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The Tax Treatment of Net Operating Losses: In Brief

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Summary

Tax reform could result in any number of changes to current tax policy. One modification that could occur is the tax treatment of net operating losses (NOLs). An NOL is incurred when a business taxpayer has negative taxable income. A business has no tax liability in the year they incur a loss. Additionally, a loss can be "carried back" for a refund on taxes paid in the past two years or "carried forward" for up to 20 years to reduce future taxes. The intent of the NOL carryback and carryforward regime is to give taxpayers the ability to smooth out changes in business income, and therefore taxes, over the business cycle. Allowing losses to offset past or future income may also reduce the distorting effects of taxation, and promote investment and economic efficiency.

This report provides an overview of the current tax treatment of NOLs as well as a brief legislative history. The report also explains the mechanics by which losses can be used to receive a refund for taxes paid in the past, or to reduce taxes owed in the future. The report concludes by reviewing several policy options and considerations that Congress may find useful as they continue to debate tax reform, including extending the carryback period, allowing an immediate tax refund for losses, and allowing interest to accrue on losses that are carried forward. Any of these changes could enhance the ability to smooth income and economic efficiency depending on their design, but would also reduce federal revenue.

This report will be updated in the event of legislative changes.

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Recent tax reform discussions have included possibly changing the tax treatment of business net operating losses (NOLs).[1] How losses are treated for tax purposes can have important consequences for business investment, economic efficiency, and tax revenues. This report provides an overview of the current tax treatment of NOLs as well as a brief legislative history. The report also explains how losses can be used to smooth income and tax liabilities. The report concludes by reviewing several policy options and considerations that Congress may find useful as it continues to debate tax reform.

Overview

A business incurs an NOL when its taxable income is negative. The year in which the NOL is realized is referred to as a "loss year." Businesses have no tax liability in a loss year. In addition, under current law a business can use an NOL to obtain a refund for taxes paid in prior years or to reduce taxes owed in the future. Using an NOL to obtain a refund for past taxes paid is known as carrying back a loss, whereas using an NOL to reduce future taxes owed is known as carrying forward a loss.

Current Law

An NOL can generally be carried back for up to two years and may be carried forward for up to 20 years.[2] Losses may not be used to offset more than 90% of a taxpayer's alternative minimum taxable income (AMTI) in any one year. The Internal Revenue Code (IRC) lists several exceptions to the general two-year carryback and 20-year carryforward treatment.[3] For example, losses resulting from a casualty, theft, or a federally declared disaster are eligible to be carried back three years. Farming losses may be carried back five years. Losses resulting from a specified liability loss may be carried back 10 years.[4] Real estate investment trusts (REITs) are not allowed to carryback an NOL, but are entitled to carry a loss forward for up to 20 years.

Current law stipulates that a loss is to be first carried back to the two years preceding the loss year, beginning with the earliest year (subject to the waiver provision discussed below). If the carryback does not fully exhaust the NOL, the remaining portion is then carried forward. To carry back a loss, a taxpayer must file either an amended income tax return, or an application for tentative refund.[5] The taxpayer uses the appropriate form to first recalculate their tax liability for the earliest eligible carryback year. This calculation involves claiming the loss as part of that year's tax deductions. The taxpayer then receives the difference between the actual taxes paid in the previous year and the new tax liability resulting from the NOL carryback as a refund.[6] To carry a loss forward, a taxpayer claims the loss as a deduction against future income on their tax return, thus reducing the tax owed.

[1] The term business is used in this report generally to identify corporations as well as individuals and companies engaged in a business or trade (e.g., partnership partners) who may experience an NOL.

[2] Internal Revenue Code (IRC) §172(b).

[3] The complete list can be found in IRC §172(b)(1).

[4] Examples of specified liability losses include the expense incurred in the investigation or defense against a claim of product liability, a deduction due to reclamation of land, or certain costs attributable to the remediation of environmental contamination.

[5] IRS Forms 1120X and 1040X are the amended income tax returns for corporations and individuals, estates, and trusts, respectively. The appropriate applications for a tentative refund for corporations and individuals, estates, and trusts are IRS Forms 1139 and 1045, respectively.

[6] A practical illustration is useful to show how an NOL carryback works; one can be found in the next section.

A taxpayer may irrevocably waive the carryback period. Any losses are then carried forward in a manner similar to the one described above. A taxpayer expecting to be in a considerably higher future tax bracket may find it beneficial to waive the carryback. In general, however, a taxpayer will prefer to carry back an NOL rather than carry it forward. A carryback allows for an immediate benefit whereas a carryforward reduces future taxes. Valuing a future tax reduction requires discounting the tax savings to determine its "present," or economic, value. The need to discount a future tax reduction results in the economic value of a loss that is carried back exceeding the economic value of that same loss being carried forward.[7] A carryback, additionally, provides a certain tax refund whereas a carryforward reduces a tax liability at some potentially uncertain time in the future.

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 previously mentioned, being three years and the longest carryforward period being the current policy of 20 years. The current general NOL regime was instituted in 1997 with the Taxpayer Relief Act of 1997 (P.L. 105-34). The act shortened the carryback period from three years to two and extended the carryforward period from 15 years to 20 years.[8]

Since 1997, changes to the carryback period have either involved temporary extensions or targeted provisions. 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% AMT 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.

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[7] The present value of future cash flows reflects the time value of money (i.e., why a dollar received today is more valuable than a dollar received in the future). **Table 1** explains the concept of present values. Also contained in **Table 1** is an example computing the present value of an NOL carryback and an NOL carryforward.

[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.

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 an NOL and demonstrate how carrybacks allow for income smoothing. **Table 1** provides information about two hypothetical firms. 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 annual income and costs. It is assumed for this example that both firms face a 35% tax rate.

Firm A's taxable income in each year is $25 million. Therefore, each year Firm A pays $8.75 million ($25 million × 35%) in corporate income taxes, for a total two-year tax liability of $17.5 million. Firm A has no NOL 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 an NOL equal to $25 million in year two. Firm B must pay $26.25 million ($75 million × 35%) in taxes in year one. If Firm B is not permitted to carryback its year-two NOL, its total two-year tax liability will equal taxes paid in year one—$26.25 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 1. 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 *without* NOL carryback	$8.75	$8.75	$17.5	$26.25	-	$26.25
5. Tax *with* NOL carryback	$8.75	$8.75	$17.5	$26.25	(8.75)	$17.5

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 35% corporate income tax rate. The recalculated year-one tax liability is found to be $17.5 million ($50 million × 35%). Firm B is then entitled to receive as a refund in year two, the difference between taxes actually paid in year one and the new recalculated tax liability. The refund paid to the firm in year two as a result of its NOL is thus $8.75 million ($26.25 million - $17.5 million). And its total tax liability is $17.5 million, or exactly the same as Firm A, which 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.

It was briefly mentioned previously that 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 it to reduce its year-three taxes by $8.75 million ($25 million × 35%) instead of receiving a refund of $8.75 million if it carried the loss back to year one. Thus, the nominal value of the *refund* for paid taxes by carrying back the loss is identical to the *reduction* in future taxes by carrying it forward, $8.75 million. However, because Firm B must wait one year to take advantage of the NOL, its true economic value is actually less than $8.75 million

The economic value of an $8.75 million reduction in taxes one year in the future 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

$$PV = \frac{\$X}{(1+r)^N}$$

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. If we assume for this example that the rate of return is 5%, then the PV of an $8.75 million reduction in taxes that is to be realized in one year due to a carryforward is

$$PV = \frac{\$8.75 \text{ million}}{(1.05)^1} = \$8.33 \text{ million}$$

In contrast, the present value of an $8.75 million refund in taxes from carrying the loss back is simply $8.75 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 recent years that a loss can be used to offset. This 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.

Policy Options and Considerations

The following options and considerations could be helpful to policymakers interested in changing the treatment of NOLs.

Extend the Carryback Period

The intent of allowing loss to be carried back and carried forward is to give taxpayers the ability to smooth out changes in business income, and therefore taxes, over the business cycle. [11] Extending the carryback period would enhance the ability to smooth income by allowing losses to be offset against a longer period of past profits rather than having them carried forward. The extension would, however, increase revenue losses to the federal government.

Economic theory suggests that, under certain conditions, extending the carryback period indefinitely would minimize the distorting effects taxation has on investment decisions and, in

[11] U.S. Congress, Joint Committee on Taxation, *General Explanations of Tax Legislation Enacted in the 107th Congress*, committee print, 107th Cong., 2nd sess. (Washington: GPO, 2003), p. 220.

turn, increase economic efficiency.[12] With loss carrybacks, the government effectively enters into a partnership with businesses making risky investments, sharing both the return to investment (tax revenue gain) and the risk of investment (tax revenue loss). Extending the carryback period indefinitely would reduce the tax burden on these investments and reduce the private risk associated with investing, presumably resulting in greater investment. The reduction in private risk would be shifted to the government. Gains in economic efficiency would be possible if the government is able to spread that risk better than private markets.

There may be practical limitations that prevent the indefinite carryback of NOLs. For example, allowing indefinite carrybacks would result in a large negative revenue effect, particularly during an economic downturn.[13] Some have noted that encouraging investors to undertake risky investments is generally highly desirable, except in periods of acute economic boom.[14] It could be argued that in an extremely expansionary period investors are already making sufficiently risky investments and that adding further incentives to take on more risk could be unnecessary and economically inefficient.

Although an indefinite carryback period may be practically infeasible, extending the NOL carryback period could increase the ability for businesses to smooth their incomes more effectively and promote investment-related risk reduction over the business cycle. Since World War II the duration of the average business cycle has been approximately six years. Extending the NOL carryback period to at least the length of the typical business cycle would, arguably, allow for more income smoothing and risk reduction.

Pay Interest on Losses Carried Forward

The value of carrying losses forward could be enhanced if losses were permitted to accrue interest. Currently, if a business is unable to fully utilize its losses by offsetting income earned in the past two years, it may carry them forward for up to 20 years. As previously shown, losses carried forward are generally not as valuable as those carried back. To compensate for loss in value, the government could allow losses to earn interest until they are claimed in the future. For practical purposes the government could consider allowing losses to accrue interest at an approximate market rate.

While paying interest on losses carried forward would help create parity between the value of loss carrybacks and carryforward and thus benefit some business taxpayers, there could be situations where this modification would have no impact. For example, for a firm to benefit from carrying a loss forward it must have a tax liability at some point in the future. New businesses and those experiencing financial problems may have no income to benefit from carrying back a loss, and also a low probability of generating income in the future for some time. In extreme cases, these firms may not benefit from carrying losses forward, with or without interest, if they go out of business.

House Speaker Paul Ryan's "A Better Way" blueprint proposes eliminating the loss carryback period and allowing losses to be carried forward indefinitely while accruing interest.[15] The

[12] Evsey D. Domar and Richard A. Musgrave, "Proportional Income Taxation and Risk-Taking," *The Quarterly Journal of Economics*, vol. 58, May 1944, p. 388.

[13] Andrew Weiss, "A Tax Reform to Alleviate Recessions and Reduce Biases in the Tax Code," Boston University Working Paper, January 1999.

[14] Domar and Musgrave, "Proportional Income Taxation and Risk-Taking," p. 391.

[15] *A Better Way: Our Vision for a Confident America*, June 16, 2016, available at http://abetterway.speaker.gov/_assets/pdf/ABetterWay-Economy-PolicyPaper.pdf.

proposal is part of a more general tax reform framework that includes, among other things, the introduction of a destination-based cash flow tax (DBCFT) with a border adjustment. The restriction on loss carrybacks may have been due to concern that large exporting companies would generate significant tax losses as a result of the adjustment. Not allowing any loss carryback would negatively impact the ability of some firms that have been profitable in the past to smooth their income or address cash-flow problems. The restriction on loss carrybacks could also increase effective tax rates for affected businesses. At the same time, as with the analysis just presented, paying interest on carryforwards would help some business taxpayers.

Tax Refund for Losses

As an alternative to a carryback and carryforward regime, Congress could allow taxpayers 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 20% a taxpayer incurring a loss of $10,000 would receive a refund check from the government equal to $2,000 ($10,000 × 20%). Since 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.[16]

Allowing losses to be refunded presents tradeoffs. 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. This is because it would provide them with an immediate benefit rather than having 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.

Moving to a refund system would require determining the rate at which to value tax losses. Because businesses in a loss position do not have a tax liability there is currently not an obvious tax rate at which losses would be refundable. One option would be to apply the current income tax rate schedule in reverse. For most corporations this means losses would be refunded at a flat 35%. For pass-throughs (sole proprietorships, partnerships, and S corporations) the refund structure could be varied since pass-through income is taxed at the individual marginal tax rates of each owner, partner, or shareholder, which increase with a taxpayer's income. Alternatively, the refund rate could be set at a flat rate for all taxpayers.

Refunding losses could, however, lead to tax sheltering behavior. Establishing a business (on paper) is relatively easy. Without the proper anti-abuse provisions in place, there may be attempts to generate paper losses solely for the purposes of offsetting income earned elsewhere. Policymakers could implement rules similar to passive activity loss limits that were established as part of the Tax Reform Act of 1986 (P.L. 99-514) to help curtail tax sheltering that was occurring prior to the act.

[16] 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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