 to 2029*, January 28, 2019. This analysis does not attempt to estimate different shares for different organizational forms or for large S corporations.

[20] In particular, the deduction is limited to 20% of the minimum of (1) QBI and (2) the greater of 50% of the W-2 wages paid ("wage limitation") and the sum of 25% of the W-2 wages and 2.5% of the unadjusted depreciable tangible property ("capital limitation"). Like the specified services limitation, this limitation is also phased in starting at $157,500 of taxable income for single filers and $315,000 of taxable income if married filing jointly.

[21] The limitation on state and local taxes enacted under the TCJA sunsets in 2026, at which time, the limitation on certain itemized deductions for high income taxpayers, the Pease provision, comes back into effect.

[22] This assumption is based on an EY analysis of Internal Revenue Service S corporation income data (as reported on Schedule E) that found, on average, approximately 90% of S corporation income is non-passive.

[23] The ETRs presented in Table 2 reflect their underlying assumptions, which are intended to be based on largely average characteristics of each business type. Altering the assumptions could have a significant impact on the calculated ETRs. Also, in practice, there may well be greater variation in the ETRs for S corporations and pass-throughs

than C corporations from the perspective that C corporation income is more highly concentrated in the top rate bracket and a significant amount of pass-through income may not be QBI. Conversely, in the case of S corporations, shareholders would generally be taxable, while the shareholders of C corporations may not.

[24] Based on the Federal Reserve Board's Flow of Funds data, 41% of new investment is assumed to be debt-financed and 59% is assumed to be equity-financed.

[25] This report follows Auerbach and Hassett (2003) and assumes that one-half of equity finance operates under the old view, whereby dividend taxes affect investment decisions, and the other half of firms operate under the new view, whereby firms rely on retained earnings as the marginal source of finance and dividend taxes are capitalized into firm value. See Auerbach, Alan J. and Kevin A. Hassett. (2003). "On the Marginal Source of Investment Funds." *Journal of Public Economics* Vol. 87(1), pp. 205-232.