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Small Business Tax Benefits: Current Law and Arguments For and Against Them

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Summary

The federal tax burden on small firms and its effects on their formation and growth have long been matters of legislative concern for Congress. This abiding interest has helped pave the way for the enactment of a series of tax laws in recent years that included targeted tax relief for a number of small businesses.

This report describes the main federal tax preferences that benefit small firms and examines the main arguments for and against government support for small firms in general and for tax benefits targeted at such firms in particular. It addresses the tax preferences that can be claimed only by small firms in a wide range of industries and excludes those targeted at small firms in specific industries, such as the special deduction for small life insurance companies under Section 806 of the federal tax code. The small business tax preferences discussed here reflect the changes in the tax code under P.L. 115-97.

The following small business tax benefits are examined here:

- Expensing allowance for machinery and equipment under Section 179 of the Internal Revenue Code;
- Cash-basis accounting under Section 446;
- Tax credit for a portion of the costs incurred by small firms in establishing pension funds for employees under Section 45E;
- Tax credit for costs incurred by small firms in complying with the Americans with Disabilities Act under Section 44;
- Full exclusion from the capital gains tax on the sale or exchange of qualified small business stock under Section 1202;
- Exemption from the limitation on the deduction for business interest expenses under Section 163;
- Tax credit for small firms that offer qualified health insurance coverage to employees under Section 45R;
- Simplified dollar-value last-in-last-out accounting under Section 474;
- Deduction for and amortization of business start-up expenses under Section 195;
- Ordinary income treatment of losses on the sale of certain small business stock under Section 1244;
- Treating losses on the sale of Small Business Investment Company stock as ordinary losses under Section 1242;
- Exemption from the uniform capitalization rule under Section 263A; and
- Use of research tax credit to reduce payroll tax for certain small firms under Section 41.

While available information does not allow for an estimate of the federal revenue cost of the small business tax preferences examined here, a recent estimate by the Joint Committee on Taxation suggests that the cost might exceed $17 billion in FY2018.

Tax preferences for small businesses raise several policy issues. For some, a key question is whether they can be justified on economic grounds. In the absence of such a justification, small business tax benefits, while promoting the survival and growth of firms that can take advantage of them, may cause more economic harm than good by distorting the allocation of domestic economic resources.

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Introduction

Small business owners in general have long been praised within the United States for their contributions to the economy, especially their impact on job growth and innovation. Thus, the federal income tax burden on small firms and its effects on their formation and growth have been perennial issues for Congress.

Many regard small firms as a vital source of job creation and technological innovation. Small firms have also been celebrated as effective vehicles for advancing the economic status of minorities, immigrants, and women.

At the same time, some view the federal income tax as an obstacle to the formation and growth of small firms, while others see it as a policy tool for boosting their rates of formation and growth. Going back to the 111th Congress, seven bills have been enacted that established completely new tax preferences for small firms and extended (and in some cases modified) existing ones:

- American Recovery and Reinvestment Act of 2009 (P.L. 111-5),
- Small Business Jobs Act of 2010 (P.L. 111-240),
- Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312),
- American Taxpayer Relief Act of 2012 (P.L. 112-240),
- Tax Increase Prevention Act of 2014 (P.L. 113-295),
- Protecting Americans from Tax Hikes Act of 2015 (Division Q of the Consolidated Appropriations Act, 2016 (P.L. 114-113), and
- P.L. 115-97 (the tax revision act of 2017).

Small business tax benefits (or preferences) raise three potential policy issues for Congress. First, what is the appropriate definition of a small business in the context of public policy? Two considerations seem paramount in finding an answer to that question: (1) choosing the appropriate size measure (e.g., employment, assets, or receipts) and (2) determining whether that measure should apply to all small business tax benefits, as well as other forms of federal assistance for small businesses.

Second, is there a sound economic justification for supporting small firms? If no such rationale can be found, then government support for small businesses may do more harm than good by distorting the allocation of domestic economic resources.

Third, are tax benefits the most cost-effective way for the federal government to assist small firms? Small business tax preferences entail the following economic costs: (1) the foregone revenue and any interest charges from federal borrowing to offset that revenue loss, (2) the resources required to comply with the rules governing the use of the tax benefits and to enforce compliance with those rules, and (3) the opportunity cost of the foregone revenue and the resources devoted to tax compliance and enforcement. Other policy options for assisting small firms entail similar costs.

This report is intended to shed light on the first two issues by identifying the main nonagricultural small business tax preferences, determining the foregone revenue associated with them, and examining the economic arguments for and against them. An assessment of the relative cost-effectiveness of existing federal small business tax benefits is beyond the scope of the report. The report begins by exploring the challenges associated with crafting a uniform definition of a small business for public policy purposes. It then describes existing small business tax preferences and

reviews what is known about the economic contributions of small firms in general. It concludes with a discussion of the arguments for and against government policies to support small businesses.

Eligibility Criteria: How Small Is Small?

Size Standards and the Small Business Act of 1953

An essential starting point for an assessment of the effects of small business tax benefits is the definition of firms that qualify for the benefits. And on the question of how to define a small firm for the purpose of federal programs to support small businesses, a necessary starting point is the Small Business Act of 1953 (P.L. 83-163, as amended).

Among other things, the act granted the Administrator of the Small Business Administration (SBA) the authority to establish size standards for federal programs supporting small businesses. A size standard specifies the maximum size a company can attain (whatever the measure) and still qualify for federal assistance. The act also gave the Administrator the authority to determine what those standards should be and how they should be applied. Since the act's passage, Congress has refrained from creating size standards for specific federal programs, with one exception: agricultural enterprises. Other federal agencies may create small business size standards for programs they administer, but they must gain the approval of the Administrator before the new standards can take effect.[1]

While empowering the SBA to select the size standards for federal programs, the act also laid down a basic consideration for identifying small businesses eligible for SBA programs. Paragraph 3(a)(1) stated that "for the purposes of this Act, a small business concern.... shall be deemed to be one which is independently owned and operated and which is not dominant in its field of operation."[2]

In the SBA's view, the act and its legislative history established that two principles should guide the agency in setting size standards for all industries. First, the standards should reflect critical differences among industries. Second, federal programs subject to the standards, including those administered by the SBA, should be designed to help eligible small firms improve their performance within the domestic economy.

For the programs it administers, the SBA has used three criteria to identify eligible firms since the early 1950s: (1) the average number of employees in the past year, (2) the average annual receipts in the previous three years, and (3) the value of assets. Employment and receipt size determine eligibility for the vast majority of industries listed in the North American Industrial Classification System (NAICS). The choice of criterion hinges on an industry's structural features.

The SBA has established three "base" (or "anchor") size standards, which shape its ongoing review of the standard it sets for a particular industry. For manufacturing, mining, and other industries with an employee-based standard, the base standard is 500 employees. For industries with a receipts-based standard, a group that includes most nonmanufacturing industries, the base standard is $7.0 million in average annual receipts. The base standard is 100 employees for firms involved in wholesale trade. For a limited number of industries, the SBA uses other measures of size that are appropriate for their main lines of business. For example, financial assets are used for

[1] For more information on the historical development of SBA size standards, see CRS Report R40860, *Small Business Size Standards: A Historical Analysis of Contemporary Issues*, by Robert Jay Dilger.

[2] 15 U.S.C. §632(a)(1).

banking, barrels per calendar-day for petroleum refining, and the share of overall power generation for electric utilities.

In setting or revising a size standard for an industry, the SBA uses its anchor standard as the starting point. Whether a size standard is set below, at, or above that level depends on the results of an evaluation of certain industry characteristics, especially average firm size, start-up costs, entry barriers, degree of competition among firms, and distribution of firms by size. The SBA also takes into consideration the impact of a current or proposed size standard on the access of small firms to federal procurement contracts.

According to the SBA's current table of small business size standards, standards based on receipt size range from $0.75 million to $35.5 million; those based on employment range from 100 to 1,500 employees; those based on financial assets are set at either $7 million or $175 million; those based on power generation are uniformly set at 4 million megawatt hours; and those based on petroleum refining are set at 1,500 employees and 125,000 barrels per calendar day.[3]

The SBA does alter the size standard for particular industries from time to time. Before a proposed change can take effect, however, the agency's Office of Size Standards (OSS) is required to assess the likely impact of the change on the performance of the affected industry (or industries), focusing on the degree of competition, average firm size, start-up costs, barriers to entry, and distribution of industry sales and employment by firm size. OSS uses the results to make recommendations to SBA's Size Policy Board. If the board agrees with the recommendations, it typically advises the Administrator to approve the proposed change. Approved changes must be published in the *Federal Register* for public comment. The SBA issues no final rule until it has reviewed the comments received from the public, as well as any other new information.[4]

Under the Small Business Jobs Act of 2010 (P.L. 111-240), the SBA has the authority to set alternative size standards based on tangible net worth and average after-tax profits for the 7(a) and the 504/CDC loan programs it administers. Until the SBA does so, the act sets the tangible net worth limit at $15 million and the average after-tax profit limit at $5 million, excluding any net operating losses carried over from previous tax years, in the two fiscal years before the date of a company's loan application. The SBA has not established alternative size standards for those programs as of April 2018.[5]

The act also required the SBA to review at least one-third of NAICS industry size standards every 18 months and to make "appropriate adjustments" to reflect current market conditions. No later than 30 days after a review is completed, the SBA must file a report on its findings to the House Committee on Small Business and the Senate Committee on Small Business and Entrepreneurship. It is also required to publicize its reasons for modifying or retaining each reviewed size standard.

Federal agencies administering programs that reserve a share of procurement contracts for small firms (known as small business set-aside programs) are required to use the SBA size standards. Other federal programs and tax provisions supporting small businesses may use those standards, though they are not required to do so. Agencies are free to develop their own size standards, but

[3] See http://www.sba.gov/sites/default/files/files/Size_Standards_Table(1).pdf.

[4] Details on current SBA efforts to revise industry size standards can be found at http://www.sba.gov/content/whats-new-with-size-standards.

[5] CRS Report R40860, *Small Business Size Standards: A Historical Analysis of Contemporary Issues*, by Robert Jay Dilger, p. 23.

they are subjected to a rigorous rulemaking review process overseen by the SBA before the new standards can be applied. An agency must get the approval of the SBA Administrator before a new standard may be used.

The SBA's methodology for selecting size standards for industries continues to stir up concerns among interested lawmakers and analysts.[6] Among the unresolved issues are the following:

- Should there be a fixed range for a size standard (e.g., 100 to 1,500 employees)?
- Should the standards be adjusted for inflation more often than once every five years?
- Should the employment standard be adjusted for productivity gains in an industry?
- Should the SBA lower its size standards for federal contracts in response to recommendations from the private sector?
- Should the size standards be calculated only in dollars to reflect actual structural differences among industries?

How a Small Business Is Defined in the Federal Tax Code

Does the federal tax code use the SBA size standards to determine eligibility for small business tax benefits? Yes, for the most part.

As **Table 1** shows, most of these tax preferences use asset, receipt, or employment size to identify eligible firms.[7] The employment and receipt sizes found in the tax code are much smaller than the sizes used by the SBA to identify small businesses by industry.[8] In addition, a few tax provisions bestow their benefits on small firms not through a size standard but as a consequence of their design, most notably the expensing allowance under Section 179 of the Internal Revenue Code (IRC). Although the statutory language of the provision makes it clear that firms of all sizes may claim the allowance, its limitations effectively confines its benefits to relatively small firms.

There is no explicit rationale in the tax code for the size standards that are used to establish eligibility for small business tax benefits. This lack of a uniform definition of a small business has at least one disadvantage and one advantage. On the one hand, the different IRC size standards can lead to an uneven and seemingly arbitrary distribution of tax benefits among companies that are similar in line of business and employment, receipt, or asset size.[9] On the other hand, the

[6] See Small Business Administration, Size Standards Division and Office of Contracting & Business Development, *SBA Size Standards Methodology* (Washington: April 2009), pp. 45-48.

[7] According to one source, the Internal Revenue Code contains at least 24 different definitions of a small business. See Douglas K Barney, Chris Bjornson, and Steve Wells, "Just How Small Is Your Business?" *National Public Accountant*, August 2003, pp. 4-6.

[8] For instance, as of October 2017, the SBA uses an upper limit of 500 employees for small firms in 98 manufacturing industries and an upper limit of $15.0 million or $20.5 million in average annual sales or receipts for small firms in most administrative and support service industries (see CRS Report R40860, *Small Business Size Standards: A Historical Analysis of Contemporary Issues*, pp. 24-25 for more details). By contrast, only firms with no more than 25 full-time employees earning $50,000 or less in wages or salaries may claim the maximum small employer tax credit for health insurance costs under Section 45, and only corporations and partnerships with less than $5.0 million in average annual gross receipts in the previous three years are eligible to use cash-basis accounting when they otherwise would have to use accrual-basis accounting under Section 446.

[9] For instance, two small companies with the same number of employees engaging in the same lines of business may not be eligible for the same tax preferences because they differ in asset and receipt size.

absence of a uniform size standard gives lawmakers greater leeway in designing tax benefits to support specific policy objectives related to small businesses.

Main Federal Tax Benefits for Small Business

In principle, all business income is subject to federal taxation, but the reality is more complicated, as the federal tax code does not treat all business income equally.

The tax burden on business income depends on several factors. One is whether or not a firm is organized for tax purposes as a C corporation or as a passthrough entity (i.e., partnerships (including limited liability companies, or LLCs), S corporations, and sole proprietorships). Corporate profits are taxed twice: once at the firm level and a second time at the shareholder level when any profits are distributed as dividends or long-term capital gains. By contrast, the net income of passthrough entities is taxed only at the owner or shareholder level.

Furthermore, the taxation of business income depends on whether or not the owner of a passthrough entity pays the alternative minimum tax (AMT). Corporations were also subject to an AMT from 1987 to 2017; P.L. 115-97 repealed the tax, starting in 2018. Passthrough business owners paying the AMT may or may not be taxed at lower rates than they would be under the regular income tax.

Firm size also plays a role in determining a company's federal tax burden. Some tax provisions offer benefits to smaller firms that are not available to larger firms. There is no formal distinction between the taxation of small and large firms in the tax code. Rather, small business tax benefits are scattered throughout the sections of the code dealing with business taxation. Most come in the form of deductions, exclusions, exemptions, credits, deferrals, and preferential tax rates whose main effect is to reduce the cost of capital for investments and increase a firm's cash flow.

The federal tax benefits targeted at smaller firms with the broadest reach outside agriculture are discussed below. Excluded from the list are subsidies available only to small firms in particular industries, such as life insurance, banking, and energy production or distribution. Nor does the list include tax benefits that may be claimed by many small firms but are available to firms of all sizes, such as the Section 41 research tax credit and the Section 168(k) 100% expensing allowance. **Table 1** summarizes the key features of each of these tax benefits.

As a result of the enactment of H.R. 1 (P.L. 115-97) in December 2017, the current lineup of small business tax benefits differs somewhat from the 2017 lineup. Under previous tax law, the graduated corporate income tax (whose rates ranged from 15% to 35%) was considered a small business tax benefit. P.L. 115-97 permanently replaced those rates with a single corporate tax rate of 21%, starting in 2018. The act repealed a second small business tax benefit from 2017: the rollover of gains from the sale of publicly traded securities into specialized small business investment companies under Section 1044. In addition, by repealing the corporate AMT, the act also did away with another small business tax benefit: an exemption under Section 55(e) from the AMT for corporations whose average annual gross receipts did not exceed $5 million in their first three tax years and $7.5 million in each succeeding three-year period.

The current lineup makes no reference to the taxation of passthrough businesses. Some have argued that the tax rates that apply to this income should be considered a small business tax benefit when the returns to passthrough business investment are taxed at lower rates than the returns to corporate business investment. Such a difference existed under the tax law that was in effect in 2017. P.L. 115-97 reversed this difference by setting a corporate tax rate that is 8.6 percentage points lower than the top effective income tax rate for passthrough entities: 29.6%.

There is another reason why it is inadvisable to regard the taxation of passthrough business income in general as a small business tax preference, regardless of the differences between corporate and noncorporate income tax rates. Among C corporations and passthrough entities, there are very small and very large companies, and they differ in their economic roles. According to data from the Internal Revenue Service, in 2014, for example, relatively small companies (those with $500,000 or less in receipts) accounted for 68% of C corporation tax returns, 70% of S corporation returns, 89% of partnership returns, and 98% of sole proprietorship returns.[10] By contrast, relatively large companies (those with more than $50 million in receipts) represented 91% of total C corporation receipts, 40% of S corporation receipts, and 71% of partnership receipts in 2014; large firms made only a small contribution to total sole proprietorship receipts. These figures show that not all passthrough firms are small and not all C corporations are large, regardless of the size standard.

It is not known how much revenue is lost because of tax benefits shown in **Table 1**. Nevertheless, a recent estimate by the Joint Committee on Taxation (JCT) indicates that their revenue cost could exceed $17 billion in FY2018 (see **Table 1**).[11] To put this amount in the proper context, the budget for the SBA in FY2018 totals $887 million.

Table 1. Current Small Business Tax Preferences and Their Estimated Revenue Cost in FY2018

Small Business Tax Preference	Federal Tax Code Section	Nature of the Benefit	Eligible Firms	Current Status	Revenue Cost in FY2018 Under Current Law[a] ($ billions)
Limited Expensing Allowance	179	Allows firms to deduct as a current expense up to $1 million of their expenditures on qualified depreciable assets placed in service in 2018; begins to phase out when total amount exceeds $2.5 million	No size limit	Permanent	$9.9
Nonagricultural Cash-Basis Accounting	446	Allows eligible partnerships and C corporations (including certain farms) to use the cash method of accounting	C corporations and partnerships with average annual gross receipts of $25 million or less in the previous three tax years	Permanent	5.0

[10] See U.S. Congress, Joint Committee on Taxation, *Present Law and Background Regarding the Federal Income Taxation of Small Businesses*, JCX-32-17 (Washington, DC: July 11, 2017), Tables 1 to 4, pp. 24-28.

[11] U.S. Congress, Joint Committee on Taxation, *Estimates for Federal Tax Expenditures for Fiscal Years 2017-2021*, JCX-34-18 (Washington, DC: May 25, 2018).

Small Business Tax Preference	Federal Tax Code Section	Nature of the Benefit	Eligible Firms	Current Status	Revenue Cost in FY2018 Under Current Law[a] ($ billions)
Full Exclusion for Gains from the Sale of Qualified Small Business Stock	1202	Allows noncorporate investors to exclude between 50% and 100% of any gains on the disposition of qualified small business stock held for five or more years	Stock must be issued by C corporations in a qualified business that have $50 million or less in gross assets when the stock is issued	Permanent	1.3
Tax Credit for Employee Health Insurance Costs	45R	Allows eligible small employers to take a nonrefundable tax credit for nonelective contributions that cover 50% or more of the cost of health plans for participating employees	Employers with 25 or fewer employees whose average annual compensation does not exceed $50,000	Permanent	0.6
Simplified Dollar-Value LIFO Accounting Method	474	Allows qualified small firms to use a simpler LIFO method in estimating the base-year value of their inventories	Business taxpayers with average annual gross receipts of $5 million or less in the three previous tax years	Permanent	0.2
Deduction and Amortization of Eligible Business Start-Up Expenses	195	Allows start-up businesses to deduct up to $5,000 of eligible start-up expenses in the year they begin to operate, and to amortize the remaining expenses over 180 months; the deduction phases out, dollar for dollar, when total qualified expenses exceed $50,000	Firms in their first year of business	Permanent	0.1

Small Business Tax Preference	Federal Tax Code Section	Nature of the Benefit	Eligible Firms	Current Status	Revenue Cost in FY2018 Under Current Law[a] ($ billions)
Tax Credit for Expenses Incurred in Improving the Accessibility of a Business for Disabled Individuals	44	Allows qualified small firms to claim a nonrefundable tax credit for qualified expenses they incur in making their facilities more accessible for disabled persons	Employers with gross receipts of $1 million or less in the previous tax year, or with 30 or fewer full-time employees during that year	Permanent	Less than $50 million
Ordinary Income Treatment of Losses on Sales of Certain Small Business Stock	1244	Allows taxpayers to deduct any loss from the sale, exchange, or worthlessness of qualified small business stock as an ordinary loss and not a capital loss	Individuals and partnerships	Permanent	NA
Treating Losses on the Sale of Small Business Investment Company (SBIC) Stock as Ordinary Losses	1242	Allows individual taxpayers who invest in SBICs to deduct from ordinary income all losses from the sale or exchange or worthlessness of SBIC stock	Any individual investing in an operating SBIC	Permanent	NA
Exemption from the Uniform Capitalization Rule	263A	Exempts qualified small firms from the requirement that firms acquiring real or tangible property for resale capitalize or include in the estimated value of their inventory the direct cost of the property included in it, as well as the indirect costs that can be	Business taxpayers with average annual gross receipts of $25 million or less in the three previous tax years	Permanent	NA

Small Business Tax Preference	Federal Tax Code Section	Nature of the Benefit	Eligible Firms	Current Status	Revenue Cost in FY2018 Under Current Law[a] ($ billions)
		allocated to the property			
Use of Section 41 research tax credit against payroll tax	41(h) and 3111(f)	Allows qualified firms to claim a payroll tax credit of up to $250,000, using all or a portion of their unused research tax credit for the current tax year	Business taxpayers that have less than $5 million in gross receipts in the current tax year and had no gross receipts in a tax year preceding the previous five years	Permanent	NA
Tax Credit for Pension Plan Start-Up Expenses	45E	Allows qualified small firms to take a nonrefundable tax credit for a portion of the costs they incur in establishing new qualified pension plans for employees	Employers with fewer than 100 employees, each of whom received $5,000 or more in compensation in the previous calendar year, and with one or more highly paid employee participating in the plan	Permanent	NA
Exemption for Qualified Small Firms from the Limitation on the Deduction for Business Interest	Section 163(j)	Allows eligible small firms to deduct business interest without the limits set by P.L. 115-97.	C corporations and passthrough entities with $25 million or less in average annual gross receipts in the three previous tax years.	Permanent	NA

Source: Compiled by the Congressional Research Service; from the following source: Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2017-2021,* JCX-34-18.

a. These estimates include the revenue effect from P.L. 115-97.

Expensing Allowance for Certain Depreciable Business Assets

Expensing is the most accelerated form of depreciation. It treats the cost of acquiring a depreciable asset (e.g., a machine tool or building) as a current expense rather than a capital expense. As a result, the full cost of the asset is deducted in the year when it is placed into service. In the absence of expensing, companies have to recover capital costs over longer periods by using the appropriate depreciation method and schedule.

Under IRC Section 179, a company may expense (or deduct) up to $1 million of the cost of qualified property—mainly machinery, equipment, standardized computer software, and improvements to nonresidential buildings—placed into service in 2018 and write off any remaining cost using the appropriate depreciation schedule under the Modified Accelerated Cost Recovery System (MACRS).[12] The maximum allowance is permanently fixed at $1 million and is indexed for inflation, starting in 2019.

Use of the allowance is subject to several limitations, the most important of which is the dollar limitation. Under this limitation, the maximum allowance is reduced (dollar for dollar) by the amount (if any) by which the aggregate cost of qualified property a firm places in service during a tax year exceeds a phaseout threshold. In 2018, the threshold is set at $2.5 million; it too is indexed for inflation starting in 2019. This means that a firm may expense as much as $1 million of its spending on qualified assets in the 2018, provided its total spending for this purpose during the year remains below $2.5 million. Once the firm's total spending surpasses that amount, the amount that can be expensed drops until total spending reaches $3.5 million, at which point none of that cost may be deducted under Section 179.

Congress established the expensing allowance mainly to serve two related purposes. One was to lower the cost of capital for relatively small companies. The other purpose was to stimulate increased business investment during periods of weak or negative economic growth.

There is no size limit on the companies that may avail themselves of Section 179. It is the phaseout threshold that makes the expensing allowance a benefit for small firms. Large firms such as GM, Microsoft, or Intel typically spend far more on assets that qualify for the allowance than the threshold for being ineligible for the allowance.

In theory, the allowance can stimulate business investment in two ways. First, it lowers the user cost of capital for investment in qualified assets, all other things being equal. This is because expensing produces a zero marginal effective tax rate on the returns to investment in those assets under the standard economic model for determining the user cost of capital.[13] Second, the allowance increases the cash flow of firms using it, all other things being equal. For firms whose cost of internal funds is lower than their cost of external funds such as debt or equity, a rise in cash flow may be critical to their ability to undertake new investments.

Economist Douglas Holtz-Eakin illustrated the impact of the allowance on the cost of capital in a 1995 article.[14] **Table 2** summarizes his results. The first column shows the corporate tax rate; the second gives the required pretax rate of return if the entire cost of the investment is expensed; the third column provides the required pretax rate of return if the entire cost is recovered through the depreciation deductions allowed under federal tax law in the early 1990s; and the final column presents the effective tax subsidy from expensing, which is expressed as the difference (in percentage points) between the required rates of return shown in columns two and three.

At least two conclusions can be drawn from the results. First, expensing offered a significant investment subsidy that increased with a firm's marginal tax rate, as one would expect with a deduction. For example, at a tax rate of 15%, expensing lowered the user cost of capital by

[12] For more details on the current expensing allowance and its economic effects, see CRS Report RL31852, *The Section 179 and Section 168(k) Expensing Allowances: Current Law and Economic Effects*, by Gary Guenther.

[13] See Jane G. Gravelle, "Effects of the 1981 Depreciation Revisions on the Taxation of Income From Business Capital," *National Tax Journal*, vol. 35, no. 1, March 1982, pp. 2-6. In effect, under expensing, the after-tax rate of return on an investment becomes equal to the pretax rate of return. This happens because expensing reduces costs and after-tax returns by the same proportion, which is determined by the tax rate.

[14] Douglas Holtz-Eakin, "Should Small Businesses Be Tax-Favored?" *Tax Notes*, vol. 48, No. 3, September 1995, p. 389. (Dr. Holtz-Eakin served as Director, Congressional Budget Office, from 2003 to 2005.)

11.3%; but at a rate of 35%, the reduction rose to 27.9%. Second, the user cost of capital under expensing declined as the tax rate increased because tax deductions were worth more at higher tax rates.

Table 2. Estimated User Cost of Capital Under-Expensing

(%)

Corporate Tax Rate	Expensing	Regular Depreciation	Absolute Size of the Subsidy
15%	17.95%	20.23%	2.28[a]
25	17.05	21.13	4.08
35	16.15	22.40	6.25

Source: Douglas Holtz-Eakin, "Should Small Business Be Tax-Favored?" *National Tax Journal*, September 1995.

Note: The calculations assume an interest rate of 9%, an inflation rate of 3%, and a rate of economic depreciation of 13.3%. The following formula is used to compute the user cost of capital: $c/q = [(p - \pi - d)/(1 - t)](1 - tz)$

c is the annual value of revenue from the investment, q is the purchase price of the capital good, p is the after-tax financial cost of capital, π is the rate of inflation, d is the rate of geometric depreciation, t is the marginal tax rate, and z is the present value of depreciation allowances per dollar of investment. In the case of expensing, $z = 1.0$; and in the case of regular depreciation, $z = 0.2814$.

a. Percentage points, not percent.

In FY2018, according to the Joint Committee on Taxation, the allowance may produce a revenue loss of $50.4 billion (see **Table 1**). But the allowance does not necessarily produce a revenue loss. Its revenue effect generally hinges on the aggregate amount of U.S. investment in qualified assets in a particular tax year. In periods of rising business investment, the allowance is likely to generate substantial revenue losses because a share of the total cost of that investment is expensed. But the reverse is likely to happen in periods of declining investment, when the revenue gains from recent claims for the allowance exceed the revenue loss from new uses of it. Any shift from revenue loss to gain simply reflects the timing of depreciation deductions under current law. Firms that write off the entire cost of an asset in the year when it is placed in service under Section 179 can claim no additional depreciation allowances against future profits. In effect, they exchange a lower tax liability in the present for larger tax liabilities in the future. But companies making this tradeoff come out ahead, particularly in the case of relatively long-lived assets, since the present value of all depreciation deductions is greater with expensing than it is with less accelerated methods of depreciation. In other words, a company is better off with expensing than without it because one dollar of tax savings in the present is worth more than one dollar of tax savings in a future year.

Amortization of Business Start-Up Costs

A key concept underlying the federal income tax is that business taxable income should exclude all costs incurred in earning it. Consequently, companies are allowed to deduct as current expenses all ordinary and necessary costs paid or incurred in conducting a trade or business in determining their taxable income. The concept also implies that costs paid or incurred in starting or organizing a business should not be treated as current expenses, as they are not directly related to the generation of income. Rather, because these expenses are incurred in an attempt to create a capital asset (namely, the business) with a useful life that is likely to extend beyond a single tax year, they should be capitalized, added to the owner's basis in the business, and recovered when the business is sold or ceases to exist.

IRC Section 195 (as amended by the American Jobs Creation Act of 2004 or AJCA, P.L. 108-357) deviates from this principle by permitting individuals who incur business start-up and organizational costs after October 22, 2004, to deduct up to $5,000 of those costs in the year when the new trade or business begins to operate. This deduction is reduced, dollar for dollar (but not below zero), by the amount by which eligible expenditures exceed $50,000. Expenditures that cannot be deducted may be amortized over 15 years, beginning in the first month the new trade or business earns income. In order to claim the $5,000 deduction, a taxpayer must have an equity interest in the trade or business and actively participate in its management.

The Small Business Job Creation Act of 2010 (P.L. 111-240) raised the deduction to $10,000 and the phaseout threshold to $60,000 for qualified start-up and organizational expenses incurred or paid in 2010 only. These higher amounts have not been extended.

To qualify for the deduction, start-up and organizational costs must meet two requirements. First, they must be paid or incurred as part of an investigation into creating or acquiring an active trade or business, as part of starting a new trade or business, or as part of an effort to produce income or profit before starting a trade or business with the aim of converting the effort into an active trade or business. Second, the costs must be similar in kind to costs that would be deductible if they were paid or incurred in connection with the expansion of an active trade or business in the same industry.

Businesses that incurred or paid business start-up and organizational costs and then entered a trade or business on or before October 22, 2004, were allowed to amortize (or deduct in equal annual amounts) those expenditures over five or more years, beginning in the month when the new trade or business commenced.

The option to deduct as much as $5,000 in business start-up and organizational costs in the first year of operation permits the owner of a new firm to deduct expenses in the year when the business begins. Without such a provision, the expenses could not be recovered until the owner sells his or her interest in the business or five years after the business started, whichever comes first. As a result, the option accelerates the recovery of certain business expenses, and this acceleration can aid the growth of small start-up firms by reducing their cost of capital and increasing their cash flow at a time when their access to financial capital may be restricted. For firms that lose money in their first year of operation, the deduction adds to their net operating losses, which may be carried forward up to 20 years and used to offset future taxes paid or owed.[15]

Cash-Basis Accounting

IRC Section 446 requires firms to compute their taxable income using the same method of accounting they regularly employ in keeping their books, as long as that method clearly reflects income for tax purposes. A business taxpayer's method of accounting clearly reflects income if it treats items of income and deductions consistently from one tax year to the next. Permissible methods of accounting include the cash-receipts method, the accrual method, the installment method, the long-term-contract method, the crop method, the special methods for research and development expenditures, and the method for soil and water conservation expenditures.

Two methods of financial accounting are widely used in the private sector: cash-basis and accrual-basis. Under the former, which is the preferred method for self-employed individuals,

[15] Under the American Recovery and Reinvestment Act of 2009 (P.L. 111-5), eligible firms with net operating losses in the 2008 tax year may carry them back up to five years. Only firms with average annual gross receipts in the past three tax years of less than $15 million may take advantage of this expanded carryback.

income generally is recorded when it is received in the form of cash or its equivalent, and expenses generally are recorded when they are paid, regardless of when the income is actually earned or the expenses are actually incurred.

Under accrual-basis accounting, income and expenses generally are recorded when the transactions giving rise to them are completed or nearly completed, regardless of when cash or its equivalent is received or paid. More specifically, a firm using accrual-basis accounting records income when its right to receive it is established and records expenses when the amounts are fixed and its liability for them established.

Each accounting method has its advantages. Cash-basis accounting is much simpler to administer and allows firms that employ it to control the timing of the recognition of items of income or deductions. In contrast, accrual-basis accounting often yields a more accurate measure of a firm's economic income because it matches income with expenses with greater precision and rigor.

Under certain circumstances, the accrual method must be used for tax purposes. For instance, when keeping an inventory is necessary to the operation of a business, a taxpayer must use the accrual method in computing taxable income—unless the IRS determines that another method clearly reflects income and may be used instead. Inventories are considered necessary when a firm earns income from the production, purchase, or sale of merchandise. In addition, C corporations, partnerships with C corporations as partners, trusts that earn unrelated business income, and authorized tax shelters generally are required to use the accrual method of accounting.

But there are some exceptions to these rules. Beginning in 2018, any partnership or C corporation with average annual gross receipts of $25 million or less in the three previous tax years may use the cash method of accounting. Individuals, S corporations, and qualifying partnerships and personal service corporations also have the option of using the method. This dollar threshold is indexed for inflation, starting in 2019.

As these exceptions show, many of the eligible firms are relatively small in receipt size. In effect, the cash method offers the same benefit to small firms as the expensing allowance under Section 179 does: the deferral of income tax payments. The federal tax code operates in part on the principle that a firm receives income when it gains the legal right to be paid for something it has provided. But under the cash method, firms have greater control over the timing of receipts and payments for expenses than they do under the accrual method. As a result, firms using the cash method have the option of deferring the payment of taxes, or taking advantage of lower tax rates by shifting deductions and the recognition of income from one tax year to the next.

Despite the potential benefits to eligible small firms from using the cash method, it may not always be in their self-interest to do so. A case in point: a small business might be better off using accrual-basis accounting if it needs to periodically issue accurate and reliable financial reports. Cash-basis accounting can distort a firm's financial position in at least two ways.[16] First, because it records transactions involving only cash or its equivalent, the method excludes transactions involving exchanges of assets or liabilities. Second, the determination of net income under cash-basis accounting can be manipulated by recording revenues or expenses long before or after goods and services are produced or sold.

[16] See Robert Libby, Patricia A. Libby, and Daniel G. Short, *Financial Accounting* (Chicago: Irwin, 1996), p. 111.

Exemption from Limitation on the Deduction for Business Interest Expenses

Before the enactment of P.L. 115-97, interest and other borrowing expenses incurred in the pursuit of a trade or business were generally deductible from a company's gross income in the year when the expenses were paid or incurred under Section 163. No deduction was allowed for interest paid on tax-exempt bonds, interest from unregistered obligations, interest paid on insurance contracts, and interest paid on original discount, high-yield obligations.

The act placed a limit on the amount of business interest a company can deduct; this limit applies to all legal forms of business organization. Under Section 163(j) as amended by the 2017 act, the deduction for business interest expenses in any tax year is limited to the sum of a firm's interest income, 30% of its adjusted taxable income, and any floor-plan financing interest it paid or incurred. Interest that cannot be deducted may be carried forward indefinitely, subject to certain restrictions for partnerships and S corporations.

Adjusted taxable income is defined as a company's regular taxable income calculated without (1) any item of income, gain, deduction, or loss not allocated to a trade or business, (2) any business interest or business interest income, (3) a deduction for net operating losses, (4) the 20% deduction for qualified passthrough business income under Section 199A, and (5) any allowable deduction for depreciation, depletion, or amortization in the years before 2022. Floor-plan financing interest is the interest paid or accrued on debt used to finance the acquisition of motor vehicles held for sale or lease to customers and secured by seller's inventory.

Companies with average annual gross receipts in the previous three tax years of $25 million or less are exempt from this limitation. There is no estimate of the revenue forgone because of this exclusion.

Tax Incentives for Equity Investment in Small firms

Several tax provisions benefit smaller enterprises by encouraging equity investment in qualified small firms that otherwise may have trouble raising needed funds. The provisions, which are described below, do so by increasing the potential after-tax returns or reducing the potential after-tax losses on such investment, relative to alternative investment options. The same tax benefits are not available to individuals investing in larger firms.

Full Exclusion of Capital Gains on Eligible Small Business Stock

Two key considerations in determining the income tax liability for many individuals are the recognition of income as ordinary or capital gain, and the difference between long-term and short-term capital gains or losses.

A capital gain or loss arises when a capital asset such as a stock or bond is sold or exchanged. If the selling price is greater than the acquisition or purchase price, the transaction produces a capital gain. Conversely, a capital loss results when the reverse is true.

Capital assets held longer than 12 months and then sold or exchanged give rise to what are known as long-term capital gains or losses, whereas sales or exchanges of capital assets held one year or less generate short-term capital gains or losses. Short-term capital gains are considered ordinary income and taxed at regular income tax rates. By contrast, long-term capital gains are considered capital income and taxed in 2018 at 20% for single filers with taxable incomes of $425,800 or more and joint filers with taxable incomes of $479,000 or more; 15% for single filers with taxable incomes between $38,600 and $425,800 and joint filers with taxable incomes between $77,200

and $479,000, and 0% for single filers with taxable incomes below $38,600 and joint filers with taxable incomes below $77,200.

IRC Section 1202 allows noncorporate taxpayers (including partnerships, LLCs, and S corporations) to permanently exclude from gross income the entire gain from the sale or exchange of qualified small business stock (QSBS) that has been held for a minimum of five years and a day. More precisely, the exclusion is 100% for QSBS acquired after September 27, 2010. For QSBS acquired between August 11, 1993, and February 17, 2009, 50% of any gain on its sale or exchange may be excluded. The exclusion is 75% for QSBS acquired between February 18, 2009, and September 27, 2010.

There is a total limit on the gain from stock issued by an eligible corporation that a taxpayer may exclude. In any tax year, the gain cannot exceed the greater of 10 times the taxpayer's adjusted basis in all QSBS issued by that firm and sold or exchanged by the taxpayer during that year, or $10 million—reduced by any excluded gains from sales of the same stock in previous years. This means that the amount a taxpayer may exclude over time from the sale of a firm's QSBS cannot exceed $10 million. Any remaining gain is taxed at a fixed rate of 28%.

To qualify for the partial exclusion, small business stock must satisfy several requirements. First, it must be issued after August 10, 1993, and acquired by the taxpayer at its original issue, either directly or through an underwriter, in exchange for money, property, or as compensation for services rendered to the issuing corporation. Second, the stock must be issued by a domestic C corporation whose gross assets do not exceed $50 million before the stock is issued. Third, at least 80% of an eligible corporation's assets must be deployed in the active conduct of one or more qualified trades or businesses during "substantially all" of the requisite five-year holding period. Assets used for working capital, start-up activities, and research and development meet the active business test, even if they are devoted mainly to the development of future lines of business. Specialized small business investment companies licensed under the Small Business Investment Act of 1958 also meet the active business test, making their stock eligible for the gain exclusion.

Stock issued by C corporations with less than $50 million in gross assets is eligible for the exclusion if the issuing corporation is primarily engaged in an eligible trade or business. All trades and lines of business are eligible except the following: health care, law, engineering, architecture, hospitality, farming, insurance, finance, and mineral extraction. Stock issued by the following small C corporations is also ineligible for the exclusion: current or former domestic international sales corporations (DISCs), regulated investment companies (RICs), real estate investment trusts (REITs), real estate mortgage investment conduits (REMICs), financial asset securitization investment trusts (FASITs), cooperatives, or C corporations that have claimed the possessions tax credit under IRC Section 936.

The full exclusion for QSBS is intended to improve the access of small start-up firms in manufacturing and certain other industries to what might be called patient equity capital. It accomplishes this by increasing the potential after-tax returns an investor can earn on purchases of QSBS, relative to the potential after-tax returns on other investment opportunities, over five years. Under current law, the maximum capital gains rate is 20% and the exclusion is 100% of realized gains from QSBS acquired after September 27, 2010. A full exclusion yields an effective capital gains tax rate of 0% for QSBS. Supporters of the 100% exclusion say it is needed to compensate for the uncertainty and asymmetric information that surrounds the growth prospects of new start-up firms in industries where sizable upfront investments in activities such as research and development are critical to their survival and expansion.

There is some evidence that the exclusion reduces the cost of capital for eligible C corporations issuing QSBS. In a 1999 study of the issue prices for such stock just before and after the enactment of Section 1202, David Guenther and Michael Willenborg found that the prices of QSBS issued by a sample of eligible firms after the tax change were "significantly higher than the issue prices before the change.[17] Meanwhile, there were no significant differences in the issue prices for a sample of firms that were ineligible to issue QSBS. They concluded that nearly all the future benefits from the capital gains rate reduction were being passed on to issuing corporations in the form of higher stock prices, instead of being captured by investors. All other things being equal, rising stock prices lower a firm's cost of capital.

Still, not everyone thinks the gains exclusion is a good idea. Alan Viard of the American Enterprise Institute, while recognizing the efficiency gains from using equity instead of debt to finance new investments, has argued that the exclusion is undesirable because it distorts the allocation of investment capital. As he noted in a 2012 article, the tax preference encourages equity investment in very small companies in certain industries only and may be claimed by certain investors only, not by all investors.[18] In his view, the rules governing the use of the exclusion dampen its economic impact.

Losses on Small Business Investment Company Stock Treated as Ordinary Losses without Limitation

Generally, losses on investments in stock are treated as capital losses for tax purposes. They may be used to offset any capital gains a taxpayer has in the same tax year. Individuals may also use any combination of short-term and long-term capital losses to offset up to $3,000 in ordinary income in a tax year.

Under IRC Section 1242, however, individuals who invest in small business investment companies (SBICs) are permitted to deduct from their ordinary income all losses from the sale or exchange or worthlessness of stock they hold in these companies. This exception from the general rule is intended to foster equity investment in these companies by lowering the potential after-tax loss on an investment in an SBIC, relative to the potential after-tax loss on other investments.

SBICs are private regulated investment corporations that are licensed under the Small Business Investment Act of 1958 to provide equity capital, long-term loans, and managerial guidance to firms with a net worth of less than $18 million and an average net income of less than $6 million in the previous two years. SBICs use their own capital and funds borrowed at favorable rates as a result of SBA loan guarantees to make equity and debt investments in qualified firms. For tax purposes, most SBICs are treated as C corporations.

Ordinary Income Treatment of Losses on Sales of Small Business Stock

IRC Section 1244 allows taxpayers to treat any loss from the sale, exchange, or worthlessness of qualified small business stock as an ordinary loss rather than a capital loss. For business taxpayers, ordinary losses are treated as business losses in computing a net operating loss.

To qualify for this treatment, stock must meet four requirements. First, it must be issued by a small business corporation after November 6, 1978. A small business corporation is defined as a domestic C corporation whose cash and property received as a contribution to capital and paid-in

[17] David A. Guenther and Michael Willenborg, "Capital Gains Tax Rates and the Cost of Capital for Small Business: Evidence from the IPO Market," *Journal of Financial Economics*, v. 53, 1999, p. 401.

[18] Alan D. Viard, "The Misdirected Debate and the Small Business Stock Exclusion," *Tax Notes*, February 6, 2012, p. 741.

surplus totals less than $1 million at the time the stock is issued. Second, the stock must be acquired by an individual investor or a partnership in exchange for money or other property (but not stock and securities). Third, during the five tax years before a loss on the stock is recognized, the small business corporation must derive more than 50% of its gross receipts from sources other than royalties, rents, dividends, interest, annuities, and stock or security transactions. The amount that may be deducted as an ordinary loss in a tax year is capped at $50,000 for single filers and $100,000 for married couples filing jointly.

Uniform Capitalization of Inventory Costs

Firms that earn income from the production, purchase, or sale of merchandise are required to maintain inventories in order to account for the cost of goods sold during a tax year. This cost is subtracted from gross receipts in the computation of taxable income. In most cases, the cost of goods sold is determined by adding the value of a firm's inventory at the beginning of the year to purchases of inventory items made during the year and subtracting that amount from the value of the firm's inventory at the end of the year.

IRC Section 263A requires business taxpayers engaged in the production of real or tangible property, or in the purchase of real or tangible and intangible property for resale, to "capitalize" (i.e., include in the estimated value of their inventories) both the direct costs of the property included in inventory and the indirect costs that can be allocated to it. This rule is known as the uniform capitalization rule and was added to the tax code by the Tax Reform Act of 1986. In general, direct costs are considered the material and labor costs related to the production or acquisition of goods, and indirect costs refer to all other costs incurred through the production or acquisition of goods (e.g., repair and maintenance of equipment and facilities, utilities, insurance, rental of equipment, land, or facilities, and certain administrative costs). Taxpayers have some discretion in assigning indirect costs to production or resale activities, but the methods used to allocate the costs should yield reasonable and defensible results for the trade or business.

Some small firms, however, are exempt from the uniform capitalization rule. Specifically, it does not apply to firms with average annual gross receipts of $25 million or less in the last three tax years that acquire tangible or intangible property for resale. This exemption is beneficial because eligible firms have lower administrative costs, face less complexity in complying with income tax laws, and can exercise more control over the timing of business expense deductions, opening up opportunities for the deferral of income tax liabilities.[19]

Simplified Dollar-Value LIFO Accounting Method for Small Firms

Businesses that maintain inventories to account for the cost of goods sold are required to estimate the value of their inventories at the beginning and at the end of each tax year. Since doing this item by item is time-consuming and costly, many taxpayers use estimation methods that assume certain item or cost flows.

One such method is known as "last-in-first-out" (or LIFO). LIFO operates on the assumption that the most recently acquired goods are sold before all other goods. Consequently, LIFO assigns the most recent unit costs to the cost of goods sold and the oldest unit costs to the remaining inventory at the end of the year. The method can be advantageous during periods when the cost of many inventory items is rising, since it yields a lower taxable income and inventory valuation than other methods. There are various ways to apply LIFO. A widely used application is known as

[19] See Paul G. Schloemer, "Simplifying the Uniform Inventory Capitalization Rules," *Tax Notes*, vol. 53, no. 9, December 2, 1991, pp. 1065-1069.

the dollar-value method. Under it, a taxpayer accounts for the value of its inventories on the basis of a pool of dollars rather than a pool of specific items. Each dollar pool includes the value of a variety of inventory items and is measured by the dollar value of the items in their base year, which is the year when they were first added to the inventory. Use of the dollar-value method is complicated and costly and thus beyond the reach of most small firms.[20]

But IRC Section 474, which was added to the tax code by the Tax Reform Act of 1986, allows certain small firms to use a simplified dollar-value LIFO method. It differs from the regular dollar-value method in how the inventory items are pooled and how the base-year value of the pooled items is estimated. Firms with average annual gross receipts of $5 million or less in the three previous tax years are allowed to use the simplified method.

Nonrefundable Tax Credit for Pension Plan Start-Up Costs of Small Firms

Under IRC Section 45E, certain small firms may claim a nonrefundable tax credit for a portion of the start-up costs incurred in setting up new retirement plans for employees. The credit, which was enacted as part of the Economic Growth and Tax Relief Reconciliation Act of 2001, began in 2002 and originally was scheduled to expire (or "sunset") at the end of 2010. But a provision of the Pension Protection Act of 2006 permanently extended the credit. It is a component of the general business credit under IRC Section 38 and thus subject to its dollar limitations and rules for carryover.

The credit is equal to 50% of the first $1,000 in eligible costs paid or incurred in each of the first three years a qualified pension plan is operative. Eligible costs consist of the ordinary and necessary expenses associated with administering the plan and informing employees about the plan's benefits and requirements. Any new defined benefit or defined contribution plan, savings incentive match plan for employees, or simplified employee pension plan qualifies for the credit. Only firms with fewer than 100 employees, each of whom received at least $5,000 in compensation in the previous year, are allowed to claim the credit if at least one highly compensated employee participates in the plan. The maximum credit an eligible firm can claim is $1,500 (.5 x $3,000).

In effect, the credit gives owners of small firms an incentive to establish pension plans for employees by lowering the after-tax cost of setting up and administering these plans over the first three years they are available. Supporters of the credit say the reduced cost should spur increased plan sponsorship among small employers. As a 2010 report issued by the SBA made clear, startup costs can be considerable on a per-employee basis for companies with relatively few employees.[21] Yet available data on pension benefits by employer size offer no clear evidence that the credit has had its intended effect on the share of small employers offering pension plans. According to figures published by the Employee Benefit Research Institute (EBRI), the percentage of firms with fewer than 100 employees sponsoring pension plans was lower in 2013 (the most recent year for which survey results are available) than it was in 2002, the first year the credit was available.[22]

[20] For more details on this method, see U.S. Congress, Joint Committee on Taxation, *Impact on Small Business of Replacing the Federal Income Tax*, JCS-3-96 (Washington, April 23, 1996), pp. 18-19.

[21] See Kathryn Kobe, *Small Business Retirement Plan Availability and Worker Participation* SBA Office of Advocacy, contract no. SBA-HQ-06M0477 (Washington: March 2010), p. 22.

[22] In 2013, according to an EBRI report, 10.3% of firms with fewer than 10 employees sponsored pension plans; the share in 2002 was 16.5%; for firms with 10 to 49 employees, the 2013 share was 24.0%, and the 2002 share 31.4%; and

Nonrefundable Tax Credit for Expenses Paid or Incurred in Making a Business More Accessible for Disabled Persons

Under IRC Section 44, an eligible small firm may claim a nonrefundable tax credit for expenses incurred in making its business facilities more accessible for disabled employees. The credit is equal to 50% of eligible expenditures in a tax year above $250 but not greater than $10,250; it is capped at $5,000 for a firm in a tax year. In the case of a partnership and S corporation, this upper limit applies separately at the entity level, and at the partner or shareholder level. The disabled-access credit is a component of the general business credit under IRC Section 38 and thus subject to its dollar limitations and rules for carry-forward and carry-back.

A firm may claim the credit if, during its previous tax year, its gross receipts (less any returns and allowances) totaled no more than $1 million, or its full-time equivalent (FTE) work force did not exceed 30 persons.

Any amount an eligible small firm pays or incurs to bring its business into compliance with the Americans with Disabilities Act of 1990 (ADA) qualifies for the credit. The expenses must be reasonable in amount and required by law. Eligible expenses include the cost of removing architectural, communication, transportation, or physical barriers to making a business accessible to or usable by disabled individuals; providing interpreters or other effective methods of making materials understandable to hearing-impaired individuals; and supplying qualified readers, taped texts, and other effective methods of making materials understandable to visually impaired individuals.

The credit is intended to lower the net cost to smaller firms of complying with the mandates of the ADA and to encourage them to hire more disabled persons. Although the credit has been available for over two decades, it remains unclear how effective it has been in stimulating business investment in making workplaces more accommodative to the special needs of disabled persons seeking employment. In a 2002 report, the then-named General Accounting Office (GAO) noted that it could find no studies of the effectiveness of the credit and that few businesses were even aware of it.[23] It appears that no such studies have been done since 2002.

Nonrefundable Tax Credit for Employee Health Insurance Expenses

The Patient Protection and Affordable Care Act (ACA, P.L. 111-148) added a provision to the federal tax code (IRC Section 45R) that grants certain small employers a tax credit for nonelective contributions to health plans that cover at least 50% of the cost for participating employees. An employer's contribution is considered nonelective if it does not involve a reduction in participating employees' salaries or wages.

Eligible employers have been able to take the credit since the 2010 tax year. From 2010 through 2013, the maximum credit was equal to 35% of the *lesser* of the total amount of an employer's nonelective contributions during a tax year for the payment of qualified health insurance for its

for firms with 50 to 99 employees, the 2013 share was 36.1%, and the 2002 share 46.9%. See Employee Benefit research Institute, "Employment-Based Retirement Plan Participation: Geographic Differences and Trends, 2013," *Issue Brief*, no. 405 (Washington, Oct., 2014), Figure 2, p. 11; and "Employment-Based Retirement and Pension Plan Participation: Declining Levels and Geographic Differences," *Issue Brief*, no. 262 (Washington: October 2003), Figure 2, p. 7.

[23] U.S. General Accounting Office, *Incentives to Employ Workers with Disabilities Receive Limited Use and Have an Uncertain Impact*, GAO-03-39 (Washington: December 2002), p. 19.

employees through a "contribution arrangement," or the total amount of nonelective contributions that would have been made if each employee had enrolled in a qualified health plan with a premium equal to the average premium for the small-group market in the state where the employer is located. Under such a scheme, an employer may not claim the credit for the portion of employer-paid premiums above the average premium for the small-group market where the employer is located.

Employers with up to 25 or fewer full-time employees who earn an average annual compensation of $50,000 or less can benefit from the credit, but the full credit may be claimed only by employers with 10 or fewer full-time employees with an average annual compensation of $25,000 or less. The credit phases out by 6.667% for each full-time employee above 10, and by 4% for every $1,000 in average annual compensation above $25,000.

For tax years beginning in 2014, an eligible employer may claim the credit no more than two consecutive tax years (e.g., 2014 and 2015) if it offers one or more qualified health plans through a state-based health insurance exchange. Each state was required to establish such an exchange by 2014. The maximum credit for tax years after 2013 will be equal to 50% of the *lesser* of the total amount of employer contributions for qualified health plans offered through an exchange, or the total amount of employer contributions that would have been made that year if each employee had enrolled in a qualified health plan with a premium equal to the average premium for the small-group market in the rating area where the employees receive coverage. The credit does not apply to premiums deemed excessive.

Several rules governing the use of the credit affect its effective rate. The credit is a component of the general business credit (GBC), and thus subject to its limitations. Unused GBCs may be carried back one year or forward up to 20 years. Any credit not used by the end of the 20-year carry-forward period may be deducted in its entirety for the next tax year. Since 2011, employers have been able to take the credit against both the regular income and alternative minimum taxes. But to prevent employers from deriving two tax benefits from the same expenditures, any employer taking the credit must reduce its deduction for employer-paid health insurance premiums by the amount of the credit.

The credit is intended to increase the share of employers with 25 or fewer low-wage employees that offer health insurance to employees. It does so by lowering the after-tax cost of coverage by as much as 35% from 2010 to 2013 and by as much as 50% in any two consecutive years starting in 2014 for firms with sufficient tax liability.

Congress added the credit to the ACA in part to address a longstanding concern about gaps in the domestic web of employer-provided health insurance. While the vast majority of large employers offer health benefits to employees, a much smaller share of small employers have done so, and the share is even smaller for small employers with mostly low-wage workers. According to the latest survey of employer health benefits by the Henry J. Kaiser Family Foundation (KFF) and the Health Research and Educational Trust (HRET), 96% of employers with 100 or more employees offered health benefits in 2017, compared with 90% of employers with 50 to 99 employees and 50% of employers with 3 to 49 employees. Among all the employers surveyed, regardless of their employment size, 64% of those with relatively low ratio of low-wage workers (defined as those earning $24,000 or less) to total workers offered health benefits in 2017, whereas 44% of those with a relatively high ratio did so.[24]

[24] Henry J. Kaiser Family Foundation and Health Research & Educational Trust, *Employer Health Benefits 2017 Annual Survey*, (Washington, DC: Sept. 19, 2017), pp. 10 and 60, http://files.kff.org/attachment/Report-Employer-Health-Benefits-Annual-Survey-2017.

Main Arguments For and Against Federal Support for Small Business

Available data indicate that small firms play a major role, on the whole, in domestic economic activity. For example, according to figures published by the SBA, firms with fewer than 500 employees accounted for 99.9% of all domestic firms, 99.7% of firms with paid employees, and 48.0% of private-sector employment in 2013.[25] These indicators of economic importance raise the question of why government assistance is needed when small firms typically account for substantial shares of employment and output and make important contributions to technological innovation over time.

The answer to this question is no trivial matter. Small firms could receive more than $17 billion in federal tax benefits in FY2018[26]—in addition to the subsidies they obtain through other federal programs targeted at small businesses. As with any public expenditure, this support carries an opportunity cost in the form of alternative uses of these funds and their potential economic effects. If it turns out that there is no sound economic justification for existing federal government support for small business, then one could argue that the U.S. economy would be better off using the funds going to small firms for other purposes with significant economic effects, such as investing in infrastructure expansion and modernization, research and development, or deficit reduction.

This section describes the chief arguments for and against government support (including tax preferences) for small businesses.

Arguments in Favor of Government Support

Proponents of government support for small business generally cite four reasons why they believe it is justified: (1) the special economic role played by small firms; (2) the financial barriers to their formation and growth; (3) the impact of relatively high marginal tax rates on the formation and growth of small entrepreneurial firms; and (4) the unique opportunities for individual economic advancement created by small business ownership.

Special Economic Role of Small Firms

Many lawmakers cite the economic importance of small firms as a primary reason to support them through government programs and other subsidies. For example, in remarks made on the floor of the Senate in 2003, Senator Olympia Snowe urged her colleagues to back the creation of more tax benefits for small firms by noting that "they represent 99% of all employers, employ 51% of private-sector workforce, provide about 75% of the net new jobs, contribute 51% of the private-sector output, and represent 96% of all exporters of goods."[27] Statements such as this suggest that small firms in general deserve federal support, not because they are prone to some kind of market failure, but because they play an important role in economic activity.

Some proponents of government support for small businesses take this line of reasoning a step further by arguing that small firms generate uniquely valuable economic benefits. These benefits,

[25] See U.S. Small Business Administration, Office of Advocacy, *Frequently Asked Questions*, June 2016, https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf.

[26] See **Table 1** beginning on p. 6.

[27] Sen. Olympia Snowe, remarks in the Senate, *Congressional Record*, daily edition, vol. 149, no. 6, January 14, 2003, p. S299.

they say, can be seen in the multitude of jobs and new technologies small firms create over time, their innumerable and ever-changing linkages to larger firms in supply chains, and their unique contributions to economic renewal and growth. Proponents maintain that the net effect of these activities is to accelerate the growth of the U.S. economy in ways that large firms cannot.

Job Creation

On the issue of job creation, those who favor government support for small firms note that SBA data show that firms with fewer than 500 employees accounted for 63.3% of net job creation from 1992 to 2013.[28] The data also indicate that, though many small firms fail within five years of starting up, the survivors, especially firms known as gazelles because of their rapid growth starting at a young age, typically create enough jobs to more than offset those lost because of firms going out of business.

Technological Innovation

On the issue of technological innovation, proponents of government support for small firms cite several findings from the literature on firm size and technological innovation. One study found that the contributions of small firms to innovation varied by industry, and that their contributions tended to be most important in industries where no firm had established substantial market power.[29]

Another study concluded that in certain industries, small start-up firms were more adept than large established ones at identifying promising commercial applications for new technologies and exploiting them. More specifically, the study provided evidence that during the 1980s and 1990s, there were many instances in which small start-up firms gained temporary competitive advantages over larger established rivals in the commercial development of new technologies in biotechnology, microelectronics, computer software, and electronic commerce.[30]

A 2003 study by CHI Research, Inc. uncovered further evidence that small firms have made important contributions over time to the commercial development of new technologies. The researchers found that firms with fewer than 500 employees held 41% of all patents filed by U.S. corporations from 1996 to 2000. The study also found that those firms received 13 to 14 times as many patents per employee as larger firms did.[31] Furthermore, the results showed that small firms filed 25% of the patents related to biotechnology, 19% of the patents related to pharmaceuticals, 11% of the patents related to medical equipment and electronics, and 9% of the patents related to chemicals other than pharmaceuticals.[32]

According to a 2011 study of small business innovation in "green" technologies, among all firms awarded 15 or more patents between 2005 and 2009; small firms were 16 times more prolific than other firms. In this case, productivity was measured on the basis of the number of patent awards

[28]SBA, Office of Advocacy, *Frequently Asked Questions*, June 2016.

[29] Joshua Lerner, "Small Business, Innovation, and Public Policy," in *Are Small Firms Important? Their Role and Impact*, Zoltan Acs ed., Kluwer (Academic Publishers: 1999), p. 160.

[30] Ibid., p. 160.

[31] CHI Research, Inc., *Small Serial Innovators: The Small Firm Contribution to Technical Change*, report for the Small Business Administration (Washington: 2003), p 3.

[32] Ibid., p. 17.

per employee. Innovative firms with fewer than 500 employees acquired an average of 27 patents per employee, compared to an average of 1.6 patents per employee for larger firms.[33]

Industrial Supply Chains

Proponents of government support for small business also contend that such support is needed because of the special roles many small firms play in industrial supply chains involving large companies in a variety of industries. To substantiate this claim, they point to evidence that small firms have tended to supply certain goods and services more efficiently than larger ones. For instance, economist Bo Carlsson noted in a 1999 study that such an efficiency edge was apparent in industries where economies of scale in production were the main drivers of competition and success. Foremost among the industries exhibiting this linkage were computers, automobiles, and steel.[34] In industries such as these, small and large firms specialized in providing specific products or services. The two groups ended up interacting more as partners or suppliers than as competitors. In Carlsson's view, the dramatic rise in foreign outsourcing among large U.S. manufacturing firms in the 1990s reinforced this pattern of specialization between large and small firms. His findings led him to conclude that small firms in general possessed at least one significant advantage over larger firms in the supply chains that underpinned the U.S. economy: small firms could act with greater flexibility and speed in responding to new market opportunities and emerging competitive threats.

Opportunities for the Economic Advancement of Immigrants, Women, and Members of Minority Groups

Proponents of government support for small business also cite the financial (and social) benefits of small business ownership for women, minority groups, and immigrants and the communities where they live as another reason to provide such support.

They argue that owning and managing a small business gives these individuals opportunities to increase their income and independence and to move into the economic mainstream of the United States. According to data from the American Community Survey conducted by the U.S. Bureau of the Census, 18% of small business owners in 2010 were immigrants, and they employed 14% of all people working for small businesses that year.[35]

In addition, according to proponents, there is evidence that women-, minority-, and immigrant-owned small firms generate benefits for their communities that go beyond job and wealth creation. For example, female small business owners have done more than their male counterparts to encourage openness in workplace communication and decisionmaking, hire a diverse workforce, establish desirable child-care programs, and pay full benefits to employees. In addition, families with self-employed women who work out of their homes seem more stable than the average family.[36] And among minority and immigrant groups, small business ownership

[33] Small Business Administration, Office of Advocacy, *Analysis of Small Business Innovation in Green Technologies*, no. 389, summary of findings (Washington: October 2011).

[34] Bo Carlsson, "Small Business, Entrepreneurship, and Industrial Dynamics," in *Are Small Firms Important? Their Role and Impact*, Zoltan J. Acs, ed. (Boston: Kluwer Academic Publishers, 1999), p. 100.

[35] David Dyssegaard Kallick, *Immigrant Small Business Owners*, Fiscal Policy Institute (New York: June 2012), p. 1.

[36] See Candida Brush and Robert D. Hisrich, "Women-Owned Businesses: Why Do They Matter?," in *Are Small Firms Important? Their Role and Impact*, pp. 111-127.

encourages the emergence of tight-knit social networks, provides critical job and skills training, and establishes informal local capital markets.[37]

Imperfections in Capital Markets

Another argument made in favor of government support for small businesses concerns the difficulties many younger small firms (especially new small entrepreneurial firms) encounter in raising the financial capital needed to start and grow a business. In their view, government intervention can lessen or offset these difficulties, paving the way to faster rates of domestic business formation, especially businesses given over to commercializing new technologies.

If capital markets were truly efficient, every investment opportunity offering an after-tax rate of return greater than the cost of capital would be funded, regardless of the profitability, cash flow, size, or age of a firm. But proponents of government support for small business say that such a condition applies to relatively few new small firms. In their view, owners of such firms typically experience considerable difficulty in borrowing from lending institutions or attracting equity capital, mainly because lenders and investors lack the information they require to evaluate the profit potential of the proposed venture. As a consequence, aspiring small business owners often are forced to finance projects out of their own resources (e.g., savings accounts, retirement funds, and credit cards) or the resources of friends and family members, or, lacking access to those resources, to abandon the ambition of owning their own business.

Proponents also note that the problem of limited access to capital markets does not affect start-up companies only. Established small business owners may also have difficulty raising capital through borrowing or equity investment.

In light of these difficulties, proponents maintain that government support, especially loan guarantees and tax incentives for equity investment, is needed to enable cash-starved small firms to obtain the funds they need to survive and grow.

Cost of Tax Compliance

Proponents of government support for small firms point to the relatively high tax compliance costs borne by small firms as another reason to grant them some kind preferential treatment through the tax code, at least until the code can be simplified in ways that benefit small business owners. To substantiate this argument, they cite the results of a 2007 study that estimated federal tax compliance costs by various measures of the size of business. Among other things, the researchers found that the compliance burden, as measured by the time and money devoted to tax compliance per employee, was inversely proportional to the size of a business. Specifically, for the 2002 tax year, the estimated financial burden per employee ranged from $8,435 for firms with 1 to 5 employees down to $348 for firms with more than 50 employees.[38] Proponents maintain that large differences between the tax compliance costs for small firms and larger firms could exacerbate any competitive disadvantages the former face in vying with latter for sales or contracts.

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[37] See John Sibley Butler and Patricia Gene Greene, "Don't Call Me Small: The Contribution of Ethnic Enterprises to the Economic and Social Well-Being of America," in *Are Small Firms Important? Their Role and Impact* (Boston: Kluwer Academic Publishers, 1999), pp. 129-145.

[38] The financial burden is the per-employee sum of the monetized time and money spent on complying with federal taxes. Much of the time burden was given over to recordkeeping, while most of the monetary cost stemmed from hiring paid tax professionals. See DeLuca, Donald, John Guyton, Wu-Lang Lee, John O'Hare, and Scott Stilmar, "Estimates of U.S. Federal Income Tax Compliance Burden for Small Businesses," in *Proceedings of the 100th Annual Conference on Taxation*, Columbus, OH, 2007 (Washington: 2007), table 9, p. 80.

Arguments Against Government Support for Small Firms

Not everyone agrees that government support for small business is justified on economic grounds. Critics of such support cite the findings of several recent studies as grounds for questioning the economic arguments made by proponents.

A key element of standard economic analysis is that government intervention in the economy is warranted mainly to remedy a market failure. In general, such a failure represents a condition that prevents or hinders the emergence of economically efficient outcomes. Foremost among the market failures identified by economists as justifications for government intervention are the following:

- Lack of perfect competition,
- Presence of public goods,
- Positive or negative external effects (or externalities),
- Incomplete markets, and
- Imperfect or asymmetric information on the part of key economic agents.[39]

Critics of government support for small businesses say there is no evidence that a market failure is affecting (or has affected) trends in small business formation, growth, investment, and failure. More specifically, they can find no evidence that imperfections in financial markets are leading to the formation of too few or the failure of too many small firms, or that small firms in general generate uniquely valuable positive externalities. Therefore, say critics, in the absence of a verifiable market failure, government support (including tax subsidies) for small business seems unwarranted on economic grounds.

Equity Concerns

Proponents of government support for small businesses generally ignore their equity effects in defending them on economic grounds.

But to critics, those effects are one of several reasons to reduce or end such support through the federal tax code. In their view, small business tax preferences undercut the progressivity of the federal individual income tax. Under a progressive income tax, an individual's tax liability depends critically on his or her taxable income. Taxpayers with higher taxable incomes pay a greater share of their income in taxes than do taxpayers with lower taxable incomes. Small business tax preferences, however, weaken the link between tax liability and income by lowering the tax burden on the earnings of small firms, the vast share of which are organized as passthrough entities. The earnings of such a business pass through to the owner(s) and are taxed at his/her/their individual income tax rates. A substantial share of those earnings goes to individuals subject to the highest income tax rates. According to an estimate by the Tax Policy Center, passthrough business income represented 31.9% of total adjusted gross income (AGI) for taxpayers in the 39.6% tax bracket in 2017; for taxpayers subject to the 35% and 33% tax brackets, the AGI shares were 27.9% and 17.1%, respectively; the average share for all tax brackets was 8.8% in 2017.[40]

[39] For more information on market failures, see Joseph E. Stiglitz and Jay K. Rosengard, *Economics of the Public Sector*, 4th Edition (New York: W.W. Norton & Co., 2015), pp. 81-98.

[40] See Urban-Brookings Tax Policy Center, Table T17-0075, Mar. 20, 2017, https://www.taxpolicycenter.org/model-estimates/distribution-business-income-march-2017/distribution-business-income-statutory.

Among public finance economists, it is assumed that individuals, not firms, ultimately bear the burden of business income taxes or reap the benefits of business tax subsidies. Critics of government support for small business argue that these benefits ultimately increase the after-tax earnings of small firms. As a result, small business owners may have lower tax burdens than individuals whose taxable income comes primarily from wages and salaries. In this case, small business tax preferences may interfere with the achievement of horizontal equity in the taxation of household income. Horizontal equity involves taxing individuals with similar taxable incomes in the same manner. Differences in the taxation of key sources of income tend to undermine horizontal equity.

Efficiency Concerns

Some also oppose small business tax subsidies on efficiency grounds. In theory, income taxes reduce economic welfare by driving a wedge between the costs and benefits of the available choices for consumption and production facing consumers and firms, respectively. Standard economic analysis holds that the best possible tax system is one that raises needed revenue without distorting the allocation of economic resources among investment and consumption choices. The only tax that meets such a requirement is a lump-sum tax, since it would impose the same tax on all individuals, regardless of their income or wealth.

Such a view has several notable implications for tax policy:

- The returns to all investments should be taxed at the same rate;
- Any tax that is not uniform across businesses (regardless of size or organizational form) is likely to diminish social welfare;[41] and
- Taxes should not distort a firm's choice of inputs or its investment or production decisions.

Small business tax preferences, say critics, conflict with each of these principles. In their view, an efficient allocation of resources is possible only if the tax code is neutral with regard to business investments and the natural growth and decline of firms.[42] A departure from the neutral taxation of capital income to assist small firms might be warranted if there were something uniquely or extraordinarily valuable about their economic role and if the majority of small firms can play that role only with government support. Proponents of such support contend that small firms, on the whole, demonstrate their unique value by consistently creating more jobs and generating more technological innovations than larger firms. They also claim that those contributions would be placed in jeopardy if the federal government were to stop supporting small firms. Critics call into question the empirical evidence for this argument.

Special Economic Role of Small Firms

Critics disagree with the view that small firms as a whole deserve government support because they make valuable economic contributions that larger firms cannot readily match or duplicate. According to critics, however, there is no evidence that small firms in general have a decisive long-term edge over larger firms in such important economic activities such as creating jobs, developing new marketable goods and services, improving the efficiency and productivity of supply chains, and promoting beneficial economic change and renewal. They also argue that there

[41] Stiglitz, *Economics of the Public Sector*, pp. 567-569.

[42] Douglas Holtz-Eakin, "Should Small Businesses be Tax-Favored?," *National Tax Journal*, vol. 48, no. 3, September 1995, p. 390.

is a lack of evidence to substantiate the claim that too few small firms are created over time owing to systematic failures by private lenders and investors to provide adequate financing for start-up firms. Each of these issues tied to the claim that small businesses play a special role in the U.S. economy is examined below.

Small Firms and Job Creation

Critics and proponents of government support for small business largely agree that small firms are responsible for most job growth over time. According to the SBA, firms with 500 or fewer workers created 63.3% of all net new U.S. jobs from 1992 to 2013.[43]

But the two sides differ on the economic significance and policy implications of this contribution. On the one hand, proponents see the large share of net new jobs attributed to small firms as a reason for the federal government to support such firms. Critics, on the other hand, say that the share of net new jobs attributed to small firms does not prove what proponents claim it does. To back their case, they cite certain findings from the academic literature on firm size and job growth.

According to critics, small firms are not consistently better at creating jobs than large firms. To substantiate this claim, they cite a 1994 study by David Birch and James Medoff of U.S. job creation. Birch and Medoff estimated that the share of the total number of net new jobs generated in the late 1980s and early 1990s by firms employing 100 or fewer workers varied from 40% to 140%, depending on the stage of the business cycle.[44]

Critics also point out that there is substantial variation in the number of net new jobs small businesses create from one year to the next. Most jobs created by small firms originate in start-up firms, which typically begin small in employment size. According to a 2011 report by Ian Hathaway and Albert Palacios, firms in existence less than a year accounted for an average of about 3 million jobs per year from 1990 through 2009. By contrast, firms aged from 1 to 5 years lost an average of 622,000 jobs a year; firms aged from 6 to 10 years lost an average of 348,000 a year; and firms that had been in business 11 or more years lost an average of 574,000 a year.[45] This is to say that non-start-up firms lost an average of 1.5 million jobs a year in that period. Hathaway and Palacios also found that the average annual job creation from 1990 to 2009 among start-up firms was 2.906 million, whereas small firms aged 1 to 5 years lost an annual average of 703,000 jobs; those aged from 6 to 10 years lost an annual average of 401,000; and those aged 11 or more years lost an annual average of 849,000.[46] Relatively few start-up firms accounted for most of the job growth.

A 2010 study by economist John Haltiwanger and Ron Jarmin and Javier Miranda from the U.S. Census Bureau supported the findings of the Hathaway-Palacios study.[47] Haltiwanger, Jarmin,

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[43] U.S. Small Business Administration, Office of Advocacy, *Frequently Asked Questions*, (Washington: June 2016).

[44] See David Birch and James Medoff, "Gazelles," in *Labor Markets, Employment Policy, and Job Creation*, Lewis C. Solomon and Alec R. Levenson, eds. (Boulder, CO: Westview Press, 1994), p. 162. The share of net new jobs created by firms with 100 or fewer workers can exceed 100% in a year if these firms create more jobs than they destroy, all other firms destroy more jobs than they create, and the net job gain arising from the former exceeds the net job loss arising from the latter. For example, if firms with 100 or fewer employees account for a net job gain of 100 and all other firms generate a net job loss of 25, then the economy as a whole would realize a net job gain of 75, and the share of that gain attributable to firms with 100 or fewer employees would be 133%.

[45] Hathaway and Palacios, *Small Business and Job Creation: The Unconventional Wisdom*, p. 8.

[46] Ibid., p. 11.

[47] See John C. Haltiwanger, Ron S. Jarmin, and Javier Miranda, *Who Creates Jobs? Small vs. Large vs. Young*, NBER working paper 16300 (Cambridge, MA: August 2010).

and Miranda used data from the Census Bureau Business Dynamics Statistics and Longitudinal Database to test the widely held belief that net job growth over time is negatively related to firm size. The results confirmed the belief when the researchers did not control for the age of firms. But when they did, the evidence for a systematic relationship between firm size and net job growth disappeared. What emerged instead was a systematic relationship between gross and net job creation and the age of firms. More specifically, the results showed that start-ups accounted for disproportionately large shares of job creation and job destruction from 1992 to 2005. They also indicated that firms over 10 years old and with more than 500 employees accounted for 40% of job creation and destruction. Haltiwanger, Jarmin, and Miranda concluded that young firms exhibit an "up or out dynamic," meaning that they either grow fast or quickly go out of business.

Birch and Medoff discerned a similar trend in their analysis of the small business jobs created during the late 1980s and early 1990s. They called the few firms responsible for this job growth "gazelles," as they grew swiftly from few employees to many employees.[48]

Critics also contend that even if small firms were to create more lasting, well-paying jobs than large firms do over time, there would be no reason to expect government support for small business to generate faster employment growth. Economic analysis shows that an economy generates jobs through a natural process of growth, decline, and structural change. The size distribution of firms seems to be nothing more than a byproduct of this process. This implies that the level of national employment at any point in time is the result of a mix of forces that is bound to overwhelm the employment effects of any government support for small business. Most economists would agree that the key forces are fiscal and monetary policy, consumer spending, business investment, and U.S. exports and imports.

Small Firms and Technological Innovation

Research and development (R&D) is the lifeblood of technological innovation, which, in turn, serves as a powerful engine of long-term economic growth and transformation. Economists generally agree that without government support, business investment in R&D would fall significantly short of socially optimal amounts. Left to their own devices, firms are likely to invest too little in R&D for two reasons. First, they cannot capture all the returns to R&D investment, as other firms find ways to capitalize on the results of research despite patents and other forms of intellectual property protection. Second, some firms (mainly start-up firms) lack access to the funds needed to undertake planned R&D projects because potential lenders and investors lack the information they require to assess the projects' profit and the firms' survival potential.[49] Economists generally view the predisposition of businesses to invest suboptimal amounts in R&D as a market failure. This is because the external economic benefits (or positive externalities) from the investments seem to have little or no influence on the investment decisions of private companies. To remedy this shortcoming, many economists call for the adoption of government measures aimed at spurring greater levels of business R&D investment than companies would undertake on their own.

Critics of government support for small businesses maintain there is no good reason for targeting such support at small firms only if the main intent is to spark faster rates of technological innovation. They note that small and large firms develop the new technologies that propel economic growth and encourage lasting shifts in the structure of developed countries' economies.

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[48] Birch and Medoff, "Gazelles," pp. 162-164.

[49] Scott J. Wallsten, "Rethinking the Small Business Innovation Research Program," in *Investing in Innovation: Creating a Research and Innovation Policy That Works*, Lewis M. Branscomb and James H. Keller, eds. (Cambridge, MA: MIT Press, 1998), p. 197.

Moreover, say critics, it is often impossible to disentangle the contributions of smaller firms from larger ones. According to data from the National Center for Science and Engineering Statistics, larger firms typically perform the vast share of business R&D: in 2008 and 2009 combined, for example, companies with fewer than 500 employees accounted for more than 20% of the business R&D (measured in current dollars) conducted in the United States, whereas companies with 1,000 or more employees undertook nearly 76% of those investments.[50]

Available evidence indicates that small firms and large firms tend to have distinct advantages as agents of technological innovation.[51] Historically, small firms have had more success than larger ones in using R&D to generate new industries and dominate the industries' early stages of growth. Smaller firms may also have been more flexible than larger firms in identifying and pursuing commercial applications for emerging innovations. In contrast, large firms more easily raise the funds needed to finance the sunken costs involved in many research projects. They are also likely to capture a larger share of the returns to R&D investments through marketing campaigns, the use of intellectual property protection, and the creation of regional, national, and international distribution, service, and repair networks.

According to critics, studies that have looked at the effects of firm size and market structure on innovation have found no consistent proof that a certain firm size is ideal for generating and disseminating new commercial technologies. Rather, their findings indicated that in some industries, small firms were more innovative than large firms, but that in other industries, large firms had a decisive edge in the generation of new technologies.

Critics also point out that the vast majority of U.S. small business owners have no intention of developing a new idea and bringing it to the marketplace. A 2011 study by economists Erik Hurst and Benjamin Pugsley from the University of Chicago noted that only 10% of new businesses that participated in a 2006 survey conducted as part of a Panel Study of Entrepreneurial Dynamics II reported that they planned to develop "proprietary technology, processes, or procedures in the future."[52] By contrast, nearly 80% of the businesses indicated that they had no plans for research and development "to be a majority priority."

Small Firms and the Productivity and Efficiency of Business Supply Chains

Critics of government support for small businesses also challenge the notion that small firms in general play critical roles in improving the efficiency of business supply chains. They cite certain findings of the study by Hurst and Pugsley to make their case. Among other things, Hurst and Pugsley found that about half of the new small businesses they surveyed intended to provide an existing product or service to an existing customer base. In addition, few of those firms showed much desire to grow into big firms or to innovate "in any observable way.[53]" When asked about their primary reasons for starting a new business, over half of the small business owners said that "nonpecuniary benefits" played a leading role. These benefits included being one's own boss and having a flexible work schedule.

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[50] National Science Foundation, National Center for Science and Engineering Statistics, *Business R&D Performed in the United States Cost $291 Billion in 2008 and $282 Billion in* 2009, NSF 12-309 (Arlington, VA: March 2012), table 1, p. 1.

[51] See Wallsten, "Rethinking the Small Business Innovation Research Program," p. 197.

[52] Erik Hurst and Benjamin Wild Pugsley, *What Do Small Businesses Do?* August 2011, p. 25, available at http://www.brookings.edu/~/media/Files/Programs/ES/BPEA/2011_fall_bpea_papers/2011_fall_bpea_conference_hurst.pdf.

[53] Ibid., p. 2.

According to Hurst and Pugsley, such behavior was consistent with the industries in which most small firms were concentrated. Using data from the Statistics of U.S. Businesses compiled by the U.S. Census Bureau, they found that two-thirds of small businesses in 2007 were either restaurants, skilled professionals (e.g., doctors, lawyers, accountants), skilled craftsmen (e.g., general contractors, electricians, plumbers), professional service providers (e.g., clergy, insurance agents, real estate agents), or small retailers (e.g., gas stations, pharmacies, grocery and clothing stores).

Critics maintain that these findings call into question the validity of the argument that small firms deserve government support because they serve as indispensable agents for productivity growth and greater efficiency within business supply chains. In their view, the typical small business owner has little or no interest in developing new products or processes that could be sold to large firms. Rather, say critics, he/she is mainly concerned with selling existing goods and services to established customers in the geographic areas they serve.

Small Firms and Economic Renewal and Change

Critics acknowledge that start-up companies that become what Medoff and Birch called "gazelles" can exert a transformative pull on the fabric of markets and industries. Cases in point include Google, Microsoft, Facebook, and Amazon. But they dispute the notion that small firms in general are critical to the processes of economic renewal and change. In their view the gales of creative destruction stirred by such innovative big companies as Amazon and Walmart have done as much as any gazelle to transform entire markets and industries, often to the benefit of consumers. Some say that firms such as these are likely to do more to advance productivity growth and promote economic change over time than any cluster small firms could do.

Hidden Tax on Small Business Growth

Yet another concern raised by government support for small businesses, according to critics, is that the subsidies may offer a robust disincentive to grow to the point that the firms no longer qualify for the government support. This effect, which has been called the "notch problem," is likely to become an issue when the loss of a tax preference effectively penalizes the firms that had benefited from it.

A case in point is the Section 179 expensing allowance. The maximum allowance is set at $1 million in 2018, and the allowance begins to phase out when the total value of qualified assets acquired and placed in service that year exceeds $2.5 million. Firms that purchase and placed in service more than $3.5 million in qualified assets cannot claim the allowance, as the amount that can be expensed is reduced dollar for dollar when a firm's total spending on such assets exceeds the phaseout threshold. Critics maintain that such a design gives firms a tax incentive not to invest more than $2.5 million in qualified assets. Firms that invest more than that amount face implicit tax penalties in the form of higher marginal effective tax rates that increase as the amount of investment over $2.5 million approaches $3.5 million.

Concluding Remarks

Available economic data indicate that small firms make significant contributions to the U.S. economy. The magnitude of the contributions depends, of course, on how a small firm is defined. If a small business is defined as a firm with fewer than 500 full-time employees, then it can be said that small businesses account for a majority of private-sector jobs and about half of private-sector output, generate many technological innovations, and serve as agents of renewal and

structural change in a variety of industries. But if the threshold were set at fewer than 100 employees, the small business shares of output and employment would be smaller.

The economic contributions of small businesses, however defined, appear to explain part of the longstanding bipartisan support in Congress for government programs to assist small firms.[54] Some of this support is in the form of tax preferences (or expenditures) available to many small firms. The combined revenue loss from these expenditures may top $17 billion in FY2018 (see **Table 1**).

Current federal small business tax benefits serve one or more of the following four purposes: (1) improving access to equity capital, (2) simplifying tax compliance, (3) promoting capital investments, and (4) achieving other policy objectives. Supporters of these benefits and other federal programs to support small businesses argue that they are needed to eliminate or reduce barriers to the birth, survival, and growth of small businesses, which, in their view, make invaluable contributions to the growth and transformation of the U.S. economy. They point to the vital role played by small firms in job creation and in technological innovation as proof of the special economic importance of small businesses in general. The biggest barrier, they say, is the difficulties many small start-up companies experience in raising the financial capital they require to fund operations, including R&D.

Yet the findings of some studies and recent changes in federal policy toward start-up firm financing raise questions about the accuracy of this economic rationale. In particular, they suggest that current federal support for small businesses may be less effective, on the whole, than it could be in promoting faster job growth and increased investment in such firms.

A 2010 study by economists John Haltiwanger, Ron Jarmin, and Javier Miranda from the U.S. Census Bureau used data from the Census Bureau Business Dynamics Statistics and Longitudinal Database to test the widely held belief that net job growth over time is negatively related to firm size.[55] When the researchers did not consider the ages of the firms, the results indicated that smaller firms had faster rates of net job growth than larger firms from 1976 to 2005. But when they considered the age of firms, that relationship fell apart. What emerged instead was a strong correlation between gross and net job creation and the age of firms. More specifically, the results showed that start-ups had disproportionately high rates of both job creation and job destruction over the first 10 years of their existence.

A 2011 study by economists Erik Hurst and Benjamin Pugsley, using a database composed of individuals in the process of starting a business, found that most small business owners are not the entrepreneurs that economic models and lawmakers tout as the prolific job creators and intrepid innovators who open up new pathways for economic growth by accelerating the demise of older technologies.[56] Instead, their research showed that relatively few small firms bring new ideas to the marketplace, and that most small business owners are content to sell existing products or services to buyers in local established markets.

Hurst and Pugsley also discovered that relatively few small business owners have a strong desire to grow large and innovate. This disposition was consistent with the main characteristics of the industries in which the majority of small businesses operated: skilled craftsmen, lawyers, real estate agents, doctors, small shop owners, and restaurateurs. It is also consistent with another key

[54] Small business owners are also valued for their work as community leaders.

[55] John Haltiwanger, Ron S. Jarmin, and Javier Miranda, "Who Creates Jobs? Small Versus Large Versus Young," *The Review of Economics and Statistics*, vol. 95, no. 2, p. 348.

[56] See Erik Hurst and Benjamin Wild Pugsley, *What Do Small Businesses Do?* NBER working paper 17041 (Cambridge, MA: May 2011).

finding by Hurst and Pugsley: for about half the people who started a new business in 2004, the primary motivations were nonpecuniary, especially being one's own boss and having flexible work hours.

The findings from the two studies raise questions about the justification for current federal policy toward small businesses. Specifically, the findings suggest that most of the job growth and technological innovation by small firms is likely to come from the activities of a relatively small number of new companies. Therefore, Congress may consider whether new ways to target federal support at small start-up companies would help more of them raise financial capital. Identifying these companies is itself a significant challenge for public policy. Hurst and Pugsley suggested as one option having the SBA work with venture capitalists to find new entrepreneurial small firms that might benefit from early-stage federal financial assistance. They also maintained that a better understanding of the costs and benefits of current federal support for small businesses may help lawmakers determine which current programs address the needs of those firms and which should be jettisoned as unnecessary and ineffective.

Most economists believe that departures from uniform or neutral taxation of the returns to capital are warranted only to correct identifiable market failures. This raises the question of whether existing federal government support for small firms is intended to remedy any market failure. For example, in light of the contributions of start-up firms to employment growth and technological innovation, one might argue that too few such firms are being formed, largely because of barriers in debt and equity markets to small business startup financing.

Is there evidence that too few small entrepreneurial firms are being formed? Imperfections in capital markets arguably prevent some individuals from getting the funds they need to start a new business and grow it. This can happen for a variety of reasons, including asymmetric information between aspiring entrepreneurs and lenders or investors, and excessive caution on the part of lenders and investors. A 2010 study by Alicia M. Robb and David T. Robinson of the financing choices of firms in their first year of business indicated that most of the firms in their sample relied much more on external debt than family and friends to obtain start-up capital.[57] They found that the start-up capital for over 80% of those firms was split evenly between bank debt and owner equity. The findings suggested that well-functioning credit markets are critical to the formation and success of new small firms.

The federal government is using several measures to improve access to capital for new businesses, including SBA loan guarantees, tax preferences for investment in small startup firms and business startup costs, and the recent dismantling of regulatory obstacles to using a method of raising equity capital known as "crowdfunding." Under this method, aspiring small business owners can raise small amounts of money from a large pool of investors, usually through the Internet, without running afoul of federal securities laws. Congress might consider whether additional measures could accelerate the rate of new entrepreneurial business formation and growth.

[57] Alicia M. Robb and David T. Robinson, *The Capital Structure Decision of New Firms*, NBER working paper 16272, National Bureau of Economic Research (Cambridge, MA: August 2010), p. 25.

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