The share of CIT in the federal government's revenue has been steadily declining since the start of the post war era. Immediately after World War II, CIT accounted for approximately 30 percent of the federal government's gross receipts. In the 1960s and 1970s, this ratio decreased to less than 20 percent, and the next two decades (1980s–1990s) witnessed a further decline to 10 percent of federal government revenue. Since the start of the 21st century, the ratio of CIT as a percentage of federal government revenue has been hovering at around 10 percent. While some of this decline has been the result of reductions in the corporate tax rate, much of it is attributable to a declining corporate tax base. Total CIT revenue as a share of GDP has also trended downward over time, as shown in Figure 1. Although the statutory U.S. CIT rate was higher than that of other countries before the TCJA, the U.S. collected a smaller share of CIT revenue as a percentage of GDP. The cause of this perplexing phenomenon of high rate, low revenue collection has been the focus of the corporate tax reform discussion for decades.

Some observers believe the high rate is the culprit. The top U.S. statutory CIT rate has been 35 percent since 1993, and after Japan cut its CIT rate in 2015, it was the highest among all developed countries. A high statutory CIT rate induces corporate inversion and profit shifting from the U.S. to other low–tax jurisdictions. The well–publicized headlines that multinational corporations have parked more than $2 trillion overseas certainly substantiate the loophole and incentive created by the tax system prior to the TCJA.

Other researchers point out that the shrinking size of the CIT base has also contributed to the “high rate, low revenue” situation. Although the statutory CIT rate is high, the effective CIT rate, defined as taxes paid divided by profits, is on par with other developed countries. Because of the credits, deductions, benefits, and subsidies included in the calculation of the CIT, the tax base is narrow by design and the tax burden per dollar of profit was not as high as 35 percent. Two significant corporate tax provisions in the TCJA that expanded the tax base are the NOL carryover modification and limits on interest expense deduction.

Finally, besides using credits and deductions to erode the corporate tax base, a corporation can migrate from corporation status altogether to avoid paying the CIT by choosing to become a pass–through entity such as a partnership, an S–corporation (S–corp), or a limited liability company (LLC), as discussed below. In addition, business income can be categorized in different ways to minimize the tax burden. For example, owners may have latitude to decide whether to distribute business income as profits, wages, or capital gains, which each have different tax implications.
Since the passage of the TCJA, considerable attention has been drawn to the 20 percent deduction of business profits that pass-through businesses can use to qualify for a 29.6 percent tax rate instead of a 37 percent rate. However, the pass-through entities now face another attractive option for incorporation. The dynamics and magnitude of entity conversion will have profound implications beyond current revenue estimates.

Defining a corporation

In addition to all of the decisions made by business executives every day, they must also choose the organizational structure of the company. From a tax perspective, businesses can either be organized as a corporation (also referred to as a C-corp) or as one of various types of “pass-through” entities, including sole proprietorships, partnerships, LLCs, and S-corps. S-corps are treated as C-corps from a legal perspective and as partnerships from a tax perspective. From a legal perspective, these entities mainly differ in terms of the magnitude of their liability limitations, transferability of interest, duration of existence, and centralization of management.

For tax considerations, income from pass-through businesses flows directly to owners, circumventing any entity-level taxation. Corporations, on the other hand, are separate paying entities, so they are subject to entity-level corporate taxes annually. After paying the CIT, firms distribute remaining profits to shareholders as dividends, initiating a second round of taxation on the same income, this time at the individual level. This double taxation of business income has long been viewed as a disadvantage of operating as a corporation. However, the TCJA’s reduction of the CIT rate and changes to corporate shareholder compositions may induce a shift in perspective.

In terms of the number of different business structures, sole proprietorships historically dominate. However, S-corps and partnerships have been increasing as a percentage of the total number of businesses, while the number of C-corps has declined, as shown in the top graph of Figure 2. This decline in C-corps coincides with a shift away from corporate taxation and a receding corporate tax base.

Corporations have constituted the smallest share of legal entities in recent years, but they generate the highest share of income among the different types of legal entities, as shown in the bottom graph of Figure 2. However, the share of corporate-sourced business income has declined substantially since the early 1980s, while the share of taxable income from S-corps and partnerships has grown substantially.

Pass-through businesses, including S-corps, partnerships, and sole proprietors, now generate 63 percent of U.S. business income, while C-corps generate 37 percent.

Legislative changes have facilitated these trends. For example, one distinguishing feature between C-corps and S-corps is that S-corps are limited in the number of shareholders they may have. However, federal legislative changes in 1997 and 2004 allowed C-corps with more shareholders to qualify for S-corp elections, expanding the number of investors S-corps may have, which increased the popularity of this business structure. In the late 1990s, an increasing number of states recognized the legal status of LLCs. Around that same time, the U.S. Department of Treasury adopted regulations that relaxed
the requirements for LLCs to obtain favorable partnership tax classifications, enabling the rapid growth of LLCs.\textsuperscript{13}

**CIT RATE REDUCTIONS**

**International Corporate Activity**

The most significant business tax provision in the TCJA is the substantial reduction of the statutory federal CIT rate from 35 percent to 21 percent. This will directly affect all corporations, but the immediate impact is most significant for multinational corporations, whose international profit-shifting activity is discouraged by the rate reduction. Existing estimates regarding the size of corporate profit shifting vary. Several studies from the Congressional Research Service have reviewed the literature, finding that corporate profit shifting accounts for 14 to 20 percent of total corporate tax revenue.\textsuperscript{14}

Profit-shifting activity could decline considerably after the rate cut because the U.S. rate now competes with business-friendly jurisdictions such as Singapore and the Netherlands. Additionally, recent efforts by the Organisation for Economic Co-operation and Development (OECD) to combat base erosion and profit shifting by enforcing various transparency requirements would also keep business resources in the U.S. and enhance the expansion of the domestic tax base.\textsuperscript{15}

Some research indicates that several countries reduced their CIT rates after the U.S. cut its tax rate in 1986 and cautions that the positive effects of the recent U.S. rate reduction could diminish if other countries responded by reducing their own tax rates.\textsuperscript{16} However, CIT reduction appears to be a global trend, with the U.S. lagging behind, rather than leading, the rate reductions. Over the last five years, 11 OECD countries—Belgium, Denmark, France, Hungary, Israel, Italy, Japan, Luxembourg, Norway, Spain, and the U.K.—cut their CIT rates.\textsuperscript{17} Excluding the U.S., the average CIT rate for 34 OECD member countries was 24.03 percent in 2017 before the implementation of the TCJA; in 2018, the average CIT rate among OECD members is 23.88 percent. The TCJA brought the U.S. statutory CIT rate down from 11 percentage points above the OECD average to 4 percentage points below it.

In addition to the substantial CIT rate reduction, the TCJA also imposes a one-time, 15.5 percent tax on previously accumulated foreign earnings held in cash, and an 8 percent tax on earnings invested in plants and equipment overseas. Subsequently, Apple announced that it would pay $38 billion in repatriation taxes to bring more than $200 billion of overseas cash back, saving $43 billion in taxes.\textsuperscript{18} Other tech giants, including Alphabet, Microsoft, and Cisco, are considering the same strategy.\textsuperscript{19} Financial services firms

**FIGURE 2 — HISTORICAL PERCENTAGE OF FIRMS BY TYPE AND INCOME**

![Graph showing historical percentage of firms by type and income]


**NOTE** The shares of S-Corps include the real estate investment trust (REIT) and regulated investment company (RIC). Income from both REIT and RIC are treated as pass-through income.
such as Citigroup (paying $22 billion in repatriation taxes), Goldman Sachs ($4.4 billion), Bank of America ($2.9 billion), American Express ($2.6 billion), and JPMorgan Chase ($2.4 billion) all followed similar approaches.  

**Business Structure Choice**

Businesses do pursue optimal organizational structures, and changes to tax codes and regulations certainly influence such decisions.  

As shown in Figure 2, in the period immediately following the Tax Reform Act of 1986 (TRA 86), a reduction in the individual marginal tax rate prompted U.S. businesses to switch to organizational structures that were taxed at the individual level (i.e., pass-through entities), which led to a decline in the number of taxable corporations. The TCJA is likely to reverse this trend, with the top marginal CIT rate significantly declining relative to the decline in the top individual tax rate, drawing more companies into C-corp classification and expanding the corporate tax base.  

The decline in corporate–sourced business income and the corresponding increase in pass-through income is a well–documented trend. Several Office of Tax Analysis (OTA) studies documented businesses’ increasing usage of pass-through entities as tax avoidance tools. These studies concluded that, because the pass–through entities paid substantially lower average tax rates than C–corps, if the relative shares of pass–through and C–corp activities were held to 1980 levels, there would have been at least $100 billion in additional revenue in 2011 alone.

**LIMITS ON INTEREST EXPENSE DEDUCTIONS**

The TCJA limits the amount of net interest expenses businesses can deduct, regardless of business structure, for tax purposes. For tax years beginning after December 31, 2017, the maximum deductible interest expense is interest income plus 30 percent of earnings before interest, taxes, depreciation, and amortization (EBITDA). After 2022, the maximum deductible interest expense is interest income plus 30 percent of earnings before interest and taxes. The disallowed portion of the interest expense can be carried forward indefinitely.

Generally, the provision that limits interest expense deduction is going to expand the CIT base. The Joint Committee on Taxation (JCT) estimates that over the next decade, from 2018 to 2027, this provision will increase federal tax revenue by $253 billion, which constitutes approximately 7 percent of the projected CIT revenue for that period. Prior to the TCJA, the U.S. “earning stripping” rule only disallowed interest deductions if the payer’s debt–to–equity ratio exceeded 1.5, or if the payer’s net interest expense exceeded 50 percent of EBITDA. Thus, the scope of disallowance is more extensive under the TCJA.

A direct consequence of this limit is that businesses will have to reevaluate their capital structures (i.e., the magnitude of leveraging). To utilize the portion of the interest expense carried forward, a business needs to either reduce debt or increase its EBITDA. The capital structure is certainly more within management’s control. Although the impact will certainly vary across industries, initial estimates indicate that a typical business would lose more than 40 percent of its interest deduction as a result of this limitation. Therefore, some affected businesses may start raising capital through channels other than debt, such as equity, leases, or derivatives. This provision will also influence financing for leveraged buyouts.

**NOL CARRYOVER MODIFICATION AND DEDUCTION LIMITS**

For CIT purposes, the NOL deduction allows a corporation to use losses generated in one tax year to reduce its taxable income in another tax year. Prior to the TCJA, NOLs could be carried back for two years, and some special rules allowed a 10–year carryback of specific liability losses. The pre–TCJA rules also allowed 20–year NOL carryforwards. Figure 3 shows a growing dependence on NOLs leading up to the TCJA as evidenced by the soaring share of profitable firms that could reduce...
100 percent of their taxable income by deducting NOL carryforwards. Each of these firms would be restricted by the NOL provision in the TCJA.

The TCJA repealed all carrybacks for losses generated in tax years ending after December 31, 2017, and allowed indefinite carry forward of NOLs arising in subsequent tax years. In addition, NOLs can only be used to offset 80 percent of current period income, a limit that did not exist before the TCJA. Because of this clause, all companies bound by this limitation face a minimum effective tax rate of 4.2 percent in the year income is generated. Prior year NOLs are grandfathered: NOLs generated before the end of 2017 can still be carried back for two years and forward 20 years until their expiration, and 100 percent of these NOLs can be applied against future income.

These provisions were finalized based on the Senate Finance Committee’s position: “the committee believes that NOLs should be carried forward, not back. And taxpayers should pay some income tax in years in which the taxpayer has taxable income.” The policy debate also included discussions about preserving the present value of NOLs by inserting an interest element for unused NOLs to ensure that their values are constant across the years, which was not included in the final bill passed by Congress.

The elimination of NOL carrybacks will have the biggest impact on companies entering into financial distress because it allows corporations to obtain cash refunds for taxes paid in prior years. During recessions, a carryback is an automatic stabilization mechanism that allows the federal government to inject liquidity into corporations at times when they need it the most. In contrast, the extension of the carryforward period is not as valuable to companies who are struggling to survive.

Before the TCJA, these companies would have faced a marginal tax rate of zero percent. The provision that imposes NOL limits generally made NOLs less valuable after the TCJA, both because the elimination of NOL carrybacks would limit businesses’ ability to claim cash refunds and because of the limit that NOL can only offset 80 percent of current period income. Due to the more restricted use of NOLs to offset corporate taxable income, these provisions will expand the CIT tax base. The JCT estimates that over the next decade, from 2018 to 2027, this provision will increase federal tax revenue by $201 billion, which would contribute approximately 6 percent to the projected CIT revenue.

Studies concluded that, because the pass-through entities paid substantially lower average tax rates than C-corps, if the relative shares of pass-through and C-corp activities were held to 1980 levels, there would have been at least $100 billion in additional revenue in 2011 alone.
U.S. businesses are facing an unprecedented low-CIT environment and a business-friendly atmosphere that is certain to compete with low-tax jurisdictions.

Many issues remain, such as looming deficits, still complex compliance procedures, and the uncertain longevity of the TCJA’s corporate provisions. There is not a single panacea for the CIT. What is required is to find a compromise that everyone can live with. The TJCA offers a starting point for such a compromise to revitalize the CIT.

ENDNOTES


4. Gravelle (2014) points out that the statutory CIT rate is the reason corporations consider profit shifting. She also summarizes other research that holds similar views. See Jane Gravelle, “International Corporate Tax Rate Comparisons and Policy Implications,” Congressional Research Services, January 6, 2014.


7. For example, because S-corps are not subject to payroll taxes (3.8 percent), owners of S-corps face a tax rate on wages of 43.4 percent and a top rate on business profits of 39.6 percent. After the TCJA, the rate difference is the same, but the tax rates become 40.8 percent and 37 percent, respectively.

8. The highest individual federal income tax rate is 37 percent after the TCJA, and a 20 percent deduction brings the tax rate for pass through entities to 37%*(1-20%) = 29.6%. See Ruth Simon and Richard Rubin, “Crack and Pack: How Companies Are Mastering the New Tax Code,” Wall Street Journal, April 3, 2018, https://on.wsj.com/2olyHwR.


10. We briefly summarized the different features among these entities from tax perspectives. Detailed descriptions of these entity forms are beyond the scope of our discussion. There are many references readily available, for example, John H. Matheson, “Choice of Organizational Form for the Start-Up Business,” Minnesota Journal of Business Law & Entrepreneurship 7 (2002), available at http://bit.ly/2Cp4Pzo.


12. In 1997, the maximum number of shareholders increased from 35 to 75, and in 2004, the number increased from 75 to 100.

13. On January 1, 1997, the Simplification of Entity Classification Rules became effective, which enabled the Check–The–Box (CTB) regulations. The CTB regulations allow entities to check a box on the tax return and elect to be taxed as a certain type of qualified entity.

What is required is to find a compromise that everyone can live with. The TJCA offers a starting point for such a compromise to revitalize the CIT.


17. OECD, “Table II.1, Statutory Corporate Income Tax Rate” accessed May 2018, http://bit.ly/2PEeT9C. These countries include: Belgium (from 34 to 30 percent), Denmark (from 24.5 to 22 percent), France (from 38 to 34.5 percent), Hungary (from 19 to 9 percent), Israel (from 26.5 to 23 percent), Italy (from 31 to 28 percent), Japan (from 37 to 30 percent), Luxembourg (from 29 to 26 percent), Norway (from 27 to 23 percent), Spain (from 30 to 25 percent), and the U.K. (from 21 to 19 percent). During this period, Estonia and Slovak Republic also reduced their tax rates by 1 percent each.


22. TRA 86 generally includes the base broadening, rate reduction clauses. Key provisions include tightening the corporate alternative minimum tax, limiting losses from passive activities, and repealing the long-term capital gains exclusion. Prior to the TRA 86, the highest individual tax and CIT rates were 50 percent and 46 percent, respectively. By 1988, the highest individual tax and CIT rates were 28 percent and 34 percent, respectively, making the CIT rate higher than the highest individual tax rate.


24. Taxpayers with average annual gross receipts of $25 million or less for the three-tax-year period ending with the prior tax year are exempted.


27. Based on available estimates from the OMB and the Joint Committee on Taxation. The OMB provides estimates of CIT revenue projection for 2018–2023, and the JCT has estimated the annual budget effects of limiting interest deduction. The 7 percent estimate is conservative because the limitation would become more stringent in 2023. See OMB, “Historical Tables, 2.1”; and Joint Committee on Taxation, “Estimated Budget Effects of the Conference Agreement for H.R. 1, The Tax Cuts and Jobs Act” (JCX–67–17), Dec. 18, 2017.

28. See Section 163 (j) of the Internal Revenue Code.

31. The 10-year carryback of specific liability losses deduction has mostly been used by power and utilities, agriculture, oil and gas, construction, consumer products, and retail industries. These industries will probably be most heavily influenced by the repeal of carrybacks in the TCJA.
32. The value is the percentage of firms in the COMPUSTAT data set whose tax loss carryforward divided by pre-tax income exceeds one.
33. This is calculated as the product of the marginal tax rate (21 percent) and the requisite taxable income (20 percent).
34. The TCJA also limits excess business losses for non-corporate taxpayers for tax years beginning after December 31, 2017 and before January 1, 2026. We did not discuss this provision here as we are focusing on the CIT.
37. The calculation and data source are similar to footnote 29.

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