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The Tax Treatment and Economics of Net Operating Losses

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The Tax Treatment and Economics of Net Operating Losses

This report provides an overview of the tax treatment and economics of net operating losses (NOLs). How losses are treated for tax purposes can have important implications for capital investment because such investment is rarely a risk-free endeavor, and therefore the possibility of incurring a loss exists. Allowing firms to receive a refund for taxes paid in previous years, known as “carrying back” a loss, can increase economic efficiency and therefore may be a desirable feature of the permanent tax system. The tax treatment of losses also affects the ability of firms to smooth income over the business cycle, and, in some cases, survive economic downturns. Thus, loss carrybacks can act as an automatic stabilizer when the economy begins to weaken. The stimulus effect of such policy, however, is typically estimated to be low relative to other options. Allowing losses to only be carried forward to reduce future taxes may be desirable if there is concern that some firms will engineer paper losses to benefit from loss carrybacks and that detecting this behavior is difficult. However, loss carryforwards may provide limited assistance to firms experiencing real losses and that would benefit from the liquidity that loss carrybacks can provide.

Before 2018, businesses could “carry back” NOLs and use them to receive a refund for taxes paid in prior years. The 2017 tax revision (P.L. 115-97), commonly referred to as the Tax Cuts and Jobs Act (TCJA), however, eliminated the ability to carry back losses and introduced “excess” business loss limitations, which limit the amount of business losses that noncorporate taxpayers can use to offset their nonbusiness income. In response to the economic effects of the COVID-19 pandemic, the Coronavirus Aid, Relief, and Economic Security (CARES) Act (P.L. 116-136) temporarily suspended the restriction on carrying back losses and the limits on excess business losses for noncorporate taxpayers. According to the Joint Committee on Taxation (JCT), these changes will reduce federal tax revenues by \$160.5 billion over 10 years, with \$135.0 billion of that loss due to lifting the excess business loss limitations on noncorporate taxpayers.

The Heroes Act (H.R. 6800) which passed the House on May 15, 2020, proposes to limit the ability to carry back losses made available by the CARES Act and to permanently restore the excess business loss limitations for noncorporate taxpayers. A revised version of the Heroes Act (H.R. 8406) was introduced on September 29, 2020. The proposed limits to loss carrybacks and excess business losses in the revised Heroes Act are identical to those contained in H.R. 6800. The House passed the revised version of the Heroes Act on October 1, 2020, as a House amendment to the Senate amendment to H.R. 925. JCT estimates, for both the original and revised versions of the Heroes Act, that the limits on NOL carrybacks would increase federal tax revenues by \$7.9 billion over 10 years (FY2021-FY2030) and that the limits on excess business losses would increase federal tax revenues by \$246.2 billion over the same time frame.

The ability to use losses to offset income earned in other years can be traced back to the Revenue Act of 1918, which first allowed for a one-year carryback and one-year carryforward. The carryback and carryforward periods have varied since then, with the longest carryback period (outside of temporary changes or special exceptions) being 3 years and the longest carryforward period before the TCJA being 20 years. The general NOL regime immediately preceding the TCJA allowed for NOLs to be carried back for up to 2 years and carried forward for up to 20 years.

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The tax treatment of business net operating losses (NOLs) can have important economic consequences for investment, economic efficiency, and the ability of businesses to smooth income over the business cycle. Before 2018, businesses could “carry back” NOLs and use them to receive a refund for taxes paid in prior years. The 2017 tax revision (P.L. 115-97), commonly referred to as the Tax Cuts and Jobs Act (TCJA), however, eliminated the ability to carry back losses and introduced “excess” business loss limitations, which limit the amount of business losses that noncorporate taxpayers can use to offset their nonbusiness income.¹ In response to the economic effects of the COVID-19 pandemic, the Coronavirus Aid, Relief, and Economic Security (CARES) Act (P.L. 116-136) temporarily suspended the restriction on carrying back losses and the limits on excess business losses. According to the Joint Committee on Taxation (JCT), these changes will reduce federal tax revenues by \$160.5 billion over 10 years, with \$135.0 billion of that loss due to lifting the restriction on individual losses that could offset ordinary income.²

The Heroes Act (H.R. 6800), passed in the House on May 15, 2020, proposes to limit the ability to carry back losses made available by the CARES Act and to permanently restore the excess business loss limitations for noncorporate taxpayers. A revised version of the Heroes Act (H.R. 8406) was introduced on September 29, 2020. The proposed limits to loss carrybacks and excess business losses in the revised Heroes Act are identical to those contained in the original version. The House passed the revised version of the Heroes Act on October 1, 2020, as a House amendment to the Senate amendment to H.R. 925. JCT estimates, for both the original and revised versions of the Heroes Act, that the limits on NOL carrybacks would increase federal tax revenues by \$7.9 billion over 10 years (FY2021-FY2030) and that the limits on excess business losses would increase federal tax revenues by \$246.2 billion over the same time frame.³

For a summary of the Heroes Act, please see CRS Report R46358, *Heroes Act: Revenue Provisions*, coordinated by Molly F. Sherlock.

Tax Treatment of NOLs

When a business’s taxable income is negative, the business has a NOL, and it has no tax liability. The year in which a NOL is incurred is referred to as a “loss year.” For most of the modern tax system’s existence, businesses have been allowed to use losses to receive a refund for taxes paid in prior profitable years by “carrying back” losses. To achieve this result, the taxpayer would recalculate its tax liability in prior years after claiming a deduction for the NOL. Deducting a loss

¹ *Corporations* refers to C-corporations. Corporations are subject to the corporate income tax. *Noncorporate taxpayers* refers to all other taxpayers that report income from a trade or business, including estates, trusts, and individuals who earn income from pass-throughs (sole proprietorships, partnerships, and S-corporations), rental real estate, royalties, residual interests in real estate mortgage investment conduits (REMICs), and farming, among others sources. See Internal Revenue Service, *Excess business losses*, <https://www.irs.gov/newsroom/excess-business-losses>.

² U.S. Congress, Joint Committee on Taxation, *Estimated Revenue Effects Of The Revenue Provisions Contained In An Amendment In The Nature Of A Substitute To H.R. 748, The “Coronavirus Aid, Relief, And Economic Security (‘CARES’) Act,” As Passed By The Senate On March 25, 2020, And Scheduled For Consideration By The House Of Representatives On March 27, 2020*, committee print, 116th Cong., 2nd sess., April 23, 2020, JCX-11R-20, <https://www.jct.gov/publications.html?func=startdown&id=5255>.

³ U.S. Congress, Joint Committee on Taxation, *Estimated Revenue Effects of the Revenue Provisions Contained in H.R. 6800, The “Health and Economic Recovery Omnibus Emergency Solutions (‘HEROES’) Act,” Scheduled for Consideration by the House of Representatives on May 15, 2020*, 116th Cong., 2nd sess., May 15, 2020, JCX-15-20, <https://www.jct.gov/publications.html?func=startdown&id=5260>; and U.S. Congress, Joint Committee on Taxation, *Estimated Revenue Effects of the Revenue Provisions Contained in the HEROES Act, as passed by the House of Representatives on October 1, 2020 (Rules Committee Print 116-66)*, 116th Cong., 2nd sess., October 14, 2020, JCX-21-20, <https://www.jct.gov/publications/jcx-21-20/>.

reduces taxable income and therefore the amount of taxes owed. The firm would receive a refund equal to the difference between its original tax liability and new tax liability. Federal tax law has historically allowed losses that could not be completely exhausted by carrying them back to be carried forward by claiming a deduction on future years' tax returns, reducing taxes in those years.

Permanent Law and Temporary CARES Act Revisions

Notwithstanding the temporary changes made by the CARES Act, under permanent law, as amended by the TCJA, a corporation is able to carry forward NOLs and reduce up to 80% of its taxable income each year until the losses are exhausted. As already noted, the TCJA eliminated the ability for businesses to carry losses back. The TCJA also introduced new temporary limits on noncorporate taxpayers that only allow for business losses to offset other nonbusiness income in the loss year up to a limit: \$250,000 for single filers and \$500,000 for joint filers. Any losses above these limits are considered excess business losses and, under the TCJA, subject to the more general corporate NOL rules described above. These separate limits on noncorporate taxpayers are, notwithstanding the temporary modifications enacted by the CARES Act, scheduled to expire after 2025. Hence, beginning in 2026, noncorporate taxpayers will not be limited in the amount of nonbusiness income they may offset with business losses, subject to the long-standing passive activity loss limits.⁴

The CARES Act made a number of temporary changes to permanent law. First, the act allows for NOLs generated in taxable years beginning after December 31, 2017, and before January 1, 2021, to be carried back for up five years. Second, the act suspends the limit to 80% of taxable income for taxable years beginning before January 1, 2021. For calendar year firms, these rules cover the calendar years 2018, 2019, and 2020.⁵ Businesses are thus able to fully offset prior years' income. Third, the CARES Act also suspended the \$250,000/\$500,000 limitations on noncorporate taxpayers for taxable years beginning before January 1, 2021. Noncorporate taxpayers are therefore able to offset other nonbusiness income without limit, subject to the passive activity loss rules. When the excess business limits were first enacted under the TCJA, there was some uncertainty over whether a noncorporate taxpayer who also received wage income from the business could include their wages as part of "business" income. If wages were included in business income, they would be able to offset a larger amount of losses (because wages would not be considered "other" income subject to the \$250,000/\$500,000 limitations). The CARES Act clarified that wages are to be included in other income and not business income for purposes of the limitations. This revision was a permanent technical change to the tax treatment of losses.

Businesses typically find that carrying losses back is more valuable than carrying them forward because the former generates a more immediate and certain benefit, whereas the latter requires waiting until some uncertain point in the future. Loss carrybacks are more valuable under the CARES Act for businesses than typically would be the case because tax rates before 2018 were generally higher than they are now. The TCJA reduced the top corporate tax rate from 35% to 21%, and it also reduced tax rates faced by many individual noncorporate business owners. Because the five-year carryback window extends to the pre-TCJA period with higher tax rates, the value to firms of deducting losses is higher than it otherwise would be. For example, carrying

⁴ The passive activity loss rules generally prevent taxpayers from using losses attributable to a business in which they did not materially participate to offset ordinary income. A special allowance exists for passive real estate losses that allows a taxpayer who actively engaged in the real estate activities to deduct up to \$25,000 in loss from nonpassive income.

⁵ Calendar year firms are those that have a tax year beginning January 1 and ending December 31.

back a \$100 loss to the pre-TCJA period provides a benefit of \$35 (35% multiplied by \$100), rather than a \$21 benefit (21% multiplied by \$100) if the loss were carried forward under the rates established by the TCJA.

Another TCJA-related technical change included in the CARES Act addressed businesses that had a tax year that did not align with the calendar year and thus were prohibited from carrying back losses arising around the time of the TCJA's enactment. Specifically, the TCJA eliminated the ability to carry back losses starting with losses generated in years *ending after* December 31, 2017. Thus, for example, firms with a tax year that ran from June 1, 2017, to May 31, 2018, were not allowed to carry back losses incurred that year. The CARES Act changed the effective date of the carryback elimination to tax years *beginning after* December 31, 2017.

The CARES Act also made changes to the deductibility of interest, which, along with the changes to NOLs, may have important and complex interactions with existing tax treatment of U.S. multinational corporations. These interactions are beyond the scope of this report, but are discussed in CRS Report R45186, *Issues in International Corporate Taxation: The 2017 Revision (P.L. 115-97)*, by Jane G. Gravelle and Donald J. Marples; and CRS Insight IN11314, *Interaction of International Tax Provisions with Business Provisions in the CARES Act*, by Jane G. Gravelle.

Proposed Heroes Act Changes

The Heroes Act (H.R. 6800 and H.R. 8406) proposes several changes to the temporary modifications made by the CARES Act regarding the tax treatment of losses.⁶ The act proposes limiting the carryback of NOLs to losses incurred in taxable years beginning after December 31, 2018, and before January 1, 2021 (i.e., 2019 and 2020 for calendar year taxpayers). Under the proposal, losses could be carried back to taxable years beginning on or after January 1, 2018 (no further back than 2018 for calendar year taxpayers). Businesses with excessive employee compensation under Section 162(m) of the Internal Revenue Code (IRC), golden parachute payments under IRC Section 280G, or excessive dividend payment and stock buybacks would be prohibited from carrying back 2019 and 2020 losses. The Heroes Act would also reinstitute the \$250,000/\$500,000 loss limits on noncorporate taxpayers that existed prior to the CARES Act and would make the limits permanent. The changes would apply to taxable years beginning on or after January 1, 2018. These changes would increase revenues by an estimated \$254.1 billion over a 10-year period (FY2021-FY2030), with an estimated \$246.2 billion due to restoring the loss limits for noncorporate taxpayers.⁷

Brief Legislative History

The ability to use losses to offset income earned in other years can be traced back to the Revenue Act of 1918, which first allowed for a one-year carryback and one-year carryforward. The carryback and carryforward periods have varied since then, with the longest carryback period, outside of temporary changes or special exceptions, being 3 years and the longest carryforward

⁶ This section describes the act as passed by the House on May 15, 2020.

⁷ U.S. Congress, Joint Committee on Taxation, Estimated Revenue Effects of the Revenue Provisions Contained in H.R. 6800, The "Health and Economic Recovery Omnibus Emergency Solutions ('HEROES') Act," Scheduled for Consideration by the House of Representatives on May 15, 2020, 116th Cong., 2nd sess., May 15, 2020, JCX-15-20, <https://www.jct.gov/publications.html?func=startdown&id=5260>; and U.S. Congress, Joint Committee on Taxation, Estimated Revenue Effects of the Revenue Provisions Contained in the HEROES Act, as passed by the House of Representatives on October 1, 2020 (Rules Committee Print 116-66), 116th Cong., 2nd sess., October 14, 2020, JCX-21-20, <https://www.jct.gov/publications/jcx-21-20/>.

period before the TCJA being 20 years. The general NOL regime immediately preceding the TCJA—instituted in 1997 with the Taxpayer Relief Act of 1997 (P.L. 105-34)—allowed for NOLs to be carried back for up to 2 years and carried forward for up to 20 years. There was generally no distinction between corporations and other businesses for purposes of these carryback and carryforward windows, and noncorporate businesses had nothing akin to the \$250,000/\$500,000 limits on offsetting other income. Losses were not allowed to offset more than 90% of a taxpayer’s alternative minimum taxable income (AMTI) in any one year. The Taxpayer Relief Act shortened the carryback period from 3 years to 2 years and extended the carryforward period from 15 years to 20 years.⁸

Since 1997, changes to the carryback period have involved either temporary extensions or targeted changes. For example, in response to the severe economic downturn associated with the financial crisis, the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) provided business taxpayers with \$15 million or less in gross receipts an opportunity to extend the NOL carryback period for up to five years. Later that same year, the Worker, Homeownership, and Business Assistance Act of 2009 (P.L. 111-92) extended the provision to all business taxpayers except those who had received certain federal assistance relating to the financial crisis.⁹ The NOL carryback period was also temporarily extended to five years for losses incurred in 2001 and 2002 as part of the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147). The extension was intended to assist businesses through the 2001 recession.¹⁰

In response to the destruction caused by Hurricanes Katrina, Rita, and Wilma, the Gulf Opportunity Zone Act of 2005 (P.L. 109-135) extended the carryback period from two to five years for qualified losses occurring in the Gulf Opportunity Zone (or GO Zone) and suspended the 90% AMTI offset limitation. In addition, the act expanded the list of acceptable deductions used for determining NOLs in the GO Zone, effectively increasing the amount of losses a taxpayer could recover.

In the 105th Congress, the Tax and Trade Relief Act of 1998 (P.L. 105-277) included a provision targeted toward farmers. Specifically, the act permanently extended the NOL carryback period for losses relating to farming to five years.

An Example

An example may help illustrate the basic calculations involved in carrying back and carrying forward losses, and how this treatment allows business to smooth out year-to-year fluctuations in income. Carrybacks are considered first, and then the example examines carryforwards. **Table 1** provides information about two hypothetical corporations. The total business income, costs and deductions, and taxable income of both firms are exactly the same over a two-year period. The firms differ, however, in the *timing* of their costs and thus taxable incomes. It is assumed for this example that both firms face the current corporate tax rate of 21%.

⁸ U.S. Congress, Senate Committee on the Budget, *Tax Expenditures: Compendium of Background Material on Individual Provisions*, committee print, prepared by Congressional Research Service, 114th Cong., 2nd sess., December 2016, S.Prt. 114-31 (Washington: GPO, 2016), p. 312.

⁹ A taxpayer could use the extended carryback period for an NOL incurred in 2008 or 2009, but not both. The amount of loss that could be carried back to the fifth year was limited to 50% of the taxpayer’s taxable income in the fifth carryback year. This limitation, however, did not apply to businesses with \$5 million or less in gross receipts that made a five-year carryback election after enactment of the bill.

¹⁰ The act also allowed NOL carrybacks and carryovers to offset up to 100% of a business’s AMTI.

Firm A’s taxable income in each year is \$25 million, or \$50 million total over the two years. Therefore, each year Firm A pays \$5.25 million (21% multiplied by \$25 million) in corporate income taxes, for a total two-year tax liability of \$10.5 million. Firm A has no losses in either year, so its tax liability with and without NOL carrybacks is the same.

Firm B has taxable income equal to \$75 million in year one, but incurs a NOL of \$25 million in year two. Thus, Firm B also earns \$50 million over the two years, but the timing of income (and taxes) is different. In year one, Firm B must pay \$15.75 million (21% multiplied by \$75 million) in corporate income taxes. If Firm B is not permitted to carry back its year-two NOL, its total two-year tax liability will equal taxes paid in year one—\$15.75 million. If, however, Firm B is allowed to carry back its year-two NOL, it will be able to receive a partial refund for taxes paid in year one and reduce its total tax bill.

Table I. Net Operating Loss Example
(in millions of dollars)

	Firm A			Firm B		
	Yr 1	Yr 2	Total	Yr 1	Yr 2	Total
1. Business Income	\$150	\$150	\$300	\$150	\$150	\$300
2. Costs and Deductions	\$125	\$125	\$250	\$75	\$175	\$250
3. Taxable Income (1 minus 2)	\$25	\$25	\$50	\$75	(\$25)	\$50
4. Tax <i>without</i> NOL carryback	\$5.25	\$5.25	\$10.50	\$15.75	\$0	\$15.75
5. Tax <i>with</i> NOL carryback	\$5.25	\$5.25	\$10.50	\$15.75	(5.25)	\$10.50

Source: CRS calculations.

To carry back its year-two loss, Firm B will recalculate its year-one tax liability by subtracting its \$25 million loss from its \$75 million year-one taxable income and applying the 21% corporate income tax rate. The recalculated year-one tax liability is \$10.5 million (21% multiplied by \$50 million). Firm B then receives a refund in year two that equals the difference between taxes actually paid in year one and the new recalculated year-one tax liability. The refund paid to the firm in year two as a result of the carryback is thus \$5.25 million (\$15.75 million - \$10.5 million). With the carryback, Firm B’s total tax liability over the two-year period is \$10.5 million, which is exactly the same as Firm A’s, and is in line with both firms having the same total two-year taxable income. Additionally, allowing Firm B the opportunity to carry back its loss allowed it to smooth its income.

As mentioned previously, carrybacks are generally more valuable than carryforwards due to the need to discount future refunds and because of uncertainty over when the taxpayer would have taxable income to offset in the future. This difference in values can be demonstrated by extending the previous example by one year and comparing the value of Firm B’s \$25 million loss if it were carried forward versus if it were carried back. If Firm B were to carry its loss forward, it would use that loss to reduce its year-three taxes by \$5.25 million (21% multiplied by \$25 million), instead of receiving a refund of \$5.25 million if it carried the loss back to year one. Although the nominal value (\$5.25 million) of the *refund* from the carryback is identical to the *reduction* in future taxes (\$5.25 million) from the carryforward, Firm B must wait one year to take advantage of the NOL carryforward, so the economic value of the carryforward is less than \$5.25 million

The economic value of the \$5.25 million carryforward is determined by its “present value.” The formula for calculating the present value (PV) of an amount equal to \$X that is to be received N years in the future is as follows:

$$PV = \$X/(1+r)^N$$

where r is the return on investment that could be earned (e.g., an interest rate). In the current example, N is equal to one. Assuming that the rate of return is 5%, then the PV of a \$5.25 million reduction in taxes stemming from a carryforward that is to be realized in one year is

$$PV = \$5.25 \text{ million}/(1.05) = \$5 \text{ million}$$

In contrast, the present value of a \$5.25 million refund in taxes from carrying the loss back is simply \$5.25 million because it is received immediately and therefore does not need to be discounted. Hence, Firm B would prefer to carry its loss back instead of forward because it has greater value to the company. It may be the case, however, that a loss must be carried forward because a firm has had little or no income in the recent past that a loss can offset. This circumstance is most likely to happen with start-ups and firms that are financially struggling. In some cases, these firms may never be able to carry their losses forward if they eventually go out of business.

The Economics of NOLs

To understand the economics of NOLs, it may be helpful to briefly review the nature of taxing business income. Firms use both capital and labor to produce output, which they sell to generate revenue. To arrive at taxable income (profit), firms are allowed a number of deductions for expenses incurred in the generation of that income. For example, businesses may deduct the cost of raw materials, utilities, interest, depreciation, research and design, advertising, and rent, among other expenses.¹¹ Businesses may also deduct worker compensation (e.g., wages, benefits). After all these deductions, what is left (in theory) is the return to capital. Thus, a tax on business income is intended to be a tax on the return to capital.¹² How losses are treated for tax purposes can have important implications for capital investment because investment is rarely a risk-free endeavor, and therefore the possibility of incurring a loss exists. Additionally, the tax treatment of losses affects firms' ability to smooth income over the business cycle, and, in some cases, survive economic downturns. This section discusses these issues and a number of others that policymakers may find useful.

¹¹ IRC §162 is the starting point for determining allowable expense deductions. §162(a) begins with “In general - There shall be allowed as a deduction all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, of the tax for....” For the purposes of this report, the general tax treatment of expenses suffices, but what is and what is not an allowable deduction, and how the deduction for a particular expense is determined is not always straightforward.

¹² It is important to distinguish between the statutory incidence of the corporate income tax and the economic incidence of the tax. Statutorily (legally), it is corporations who are required to pay the corporate income tax. But corporations are simply legal entities (pieces of paper) and cannot bear the true economic burden of the tax. Economic theory suggests the tax should be split to some degree between the relevant parties connected to corporations—the shareholders (capital owners), employees (labor), and customers. Conventional economic analysis suggests that the majority of the corporate tax is borne by capital owners in the form of lower returns, with the rest being borne by workers in the form of lower compensation. For discussions of this analysis, see Congressional Budget Office, *Projected Changes in the Distribution of Household Income, 2016 to 2021*, December 19, 2019, pp. 18-19, <https://www.cbo.gov/publication/55941>; and Jennifer Gravelle, “Corporate Tax Incidence: Review of General Equilibrium Estimates and Analysis,” *National Tax Journal*, vol. 66, no. 1 (March 2013), pp. 185-214.

Investment, Risk-Taking, and Efficiency

Economic theory suggests that, under certain conditions, symmetrical tax treatment of gains and losses can reduce the distorting effects of taxation on investment decisions and, in turn, increase economic efficiency.¹³ Tax symmetry exists when losses face a negative tax that is levied at the same rate as the tax on profits. In this case, the government effectively enters into a partnership with businesses making risky investments, sharing in both the returns and losses to investment via the effect on tax revenues. The further losses can be carried back, the more symmetrical the tax treatment of gains and losses, and the less distorting effect there is on investment due to the annual collection of taxes on profits. The ability to carry back losses also reduces the private risk to firms associated with investing by shifting some of the risk to the government. The reduction in private risk presumably results in greater investment. Gains in economic efficiency are also possible if the government is able to spread or bear that risk better than private markets, such as can be the case with systemic shocks to the economy.

Allowing for losses to be carried forward instead of carried back can mimic some of these positive effects, but not perfectly. As the example presented in **Table 1** demonstrated, future reductions in taxes stemming from carrying losses forward are less valuable because of the time value of money. Paying interest on carryforwards can overcome this issue, but the fact that the future is uncertain and some firms may not be in business in the future still exists. During one phase of the debate that eventually led to the TCJA, then-House Speaker Paul Ryan presented the “A Better Way” blueprint, which proposed eliminating the loss carryback period and allowing losses to be carried forward indefinitely while accruing interest. Though loss carryforwards have long been part of the tax code, they have never accrued interest.

Income and Tax Smoothing

The tax treatment of NOLs impacts the ability of firms to smooth out changes in income, and therefore taxes, over the business cycle. Firms are more profitable when the economy is expanding and less profitable during periods of economic weakness. As the example presented earlier showed, without the ability to offset losses against income earned in better times, a firm’s taxable income can become more volatile. Additionally, as the example also demonstrated, this treatment can lead to firms that earn identical amounts of income over a multiyear period paying different amounts of tax due to the annual nature of tax collections, which raises the potential that the tax system does not properly measure the true nature of a firm’s operating financials.

Loss carrybacks and carryforwards both allow firms to smooth out fluctuations in income. Loss carrybacks are generally more effective at achieving this objective because the value of loss carryforwards depends on profits to be earned at some uncertain point in the future. The probability that a firm will still be in business in the future diminishes during recessions, raising the potential that some firms will not be able to use losses at all, and further diminishing the value of carryforwards. Not allowing any loss carryback negatively impacts the ability of some firms that have been profitable in the past to smooth their income or address cash-flow problems over the business cycle.

¹³ Evsey D. Domar and Richard A. Musgrave, “Proportional Income Taxation and Risk-Taking,” *The Quarterly Journal of Economics*, vol. 58, no. 3 (May 1944) pp. 388-422.

Distributional Impact

The burden of any tax must ultimately be borne by individuals. Therefore, any changes to the tax code must ultimately have an impact on the tax situation of individual taxpayers. Conventional models of the corporate income tax typically assume that the tax is borne primarily by shareholders.¹⁴ Because higher-income taxpayers hold a disproportionate share of corporate stock, this estimate implies that most corporate income is earned by higher-income households.¹⁵ Likewise, the majority of noncorporate business income is earned by higher-income taxpayers.¹⁶ Together, these facts imply that changes to business taxes (increases and decreases), such as to the tax treatment of NOLs and excess businesses losses, will impact higher-income earners disproportionately more than lower-income households. The lifting of limits on business losses is likely to be particularly concentrated among higher-incomes taxpayers. The JCT found that 81.8% of the change in tax liabilities from the temporary suspension for 2018 to 2020 of the limits on excess business losses will be concentrated among individuals with incomes of \$1 million or more.¹⁷

Carrybacks as Stimulus or Automatic Stabilizer

Adjusting NOL carryback rules may not be particularly effective as economic stimulus. Though the ability to carry back losses can reduce the private risk of prospective investments, the economic uncertainty that exists during a downturn may overshadow the incentive to invest during a recession. Additionally, there are typically fewer profitable investment opportunities during recessions. Finally, firms that are experiencing losses during a downturn may not have the desire or otherwise be in the position to undertake new investments. Estimates by the Congressional Budget Office (CBO) and Moody's tend to support the notion that expanded loss carrybacks rank as one of the least stimulative fiscal policy options.¹⁸

Allowing losses to be carried back can serve as an automatic stabilizer and be a first line of defense against a weakening economy. A business in a loss position may have trouble making payroll and covering other operating expenses. The ability to carry back losses would provide these firms with an infusion of cash and potentially allow them to ride out an economic downturn with less need to lay off workers. Automatic stabilizers can be attractive because they provide support to the economy naturally as it weakens and gradually taper off as it begins to improve.

A fundamental issue with loss carrybacks as stimulus or an automatic stabilizer is that losses cannot be carried back until after the end of the tax year. The reason is that tax losses are computed over a tax year, and not over a month or a quarter. Businesses suffering from short-term economic disruption will not benefit from a NOL carryback if they earn a profit over their full year. Businesses that are reasonably confident that they will be in a loss position at the end of the

¹⁴ See footnote 12.

¹⁵ Congressional Budget Office and Joint Committee on Taxation, *The Distribution of Asset Holdings and Capital Gains*, August 2016, <https://www.jct.gov/publications.html?func=startdown&id=4937>.

¹⁶ CRS Report R42359, *Who Earns Pass-Through Business Income? An Analysis of Individual Tax Return Data*, by Mark P. Keightley, Aaron Krupkin and Adam Looney, *9 facts about pass-through businesses*, The Brookings Institution, 2017, <https://www.brookings.edu/research/9-facts-about-pass-through-businesses/>. Scott Eastman, *Increasing Individual Income Tax Rates Would Impact a Majority of U.S. Businesses*, Tax Foundation, 2019, <https://taxfoundation.org/increasing-individual-income-tax-rates-impact-businesses/>.

¹⁷ Letter from Thomas A. Barthold, chief of staff, Joint Committee on Taxation, to Sen. Sheldon Whitehouse and Rep. Lloyd Doggett, April 9, 2020, <https://www.whitehouse.senate.gov/imo/media/doc/116-0849.pdf>.

¹⁸ See CRS Report R45780, *Fiscal Policy Considerations for the Next Recession*, by Mark P. Keightley.

tax year, and that have (or have access to) technical tax accounting expertise, may be able to adjust required estimated tax payments to reflect an expected loss carryback and experience some relief. These will most likely be larger business.

New Firms vs Old Firms

Older firms can be expected to benefit from carrybacks more than newer firms. This outcome arises because newer firms have not had the same opportunity to record past profits to apply losses against. Older firms are also likely to benefit more than newer firms from the ability to carry losses forward. Data reveal that around 50% of firms go out of business within the first five years.¹⁹ New firms that realize losses in the first few years of operations and that are struggling are less likely to survive long enough to benefit from loss carryforwards.

One option to address this discrepancy would be to allow firms to receive a tax refund in the year losses were incurred. That is, instead of requiring taxpayers to use losses to refund past taxes or reduce future taxes, losses could be recouped in the current year via a refund equal to the tax value of the loss in the year it was incurred. For example, at a tax rate of 21% a taxpayer incurring a loss of \$10,000 would receive a refund check from the government equal to \$2,100 (21% multiplied by \$10,000). Because losses are typically viewed as a type of expense, and most expenses are deductible in the year they are incurred, tax refunds for losses can be argued to align the treatment of losses with how other expenses are treated. Additionally, it has been argued that allowing tax refunds for losses is simply the opposite of taxing profits when they are realized.²⁰

Allowing losses to be refunded presents trade-offs. On the one hand, startups—which frequently incur losses in their first several years of operations—and otherwise financially struggling firms would benefit more from loss refunds than from the current carryback/carryforward system. Loss refunds would provide them with an immediate benefit rather than requiring them to wait until some uncertain point in the future to deduct their losses. On the other hand, refunding losses would likely result in large revenue losses. Refunding losses is also challenging for individuals subject to graduated tax rates, because it is not clear what tax rates should apply.

Carryforwards and Paper Losses

Allowing losses only to be carried forward may be desirable if there is concern that some firms may engineer paper losses to benefit from loss carrybacks and if detecting this behavior is difficult. Such firms would not benefit from carryforwards if they continually generated paper losses because a firm must have taxable income at some point in the future to actually use the loss. At the same time, those firms that incurred losses from real business operations would still benefit from carrying losses forward assuming they eventually return to profitability. Thus, there is a trade-off between avoiding the manufacture of paper losses to benefit from loss carrybacks and limiting a potentially important source of liquidity to firms during times of economic weakness.

¹⁹ U.S. Bureau of Labor Statistics, *Business Employment Dynamics: Establishment Age and Survival Data, Table 7*, <https://www.bls.gov/bdm/bdmage.htm>.

²⁰ For an in-depth review of the refund option, see Roberta Romano and Mark Campisano, “Recouping Losses: The Case for Full Loss Offsets,” *Northwestern University Law Review*, vol. 76, no. 5 (December 1981).

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