

# The Section 179 and Section 168(k) Expensing Allowances: Current Law, Economic Effects, and Selected Policy Issues

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# The Section 179 and Section 168(k) Expensing Allowances: Current Law, Economic Effects, and Selected Policy Issues

Depreciation refers to the loss in economic value of a capital asset as it is used to generate income. The federal income tax allows business owners to deduct a depreciation allowance for the wear and tear or obsolescence of such assets in calculating their tax liability. The amount of

the allowance depends on an asset's tax life and its depreciation schedules under Internal Revenue Code (IRC) Sections 167 or 168. Depreciation methods and tax lives for many assets are set forth in IRC Section 168, which is known as the Modified Accelerated Cost Recovery System (MARCS). MARCS methods are faster than recovering an asset's cost in equal annual amounts over its tax life, a method known as straight-line depreciation. Expensing is the most accelerated form of depreciation. Technically, it allows a taxpayer to write off the full cost of an asset in the year it is placed in service, regardless of the asset's tax life. However, expensing sometimes refers to allowing a greater share of an asset's cost to be deducted in its first year of use than is permitted under the MACRS.

IRC Section 179 allows a taxpayer to expense up to \$1.16 million of the total cost of new and used qualified assets it places in service in 2023; this amount is indexed for inflation. There are two limits on the allowance's use. First, the allowance cannot exceed a business owner's income from all trades or businesses she or he owns. Second, the allowance phases out if the total amount of qualified assets a firm places in service in a year exceeds a phaseout threshold, which is \$2.89 million in 2023 (also indexed for inflation). Consequently, a business may claim no IRC Section 179 expensing allowance in 2023 if it places in service assets with a total cost of \$4.05 million or more (\$1.16 million + \$2.89 million = \$4.05 million). As a result of these limits, the allowance is mostly available to small firms only.

IRC Section 168(k), which is commonly known as bonus depreciation (BD), allows taxpayers to expense up to 80% of the cost of qualified assets they place in service in 2023. This share is scheduled to decrease by 20 percentage points a year until it phases out starting in 2027. Firms of all sizes may claim the IRC Section 168(k) expensing allowance. There is considerable overlap between the assets eligible for the two expensing allowances.

Since 2002, the two allowances have been mostly used in tandem as tax incentives for boosting U.S. investment during periods of weak or negative U.S. economic growth. A number of studies have suggested that the two expensing allowances have had little effect on overall U.S. business investment, the allocation of that investment among industries, the distribution of the federal tax burden by income class, and tax compliance costs.

Expensing raises several policy issues. On the one hand, it simplifies tax accounting and has the potential to boost business investment by reducing the user cost of capital and increasing short-term business cash flow. On the other hand, depending on how an expensing allowance is structured, it can distort an economy's resource allocation by diverting capital from its most productive uses to tax-favored ones and produce significant revenue losses.

Congress made the most recent major changes in IRC Section 179 and the BD in P.L. 115-97 (commonly known as the Tax Cuts and Jobs Act or TCJA). The act raised the latter to 100% for qualified property acquired and placed in service between September 28, 2017, and December 31, 2022, followed by a phaseout between 2023 and 2026. TCJA also raised the IRC Section 179 expensing allowance to \$1.0 million and the phaseout threshold to \$2.5 million in 2018 and indexed both amounts for inflation starting in 2019.

This report examines the current status, legislative history, and main economic effects of the IRC Section 179 and Section 168(k) expensing allowances. It concludes with a discussion of some policy issues associated with the debate over extending the BD beyond 2026.

### **SUMMARY**

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In tax accounting, depreciation refers to the decline in the value of a capital asset as it is used to produce business income. This decline is an ordinary and necessary cost that a business should take into account in determining its taxable income. Internal Revenue Code (IRC) Section 168 sets forth the periods and methods for recovering the cost of most assets; these schedules are generally thought to be faster than the economic rates of depreciation for the same assets. IRC Section 168's depreciation system is known as the Modified Accelerated Cost Recovery System (MARCS). Firms also have the option of recovering their asset costs under the slower depreciation schedules provided in the Alternative Depreciation System (ADS) under IRC Section 167.

Expensing is the most accelerated form of depreciation. Technically, it allows businesses to treat the cost of an asset as a current expense (like wages) and deduct the full cost in the year the asset is placed into service, instead of recovering that cost under the MACRS rules. However, sometimes expensing refers to first-year depreciation allowances that exceed the top allowances under the MACRS for the same asset.<sup>1</sup> In this report, expensing encompasses both meanings.

Under current federal tax law, business owners have two options for expensing: IRC Sections 179 and 168(k). They mostly apply to the same assets.

The former allows firms to expense up to \$1.16 million of the total cost of new and used qualified assets they place in service in 2023. Assuming that amount is less than a firm's business income, the allowance phases out dollar for dollar if a firm's aggregate spending on such assets exceeds \$2.5 million.

The latter, which is commonly known as bonus depreciation (BD), permits firms to expense 80% of the cost of qualified new assets they acquire and place in service in 2023. That percentage is scheduled to fall to 60% in 2024, 40% in 2025, 20% in 2026, and 0% in 2027 and thereafter.

This report examines the current status, legislative history, and main economic effects of the IRC Sections 179 and 168(k) expensing allowances. It concludes with a discussion of some of the policy issues associated with proposals to extend BD beyond 2026.

# **IRC Section 179 Expensing**

The IRC Section 179 expensing allowance has been a permanent part of the federal tax code since it was enacted in 1958. It allows firms of all sizes to write off at least part of the cost of new and used qualified assets placed in service during a tax year. The allowance is subject to two limits, which have the effect of confining the allowance's benefits to smaller firms. Firms that cannot claim the allowance because of those limits have the option of recovering their qualified asset costs over longer periods and at slower rates under the MACRS or ADS.

### Structure of the Expensing Allowance

### **Qualified Assets**

New and used tangible assets—as specified in IRC Section 1245(a)(3)—qualify for the allowance if they are depreciable under IRC Section 168 and acquired for use in the active conduct of a trade or business. These assets are mostly machinery and equipment used in manufacturing,

<sup>&</sup>lt;sup>1</sup> In 2023, the first-year depreciation allowance under IRC Section 168(k) for a 5-year asset placed in service that year equals 80% of its cost. Under the MACRS, that allowance is 20% of the asset's cost. As a result, the 2023 BD is considered an expensing allowance even though it does not apply to 100% of the cost.

mining, transportation, communications, the generation and transmission of electricity, gas and water distribution, and sewage disposal. The allowance also applies to

- research and bulk storage facilities,
- single-purpose agricultural structures,
- storage facilities for petroleum products,
- railroad grading and tunnel bores,
- off-the-shelf computer software used in a business or trade that is acquired and placed in service in 2003 and thereafter,
- improvements to the interior of nonresidential real property,
- fire protection and alarm systems and security systems, and
- roofs and heating, ventilation, and air conditioning systems installed on or in nonresidential real property.

#### Limitations on IRC Section 179 Expensing

As noted, use of the IRC Section 179 expensing allowance is subject to two limitations: an investment limitation and an income limitation.

The investment limitation entails a phaseout of the allowance when a firm's total spending on qualified assets in a year exceeds a threshold amount. Both the allowance and phaseout threshold have been indexed for inflation since 2019. In 2023, the maximum IRC Section 179 expensing allowance is \$1.16 million for qualified assets placed in service that year (see **Table 1** for the annual expensing allowances from 1987 to 2023). The allowance is reduced dollar for dollar, but not below zero, if a firm's total spending on qualified property during a tax year exceeds the phaseout threshold, which in 2023 is \$2.89 million. (See **Table 1** for the investment limitations going back to 1987). This limitation means that a business may claim *no* IRC Section 179 expensing allowance in 2023 if the total cost of qualified property it places in service that year equals or exceeds \$4.05 million.<sup>2</sup>

The income limitation bars a taxpayer from claiming an IRC Section 179 expensing allowance greater than the taxpayer's taxable income from the active conduct of all trades and businesses he or she owns. In this context, *active conduct* denotes that a taxpayer is meaningfully involved in the management or operation of a business. This limitation comes into play after the application of the investment limitation.

For example, if a company earns \$50,000 in taxable income in 2023 from its only line of business and puts in place \$75,000 of qualified assets, it would be allowed to expense no more than \$50,000 of that cost and would have to recover the remaining \$25,000 through the MACRS or carry it forward to a tax year when the company is able to deduct it under IRC Section 179.

Taxpayers are not allowed to carry forward current-year allowances that cannot be used because of the investment limitation, but they may indefinitely carry forward allowances that cannot be used because of the income limitation.

<sup>&</sup>lt;sup>2</sup> \$1.16 million + \$2.89 million = \$405 million.

Year	Maximum Expensing Allowance	Investment Limitation		
1987-1992	\$10,000	\$200,000		
1993-1996	\$17,500	\$200,000		
1997	\$18,000	\$200,000		
1998	\$18,500	\$200,000		
1999	\$19,000	\$200,000		
2000	\$20,000	\$200,000		
2001 and 2002	\$24,000	\$200,000		
2003	\$100,000	\$400,000		
2004	\$102,000ª	\$410,000ª		
2005	\$105,000	\$420,000ª		
2006	\$108,000	\$430,000ª		
2007	\$125,000	\$500,000		
2008 and 2009	\$250,000	\$800,000		
2010 to 2017	\$500,000	\$2.0 million		
2018	\$1.0 million	\$2,5 million		
2019	\$1.02 million <sup>a</sup>	\$2.55 million		
2020	\$1.04 million	\$2.59 million		
2021	\$1.05 million	\$2.62 million		
2022	\$1.08 million	\$2.70 million		
2023	\$1.16 million	\$2.89 million		

 Table 1. Maximum Expensing Allowance and Investment Limitation

 from 1987 to 2023

**Source:** Internal Revenue Service revenue procedures dating back to 1987.

a. The maximum allowance and investment limitation were both indexed for inflation from 2004 to 2006, and they are indexed for inflation from 2019 and thereafter.

### **Claiming the Allowance**

A taxpayer claims the IRC Section 179 expensing allowance by specifying on IRS Form 4562 the items to which the election applies and the portion of the cost of each item that is expensed. A taxpayer may revoke all or part of an IRC Section 179 election without the IRS's consent under IRS regulation 1.179-5.<sup>3</sup> To revoke an election, a taxpayer needs to submit an amended return for the tax year in question applying a different depreciation method to the affected assets.

# IRC Section 168(k)

Businesses may also expense purchases of eligible assets under IRC Section 168(k). In 2002, Congress created a BD that was equal to 20% of the cost of eligible assets placed in service through the end of 2004. To boost the BD's impact on business investment, Congress increased the expensing rate in 2003 from 20% to 30% of the cost of eligible assets placed in service

<sup>&</sup>lt;sup>3</sup> See https://www.law.cornell.edu/cfr/text/26/1.179-5.

through 2004. No BD was available from 2005 to 2007. Congress reinstated the allowance at a 50% rate in 2008 to stimulate business investment during a steep recession that lasted from late 2007 to mid-2009; it has been available without interruption since then.

The BD covered 100% of the cost of eligible assets placed in service from September 9, 2010, to December 31, 2011, and again from September 28, 2017, to December 31, 2022. In 2023, the Section 168(k) expensing rate is 80%, and it is scheduled to decrease to 60% in 2024, 40% in 2025, 20% in 2026, and 0% in 2027 and thereafter. The BD for property with relatively long production times (e.g., certain aircraft) is extended by an extra year; for example, 20% of the cost of eligible aircraft for which assembly begins in 2026 and ends in 2027 may be expensed in 2027 if the owner places it in service that year.

The BD applies only to new assets eligible for depreciation under the MACRS with recovery periods of 20 or fewer years. This includes machinery and equipment, off-the-shelf computer software, and qualified improvements to nonresidential real property, which is considered 15-year property.

## **Repealed Option to Exchange the Expensing Allowance for Unused Tax Credits**

From 2008 to 2017, C corporations had the option of cashing in (or monetizing) their unused alternative minimum tax (AMT) and research tax credits from tax years before 2006, instead of taking the BD. Firms choosing to monetize these credits had to recover the cost of BD-eligible assets by applying the straight-line depreciation method to the assets' tax life under the MACRS.<sup>4</sup> Under Section 168(k), the unused credits were considered refundable tax payments, which meant that a business could claim them even if they exceeded its tax liability. The monetized credit option was intended to provide approximately the same tax benefit to a profitable corporation that paid the AMT and a corporation with a net operating loss (NOL), which happens when a firm's deductions exceed its gross income.

The calculation of the credit depended on a taxpayer's circumstances. In general, the monetized credit a firm could take from 2008 to 2015 was equal to its "bonus depreciation amount," which was 20% of the difference between (1) its combined depreciation in a tax year under the MACRS and the IRC Section 168(k) expensing allowance, and (2) the depreciation it could claim under the MACRS without the expensing allowance. From 2008 to 2010, a firm's bonus depreciation amount was the lower of (1) 6% of the sum of its carried-forward AMT and research tax credits from pre-2006 tax years, or (2) \$30 million. For eligible assets placed in service between 2011 and 2015, corporations could monetize only unused AMT credits from tax years before 2006.

Slightly different rules applied in 2016 and 2017. In that period, a company's bonus depreciation amount could not exceed its "maximum increase amount," which was the lower of (1) 50% of the firm's minimum tax credit under Section 53(b) for the first tax year ending after December 31, 2015, or (2) its minimum tax credit for the current year, as determined by the company's adjusted net minimum tax (as defined in Section 53(d)) for tax years ending before 2016.

The TCJA repealed the corporate AMT and the option to exchange an IRC Section 168(k) expensing allowance for unused AMT credits, beginning in 2018.

<sup>&</sup>lt;sup>4</sup> Under this method, the same amount is deducted for depreciation in each year of an asset's tax life until the owner's basis is reduced to \$0.

### **Interaction with Other Depreciation Options**

At times, a firm may want to claim both the IRC Section 179 and the IRC Section 168(k) expensing allowances in the same tax year. One such time would be when a firm can deduct more for depreciation by claiming both allowances than by claiming only one or the other. Such an outcome may be more likely in 2026 when the BD rate is 20% than in 2023 when the rate is 80%.

There is a prescribed order for claiming both allowances in the same year. The Section 179 allowance is claimed first, thereby lowering a company's basis in an asset by that amount. The firm then may apply the Section 168(k) allowance to the remaining basis. If a basis remains after taking the Section 168(k) allowance, it can be recovered using the appropriate MACRS depreciation schedule.

For example, assume that a company buys 10 new machine tools at a total cost of \$2.16 million and places them in service in 2023. If the company were to recover the cost using the IRC Section 179 and Section 168(k) expensing allowances, it would take them as follows:

- The company first claims the maximum 2023 IRC Section 179 expensing allowance of \$1.16 million, lowering its basis in the property to \$1 million (\$2.16 million \$1.16 million).
- Next, it claims a BD of \$800,000 (\$1 million x 0.8), further lowering the firm's basis to \$200,000 (\$1 million \$800,000).
- The company then claims a MACRS depreciation allowance on the remaining \$200,000. The MACRS cost recovery period for machine tools is five years, and five-year property is depreciated using the double-declining-balance method. Thus, the company takes an additional depreciation allowance for 2023 equal to 20% of \$200,000, or \$40,000, using the half-year convention.
- The company recovers the remaining basis of \$160,000 (\$200,000 \$40,000) by taking MACRS depreciation allowances over the next five years equal to the company's remaining basis at the end of each year multiplied by 0.32 in the first year, 0.19 in the second year, 0.115 in the third and fourth years, and 0.576 in the fifth year.
- By taking both expensing allowances, the company recovers over 85% of the machine tools' cost in 2023.

# Economic Effects of the IRC Section 179 and Section 168(k) Expensing Allowances

Policymakers have viewed the IRC Section 179 and IRC Section 168(k) expensing allowances as effective policy tools for lowering the tax burden on small firms and stimulating investment during economic downturns.

Business owners credit the allowances with expanding their cash flow, lowering the cost of capital for qualifying investments, and simplifying their tax accounting.

By contrast, economists, while recognizing the potential economic benefits of expensing, have raised some concerns about its economic effects. This section examines what available economic studies reveal about the short-run impact of the two expensing allowances on investment, employment, economic efficiency, equity, and tax administration.

### Investment

Taxes primarily affects business investment through their effect on a firm's user cost of capital and cash flow. Income tax rates, tax credits, and the tax treatment of debt financing and depreciation are components of the user cost of capital. Taxes help determine a firm's cash flow over time. Any combination of tax rate decreases, depreciation rate increases (e.g., adoption of expensing), increases in the deductible share of interest payments on business debt, and the adoption of an investment tax credit make it possible in theory for the average firm to invest more, all other things being equal. Actual linkages between taxes and investment can be complicated and difficult to discern.

**Table 2** illustrates the impact of depreciation on investment. It compares a C corporation's taxable income under 100% expensing and under the MACRS for a five-year asset. In each scenario, the firm acquires a depreciable asset for \$10 million and places it in service in the year of purchase. The firm's taxable income each year is \$10 million (less a depreciation allowance) and is taxed at the current 21% corporate income tax rate.

All other things being equal, the results demonstrate that the corporation would have a lower tax liability from the income produced by the asset over its tax life under the MACRS than under full expensing. But the results do not reflect the time value of money as expressed in a discount rate. Such a value is based on the idea that a dollar received today is worth more than a dollar received a year from now. Accounting for the time value of money requires calculating the present value (PV) of a future stream of money. The PV allows an investor to determine the present-day value of such a stream. The key element in calculating PV is the rate at which future sums of money should be discounted. Ideally, that rate is the rate of return an investor could earn on an alternative, risk-free investment over the same period.

In the **Table 2** examples, the PV of depreciation allowances under expensing over six years is \$10 million, while the PV of MACRS depreciation allowances is \$8.6 million. This assumes a 10% discount rate, which is based on a 6% annual inflation rate on a 4% yield on five-year U.S. Treasury securities.<sup>5</sup> As a result, the PV of total tax savings with expensing is \$2.1 million (\$10 million x 0.21), compared to PV of total tax savings with the MACRS of \$1.8 million (\$8.6 million x 0.21). In this case, a firm would be better off using expensing.

Year	Gross Income	Depreciation Method		Taxable Income: Gross Income less Depreciation		Tax Liability: 21% Corporate Income Tax Rate	
		Expensing	MACRS	Expensing	MACRS	Expensing	MACRS
Ι	\$10	\$10	\$2	\$0	\$8	\$0	\$1.7
2	\$10	\$0	\$3.2	\$10	\$6.8	\$2.I	\$1.5
3	\$10	\$0	\$1.9	\$10	\$8.1	\$2.I	\$1.7
4	\$10	\$0	\$1.1	\$10	\$8.9	<b>\$2.</b> I	\$1.2

# Table 2. Tax Liability Under Expensing and the Modified Accelerated Cost RecoverySystem (MACRS) for an Asset with a Five-Year Tax Life

(Millions of dollars)

<sup>5</sup> According to the Consumer Price Index for Urban Consumers, the annual rate of inflation was 6.0% in February 2023; it has trended downward since then. The yield on 5-year U.S. Treasury bonds fluctuated around 4.0% in July 2023. While the rates seem reasonable for use in this analysis, they reflect unusual economic conditions. The discount rate used here is less important the comparative results from expensing and the MACRS.

Year	Gross Income	Depreciation Method		Taxable Income: Gross Income less Depreciation		Tax Liability: 21% Corporate Income Tax Rate	
5	\$10	\$0	\$1.1	\$10	\$8.9	\$2.I	\$1.2
6	\$10	\$0	\$0.7	\$10	\$9.3	\$2.I	\$1.2
Total:	\$60	\$10	\$10	\$50	\$50	\$10.5	\$8.5

Source: Congressional Research Service.

### Cash Flow

Cash flow refers to the net amount of money transferred in and out of a company in a period. Positive cash flow can influence how much a firm invests for any purpose.<sup>6</sup> Some companies finance new investments mainly from positive cash flow. They may do so for a variety of reasons, such as limiting their exposure to external debt and the risk of default it carries and having a cost of internal funds that is lower than the cost of external funds. A subject of recent research has been the sensitivity of investment to cash flow. A 2016 study by Jonathan and Katherine Lewellen sheds some light on that sensitivity.<sup>7</sup> They found that investment is "strongly related" to a firm's expected cash flow: a dollar of such flow led to a \$0.68 increase in fixed investment. They also found that financially constrained firms (as reflected in negative cash flow and low profits, working capital, and dividends) were more reliant on cash flow to finance investments than were financially unconstrained firms. For the former, a dollar of cash flow from current and previous years led to an additional \$0.63 in fixed investment; for the latter, the investment gain from one dollar of cash flow was \$0.32. These results reflect statistical correlations. They do not necessarily show that cash flow explains a certain portion of fixed investment.

Expensing can increase a firm's cash flow because it allows the firm to avoid paying a tax on any returns from an expensed asset in the year it is placed in service. This increase is temporary, as a firm pays the taxes on those returns during the remaining years in the asset's tax life, with no depreciation deductions for the asset.

But expensing has no such benefit for firms with a net operating loss (NOL), which occurs if their deductions exceed gross income in a tax year. In this case, expensing would add to a firm's NOL. Companies are only allowed to carry forward NOLs incurred in tax years beginning after December 31, 2020, and they may offset no more than 80% of taxable income in the years they are used.

### **User Cost of Capital**

Another significant influence on business investment is the user cost (or rental price) of capital. In effect, this cost determines the "hurdle" rate for an investment, which is the after-tax rate of return an investment must earn in order to break even.<sup>8</sup> In theory, as the user cost of capital

<sup>&</sup>lt;sup>6</sup> In the realm of business finance, the term "cash flow" can take on different meanings. Here it denotes the difference between a firm's revenue and its payments for all the factors or inputs used to generate its output, including capital equipment.

<sup>&</sup>lt;sup>7</sup> Jonathan Lewellen and Katherine Lewellen, "Investment and Cash Flow: New Evidence," *Journal of Financial and Quantitative Analysis*, vol. 51, no. 4, August 2016, pp. 1135-1164.

<sup>&</sup>lt;sup>8</sup> The user cost of capital reflects the real rate of return an investment project must earn to break even. In theory, a firm will undertake an investment provided the after-tax rate of return plus depreciation exceeds the user cost of capital. Rosen has expressed this cost in terms of a simple equation. Let C stand for the user cost of capital, *a* for the purchase (continued...)

increases, the number of profitable investments a company can undertake falls, all other things being equal. Of course, the opposite happens when that cost declines.

Everything else being equal, expensing lowers that cost by reducing the tax on the discounted returns from an eligible investment. Expensing is equivalent to the U.S. Treasury providing a firm with a tax rebate equal to the firm's marginal tax rate multiplied by the cost of the asset. In theory, it produces a marginal effective tax rate of 0% on the returns to eligible investments.

Is expensing likely to generate more equipment investment over time than slower depreciation methods? There is evidence that equipment investment is generally sensitive to changes in the user cost of capital. Estimates of the price elasticity of demand for equipment (which is the percentage change in spending on equipment divided by the percentage change in its user cost of capital) range from -0.25 to -1.6; this means that a 1.0% rise in the price of equipment would lead, on average, to a decline in short-term demand between 0.25% and 1.6%.<sup>9</sup> Since expensing leads to a larger decrease in the user cost of capital than other depreciation methods, it theoretically provides a greater investment stimulus than any of those methods.

### **Available Evidence**

It is one thing to prove that expensing has the potential to boost business investment; it is another thing to demonstrate that it in fact does. This section looks at studies that have examined this effect.

One consideration in assessing the investment effects of the IRC Section 179 and Section 168(k) expensing allowances is the share of gross domestic product (GDP) accounted for by investment in the assets that qualify for the allowances, which are mainly equipment and software. According to the Bureau of Economic Analysis, current-dollar GDP was \$25.5 trillion in 2022. Investment is a component of GDP; it accounted for 18% of 2022 GDP. Investment in equipment and software is a subcomponent of investment; it totaled \$1.9 trillion that year. Assuming that all of that investment took place because of one or both of the expensing allowances, it can be argued that they accounted for 7.5% of 2022 GDP. The allowances do not apply to two other subcomponents of GDP: investment in structures and housing, which together accounted for 6.7% of 2022 GDP.

A number of studies in the past 20 years have addressed the impact of the IRC Section 179 and Section 168(k) expensing allowances on business investment. Their main findings are reviewed below.

Several studies focused on the business response to the BD in the early 2000s. A 2006 study by Darrel Cohen and Jason Cummings examined the effect of the expensing allowance on corporate investment from 2002 to 2004. They found that although over 50% of C and S corporations claimed the allowance in that period, only 10% of their owners deemed it an important consideration in the timing of their qualifying investments.<sup>10</sup> The authors concluded that (1) many

price of an asset, *r* for the after-tax rate of return, *d* for the economic rate of depreciation, *t* for the corporate tax rate, *z* for the present value of depreciation deductions flowing from a \$1 investment, and *k* for the investment tax credit rate. Then  $\mathbf{C} = a \times [(r + d) \times (1 - (t \times z) - k)]/(1 - t)$ . Under expensing, *z* is equal to one. By inserting assumed values for each variable in the equation, one sees that  $\mathbf{C}$  increases as *z* gets smaller. Thus, of all possible methods of depreciation, expensing yields the lowest user cost of capital. For more details, see Harvey S. Rosen, *Public Finance*, 6<sup>th</sup> Ed (New York: McGraw-Hill/Irwin, 2002), pp. 407-409.

<sup>&</sup>lt;sup>9</sup> Eric Zwik and James Mahorn, "Tax Policy and Heterogeneous Investment Behavior," *American Economic Review* 2017, vol. 107, no. 1, p. 242. Some economists believe the price elasticity is close to -0.5 (see Jonathan Gruber, Public Finance and Public Policy (New York: Worth Publishers, 2005), p. 675).

<sup>&</sup>lt;sup>10</sup> Darrel S. Cohen and Jason Cummins, A Retrospective Evaluation of the Effects of Temporary Partial Expensing, (continued...)

of the investments taking up the BD would have been undertaken without it, and (2) the initial BD did not deliver a substantial stimulus to U.S. business investment from 2002 to 2004.<sup>11</sup>

In another 2006 study, Christopher House and Matthew Shapiro concluded that because the BD applied to investment that accounted for 7.8% of U.S. GDP in 2003, the allowance had little impact on overall output and employment in 2002 and 2003. They estimated that the IRC Section 168(k) expensing allowance "probably" increased GDP by 0.07% to 0.14% and was responsible for a U.S. employment gain of 100,000 to 200,000 workers from 2002 to 2003.<sup>12</sup> Nonetheless, House and Shapiro found that the BD significantly boosted investment in qualified assets, and that the increase was greater for long-lived assets than for short-lived ones.<sup>13</sup>

A 2007 study by Matthew Knittel analyzed the take-up rate for C corporations from 2002 to 2004.<sup>14</sup> The rate measures the share of eligible companies and investments that benefited from the allowance. He found that the take-up rate ranged from 54% in 2002 to 61% in 2004 for C corporations, and from 65% in 2002 to 70% in 2004 for S corporations. Knittel also found that take-up rates were highest for industries in which a small number of companies accounted for most of the investment in eligible long-lived assets, such as telecommunications equipment. According to Knittel, the estimated take-up rates fell short of 100% for two reasons: (1) many corporations incurred NOLs between 2002 and 2004, which meant they were unable to derive an immediate benefit from the BD; and (2) many states did not allow businesses to claim the BD in computing their state income tax liability in the early 2000s, deterring many businesses from claiming it on their federal tax returns.

The most recent studies cover a longer period. A 2016 paper by John Kitchen and Knittel looked at take-up rates for the two expensing allowances by corporate and noncorporate businesses in 2002 to 2014.<sup>15</sup> Their main finding was that eligible firms claimed the IRC Section 179 allowance at a higher rate than the BD; the take-up rate for IRC Section 179 allowance ranged from 60% to 80%, compared with 40% to 60% for the BDA.

A 2017 study by Eric Zwick and James Mahon focused on the firms that were most responsive to the BD and why.<sup>16</sup> Using a model that allowed for financial market imperfections that made it difficult for some firms to finance new investments, Zwick and Mahon estimated that the allowance had a stronger effect on domestic equipment investment than earlier studies had found. According to their results, the BD increased such investment by 10.4% from 2001 to 2004, and by 16.9% from 2008 to 2010, relative to investment in ineligible assets in those periods. The authors noted that barriers to financing new investments led many firms to "sharply discount future deductions," making bonus depreciation even more appealing. Zwick and Mahon also

Federal Reserve Board, Finance and Economics Discussion Series, Working Paper No. 2006-19 (Washington: April 2006), http://www.federalreserve.gov/pubs/feds/2006/200619/200619pap.pdf.

<sup>&</sup>lt;sup>11</sup> Ibid., p. 21.

<sup>&</sup>lt;sup>12</sup> Christopher House and Matthew D. Shapiro, *Temporary Investment Tax Incentives: Theory with Evidence from Bonus Depreciation*, National Bureau of Economic Research, working paper no. 12514 (Cambridge, MA: September 2006), p. 2, http://www.nber.org/papers/w12514.

<sup>&</sup>lt;sup>13</sup> Christopher House and Matthew D. Shapiro, "Temporary Tax Incentives: Theory with Evidence from Bonus Depreciation," *American Economic Review 2008*, vol. 98, no. 3, p. 762.

<sup>&</sup>lt;sup>14</sup> Matthew Knittel, *Corporate Response to Accelerated Depreciation: Bonus Depreciation for Tax Years 2002-2004*, Department of the Treasury, Office of Tax Analysis, Working Paper 98 (Washington: May 2007), https://www.treasury.gov/resource-center/tax-policy/tax-analysis/Documents/WP-98.pdf.

<sup>&</sup>lt;sup>15</sup> John Kitchen and Matthew Knittel, *Business Use of Section 179 Expensing and Bonus Depreciation, 2002-2014*, Department of the Treasury, Office of Tax Analysis, working paper 110, October 2016.

<sup>&</sup>lt;sup>16</sup> Eric Zwick and James Mahom, "Tax Policy and Heterogeneous Investment Behavior," *American Economic Review* 2017, vol. 107, no. 1, pp. 218-219.

found that small and medium-sized firms were 95% more likely to take up bonus depreciation than larger firms were, and that firms were most likely to claim the BD if it boosted their net short-term cash flow.<sup>17</sup>

A 2019 report by Jane Gravelle and Donald Marples addressed the investment effects in 2018 of the TCJA. They found that U.S. investment in intellectual property products, equipment, and nonresidential structures that year did not match expectations.<sup>18</sup> The law lowered the corporate tax rate to 21%, cut effective income tax rates for noncorporate business income, enlarged the IRC Section 179 expensing allowance, and allowed full expensing under IRC Section 168(k). According to their analysis, these changes resulted in a 3.4% increase in the user cost of capital for investment in intellectual property products and declines in that cost of 2.7% for equipment and 11.7% for structures, relative to 2017. Yet investment in intellectual property products grew at the fastest rate of the three categories in 2018. These findings failed to confirm the expectations of TCJA proponents, who had maintained that the business tax cuts would significantly boost investment in equipment and structures in the short term.

A 2022 report by Thomas Brosy, Thornton Matheson, and Lucas Goodman explored why many eligible companies did not take up the BD or IRC Section 179 expensing as they became more generous between 2001 and 2019.<sup>19</sup> With regard to the BD, they found that (1) investment take-up rates were 10 to 30 percentage points below firm take-up rates; (2) most bonus depreciation was claimed by large, profitable firms; (3) many smaller firms did not claim the BD; (4) eligible firm and investment take-up rates were generally higher for C corporations than for pass-through firms; and (5) economic conditions significantly influenced take-up rates.

In the case of IRC Section 179 expensing, Brosy et al. found that (1) take-up rates were higher for C corporations than for pass-through businesses, (2) rates were higher for eligible firms than for eligible investments, (3) net income greatly affected the rates, (4) take-up rates for NOL firms were around 10%, and (5) the rates ranged from 60% to 70% for C corporations and 50% to 60% for pass-through businesses able to "fully support the section 179 deduction" from their own access to financing.

According to the authors, take-up rates fell short of 100% mainly for three reasons. First, a sizable number of firms had NOLs at different times between 2001 and 2019. Second, numerous large business managers were more concerned with accounting profits, which are not affected by expensing, than minimizing their tax liability. Third, the reduction in statutory corporate and pass-through business tax rates under the TCJA diminished the tax savings from deductions.

A 2022 study by E. Mark Curtis et al. of the BD's impact on investment and employment at U.S. manufacturing firms between 2001 and 2011 found that firms that benefited the most from the BD increased their investment and workforces relative to firms that benefited the least.<sup>20</sup> By 2011, average employment at the plants that benefited the most from the BD was 9.5% greater than employment at the plants that benefited the least; average investment by the former was 15.8%

<sup>&</sup>lt;sup>17</sup> Ibid., p. 219.

<sup>&</sup>lt;sup>18</sup> CRS Report R45736, *The Economic Effects of the 2017 Tax Revision: Preliminary Observations*, by Jane G. Gravelle and Donald J. Marples, p. 6.

<sup>&</sup>lt;sup>19</sup> Thomas Brosy, Thorton Mattheson, and Lucas Goodman, "Business Uptake of Investment Expensing," *Tax Notes*, October 3, 2022, p. 27.

<sup>&</sup>lt;sup>20</sup> E. Mark Curtis, Daniel G. Garett, Eric C. Ohrn, Kevin A. Roberts, and Juan Carlos Suarez Seratto, *Capital Investment and Labor Demand*, National Bureau of Economic Research Working Paper 29485, revised June 2022, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.nber.imooorg/system/files/working\_papers/w29485/w29485.pdf.

greater and their average capital stock was 7.8% greater. Curiously, the authors found no evidence of gains in plant wages or productivity from the added investment.

The following conclusions seem warranted by the research that has been done on the investment effects of the IRC Section 179 and Section 168(k) expensing allowances:

- There was evidence that the BD spurred a significant rise in domestic investment in eligible assets.
- It was unclear to what extent the BD was claimed for investments that companies would have undertaken if there were no such allowance.
- There was conflicting evidence about the size of the companies that were most likely to take up the BD. This lack of consensus may be due, in part, to disparities in the research methods used by the studies that investigated firm size differences in take-up rates.
- C corporations took up both expensing allowances to a greater extent than pass-through businesses.
- Firms with NOLs or loss-and-credit carryforwards were much less likely to take up either allowance than firms whose cash flow would rise by claiming them.
- Expensing provided a greater reduction in the user cost of capital for investment in long-lived assets than for short-lived ones.

It was not entirely clear why many eligible firms did not take up the expensing allowances between 2001 and 2019. The studies suggested three explanations. The most plausible explanation was that numerous firms were unable to immediately benefit from the allowances because they had operating losses and loss-and-credit carryforwards. The other explanations were that (1) many business managers were more concerned with financial profits than tax profits and thus did not bother to claim the expensing allowances, and (2) a number of eligible firms did not claim the allowances on their federal tax returns in the early 2000s because they were not allowed to claim them on some state income tax returns.

## **Economic Efficiency**

Economic efficiency, as applied to the taxation of business income, refers to the productive uses of assets and tax incentives for investing in them. An efficient tax system encourages business owners to make investment decisions based on nontax considerations. Such a system is neutral regarding the returns on possible business investments. A neutral income tax taxes all such returns at the same effective rate, thereby minimizing tax-related distortions in resource allocation.

The IRC Section 179 and IRC Section 168(k) expensing allowances may have mixed effects on economic efficiency, broadly defined. On the one hand, they can help raise overall productivity by encouraging firms to equip their workers with advanced production technologies, possibly boosting their competitiveness and employee incomes. Productivity gains generally enhance economic efficiency.

On the other hand, the allowances could diminish economic efficiency through their disparate impacts on firms and industries. There are two dividing lines. One is profitability. Profitable firms are able to use an expensing allowance to reduce their tax liability in the year they place newly acquired eligible assets in service. By contrast, NOL firms placing the same assets in service cannot benefit from such an allowance until a future year when they are profitable. Unused NOLs may be carried forward up to 20 years. This disparity in the take-up of the expensing allowances can have implications for the future competitiveness of profitable and loss firms.

A second dividing line is the lack of neutrality of the IRC Section 179 and Section 168(k) expensing allowances regarding investment in tangible business assets. Because the allowances generally apply only to assets with a tax life of 20 or fewer years, they are of no benefit to investors in rental residential and nonresidential properties. Under current law, the tax life of nonresidential buildings is 39 years, and it takes 27.5 years to recover the cost of residential rental buildings. In their 2019 report, Gravelle and Marples illustrated the impact of then-current tax law on effective tax rates for different assets. An effective tax rate reflects the statutory tax rate, the PV of depreciation allowances, the inflation rate, return on equity, and the share of an investment financed by debt. They estimated that the effective tax rate for a debt-and equity-financed investment in equipment was -14.3%, compared to an effective tax rate of 15.7% for investment in nonresidential structures.<sup>21</sup> Such disparate tax treatment could lead to inefficient allocations of investment between equipment and structures. One way to establish neutral tax treatment across assets is to expense a portion of an asset's cost and use economic depreciation to recover the remaining cost.

## **Equity Effects**

In general, equity refers to how two or more individuals are treated under a legal, health care, or economic system; if people in similar circumstances receive similar treatment, then the system can be deemed equitable.

In the case of taxes, analysts focus on the distribution of tax burdens by income class. A central concern is how a tax affects horizontal equity and vertical equity. A tax is considered horizontally equitable if it imposes similar burdens on individuals who are similarly well-off. A tax is said to be vertically equitable if it imposes higher tax burdens on taxpayers as their income rises. Vertical equity is the foundation for a progressive income tax. A desirable tax system promotes vertical and horizontal equity.

What are the equity effects of the IRC Section 179 and Section 168(k) expensing allowances? Income tax subsidies can make it difficult to achieve horizontal equity. If two taxpayers have the same taxable income but one has wage income only and the other has noncorporate business income only, a tax subsidy for business income would likely lower horizontal equity by decreasing the business owner's tax burden relative to the wage earner's tax burden. But expensing is an investment tax subsidy whose impact on taxable income is difficult to determine. Business income is generally the result of more than a few past and present investments. Expensing does not directly affect such income; its benefit lies in its reduction of the PV of taxes on a stream of income over time from a qualified investment, relative to other depreciation schedules. A tax benefit based on the timing of depreciation deductions does not affect taxable income in the same way other business tax subsidies do (e.g., exemptions, exclusions, credits, and preferential tax rates). Thus, there is no reason to believe that the two expensing allowances alter horizontal and vertical equity.

## **Tax Compliance**

Another measure of a tax's desirability is its impact on taxpayer compliance and tax administration. A desirable tax would impose minimal costs for both activities. Research indicates that actual compliance costs depend on (1) required recordkeeping, (2) complexity of tax laws, and (3) income subject to taxation.

<sup>&</sup>lt;sup>21</sup> Gravelle and Marples, *The Economic Effects of the 2017 Tax Revision: Preliminary Observations*, Table A-1, p. 17.

Most economists believe that the cost to taxpayers of complying with the federal income tax and the federal government's cost of administering it are excessive. They attribute this excess mainly to the complexity of the federal tax code, which increases every time a new tax law is enacted. A case in point is the 20% deduction for pass-through business income under IRC Section 199A enacted in 2017. The rules for calculating the deduction can be so complicated that numerous business owners are likely to either not claim it even if they are eligible or require professional guidance to benefit from it.

Small business owners have long complained about the costs associated with complying with federal income and employment taxes. But they generally have a favorable view of the IRC Section 179 and 168(k) expensing allowances because they simplify tax accounting for depreciation. It takes a small business owner less time and paperwork to write off the full cost of an asset in one year than to write off that cost over a longer period using available depreciation schedules.

There is no evidence that expensing is costly for the IRS to administer. The IRS has been processing claims for expensing and enforcing the rules governing its use going back to the start of IRC Section 179 expensing allowances in 1958.

# **Selected Policy Issues**

The IRC Section 179 expensing allowance is a permanent tax provision, but the IRC Section 168(k) expensing allowance is phasing out and will expire at the end of 2026. In the 118<sup>th</sup> Congress, Members have introduced several bills that would extend the BD, including H.R. 3938, the Built In America Act, which would extend the 20% BD in 2026 through the end of 2027. The possible loss of the BD raises two policy issues, which are discussed here. One issue is the economic effects of extending the allowance. A second issue concerns the extent to which, if any, the BD has encouraged firms to substitute machines for humans in the workplace. Automated technologies such as robotics, machine learning, and artificial intelligence are eligible for both expensing allowances.

### **Extension of Bonus Depreciation**

The case for extending the BD rests on its effect on U.S. investment and economic growth. Proponents say that permanently extending a 100% BD would spur more investment and faster economic growth over time, boosting job creation, worker incomes, and productivity. According to the Tax Policy Center (TPC), 80% of business investment in equipment and some structures was eligible for bonus depreciation in 2020.<sup>22</sup>

Extending the BD would preclude a significant increase in marginal tax rates on the returns from eligible investments. As was noted earlier, expensing allows firms to maximize the PV of tax savings from investments, relative to other depreciation methods. The tax benefit from expensing becomes even more valuable during periods of relatively high inflation such as the present, when the discount rate used to calculate PV goes up.

<sup>&</sup>lt;sup>22</sup> Thomas Brosy, *Should Congress Extend Bonus Depreciation*? Tax Vox, Tax Policy Center, December 21, 2022, https://www.taxpolicycenter.org/taxvox/should-congress-extend-bonus-depreciation (hereinafter Brosy, *Should Congress Extend Bonus Depreciation?*).

According to a TPC estimate, the marginal effective tax rate for corporate income from investment in expensed assets in 2022 was 0%.<sup>23</sup> By 2027, the first year without the BD under current law, this tax rate would climb to about 17%.<sup>24</sup> For corporations that finance their capital investment with debt, the METR can be negative, owing to the limited deduction under IRC Section 163(j) for interest costs.

The case against retaining the BD has several elements. One is that the BD has stimulated little or no unplanned growth in business investment. Critics say that the BD has mainly led firms to move forward the timing of planned investments, which is to say that the BD has mostly been taken for investments that would have been made without it, producing windfall tax gains for these firms. It is unclear how many firms have shifted the timing of investments and what the amount of these gains might be. Another element of critics' argument is that the BD should not be extended owing to its budgetary cost. The TPC has estimated that retention of a 100% BD would reduce federal revenues by \$250 billion in the coming decade.<sup>25</sup> Critics also maintain that a permanent 100% BD might fuel stronger cyclical booms in the economy and undermine its effectiveness as a temporary stimulus measure during economic downturns. Yet another element is that expensing effectively exempts the marginal returns to an investment from taxation, making an investment's pretax rate of return the same as its after-tax rate of return. This treatment is appropriate under a consumption tax but not under an income tax, which applies to a business's income less all costs incurred in earning it, including an allowance for the wear and tear and obsolescence of the capital assets used to generate income.

## **Expensing and Jobs**

Another policy issue associated with expensing is its impact on jobs and wages. Proponents of the BD have argued that it indirectly spurs job and wage increases through the added investment it encourages. The job creation results from the business expansion tied to increases in investment. Wages increase as a result of the productivity growth fueled by the new investment.

But not everyone accepts this scenario. Some are concerned that the IRC Section 179 and Section 168(k) expensing allowances encourage employers to substitute capital for labor on a scale that may grow over time. If such a process were to materialize, according to these critics, it would adversely affect the well-being of displaced workers and their communities, possibly cut state and federal tax revenue, and necessitate the creation of local, state, and federal programs to train and reskill persons for new, well-paying jobs.

Evidence regarding the employment and wage effects of the two expensing allowances is mixed. A few recent studies have found that investment in assets eligible for the allowances led to no sustained job and wage increases, or to job and wage declines. In a 2020 paper, Daron Acemoglu and Pascual Restrepo analyzed the impact of robot use on U.S. employment and wages from 1990 to 2007.<sup>26</sup> They found that the impact varied by industry and region, and that manufacturing accounted for 70% of robot use in that period. They also found that in regions with heavy concentrations of robots, the addition of one robot per 1,000 workers led to an average loss of 6.6

<sup>&</sup>lt;sup>23</sup> The marginal effective tax rate is the rate at which an additional dollar of income is taxed after allowing for all applicable tax preferences, such as exemptions, exclusions, accelerated depreciation, deductions, and tax credits. As such, it is a measure of the tax burden on a stream of income.

<sup>&</sup>lt;sup>24</sup> Brosy, Should Congress Extend Bonus Depreciation?

<sup>&</sup>lt;sup>25</sup> Brosy, Should Congress Extend Bonus Depreciation?

<sup>&</sup>lt;sup>26</sup> Daren Asemoglu and Pascal Restrepo, "Robots and Jobs: Evidence from the U.S. Labor Markets," *Journal of Political Economy*, vol 128, no. 6.

jobs and decreased the average wage by 0.8%, relative to regions with no robots. Most of the job displacement involved low-skilled and low-income workers.

A 2019 paper by Daniel G. Garrett et al. looked at the impact of the BD on local labor markets between 2002 and 2012.<sup>27</sup> It found that although the expensing allowance stimulated investment, it had a smaller, temporary effect on employment and wages. While the BD seemed to spur persistent rises in firms' capital stock, the small employment effect lingered; by 2010, the researchers found evidence that beneficiaries of the BD were substituting capital for labor.

Then there are a few studies suggesting that expensing has not generated significant substitutions of capital for labor. In a 2022 paper, E. Mark Curtis et al. examined the BD's impact on labor demand in U.S. manufacturing plants between 1997 and 2011.<sup>28</sup> The authors assessed this impact by comparing job trends in plants that benefited the most from the BD with job trends in plants that benefited the least. They found that by 2011, employment at the biggest beneficiaries had increased by 9.5% relative to employment at the smallest beneficiaries. Moreover, these gains were concentrated among production workers, which suggested that capital and labor were complements rather than substitutes in the use of BP-eligible assets. While the authors found that the BD caused no job losses at the plants that benefited the most, they found no evidence that workers' earnings at these plants increased, or that the plants' productivity increased in response to BD-eligible investments.

BD proponents also say that automated technologies acquired through BD-eligible investments can be job-creating or job-enhancing. Under the right conditions, automation can create more jobs than it eliminates. Contrary to the conclusions of the Acemoglu and Restrepo study, a 2019 study by the Century Foundation found that U.S. robot adoption since 2009 produced wage and job gains for some segments of the workforce and appeared to have no adverse impact on other segments.<sup>29</sup> According to proponents, there is no evidence that workplace automation in recent decades has triggered succeeding waves of job displacement, but it has altered where and how numerous people perform their jobs.

<sup>&</sup>lt;sup>27</sup> Daniel G. Garrett, Eric C. Ohrn, and Juan Carlos Suarez Serrato, *Tax Policy and Local Labor Market Behavior*, NBER working paper 25546, February 2019.

<sup>&</sup>lt;sup>28</sup> Daniel G. Garrett and Shankar Parameshwaran, "Why Capital Investment in Equipment Doesn't Hurt Employment," *Knowledge at Wharton*, February 7, 2023.

<sup>&</sup>lt;sup>29</sup> William M. Rogers III and Richard Freeman, *How Robots Are Beginning to Affect Workers and Their Wages*, Century Foundation, October 17, 2019, https://tcf.org/content/report/robots-beginning-affect-workers-wages/.

# **Appendix.** Legislative History

### **IRC Section 179**

The IRC Section 179 expensing allowance was enacted as part of the Small Business Tax Revision Act of 1958 (P.L. 85-866, Title II). Its purpose then was no different from its purpose today: to reduce the tax burden on small business owners, stimulate small business investment, and simplify tax accounting for small firms. The allowance could be taken in addition to depreciation deductions under IRC Section 167 for the tax year when a qualified asset was placed in service. Under the act, this allowance was limited to 20% of \$10,000 (or \$2,000) of the cost of eligible assets placed in service by single filers in a tax year ending after December 31, 1957; for joint filers, the allowance was limited to 20% of up to \$20,000 of that cost (or \$4,000). New and used "personal property" assets with a tax life of at least six years were eligible for the allowance, which did not apply to the cost of real property such as structures.

No change was made in the allowance until Congress passed the Economic Recovery Tax Act of 1981 (ERTA; P.L. 97-34). ERTA raised the expensing allowance to \$5,000 (\$10,000 for joint filers) in tax years 1982 and 1983 and laid down a timeline for increasing it to \$10,000 (\$20,000) in 1986. Relatively few firms reportedly took advantage of the enhanced allowance. Some of this response was related to ERTA's changes to a prior 10% investment tax credit. Under ERTA, a business could claim the credit for only the portion of an asset's cost that was not expensed. Thus, the full credit could be used only if a firm claimed no IRC Section 179 expensing allowance. For a number of firms, the tax savings from the credit alone apparently outweighed the tax savings from a combination of the credit and the allowance.

The Deficit Reduction Act of 1984 (P.L. 98-369) postponed the scheduled increase in the expensing allowance to \$10,000 from 1986 to 1990.

Use of the allowance rose following the repeal of the investment tax credit by the Tax Reform Act of 1986.

The allowance increased to \$10,000 for single filers (\$20,000 for joint filers) in 1990, as scheduled, and remained at that amount until the Omnibus Budget Reconciliation Act of 1993 (OBRA93; P.L. 103-66) increased the allowance to \$17,500 (starting January 1, 1993). The act also created a variety of tax benefits for impoverished areas known as "enterprise" and "empowerment" zones (or EZs for both). One such benefit was an enhanced expensing allowance for qualified assets placed in service in such a zone.<sup>30</sup>

The Small Business Job Protection Act of 1996 (SBJPA; P.L. 104-188) set a timeline for further increases in the IRC Section 179 expensing allowance. Specifically, the act boosted the allowance to \$18,000 in 1997, \$18,500 in 1998, \$19,000 in 1999, \$20,000 in 2000, \$24,000 in 2001 and 2002, and \$25,000 in 2003 and thereafter.

The Community Renewal Tax Relief Act of 2000 (P.L. 106-554) added "renewal communities" (RCs) to the economic development areas eligible for tax benefits, including an enhanced expensing allowance. The act set the allowance for assets placed in service in EZs and RCs at \$35,000 above the regular IRC Section 179 expensing allowance.

<sup>&</sup>lt;sup>30</sup> Firms placing qualified assets in service in an EZ were allowed to claim a maximum allowance that was \$20,000 greater than the allowance available in other areas, with a phaseout threshold that was twice as large as that available in other areas.

To promote economic recovery in the areas affected by the September 11, 2001, terrorist attacks, Congress established a variety of tax benefits through the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147). Owners of firms located in what the act called the "Liberty Zone" were allowed to claim the same enhanced expensing allowance that was available to EZ and RC businesses.

The Jobs and Growth Tax Reduction and Reconciliation Act of 2003 (JGTRRA; P.L. 108-27) raised the allowance to \$100,000 for assets placed in service between May 6, 2003, and the end of 2005 and reset it in 2006 at its pre-JGTRRA amount (\$25,000). JGTRRA also raised the phaseout threshold to \$400,000, indexed the allowance and threshold for inflation, and made purchases off-the-shelf software for business use eligible for the expensing allowance during 2004 and 2005.

The American Jobs Creation Act of 2004 (AJCA; P.L. 108-357) extended JGTRRA's changes in the allowance through the end of 2007.

The Gulf Opportunity Zone Act of 2005 (P.L. 109-135) created a "Gulf Opportunity Zone" (GOZ) in the areas hit hard by Hurricane Katrina. Firms located in the GOZ were eligible for a variety of tax incentives, including an enhanced IRC Section 179 expensing allowance for qualified assets purchased and placed in service between August 28, 2005, and December 31, 2007. The GOZ allowance could be as much as \$100,000 above the regular allowance, had a phaseout threshold \$600,000 more than the regular allowance's threshold, and applied to more assets than the regular allowance did.

The Tax Increase Prevention and Reconciliation Act of 2005 (P.L. 109-222) extended JGTRRA's changes in the allowance through 2009.

In the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Appropriations Act, 2007 (P.L. 110-28), Congress raised the maximum allowance to \$125,000 and the phaseout threshold to \$500,000 and indexed both amounts for inflation in 2007 to 2010. The act also extended through 2008 the GOZ allowance.

With the aim of stimulating investment, Congress increased the allowance to \$250,000 and the phaseout threshold to \$800,000 for assets bought and placed in service in 2008 through the Economic Stimulus Act of 2008 (ESA; P.L. 110-185). Under the act, those amounts were to reset at \$125,000 and \$500,000 in 2009 and 2010.

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) extended the ESA-enhanced allowance through 2009; the Hiring Incentives to Restore Employment Act of 2010 (P.L. 111-147) further extended it through 2010.

Under the Small Business Jobs Act of 2010 (P.L. 111-240), the IRC Section 179 expensing allowance rose to \$500,000, and the phaseout threshold to \$2 million, in 2010 and 2011. In 2012, the allowance was to reset at \$25,000 and the phaseout threshold at \$200,000. The act also added qualified leasehold improvement property, qualified retail improvement property, and qualified restaurant property to the list of eligible assets. A business could write off up to \$250,000 of the cost of such property placed in service in 2010 and 2011.

The Tax Relief, Unemployment Compensation Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) increased the allowance to \$125,000 and the phaseout threshold to \$500,000 in 2012, reset the allowance at \$25,000 and the phaseout threshold at \$200,000 for 2013 and thereafter, indexed those amounts for inflation, and extended the eligibility of off-the-shelf computer software through 2012.

Under the American Taxpayer Tax Relief Act of 2012, the maximum allowance rose to \$500,000, and the phaseout threshold to \$2 million, in 2012 and 2013. The act also made purchases of off-

the-shelf software eligible for the allowance in 2013 and extended the \$250,000 expensing allowance for qualified improvement property through 2013 as well.

In December 2014, Congress extended through 2014 the expensing allowance that was available in 2012 and 2013 by passing the Tax Increase Prevention Act of 2014 (P.L. 113-295).

Under the Protecting Americans from Tax Hikes Act of 2015 (PATH Act; P.L. 114-113), the expensing allowance was permanently set at \$500,000, and the phaseout threshold at \$2 million, starting in 2015. Both amounts were indexed for inflation beginning in 2016. The act also made off-the-shelf computer software and leasehold, restaurant, and retail improvement property permanently eligible for the allowance, and lifted the yearly dollar limit on the amount of improvement property that could be expensed.

The most recent changes in IRC Section 179 were made in P.L. 115-97, commonly known as the Tax Cuts and Jobs Act (TCJA). Under the act, the expensing allowance increased to \$1 million, and the phaseout threshold to \$2.5 million, and both amounts were indexed for inflation, starting in 2019. The TCJA also added to the list of qualified assets for Section 179 expensing improvements to the following components of nonresidential real property: roofs; heating, ventilation, and air conditioning units; and fire protection and alarm and security systems.

### IRC Section 168(k)

The Job Creation and Worker Assistance Act of 2002 (P.L. 107-147) established the BD. The initial allowance was equal to 30% of a company's adjusted basis in new qualified assets acquired and placed in service between September 12, 2001, and December 31, 2004. A one-year extension of that deadline was available for assets with MACRS recovery periods of 10 or more years and lengthy production periods, such as certain aircraft.

Under the Jobs and Growth Tax Relief Reconciliation Act of 2003 (P.L. 108-27), Congress increased the BD to 50% of a company's adjusted basis in qualified assets acquired and placed in service between May 6, 2003, and December 31, 2005.

No BD was available in 2006 and 2007. The Economic Stimulus Act of 2008 (P.L. 110-185) reinstated the 50% BD that expired at the end of 2005 and applied it to assets acquired and placed in service in 2008.

The Housing Assistance Tax Act of 2008 (P.L. 110-289) provided C corporations only with the option to exchange any BD they could claim for assets acquired and placed in service between April 1 and December 31, 2008, for a refundable tax credit equal to the lesser of \$30 million or 6% of the sum of any research and AMT credits the firms carried forward from pre-2006 tax years.

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) extended the 50% BD and the optional refundable credit through 2009.

Congress further extended the 50% allowance and optional credit through 2010 in the Small Business Jobs Act of 2010 (P.L. 111-240).

The Tax Relief, Unemployment Compensation Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) increased the BD to 100% of qualified assets acquired and placed in service from September 9, 2010, to December 31, 2011, and then scheduled a decrease in the allowance to 50% for assets placed in service in 2012. It also limited the optional refundable credit to unused AMT credits from tax years before 2006 only.

The American Taxpayer Relief Act of 2012 (ATRA; P.L. 112-240) extended the 50% BD through 2013. ATRA also extended the optional refundable credit through 2013 for AMT credits carried forward from pre-2006 tax years.

The Tax Increase Prevention Act of 2014 (TIPA; P.L. 113-295) extended the 50% BD through 2014.

In December 2015, Congress passed the Protecting Americans from Tax Hikes Act of 2015 (PATH Act; P.L. 114-113). Among other things, the act extended the BD through 2019. From 2015 to 2017, the allowance rate was set at 50%, falling to 40% in 2018 and 30% in 2019; no allowance would be available for tax years starting in 2020 and thereafter.

The PATH Act also extended through 2019 the optional refundable credit and removed the dollar limit that was in effect from 2008 to 2015 on the amount of unused AMT credits that could be monetized. Under the act, the refundable credit a C corporation could claim was equal to its BD, provided this amount did not exceed the lower of 50% of the corporation's AMT credit under Section 53(b) for its tax year ending in 2016, or the AMT credit for the current tax year calculated by taking into account only the adjusted new minimum tax (as defined in Section 53(d)) for tax years ending before January 1, 2016.

In addition, the PATH Act extended the BD to domestic planted or grafted trees or vines that bore fruits or nuts and had a preproduction period of over two years from the time of planting or grafting to the time of bearing fruits or nuts.

Congress made a number of changes in the expensing allowance in the TCJA. The law increased the BD to 100% for assets acquired and placed in service between September 28, 2017, and December 31, 2022. The rate then was scheduled to decrease to 80% in 2023; 60% in 2024; 40% in 2025; 20% in 2026; and 0% in 2027 and thereafter. Each placed-in-service date was extended one year for long-production property and certain aircraft.

Unintended language in the TCJA prevented qualified improvement property from qualifying for the BD. To rectify this oversight, Congress had to modify IRC Section 168(k) to assign a 15-year tax life to such property.

The TCJA also repealed the option to monetize unused AMT credits, starting in 2018 and thereafter.

The Coronavirus Aid, Relief, and Economic Security Act (CARES; P.L. 116-136) assigned a 15year cost recovery period to qualified improvement property, making it eligible for BD.

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