The Taxation of Private Equity Carried Interests: Estimating the Revenue Effects of Taxing Profit Interests as Ordinary Income

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THE TAXATION OF PRIVATE EQUITY CARRIED INTERESTS: ESTIMATING THE REVENUE EFFECTS OF TAXING PROFIT INTERESTS AS ORDINARY INCOME

MICHAEL S. KNOLL*

ABSTRACT

In this Article, I estimate the tax revenue effects of taxing private equity carried interests as ordinary income rather than as long-term capital gain as under current law. Under reasonable assumptions, I conclude that the expected present value of additional tax collections would be between 1 percent and 1.5 percent of capital invested in private equity funds, or between $2 billion and $3 billion a year. That estimate, however, makes no allowance for changes in the structure of such funds or the composition of the partnerships, which might substantially reduce tax revenues below those estimates.

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INTRODUCTION

The controversy over the tax treatment of carried interests held by the managers of private equity funds continues. Private equity firms receive a share of the profits—typically 20 percent—earned by the funds they manage. Under current law, the owners of private equity firms are taxed at capital gains rates—generally 15 percent—on those profits. As a result, Warren Buffet and others have noted that the principals of some of the most successful private equity firms pay a smaller share of their income in taxes than do many middle-income Americans.\(^1\) In the summer and fall of 2007, the newspapers were filled with editorials and opinion pieces on the tax treatment of carried interests. Most of these pieces argued that carried interests are compensation for services and should be taxed as ordinary income.\(^2\) Many of these pieces characterized the current tax treatment of carried interests as a massive giveaway.\(^3\) In the summer of 2007, Congress held hearings on the tax treatment of private equity.\(^4\) Except for representatives from the private equity industry, most of the witnesses urged Congress to tax the managers of private equity funds more heavily.\(^5\) Academics are also writing

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3. See, e.g., Alternative Tax Showdown, supra note 2; Equity Managers’ Loophole; Billion-Dollar Breaks, supra note 2; Private-Equity Tax Breaks, A Call To Be Up in Arms, supra note 2; Raising Taxes on Private Equity, supra note 2; Wealth Money Managers Make More, Get Taxed Less, supra note 2.
5. Compare Carried Interest, Part I, supra note 4 (statement of Peter R. Orszag, Director,
Congressional Budget Office) (advocating treating at least some of these profits as ordinary income for tax purposes), and Carried Interest, Part II, supra note 4 (statement of Darryll K. Jones, Professor of Law, Stetson University School of Law) (arguing against the taxation of fund manager compensation at capital gains rates), with Carried Interest, Part I, supra note 4 (statement of Kate D. Mitchell, Managing Director, Scale Venture Partners) (arguing for the continued taxation of carried interests as capital gain).


8. Posting of Victor Fleischer, supra note 7 (listing supporters of reforming the taxation of carried interests and claiming a consensus among academics for reform).

9. See, e.g., Carried Interest, Part I, supra note 4 (statement of Kate D. Mitchell, Managing Director, Scale Venture Partners); Carried Interest, Part II, supra note 4 (statement of Bruce Rosenblum, Chairman, The Private Equity Council).

The stakes in the debate over carried interests were raised substantially when Representative Charles Rangel (D-N.Y.) linked the tax treatment of carried interests with reform of the alternative minimum tax (AMT).11 Almost four million taxpayers paid the AMT in 2007.12 Because it is not indexed for inflation, the AMT would have ensnared an additional 20 million taxpayers that year; each year, however, Congress has voted to index the AMT for the current year.13 The annual cost of the AMT patch is now roughly $50 billion.14 Under the pay-as-you-go budgetary rules that Congress adopted in 2007, tax cuts and expenditure increases must be offset with other tax increases.15 Later that year Representative Rangel proposed using the tax revenue from a permanent tax increase on carried interests to pay for permanent AMT relief.16 Accordingly, the more revenue collected from holders of carried interests, the smaller the amount of additional revenue Congress would have to come up with from other sources to pay for AMT relief.17

In the wake of Representative Rangel’s linking of AMT relief to carried interest reform, I posted the first draft of this manuscript on the Social Science Research Network (SSRN).18 That draft contained revenue estimates for a proposed tax increase on holders of carried interests.19 A few days later, Ryan Donmoyer of the Bloomberg News Service wrote an article on Bloomberg.com summarizing my study and describing its significance for the ongoing debate over how to tax carried interests.20 Those revenue estimates soon became

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15. See Alternative Tax Showdown, supra note 2.
16. See Birnbaum, supra note 11.
17. See Alternative Tax Showdown, supra note 2.
19. Id. at 18.
A spokesman for Congressman Rangel described my numbers as lower than expected, but indicated that the Congressman still planned on proceeding with his proposed legislation because he viewed it as “a basic issue of fairness in the tax code.” A lobbyist hired by a prominent private equity firm, on the other hand, commented that my study showed that Representative Rangel’s proposal would not be a “simple and clean” fix.

Then, in October 2007, the Joint Committee on Taxation (JCT) came out with its own estimates of the additional revenue that would be raised if carried interests were taxed at ordinary income tax rates. Those estimates were in the same ballpark as my earlier estimates. The government’s estimates, however, were not supported with any public explanation. The JCT simply released the figures.

All parties with a stake in the carried interest controversy have an interest in understanding how much additional revenue will be collected if the taxation of carried interests is changed. Accordingly, in this Article, I attempt to quantify the tax benefit to private equity managers of the current treatment of carried interests and the additional tax revenue that the Treasury would collect if that treatment were reformed. I also explain the basis for my calculations, which the JCT failed to do, and respond to some comments about my earlier draft.

The remainder of this Article is organized as follows: Part I describes how private equity funds are organized, and Part II describes how participants in such funds are taxed. Part III estimates the additional revenue that would be collected if carried interests were taxed at ordinary income tax rates. The estimates in Part III assume that neither the structure of private equity funds, nor the composition of investors in those funds, change. In addition,
in Part III I calculate the additional tax as the expected present value as of the date the partnership makes its investments of the additional tax revenues. Part IV converts the estimates generated in Part III into current tax dollars at the date of collection. These figures are what Congress uses for budgetary purposes. The next two parts describe changes that are likely to occur if Congress raises the tax on private equity, which will blunt the impact of those increases. Part V describes various ways in which the structure of private equity funds is likely to change, and Part VI discusses how the composition of investors in private equity funds is likely to change. Part VII discusses the JCT's revenue estimates.

I. THE STRUCTURE OF PRIVATE EQUITY FUNDS

Private equity funds raise capital in order to purchase and invest in new and existing businesses. These funds are private in the sense that the ownership interests are not traded on the public stock exchanges. Instead, private equity funds raise capital outside of the public markets by going directly to investors.

Private equity funds can be divided into two broad categories: buyout funds and venture capital funds. Buyout funds generally purchase established companies or divisions of established companies. They acquire these companies for cash, often increasing their debt level, and seek to restructure and improve the acquired businesses. In contrast, venture capital funds generally invest in start-up businesses. They seek to make early and mid-stage investments in businesses that are trying to commercialize new and developing technologies. Venture capital funds thus invest in
smaller, riskier businesses than do buyout funds, and they tend to invest in more companies than do buyout funds.\footnote{32}

Whether it is a venture capital or a buyout fund, the typical private equity fund is structured as a partnership or a limited liability company.\footnote{33} The fund’s investment capital comes from its limited partners.\footnote{34} These investors are often wealthy individuals, charitable foundations with large endowments, pension funds, and some corporations, especially insurance companies and banks.\footnote{35} The private equity fund is managed by a private equity firm.\footnote{36} The private equity firm is also the fund’s general partner and it decides which investments the fund will make.\footnote{37} Although the limited partners provide nearly all of the fund’s capital,\footnote{38} they do not contribute all of that capital when they enter into the partnership. Instead, they commit to invest a certain amount of capital over time. That period of time, called the investment period, might continue for five to six years.\footnote{39} Over the investment period, the general partner calls upon these commitments when the partnership makes investments in portfolio companies.\footnote{40}

Once they have satisfied a capital call, the investors in a private equity fund generally have little or no liquidity with respect to their investment.\footnote{41} The limited partners typically have no right to sell, transfer, or redeem their interests.\footnote{42} Instead, the limited partners are compensated as the fund disposes of its investments either by selling the companies and distributing the proceeds to the investors, or by taking the companies public and distributing marketable

\begin{itemize}
  \item \footnote{32}{See \textit{id}. at 43.}
  \item \footnote{33}{\textit{PRIVATE EQUITY COUNCIL, supra} note 25, at 9.}
  \item \footnote{34}{\textit{Id}.}
  \item \footnote{35}{\textit{Id}. at 11 exhibit 6.}
  \item \footnote{36}{\textit{Id}. at 9.}
  \item \footnote{37}{\textit{Id}.}
  \item \footnote{38}{The general partner frequently provides some capital. There are both tax and non-tax reasons for doing so. \textit{See} Andrew W. Needham \& Anita Beth Adams, \textit{Private Equity Funds, TAX MGMT.}, 735, A-18 (2005).}
  \item \footnote{39}{\textit{See} ALAN G. HEVESI, NEW YORK STATE COMMON RETIREMENT FUND IN-STATE PRIVATE EQUITY INVESTMENT PROGRAM 2 (2006).}
  \item \footnote{40}{\textit{See id}.}
  \item \footnote{41}{\textit{See id}.}
\end{itemize}
securities to the investors. Accordingly, most private equity investments are made with an eye towards capital appreciation, not income.

The distribution of proceeds and the allocation of expenses over the life of the fund are governed by the partnership agreement. A typical private equity fund requires the partnership to make an annual payment to the general partner as a management fee. The typical fee is between 1 and 2 percent, and it is intended to compensate the general partner for its direct expenses in managing the fund, seeking out new investments, and providing consulting and other services to the portfolio companies.

The partnership agreement will also provide the general partner with a carried interest. The carried interest gives the fund’s manager a right to receive a share of the profits generated by the fund without the obligation to provide capital or the risk of sharing losses. Although there are variations, the typical private equity carry is set at 20 percent. Thus, the typical private equity firm will receive 20 percent of the net profits, but incur none of the net losses, from each fund that it manages.

43. See Private Equity Council, supra note 25, at 9-10.
44. Id.
46. See Needham & Adams, supra note 38, at A-23.
47. The term carried interest arises because the capital of the limited partners “carries” the general partner’s interest. Id. at A-17.
49. For discussion of some of the multitude of variations in the way private equity funds can structure the carry, see Litvak, supra note 45; Needham & Adams, supra note 38, at A-7 to A-12.
II. THE TAXATION OF PRIVATE EQUITY FUNDS

For tax purposes, private equity funds are structured as pass-through entities. That is to say, the fund pays no tax. Instead, all items of income, gain, or loss, and expenses earned or incurred by the fund are passed through to the fund’s partners.

Consider the limited partners first. They do not receive a deduction when they contribute capital to the fund or when the fund makes an investment. Instead, they receive basis in their interests. Because most funds invest for appreciation, there is often little income over the life of the investment. Instead, investors look to make a profit when the fund sells its investments or takes its portfolio companies public.

Because investments made through private equity funds are almost always held for longer than one year, a limited partner’s gain or loss from an investment in private equity is long-term capital gain or loss. Accordingly, if there is a gain, it is taxed at the reduced rate that applies to long-term capital gains, which is capped at 15 percent. Similarly, if there is a loss, it is a long-term capital loss. Such a loss can offset capital gains, but not other income. Thus, such losses are likely to provide a tax benefit of at most 15 percent.

Furthermore, the carry paid to the general partner reduces the gain allocated to the limited partners. Thus, the carry reduces the limited partners’ long-term capital gain. It thus follows that the

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50. Although hedge funds have many characteristics in common with private equity funds, including the standard 20 percent carry, this Article deals only with private equity funds. Because the typical hedge fund trades regularly, it generates short-term capital gain, which is taxed at the same rate as ordinary income. Thus, the tax issues raised by the carry with private equity funds are different from those raised with hedge funds.

51. See Post, supra note 42.
52. Id.
53. See supra note 46 and accompanying text.
54. PRIVATE EQUITY COUNCIL, supra note 25, at 9.
carry provides a tax benefit to the limited partners of at most 15 percent.

Under current law, the general partner’s receipt of a carried interest is not a taxable event.  59 The general partner does not include the interest in income when it is received.  60 Furthermore, no tax is due on the carried interest until profits are realized.  61 When a private equity fund sells an investment, any gain or loss on that investment is realized. The gain, which is presumably long-term capital gain, is passed through to the partners. A general partner with a 20 percent carry will receive a payment equal to 20 percent of the fund’s profits and will have a corresponding amount of gain allocated to it. Thus, the income of a principal in a private equity firm is taxed at the reduced rate that applies to long-term capital gains and is deferred until sale.  62

The discussion above describes the tax treatment of a carried interest for both the general partner and the limited partners. Much of the debate over the current tax treatment of carried interests focuses on the benefit to the general partner of such treatment. Critics argue that the general partner is performing services and being compensated for those services, but is being taxed at the reduced rate available for capital gains.  63 Such treatment is widely considered to be inconsistent with basic federal income tax principles. It is also viewed by some as a massive giveaway to some very wealthy individuals.  64

In order to understand the consequences of a tax policy, however, it is often misleading to focus on only one party to a transaction, or to look at only one piece of a larger transaction. As tax scholars have come to recognize, the tax advantage or disadvantage of a particular transaction cannot be assessed simply by looking at one piece of the transaction in isolation. Rather, such assessments require the

60. Id.
61. Id.
62. Charles Kingson, however, suggests that under current law carried interests are ordinary income. See Carried Interest, Part II, supra note 4 (statement of Charles I. Kingson, Professor, University of Pennsylvania Law School).
63. See supra note 2.
64. See supra note 3.
consideration of all parties to the transaction, after stripping away extraneous matters, and upon a careful review of the economics.

The method for making such accurate tax comparisons was developed twenty-five years ago by Merton Miller and Myron Scholes. In recent years, that method has been picked up by various legal scholars, and it is now starting to become part of the regular discourse.

The essence of that method is to compare two transactional structures that differ only in terms of their tax consequences. As that comparative technique is currently employed in the tax literature, its exercise involves two principal steps.

First, because the tax consequences of a transaction cannot be understood by just looking at how one party to a transaction is taxed, it is important to employ an all-parties perspective. If a tax benefit to one party is offset by a tax detriment to another party, then there is no net benefit to the parties together from using the structure. In such cases, no party is likely to be helped or hurt by the transaction’s tax treatment. Instead, the parties are likely to undo the effect of the transaction’s noneconomic tax consequences through the terms of the transaction. Thus, the tax consequences

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69. Cf. id. at 725.
of a transactional structure should be evaluated globally, for all parties to a transaction, not just for one party in isolation. Second, because it is easy to confuse the tax and non-tax consequences of a transactional structure, it is also important to hold the non-tax consequences of the structure constant. Most simply, paying fund managers in immediate cash will put cash into their hands currently, but doing so will fail to tie their compensation to the performance of their fund. In contrast, providing managers with a carried interest will not generate any current cash, but it will expose fund managers to the performance of their fund. Accordingly, in order to match the non-tax consequences of compensating fund managers with carried interests, it should be assumed that a fund manager who is paid in cash upfront will invest in the fund in order to match the cash flow over the life of the fund of a manager who receives a carried interest. More generally, in order to understand the consequences of a particular structure, the non-tax consequences of that structure must be held constant. This is sometimes called making an “apples-to-apples” comparison.

Chris Sanchirico was the first scholar to apply the comparative method to compensating private equity fund managers with a carried interest. As Sanchirico shows, the tax benefit to the general partner of being paid with a carried interest, instead of cash, consists of two pieces. First, characterizing the tax payment

70. Such a comparison often entails borrowing or lending to match both cash flow and economic exposure.

71. Cf. Knoll, The Section 83(b) Election for Restricted Stock: A Joint Tax Perspective, supra note 66, at 745. There is sometimes a third element to the comparative technique. See Yale, supra note 66. As Evsey Domar and Richard Musgrave showed more than sixty years ago, the income tax does not tax the return to risk-bearing as long as the tax system taxes above and below average returns symmetrically. A taxpayer can eliminate the tax on risk by increasing his investment in the risky asset by $1/(1-t)$, where $t$ is the tax rate on incremental gains and losses. Evsey D. Domar & Richard A. Musgrave, Proportional Income Taxation and Risk-Taking, 58 Q.J. Econ. 388, 411 (1944). Although there are some questions as to how well the result holds in the economy at large, there is a broad consensus that sophisticated and wealthy taxpayers do not pay tax on the risk premium. Lawrence Zelenak, The Sometimes-Taxation of the Returns to Risk-Bearing Under a Progressive Income Tax, 59 SMU L. Rev. 879, 895 (2006). As applied to the managers of private equity funds, many of whom are wealthy and sophisticated, that result implies that investors in private equity funds are unlikely to pay tax on the return to risk bearing. Instead, they will pay tax only on the risk-free return.

72. Knoll, The Tax Efficiency of Stock-Based Compensation, supra note 66, at 725.

73. Sanchirico, supra note 10, at 10-18, 21-35.
as capital gain instead of ordinary income saves the general partner
the capital gain preference on the carry.\textsuperscript{74} Second, deferring taxation
from the grant date until realization defers tax on the present value
of the carry until realization.\textsuperscript{75} Moreover, as Sanchirico shows, the
first benefit is proportional to the general partner’s capital gain
preference, and the second is proportional to the general partner’s
tax rate on capital gains.\textsuperscript{76}

Sanchirico also argues that the general partner’s tax benefit from
being paid with equity (as opposed to immediate cash) is offset by
the corresponding detriment to the limited partners.\textsuperscript{77} If, instead of
receiving a carried interest, the general partner were paid its fee
in cash upfront, the limited partners would deduct that fee.\textsuperscript{78} In
that case, the payment of the fee would generate a tax benefit to
the limited partners at ordinary income rates.\textsuperscript{79} Thus, the benefit
to the general partner of being paid with a carried interest instead
of cash—conversion from ordinary income into capital gain and
deferral of tax from grant until realization—is offset by the
detriment to the limited partner—conversion and deferral.\textsuperscript{80}

Accordingly, if the tax rates, both for ordinary income and
capital gain, are the same for the general partner and for all of the
limited partners, then there is neither a net benefit nor a net loss
from the current tax treatment of carried interests.\textsuperscript{81} In such
circumstances, reforming the taxation of carried interests—by
treating receipt as current ordinary income and payment as current
ordinary deduction—will not increase net tax collections.\textsuperscript{82} The

\textsuperscript{74} Id. at 13-16.
\textsuperscript{75} Id.
\textsuperscript{76} Id. at 16-18.
\textsuperscript{77} Id. at 4.
\textsuperscript{78} Id. Sanchirico assumes that the fee would not be capitalized and amortized over time,
but deducted immediately. Id. at 4 n.12. The law on whether a payment is to be deducted or
capitalized and amortized is confused. I assume throughout most of this Article that the fee
would be immediately deducted. If it were capitalized and amortized over time, then the
benefit to the limited partners would be smaller. See discussion infra Part V.
\textsuperscript{79} Sanchirico, supra note 10, at 4.
\textsuperscript{80} Id. Following Sanchirico, I assume that the limited partners would receive immediate
deductions if the general partner were paid its fee in cash upfront. Later in this Article, I
consider the possibility that the limited partners must capitalize this expense and amortize
it over time. See discussion infra Part V.
\textsuperscript{81} See Sanchirico, supra note 10, at 4.
\textsuperscript{82} Id. at 4, 6.
additional tax collected from the general partner will offset the reduced tax collections from limited partners. In such circumstances, we would expect the economic terms of the deal between the general partner and the limited partners to change to reflect the new tax rule. A shift of the tax burden away from limited partners and towards the general partner will likely lead the limited partners to grant the general partner a larger carried interest in order to compensate for the shift in the tax burden.

Of course, the conclusion that there would be no net change in tax collections from treating carried interests as current ordinary income assumes that the limited partners would pay tax at the same rate as the general partner. This is likely to be true for limited partners that are wealthy individuals—the source of roughly 20 percent of the capital raised from limited partners. Where this is not true, there can be a net increase in tax revenue by changing the tax treatment of carried interests. Most simply, for untaxed limited partners, such as pension funds and endowments, which provide at least 50 percent of private equity capital, changing the tax treatment of carried interests would have no direct tax consequences. In such circumstances, assuming no restructuring of transactions, the proposed change would increase taxes on private equity investments. The amount of the increase would be the increased tax paid by the general partner because there is no direct effect on untaxed limited partners. After such a change, the economic terms of the deal might change to share the burden between the general partner and limited partners.

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83. Id. at 6, 13-20. Fleischer also recognizes this. Fleischer, supra note 6, at 13.
84. See Sanchirico, supra note 10, at 38.
85. Id. For investments already made, however, there will be no such offsets. The limited partners will not agree to them. Thus, changing the tax rule will transfer wealth from general partners to limited partners.
86. As shown by Sanchirico, the key to the equality is that the capital gain preference is the same for both groups. Sanchirico, supra note 10, at 48, 54.
87. PRIVATE EQUITY COUNCIL, supra note 25, at 11 exhibit 6. The data given do not separate domestic and foreign investors. Foreign investors generally escape tax even if they are wealthy individuals.
88. See id.
89. See id. at 5.
90. See id. at 7-8, 39. Once again, existing deals would not change.
Another example involves corporate limited partners—the source of less than 20 percent of the capital for private equity funds. Corporations do not have a capital gains preference; they pay tax at the same rate on ordinary income and capital gain. Corporate limited partners would, thus, get no benefit from treating the payment of carried interests as an ordinary deduction. They are generally indifferent between offsets to capital gain and ordinary deductions. For such investors, the only consequence of reforming the taxation of carried interests would be to accelerate the tax from realization to grant. Because the benefit of acceleration depends on tax rates, the benefit from accelerating tax for a corporation in the 35 percent tax bracket would exactly offset the detriment to the general partner. The detriment to the general partner of recharacterizing ordinary income as capital gain, however, would not be offset by any benefit to the corporate limited partners. Thus, in such circumstances, the net effect of reform would be to increase tax collections.

III. Estimating the Revenue Consequences of Taxing Carried Interests at Ordinary Income Tax Rates

That brings us to the heart of this Article: estimating the revenue consequences of taxing carried interests as ordinary income instead of as capital gains. Under current law, a carried interest is taxed to the general partner who receives it as long-term capital gain when realized. Commentators have proposed taxing the general partner at ordinary income tax rates. Under some proposals, such income would continue to be taxed when it is realized. Under other proposals, it would be taxed when granted, and any subsequent gain or loss would be treated as long-term capital gain or loss when realized. In this Part, I consider the revenue effects of both types

91. PRIVATE EQUITY COUNCIL, supra note 25, at 11 exhibit 6.
93. See Sanchirico, supra note 10, at 25.
94. See supra notes 59-62 and accompanying text.
95. See supra note 6 and accompanying text.
96. See, e.g., Raising Taxes on Private Equity, supra note 2, at 18.
of reform for the tax treatment of carried interests assuming that private equity funds continue to use the same transactional structure and the composition of the funds remains unchanged. In subsequent Parts, I speculate on how the composition and structure of private equity funds might change in response to carried interest tax reform, and what impact those changes might have on revenue collections.98

There are three categories of limited partners to consider. First, there are wealthy taxpaying individuals—about 20 percent of capital.99 For them, the tax benefit of the proposed change exactly offsets the detriment to the general partners.100 Thus, in the calculations that follow, I assume that for 20 percent of the capital, there will be no net tax consequence from changing the tax treatment of carried interests. Second, there are tax-exempt and foreign investors, neither of which pay any U.S. income tax on their earnings from investments in private equity—about 60 percent of capital.101 Such limited partners are not affected directly by any change in tax treatment because they do not pay taxes.102 Thus, in the calculations below, I assume that for 60 percent of the capital, the consequences of changing how the carry is taxed depends solely on the consequences to the general partner. As described above, for the general partner, private equity tax reform will convert what would have been capital gain into ordinary income, and, if the carry is taxed when granted, it will also accelerate taxation from realization to grant. Third, there are corporate limited partners—less than

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98. See infra Part V.
100. See supra notes 86-87 and accompanying text.
101. PRIVATE EQUITY COUNCIL, supra note 25, at 11 exhibit 6 (outlining the percent of capital invested in private equity by pension funds and endowments/foundations). About 13 percent of the capital comes from funds of funds, which aggregate investors’ capital and invest in multiple funds. PRIVATE EQUITY COUNCIL, supra note 25, at 11 exhibit 6. In the calculations below, I treat these funds as coming from wealthy individuals who are outside of the U.S. tax system (i.e., neither citizens nor residents) in order to compensate for the failure of the data to separate foreign and domestic wealthy investors (only the latter pay U.S. tax on their profits from investing in private equity). Thus, I assume roughly two-thirds of the more than 30 percent of private equity capital coming from wealthy individuals, family offices, and funds of funds comes from wealthy U.S. taxpayers and that the other one-third comes from wealthy foreign taxpayers.
20 percent of capital.\footnote{103}{Private Equity Council, supra note 25, at 11 exhibit 6.} As for them, assumed to be 20 percent in the calculations, the switch will be costly because of the recharacterization, but not because of the timing.

One of the arguments against taxing carried interests at the time they are granted is that they are too speculative to value for tax purposes.\footnote{104}{See Carried Interest, Part I, supra note 4 (statement of Peter Orszag, Director, Congressional Budget Office).} Yet it is possible to estimate their value.\footnote{105}{Sheppard, supra note 97, at 1238-40.} Although 20 percent is the standard carry, there are variations.\footnote{106}{See Ludovic Phalippou, Investing in Private Equity Funds: A Survey, RES. FOUND. LITERATURE REV., Apr. 2007, at 14, available at http://ssrn.com/abstract=980243; Litvak, supra note 45, at 20; Andrew Metrick & Ayako Yasuda, The Economics of Private Equity Funds 10 (July 1, 2007) (unpublished manuscript, available at http://ssrn.com/abstract=996334).} Moreover, not only does the carry percentage vary across funds, but the way the carry is calculated also varies across funds.\footnote{107}{Phalippou, supra note 106, at 11; Litvak, supra note 45, at 18-19; Metrick & Yasuda, supra note 106, at 11.} That variation suggests that general partners and limited partners enter into these contracts in competitive markets. Firms that provide more valuable services charge more, and those that provide less valuable services charge less. That, in turn, suggests that private equity firms are not leaving money on the table, but rather they are entering into contracts that pay them what they are worth. Those contracts are also probably close to the maximum amounts that the limited partners would be willing to pay them.\footnote{108}{See Phalippou, supra note 106, at 9; Litvak, supra note 45, at 18-19; Metrick & Yasuda, supra note 106, at 11.} Thus, the carry can be valued as the present value of the future stream of payments.\footnote{109}{Consider a simple example. Assume a single one-year investment with a 20 percent carry. Assume the market interest rate is 10 percent, and that the investment is completely riskless. The investment costs $1000. In order for the limited partners to be willing to pay $1000 to participate in the private equity fund that owns the investment, the investment must pay $1125 in one year. In that case, 25 or 20 percent of the $125 gain will be paid to the general partner. Thus, the general partner's interest is worth $22.73, or 2.27 percent of invested capital, when made. That will also leave the limited partners with $100 profit and 20 percent of capital. As for them, assumed to be 20 percent in the calculations, the switch will be costly because of the recharacterization, but not because of the timing.}
As others have noted, a carried interest is effectively a call option.\textsuperscript{110} A call option gives the holder the right, but not the obligation, to purchase an asset at a specified price, referred to as the exercise or strike price.\textsuperscript{111} The carried interest is an option on the private equity fund. In the usual case, it is the right to acquire 20 percent of the fund for 20 percent of the capital. The value of an option is a function of a series of variables, including strike price (S), asset price (P), volatility (V), and time to expiration (T). Thus, we can write \( C = C (S, P, V, T) \). Moreover, if the fund acquires the asset for \( P_0 \) and the general partner receives a carried interest that is worth \( C \), then in order for the limited partners to be as well off investing in the fund as investing on their own, the underlying asset must be worth \( P = P_0 + C \) when it is acquired. Accordingly, by solving for \( C \), we can solve for the value of the carried interest.\textsuperscript{112}

The best-known method for valuing a call option is the Black-Scholes option pricing equation.\textsuperscript{113} I arbitrarily set the strike price, \( S \), at $100. In many but not all private equity funds, the strike price is set at the cost of acquisition without a hurdle rate or preferred return to the limited partners.\textsuperscript{114} Thus, \( P_0 \) is also $100, which means that \( P = $100 + C \).

The key parameter in the Black-Scholes equation is volatility.\textsuperscript{115} The more volatile the underlying asset, the more valuable is a call on that asset.\textsuperscript{116} The reason why call values increase with volatility is because very large returns lead to large profits, but losses, whether small or large, all lead to options that expire unexercised.\textsuperscript{117}
Accordingly, because volatility increases the payoff when the option expires in the money and has no impact on the payoff when the option expires out of the money, the value of a call option increases with volatility.\textsuperscript{118}

Data for volatility, $V$, come from several sources. The Black-Scholes equation is often expressed in a way that uses the annual standard deviation of the price of the underlying asset.\textsuperscript{119} For the typical NASDAQ stock, $V$ is 60 percent a year.\textsuperscript{120} For the typical NYSE stock, it is 30 percent a year.\textsuperscript{121} Private equity funds usually invest in smaller and riskier companies;\textsuperscript{122} they also use more leverage than most public companies.\textsuperscript{123} Most funds invest in more than one company, and the carry is typically calculated based on the performance of the portfolio, not for each portfolio company separately.\textsuperscript{124} The risk of a portfolio of assets, as measured by standard deviation, varies in proportion to the square root of the number of assets. Thus, if a typical fund would invest in nine portfolio companies, the risk of the portfolio, measured by its standard deviation, would be one-third of the risk of a single company in the portfolio. The typical private buyout fund makes about eleven investments.\textsuperscript{125} Venture capital funds, however, usually invest in riskier companies.\textsuperscript{126} They also make more investments—closer to twenty-five than eleven.\textsuperscript{127} These effects are likely to offset one another. In this Article, I assume a volatility of 20 percent for the typical fund.

The value of a call option also depends upon the time until its maturity.\textsuperscript{128} The value of a call option is an increasing function of

\begin{itemize}
\item \textsuperscript{118} Id. at 29-30.
\item \textsuperscript{119} Id. at 2.
\item \textsuperscript{120} Brian J. Hall, Transferable Stock Options (TSOs) and the Coming Revolution in Equity-Based Pay, 16 J. APPLIED CORP. FIN. 8, 11 fig.1A (2004).
\item \textsuperscript{121} Id.
\item \textsuperscript{122} See Kimberly S. Blanchard, Cross-Border Tax Problems of Investment Funds, 60 TAX L. 583, 588 (2007).
\item \textsuperscript{123} See, e.g., Tony Jackson, The Wonders of Life in the Rear View Mirror, FIN. TIMES, Mar. 12, 2007, at 20. The volatility of owning an asset increases with leverage.
\item \textsuperscript{124} Thus, the carry represents an option on a portfolio and not a portfolio of options (one on each company).
\item \textsuperscript{125} Metrick & Yasuda, supra note 106, at 15.
\item \textsuperscript{126} See supra notes 28-32 and accompanying text.
\item \textsuperscript{127} Metrick & Yasuda, supra note 106, at 15.
\item \textsuperscript{128} See, e.g., CHRIS, supra note 111, at 140.
\end{itemize}
the time to maturity.\textsuperscript{129} Although there is no express time limit for the call option embedded in the carry, limited partners have expectations about how long their funds will be invested before they are repaid. Most private equity funds hold their individual investments between four and seven years.\textsuperscript{130}

There is one more parameter that is required to calculate the value of the carry as a call option. That parameter is the risk-free interest rate.\textsuperscript{131} I use an interest rate of 5 percent, which is in line with recent short-term taxable government interest rates.

The above information is sufficient to calculate the value of the carry as a call option using the Black-Scholes formula. Using Excel’s numerical methods, I calculated the value of the carry for terms ranging from four to seven years. These results are provided below.\textsuperscript{132}

\begin{table}[h]
\centering
\caption{Value of Carried Interest}
\label{tab:carried_interest}
\begin{tabular}{|c|c|c|c|c|}
\hline
Term (years) & 4 & 5 & 6 & 7 \\
\hline
Value of carried interest & 5.91 & 6.87 & 7.76 & 8.6 \\
\hline
\end{tabular}
\end{table}

As Table 1 shows, the value (at grant) of the carried interest for a typical private equity fund, assumed to have a volatility of 20 percent and a term for each investment of between four and seven years, ranges from about 6 percent to about 8.5 percent of the capital managed by the fund.

That range can be translated from a percentage of investment capital into dollars by multiplying it by the amount of capital

\begin{thebibliography}{9}
\bibitem{129} Id.
\bibitem{131} See, e.g., CHRIS, supra note 111, at 140.
\bibitem{132} Thomas Brennan has developed calculators that replicate many of the tables in this Article. Those calculators can be used to estimate the revenue consequences of reforming the tax treatment of private equity under a wider range of assumptions than those used in the text. See Thomas J. Brennan, \textit{Java Calculator of Carried Interest and Taxes}, http://tbrenn.net/civ (last visited Sept. 27, 2008).\end{thebibliography}
invested in private equity funds. There is substantial volatility in the amount of capital private equity funds raise each year. Private equity funds raised more than $200 billion in 2000, 2006, and 2007, but less than that in all other years.\textsuperscript{133} Thus, an estimate of $200 billion invested each year is well above historical averages, but below the current rate of investment.\textsuperscript{134} Thus, using the $200 billion figure, the aggregate value of carried interests granted each year is between $12 and $17 billion.\textsuperscript{135}

The next step is to estimate the tax revenue from private equity under different possible tax treatments. I consider three alternative tax treatments:\textsuperscript{136}

1) The current tax treatment: the carry is treated as long-term capital gain by the general partner and an offset to long-term capital gain by the limited partners at realization.

2) Character change only: the carry is treated as ordinary income by the general partner and an offset to ordinary income by the limited partners at realization.\textsuperscript{137}

3) Character and timing change: the carry is treated as ordinary income by the general partner and an offset to ordinary income by the limited partners at grant. Subsequent changes in value are taxed as long-term capital gain by the general partner.

\textsuperscript{133} See Carried Interest, Part I, supra note 4 (statement of Peter R. Orszag, Director, Congressional Budget Office).

\textsuperscript{134} Some commentators have criticized my estimates for using too low of a figure for future capital investments in private equity funds. See, e.g., posting of Victor Fleischer to Conglomerate, http://www.theconglomerate.org/2007/08/index.html (Aug. 20, 2007). It is easy to adjust any of my estimates for a different amount of capital simply by multiplying my estimate for the revenue effect as a percentage of invested capital by an estimate of invested capital. Alternatively, any of my estimates for the dollar amount of increased revenue can be multiplied by the ratio of any estimate for annual investments to $200 billion—the figure I use for my estimates.

\textsuperscript{135} In addition, if the total amount of capital invested in private equity is as much as $1 trillion, see Carried Interest, Part I, supra note 4 (statement of Peter R. Orszag, Director, Congressional Budget Office), then the aggregate value of all carried interests (measured as of the grant date) is between $60 and $85 billion.

\textsuperscript{136} For a discussion of these alternatives, see id.

\textsuperscript{137} H.R. 2834, introduced by Rep. Levin and others, would tax carried interests in this manner. H.R. 2834, 110th Cong. (1st Sess. 2007).
For each of the three possible tax treatments for the carried interest, I calculate the present value of the tax paid by the general partner at the grant date. Under current law, the general partner’s carry is taxed upon realization as long-term capital gain. Thus, the general partner will pay the federal government 15 percent of the realized value of its carry when it receives payment. That is equivalent to the general partner paying tax upfront at 15 percent on the present value of its carry, and exempting the general partner from taxation on any gain or loss until the investment is liquidated. Thus, the present value of the tax paid by the general partner is 15 percent of the present value of its carried interest.

I apply that same logic to the possibility of taxing the carry as ordinary income upon realization. Using the current top ordinary income tax rate of 35 percent, the present value of the general partner’s tax is 35 percent of the present value of the carried interest. Thus, the tax cost of the carry to the general partner, and the additional tax revenue collected by the government, is two and one-third times as large as the amount collected under current law.

The third possibility—both character and timing changes—is subject to two interpretations. First, it can be thought of as taxing the carry at ordinary income tax rates when received and treating any subsequent gain or loss as long-term capital gain or loss. Alternatively, it can be thought of as paying the general partner in cash and having the general partner purchase a 20 percent profit interest in the partnership. In either event, the general partner will include the value of the carry in income immediately and pay tax at the 35 percent rate. The general partner will then have a basis in the carry equal to the amount taken into income. Upon realization, the general partner will take the value of the carry into income and offset that value with basis. These amounts are taxed at the 15 percent long-term capital gain rate. The present value of the former is 15 percent of the value of the carry; the present value of the latter is that value at vesting discounted, at the risk-free

138. See supra notes 55-58 and accompanying text.
140. See supra notes 55-56 and accompanying text.
interest rate, to the grant date. The results are presented in the following table:

Table 2A
Present Value of Tax Collections from General Partner
Under Alternative Tax Regimes for Carried Interests
(as a percentage of invested capital)

<table>
<thead>
<tr>
<th>Term (years)</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Treatment</td>
<td>0.89</td>
<td>1.03</td>
<td>1.16</td>
<td>1.29</td>
</tr>
<tr>
<td>Character Change Only</td>
<td>2.07</td>
<td>2.4</td>
<td>2.72</td>
<td>3.01</td>
</tr>
<tr>
<td>Character and Timing Change</td>
<td>2.23</td>
<td>2.63</td>
<td>3.01</td>
<td>3.38</td>
</tr>
</tbody>
</table>

Table 2A gives the present value of tax collections from the general partner as a function of total capital invested under different assumptions. Accordingly, the tax consequences to the general partner of reforming the tax treatment of carried interests are given by the differences between rows. Thus, the additional tax revenue that the government would collect from fund managers if the carry were taxed as ordinary income upon grant is simply the difference between the last row (character and timing change) and the second row (current treatment). The additional tax that would be collected if the carry were taxed as ordinary income when paid is the difference between the third row (character change only) and the second row (current treatment). These differences are presented in the following table:

141. This calculation relies on the Domar-Musgrave result. See supra note 71.
142. All tax revenue calculations in this Part are shown as the present value of tax collections as of the date of grant.
143. Because the capital invested by the general partner is often a small portion of the capital invested by the limited partners, see supra note 38 and accompanying text, I have ignored it in making my calculations. Instead, I assume that 100 percent of the capital comes from limited partners.
Table 2B
Present Value of Additional Tax Collections from
General Partner
Under Alternative Tax Regimes for Carried Interests
(as a percentage of invested capital)

<table>
<thead>
<tr>
<th>Term (years)</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character Change</td>
<td>1.18</td>
<td>1.37</td>
<td>1.55</td>
<td>1.72</td>
</tr>
<tr>
<td>Only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character and Tim-</td>
<td>1.34</td>
<td>1.6</td>
<td>1.85</td>
<td>2.09</td>
</tr>
<tr>
<td>ing Change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If both the character and timing were changed, the additional tax collected from the general partner would be about 1.3 percent of invested capital for a four-year holding period and about 2.1 percent for a seven-year holding period. Assuming $200 billion is invested each year in private equity funds, the additional tax collected would amount to between $2.7 billion and $4.2 billion per year. If, however, only the character were changed, the present value of the additional tax collected would be about 1.2 percent for a four-year holding period and about 1.7 percent for a seven-year holding period. Thus, the present value of additional tax collections would be between $2.4 billion and $3.4 billion annually.

Table 2B also suggests that, for the general partner, the larger item is whether the carry is taxed as ordinary income or capital gain. According to Table 2B, the character change accounts for about 80 to 90 percent of additional tax revenue, whereas the timing change accounts for only about 10 to 20 percent. As a percentage of capital invested in private equity funds, accelerating taxation increases tax collections between 0.16 and 0.37 percent. That translates into $320 million to $740 million a year.

The calculations in Tables 2A and 2B look only at the cost to the general partner of reforming the tax law. Specifically, these tables do not take into account the tax consequences to the limited partners. If the carry were treated as ordinary income by the general partner, it would likely generate an ordinary deduction for the limited partners. Unless that deduction were deferred, the
limited partners would take that deduction when the general partner includes the carry in income.\footnote{144}

Consider first a change in tax character only. The only limited partners whose taxes would be affected are wealthy individuals subject to the U.S. federal income tax—i.e., U.S. citizens and residents. Assuming such investors currently account for 20 percent of the capital in private equity funds,\footnote{145} the value of their deductions would be 20 percent of the value of the tax collected from the general partner. It thus follows that the additional tax collections provided by changing the character of carried interests from capital gain to ordinary income would fall from 1.18 percent of invested capital to 0.95 percent with a four-year holding period, and from 1.72 percent to 1.38 percent with a seven-year holding period. Expressed in terms of dollars, the additional revenue would fall from $2.4 billion to $1.9 billion for a four-year holding period and from $3.4 billion to $2.8 billion for a seven-year holding period.\footnote{146}

If both the character and timing were changed, then corporate limited partners would also be affected. Assuming that taxpaying corporations account for another 20 percent of capital,\footnote{147} then the value of their increased deductions from accelerating the taxation of carried interests would be 20 percent of the value of the additional taxes collected from the general partner if both character and timing were changed instead of just a change in timing. Accordingly, the present value of the additional tax revenue from changing both

\begin{footnotes}
\item[144] For a discussion of some of the ways in which the limited partners’ deductions might get suspended, see Sanchirico, supra note 10, at 32-35.
\item[145] See supra note 99 and accompanying text.
\item[146] These values are calculated as follows: for a four-year holding period, the present value of the tax collected from the general partner is 0.89 percent of capital under the current treatment and would be 2.07 percent if carried interests were taxed as ordinary income. See supra tbl.2A, at 138. That difference amounts to 1.18 percent of invested capital. See supra tbl.2B, at 139. Assuming 20 percent of limited partners are taxpaying individuals, the more valuable deductions will save them 20 percent of that difference in taxes, or 0.24 percent of invested capital. Thus, the incremental tax revenue would be 0.94 percent of invested capital. Assuming that $200 billion is invested yearly, the additional tax revenue would be $1.9 billion. Similarly, for the seven-year holding period, the tax currently collected is 1.29 percent, and it would rise to 3.01 percent if carried interests were taxed as ordinary income. The difference would be 1.72 percent, and 20 percent of that difference is 0.34 percent. Thus, the additional tax collected would be 1.38 percent of invested capital. That implies an annual increase in taxes of $2.8 billion.
\item[147] See supra note 103 and accompanying text.
\end{footnotes}
the character and timing of carried interests would fall to 1 percent of invested capital with a four-year horizon and to 1.5 percent with a seven-year horizon. Expressed in dollars, the present value of the additional revenue would be $2 billion with a four-year investment horizon and $3 billion with a seven-year horizon. The present value of these additional tax collections as a percentage of invested capital are given in the following table:

Table 3
Present Value of Additional Tax Collections
Under Alternative Tax Regimes for Carried Interests
(as a percentage of invested capital)

<table>
<thead>
<tr>
<th>Term (years)</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Only</td>
<td>0.95</td>
<td>1.1</td>
<td>1.24</td>
<td>1.38</td>
</tr>
<tr>
<td>Character</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Timing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td>1</td>
<td>1.17</td>
<td>1.34</td>
<td>1.5</td>
</tr>
</tbody>
</table>

The above analysis and the figures in Table 3 assume no change in structure and no change in the composition of the limited partners. The possibility of such changes, discussed in Parts V and VI, would likely reduce collections below these amounts.

IV. CONVERTING THE ESTIMATES FROM PRESENT VALUES INTO DOLLARS

In Part III, I estimated the additional tax revenue from taxing carried interests at ordinary income tax rates. The calculations in that Part gave the present value of the additional tax collected as of the date that the interest is granted. In other words, the calculations reduced a stream of future tax receipts to their present value as of the grant date. Such a method provides a single statistic that summarizes the value of additional taxes collected at different times. That statistic also represents the real economic burden of the tax. In addition, that method avoids the necessity of speculating what future returns on investments in private equity will be.
There are, however, circumstances in which one might want to estimate the amount of tax that will be collected in dollars, not just as the expected present value of future tax collections. The most obvious reason for wanting a dollar estimate is that the federal government operates under budget rules that are largely based on total tax and spending over a period of years and not present values as of a given date. Accordingly, this Part addresses how to estimate the tax revenue in dollars, not the present value of that revenue, that the Treasury can expect to collect by taxing carried interests as ordinary income.

The estimates in this Part are made separately for a change in character only and for a change in both character and timing. In contrast with earlier Parts, where the analysis of joint character and timing changes was more complicated than the analysis of character changes only, here the situation is reversed. It turns out that the additional tax revenue that would be collected if carried interests were taxed at grant at ordinary income tax rates is independent of the realized return on private equity investments. Accordingly, I discuss a joint change in character and timing before turning my attention to a character change only.

A. The Additional Tax Revenue from Changing Both the Character and Timing of Taxation

If carried interests were taxed at ordinary income tax rates when granted, then grants made before the reform took effect would be taxed differently than those made after it became effective. In this section, I look at the additional tax revenue from carried interest tax reform assuming that all investments in private equity were made under the new tax rules. That is to say, I look at the additional tax revenue in a representative year assuming that the grant was treated as ordinary income when it was received and as ordinary expense when it was paid, with an accompanying adjustment to basis. In this case, and assuming that the level of investment remains constant over time, each year the general partner’s

Ordinary income at grant would equal its recovery of basis that same year upon sale. In such a steady state, the tax revenue consequences to the general partner of reforming the tax treatment of carried interests would be simply the general partner’s loss of the capital gain preference on the grant it received. Assuming the reform also gave limited partners an equivalent ordinary deduction, their ordinary deductions at grant would replace equal amounts of offset to long-term capital gain at sale. Accordingly, the general partner’s tax savings would equal the excess value of their ordinary deductions from the grant over an equivalent offset to long-term capital gain. Among the limited partners, the reform would not directly affect untaxed limited partners—foreigners and nonprofits. Similarly, corporate taxpayers would be unaffected because they are taxed at the same rate on ordinary income and long-term capital gain. Only wealthy taxpaying individuals would be affected, and they would benefit to the same extent that the general partner was hurt on the portion of the carried interest that they pay. Thus, the additional tax generated would be the capital gain preference on that portion of the carried interest that was granted to the general partner from limited partners, other than taxpaying individuals.

Expressed differently, the additional tax collected each year would be a function of the capital gain preference, the percentage of funds coming from taxpaying individuals, and the value of the carry at the time of grant. Specifically, the additional tax collected would be independent of the realized rate of return on private equity investments. The additional revenue can, thus, be easily calculated. The capital gain preference is 20 percent, taxpaying individuals account for 20 percent of private equity capital, and the value of the carry comes from Table 1 above. Under these assumptions, the
additional tax that would be collected is calculated in the following table:

<table>
<thead>
<tr>
<th>Term (years)</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character and Timing Change</td>
<td>1.18</td>
<td>1.37</td>
<td>1.55</td>
<td>1.72</td>
</tr>
</tbody>
</table>

According to Table 4, the steady-state additional tax collections from taxing carried interests as ordinary income at grant, and thereafter as capital investments, range from 1.18 percent of invested capital with a four-year investment horizon to 1.72 percent of invested capital with a seven year horizon. Accordingly, assuming annual capital contributions of $200 billion per year, the additional tax revenue collected would be $2.4 billion for investments with a four-year term and $3.4 billion for investments with a seven-year term.\(^{152}\)

**B. The Additional Tax Revenue from Changing Only the Character of Taxation**

Consider now the more likely reform of changing only the character of carried interests, not also the time at which such interests are taxed. In this case, there would be no offsetting inclusion (and deduction) at grant, with a corresponding basis adjustment at sale. Instead, the realized value of the carried interest would be taxed as ordinary income when paid. As a result, the actual tax collections would be a function of realized values. Accordingly, the major obstacle to coming up with a number for how much additional tax revenue the government will collect if Congress

\(^{152}\) These numbers are less than the numbers in Table 2B, the present value of the additional tax collected from both character and timing changes. That is because accelerating tax payments does not increase aggregate tax collections, although it does increase the present value of such collections. These numbers are identical to the numbers in Table 2B for the present value of the character change only. That is because the value of the carry at grant is equal to the present value of the expected payment on the carry upon sale.
were to tax carried interests at ordinary rates upon realization is that no one knows today what will be the future returns (average or aggregate) on investments in private equity. The actual realized return over the life of the investments made today will depend upon various factors, including how well private equity managers do in choosing investments, how effective they are in managing those investments, and what happens to the economy over the next few years. Even if we put aside claims that private equity will outperform the broader market, no one knows how broad market indexes will perform over the next several years. Yet, it is this performance that will determine the tax revenue actually collected. The possibility that private equity will do differently than broad market averages makes any predictions even more difficult.\footnote{The analysis below is for the average rate of return for private equity funds assuming that no funds have net losses. The calculations would be more complicated if some funds produced losses.}

Economists and investment professionals commonly speak in terms of annualized rates of return. Obviously, the total tax that would be collected from taxing private equity as ordinary income will depend on the annualized rate of return earned on those investments. The following table gives the future value of $1 invested for a given number of years for different annualized rates of return. The term of investment is given along the top row and the annualized rate of return is given along the first column. For example, if $1 were invested for five years at 10 percent it would grow to $1.61.
The dollar values increase with the horizon for two reasons: returns are compounded over a longer period of time and more funds are invested in private equity at any given time.

Table 5
Future Value of $1 as a Function of Interest Rate and Term of Investment

<table>
<thead>
<tr>
<th>Annualized Return (percent)</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>1.216</td>
<td>1.276</td>
<td>1.340</td>
<td>1.407</td>
</tr>
<tr>
<td>10%</td>
<td>1.464</td>
<td>1.611</td>
<td>1.772</td>
<td>1.949</td>
</tr>
<tr>
<td>15%</td>
<td>1.749</td>
<td>2.011</td>
<td>2.313</td>
<td>2.660</td>
</tr>
<tr>
<td>20%</td>
<td>2.074</td>
<td>2.488</td>
<td>2.986</td>
<td>3.583</td>
</tr>
<tr>
<td>25%</td>
<td>2.441</td>
<td>3.052</td>
<td>3.815</td>
<td>4.768</td>
</tr>
</tbody>
</table>

As shown in Table 5, if private equity funds were to earn 10 percent per year, then the multiplier would be 1.464 for a four-year horizon and 1.949 for a seven-year horizon. The payment to the holder of the carried interest is 20 percent of the excess of the multiplier over one. Accordingly, the realized value of carried interests in private equity funds capitalized four years earlier would be 9.3 percent of invested capital, and that of funds capitalized seven years earlier would be 18.9 percent of invested capital. Thus, assuming annual investments in private equity of $200 billion, the realized value of carried interests would be $18.6 billion for a four-year horizon and $37.8 billion for a seven-year horizon. If the annualized rate of return were higher, say 20 percent, then the multiplier would be 2.364 for a four-year horizon and 3.583 for a seven-year horizon. Accordingly, the holders of carried interests would receive more than they did with a 10 percent return. With a four-year horizon, they would receive 27.3 percent of invested capital, or $54.6 billion, and with a seven-year horizon they would receive 51.7 percent of capital, or $103.4 billion.

The additional tax paid by the general partner would be the capital gain preference on the payment the general partner

---

154. The dollar values increase with the horizon for two reasons: returns are compounded over a longer period of time and more funds are invested in private equity at any given time.
received. Because the only limited partners directly affected would be wealthy individuals, their benefit would exactly offset the detriment to the general partner on that portion of the carry paid by such limited partners. Thus, the net increase in tax collections would be the additional tax paid by the general partner on that portion of the carried interest that is not paid by taxpaying individual limited partners. Accordingly, in the following table I calculate as a percentage of invested capital the average yearly additional tax collections from taxing carried interests as ordinary income instead of long-term capital gain when paid. Table 6 calculates the additional tax as a function of different annualized rates of return and different holding periods for investments in private equity.

155. This can be expressed mathematically. Start with the general partner. Denote the aggregate increase in the value of the contributed capital (i.e., the equity value of the firm assuming that debt is not paid down) by \( m \). Denote the general partner’s carry percentage by \( p \). The general partner is paid \( pk(m - 1) \) on the capital invested \( k \). Because that amount is taxed as ordinary income \( (t) \) instead of long-term capital gain \( (t_{cg}) \), the additional tax collected from general partners would be \( pk(m - 1)(t - t_{cg}) \). Because the only limited partners affected by the change are wealthy taxpaying individuals, their tax savings would be \( apk(m - 1)(t - t_{cg}) \). Accordingly, the additional net tax collections from taxing carried interests as ordinary income can be written as \( (1 - a)pk(m - 1)(t - t_{cg}) \).
Table 6
Additional Tax Collections
Character Change Only
(as a percentage of invested capital)

<table>
<thead>
<tr>
<th>Term (years)</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annualized Return (percent)</td>
<td>5%</td>
<td>0.69</td>
<td>0.88</td>
<td>1.09</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>1.49</td>
<td>1.95</td>
<td>2.47</td>
</tr>
<tr>
<td></td>
<td>15%</td>
<td>2.4</td>
<td>3.24</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td>3.44</td>
<td>4.77</td>
<td>6.36</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td>5.94</td>
<td>6.57</td>
<td>9.01</td>
</tr>
</tbody>
</table>

Thus, for an annual rate of return of 10 percent, the additional tax revenue would be 1.49 percent of invested capital or $3 billion with a four-year horizon and 3.04 percent of invested capital or $6.1 billion with a seven-year horizon. The additional tax return would increase if the annualized rate of return were higher. If the annual return were 20 percent, then the increased revenue would be 3.44 percent of invested capital or $6.9 billion with a four-year horizon and 8.27 percent of invested capital or $16.5 billion with a seven-year horizon.

As is shown in Table 6, the actual tax collections are highly sensitive to realized rates of return. This raises an obvious question: What number should we use for the future annualized rate of return? I do not know, nor does anyone else. Any given rate of return is pure speculation. Private equity firms are close-lipped about their realized returns, and good statistics do not appear to be available. In addition, any such statistics are for past performance, and past performance is not a good predictor of future performance in financial markets. In addition, the presence of excess returns tends to attract imitators, and their competition drives down future returns. Moreover, existing evidence suggests that investors in private equity already earn a competitive return, on average, and no
more; that is to say, adjusted for risk, they earn the same return, on average, as is available from investing in other assets.\textsuperscript{156} Expressed somewhat differently, the government's tax claim on the profits of private equity fund managers is a highly-leveraged, and hence very risky, asset. If it has the potential (and expectation) of a higher average return, it is because it involves so much risk. Presumably, the federal government could achieve the same risk and return profile by investing some of its tax revenue directly in similarly highly-leveraged investments.

V. CHANGING THE STRUCTURE OF PRIVATE EQUITY FUNDS

The discussion above assumes that after any reform, investors will continue to make the same investments in private equity in the same manner as they have in the past. In reality, however, it is likely that investors in and managers of private equity funds will respond in one or both of the following ways in an attempt to blunt the impact of any tax increase. First, they may change the structure of private equity funds. Second, they may change the composition of the partnerships. This part considers the first response; the next part considers the second response.

A. Loans from Limited Partners to the General Partner

Howard Abrams has argued that the current tax treatment of private equity transactions could still be achieved, even if the carry were taxed as ordinary income to the general partner, through a simple change in the structure of private equity funds with no change in the underlying economics.\textsuperscript{157} Instead of paying a carry, Abrams suggests that limited partners pay 80 percent of the acquisition cost for an 80 percent share of capital and profits and lend the general partner 20 percent of the acquisition cost, which the general partner would then contribute to the partnership in exchange for its 20 percent interest.\textsuperscript{158} The limited partners' loan to

\textsuperscript{157} Abrams, \textit{supra} note 10, at 186.
\textsuperscript{158} \textit{Id.}
the general partner would be nonrecourse and secured by the general partner’s partnership interest. In order to be respected, the loan must pay interest. Abrams hypothesizes an interest rate of 6 percent. In order to match the current transactional structure, the partnership would pay the general partner a fee equal to its interest payment to the limited partners. The expense for that fee would be allocated to the limited partners, and so would offset their interest income from the loan. The result is the economic equivalent of the current arrangement, and the tax consequences, if respected, would match the current tax treatment. Thus, if courts respected Abrams’s proposed loan transaction, there would be no tax consequences from a change in the law. The only effect would be that the lawyers would draft private equity fund agreements differently to support a different legal form for the same economic deal.

Abrams’s proposal is intriguing, but the transaction he describes is problematic. The reason that the transaction is problematic is that the loan is not at a market interest rate. In fact, it is not possible for the limited partners simultaneously to provide the general partner with an upside profit potential, no obligation to share in the losses, and to loan the general partner the money to make that investment on market terms.

With Abrams’s proposed structure, the general partner would be investing in the partnership on the same terms as the limited partners. The general partner would contribute 20 percent of the capital and receive 20 percent of the sale proceeds. Similarly, the limited partners’ contributions and interests are proportionate. They would contribute 80 percent of the capital and receive 80 percent of the sale proceeds. For the 20 percent of the capital that the limited partners lend (on a nonrecourse basis) to the general

159. Id.
160. Id.
161. Id.
162. Id.
163. Id.
164. Id.
165. Id.
166. Id.
partner, however, the limited partners bear all of the risk of loss.\textsuperscript{167} Their gain, however, would be capped—in Abrams’s example—at 6 percent per year.\textsuperscript{168} Thus, the loan to the general partner is a less attractive investment than a direct investment in the partnership. Accordingly, each limited partner would rather the other limited partners made the loan and that it did not. Thus, the loan to the general partner cannot be said to bear a market interest rate.

Moreover, this problem cannot be cured by raising the interest rate on the loan to 8 or 10 or even 20 percent. In order to provide the limited partners with a market return on the loan—the same return that they earn on their capital contributions (because the downside exposure is the same)—the general partner/borrower must pay any and all profits on its 20 percent interest to the limited partners/lenders.\textsuperscript{169} That would leave the general partner without any interest in the profits of the partnership. Presumably, such a profit interest would have to be provided directly, in which case it would be taxed at ordinary income tax rates.\textsuperscript{170}

In responding to the argument above, David Weisbach argues\textsuperscript{171} that if the government were to challenge such a loan transaction, it would have to resort to Section 482, which deals with non-arm's length transfer prices.\textsuperscript{172} That is because the provisions that deal most directly with low interest rate loans require only that a party pay at least the government interest rate.\textsuperscript{173} They do not specifically require a higher interest rate just because an arm’s length lender

\begin{itemize}
\item \textsuperscript{167} Id.
\item \textsuperscript{168} Id.
\item \textsuperscript{169} In other words, what makes Abrams’s proposed transaction appear to work is an artificially low interest payment that disguises the fee paid to the general partner as the purchase of a capital share.
\item \textsuperscript{170} The analysis in the text suggests that the proposals of Leo Schmolka and Victor Fleischer to treat a carried interest as an interest-free loan from the limited partners that the general partner invests in the partnership (what Fleischer calls the cost-of-capital approach) should produce ordinary income only, not a mix of ordinary income and long-term capital gain, as its proponents suggest. See Fleischer, supra note 6, at 38-43; Schmolka, supra note 6, at 302-08. This is because the market interest rate for such a loan (which is the ordinary income component) would be the general partner/borrower’s entire return from the investment.
\item \textsuperscript{171} See David A. Weisbach, \textit{The Taxation of Carried Interests in Private Equity}, 94 VA. L. REV. 715, 762 n.97 (2008).
\item \textsuperscript{172} I.R.C. § 482 (2000).
\item \textsuperscript{173} Treas. Reg. § 1.482-2 (2007).
\end{itemize}
would require one. Section 482 is very broad, and although the government invokes it in many disputes, the government is rarely successful in those challenges. Thus, Weisbach argues, Abrams’s proposed loan transaction might be able to withstand a court challenge. Nevertheless, I believe it fair to say that there would be substantial uncertainty surrounding the viability of such a transaction should it be challenged in court.

B. Converting Limited Partners into Creditors

David Weisbach has made a second proposal; he suggests that limited partners recharacterize their private equity investments. Instead of making capital contributions into limited partnerships, he suggests that private equity investors make loans to the general partner or to single member partnerships where the general partner is the only partner. These loans would be on the same economic terms as current limited partnership interests.

Thus, for a typical private equity fund with a 20 percent carry, the loan would provide for return of capital plus interest equal to 80 percent of the increase in value. Assuming that such a characterization of the transaction were respected, there would be no carried interest payment to tax as ordinary income. Instead, the general partner’s interest would resemble the “sweat equity” of an entrepreneur. All of the gain from the sale of a portfolio company would generate long-term capital gain. Moreover, the general partner’s payments to the creditors out of profits would be taxed as interest payments. To the extent that the general partner had ordinary investment income, it could use those ordinary deductions to offset that income, which would otherwise be taxed at a 35 percent tax rate. Past that point, it could use its deductions to offset capital gains. Thus, at the very least, the interest deduction would offset the profits paid to the outside investors as interest, leaving only the

174. *Id.* If those provisions control, then Abrams's transaction would be respected. It would be respected, however, only because the law does not require a market interest rate.
175. See, e.g., W. Braun Co. v. Comm'r, 396 F.2d 264 (2d Cir. 1968); Advance Mach. Exch. v. Comm'r, 196 F.2d 1006 (2d Cir. 1952).
177. *Id.*
178. *Id.*
profit retained by the general partner, which would be long-term capital gain.

As for the limited partners, most would be unaffected by the recharacterization of their profit shares as loans. Untaxed investors—mainly nonprofits and foreigners—would be unaffected.\textsuperscript{179} Similarly, corporations, because they have the same tax rate for both ordinary income and capital gains, would also be unaffected.\textsuperscript{180} Wealthy taxpaying individuals, however, would be worse off because they would have ordinary interest income instead of long-term capital gains. Fund investors might replace such investors, which account for about 20 percent of capital,\textsuperscript{181} with investors who are indifferent between receiving interest and long-term capital gain.

The potential problems with this transaction are twofold. First, will the transaction be respected? In the corporate context, there is a long, confused, and, at times, contentious history of attempting to separate debt from equity. If that jurisprudence is incorporated into the partnership context, the transaction might not be effective. Second, even if the transaction would work under current law, any legislation that taxed carried interests as ordinary income might also tax, or at least attempt to tax, such a work-around.

\textit{C. Transferring Deductions to Portfolio Firms}

In this section, I offer a third possible transactional response. That response is to transfer the deductions from paying the carry from limited partners to portfolio companies by having portfolio companies pay the carry. Thus, instead of the limited partners paying the general partner a 20 percent carried interest, the general partner would enter into an agreement with the portfolio companies (with the consent of the limited partners) whereby the general partner would provide services to the portfolio companies in exchange for a payment that would replicate the payment on a 20 percent carried interest.

If the taxation of carried interests is reformed, most limited partners would get no benefit from deducting the carry against their

\textsuperscript{179} See supra note 101 and accompanying text.
\textsuperscript{180} See supra note 92 and accompanying text.
\textsuperscript{181} See supra note 99 and accompanying text.
ordinary income instead of as an offset to long term capital gain.\textsuperscript{182} That deduction, however, can have value to the portfolio companies in which private equity funds invest. For such companies, the payment of a contingent fee to a private equity firm in exchange for its assistance in selecting the directors, hiring the managers, and helping to restructure and operate the business would likely qualify as an ordinary and necessary business expense. That expense might be immediately deductible, or at least deductible when paid, as are salaries and other forms of compensation.\textsuperscript{183} Alternatively, the company might have to capitalize that expense and amortize it over time.\textsuperscript{184} If such expenses were capitalized, they would most likely be recovered using straight-line amortization over a fifteen-year period.\textsuperscript{185} Using a 5 percent discount rate, the present value of the tax savings with such an amortization schedule would be 77 percent of face value. For a corporation that is otherwise taxable at a 35 percent tax rate, the value of that expenditure would be the same as an immediate deduction at a 27 percent tax rate.

The key question raised by the structure described above is what value, if any, would the deduction from paying the carry—whether taken immediately or allowed over time—have to the portfolio company? That depends upon various features of the portfolio company, including its capital structure, its future performance, and its available sources of tax shelter. If the managers of private equity funds were confident that their successful portfolio companies would owe little or no corporate income tax, then the deduction would have little or no value.\textsuperscript{186} In such circumstances, the structure would not be utilized because it would not create any value for the parties.

\textsuperscript{182} Tax-exempt and foreign limited partners are indifferent to taxes, and domestic corporations are indifferent between an offset to capital gain, as under current law, or a deduction, under various proposals. See supra notes 92, 101, 103 and accompanying text.

\textsuperscript{183} Such an expense would then be allowable as a deduction under Section 162. I.R.C. § 162 (LexisNexis 2008).

\textsuperscript{184} I.R.C. § 197 (2000).

\textsuperscript{185} Id.

\textsuperscript{186} For example, if off-the-shelf tax shelters were readily available, the portfolio companies would be effectively untaxed, and the deductions would have no value. Similarly, if the capital structure and operations of such firms were such that they would not have taxable income for many years, even if they were successful, the deductions would have little value. Alternatively, if a successful company would generate large amounts of taxable income while it paid down its debt, the structure would shelter that income, and the deductions would be very valuable.
Alternatively, if successful portfolio companies were likely to pay the corporate income tax at full marginal rates (35 percent), then the benefit from such a structure could be substantial. Not only would the deduction for the payment of the carry be utilized, but because it would be utilized by a portfolio company, as opposed to a limited partner, the recapture of that deduction would be deferred indefinitely. That is because free-standing Subchapter C corporations are rarely sold in taxable asset deals—the only circumstance in which corporate level tax is paid by the acquired corporation. The only additional tax paid upon realization that is a result of the company deducting the cost of the carry would be the additional tax paid by the partners when the fund sells the portfolio company on the increased value of the corporation (because it has more cash). I estimate the present value of that tax would be about 5 percent of the carry. It thus follows that the present value of the tax saving for a portfolio corporation that pays the carry and is taxed at 35 percent would be 30 percent of that carry.

If instead of being deducted immediately the carry were capitalized and amortized over time, then the value of the tax saving to the portfolio corporation would be 77 percent of the tax paid by the general partner or 27 percent of the carry. The present value of the additional tax paid by the partners directly would then be 4 percent and so the tax saving would be 23 percent of the carry. Whether payment of the carry was deducted immediately or capitalized and amortized over time, the potential tax savings from shifting the deduction from paying the carry from the limited partners to the

189. This estimate is calculated as follows. The general partner receives 20 percent of the profits and the remaining 80 percent is split according to the capital contribution. Thus, wealthy individual limited partners would receive 16 percent of the profits as do corporations. The 20 percent share received by the general partner would be taxed at 35 percent and so contributes 7 percent to the tax rate. The 16 percent share received by wealthy individuals would be taxed at 15 percent and so contributes 2.4 percent. And the 16 percent share received by corporations would be taxed at 35 percent and so contributes 5.6 percent. Adding up all of the pieces gives a combined tax rate of 15 percent. That 15 percent tax rate is not applied to the deduction, but only to the after-tax savings from the deduction. Thus, because the deduction generates a tax saving at 35 percent, the additional tax is 35 percent of 15 percent, or about 5 percent.
190. The calculations in this paragraph assume that carried interests would be treated as ordinary income when received and as ordinary expense when paid.
portfolio companies would exceed the incremental tax collected from the general partner on its carried interest—20 percent of the carry. That difference would also provide some leeway for portfolio companies that cannot use all of their allowable deductions. Of course, the actual value generated by such a structure depends upon the value to portfolio companies of the deduction from paying carried interests.

D. Summary

In this Part, I have described three possible structural responses that private equity firms might consider if carried interests were to be taxed as ordinary income. If the first transaction—loans from the limited partners to the general partner—works and were adopted, then private equity tax reform would raise no revenue. The form of the contract would simply change—without affecting the economic deal—and the Treasury would obtain no additional revenue. If the second transaction—raising capital from the limited partners in the form of debt rather than equity—works and were adopted, then much of the revenue impact of the change would be eliminated. And, if the 20 percent of private equity capital that comes from wealthy taxpaying individuals were replaced by capital from other sources, then there would be no revenue effect. The first two transactions, however, are legally problematic or at least uncertain. If investors and fund managers, however, can get confident that either transaction will be respected, then private equity tax reform would likely raise very little, if any, tax revenue.

The third transaction—transferring the deductions from paying the carry from limited partners to portfolio companies, by having the portfolio companies pay the carry to the general partner—also has potential. That structure, however, will create value for the parties only if the portfolio companies have the capacity to make use of the additional deductions.

191. The additional tax paid by the general partner would be a multiple of the capital gains preference (20 percent); the additional tax saving would be a multiple of the corporate tax rate (35 percent). In effect, limited partners still get an offset to long-term capital gain because payment of the carry by portfolio companies reduces their gain.

192. This empirical question deserves attention.
VI. CHANGING THE COMPOSITION OF PRIVATE EQUITY PARTNERSHIPS

If the above structural responses are ineffective, private equity fund managers and investors might still be able to blunt the impact of private equity tax reform by changing the composition of their partnerships. In this Part, I consider the possibility of such a response.

Under current law, the holder of a limited partnership interest in a private equity fund holds a capital asset. The gain from selling that asset is long-term capital gain and the payment of the carried interest to the general partner offsets long-term capital gain. Thus, from the perspective of the limited partner, the partnership interest is taxed in the same manner as any equity-type investment. Accordingly, limited partnership interests do not have a specific tax clientele, which is consistent with them being held by investors with a range of tax profiles. That, however, will change if carried interests are taxed as ordinary income to the general partner and generate an ordinary deduction for the limited partner.

After such a reform, private equity limited partnership interests would be tax-advantaged assets. Each limited partner would have long-term capital gain on its share of the gain before payment of the carry and would receive an ordinary deduction for its share of the carry. To an untaxed investor or to a corporate investor, a deduction against ordinary income would be no more valuable than an offset to long-term capital gain. Such a deduction, however, would be more valuable to a taxpayer with a capital gain preference. For wealthy taxpaying individuals, the ordinary deduction generates a tax

193. If the reform were to maintain the current tax treatment of limited partners, so that for them the payment of the carry remained an offset against long-term capital gain, then limited partnership interests would continue to be taxed like other equity investments. In that case, there would be no specific tax clientele for private equity limited partnership interests and no tax benefit from replacing other limited partner investors with wealthy taxpaying individuals. Hence, in such circumstances, the legal incidence of the reform would fall solely on the general partner with no offsetting benefits to any limited partners. Under those circumstances, the tax consequences of reform would likely be borne by the industry because they could not be avoided by changing the composition of the partnerships.

194. See supra notes 51-57 and accompanying text.

195. See id.
benefit at 35 percent, whereas the capital gain offset generates a benefit at only 15 percent. Thus, wealthy individuals will find private equity limited partnership interests taxed more attractively than other similar investments. That is to say, wealthy individuals would form the tax clientele for private equity limited partnership interests.

As a result, wealthy individuals would presumably be willing to pay more for such tax-advantaged limited partnership interests than they currently pay for such interests without those added tax benefits. Indeed, a wealthy individual who is willing to pay a 20 percent carried interest under current law would presumably be willing to pay a 26.15 percent carried interest to that same fund manager, if payment of the carry were deductible against ordinary income.\textsuperscript{196} Similarly, the general partner is as well off with a 20 percent carried interest under current law as it would be with a 26.15 percent carried interest taxed at ordinary income tax rates.\textsuperscript{197}

Thus, one likely effect of reform is to see wealthy taxpaying individuals contributing more capital and untaxed and corporate investors contributing less capital. Because wealthy taxpaying individuals account for roughly 20 percent of private equity capital currently,\textsuperscript{198} there is substantial room for growth. Thus, if carried interest reform is enacted, I would expect to see private equity firms making a bigger effort to recruit wealthy individual investors. It might be thought that given their low starting point, a large increase is unlikely. Because private equity is still a relatively small share of the investment market, however, individuals could increase

\textsuperscript{196} Under current law, the general partner earns 17 percent, 20 percent x (1 - .15), after taxes. In order to earn the same 17 percent after tax with a 35 percent tax rate, the general partner would have to earn 26.15 percent, or 17.5 percent / (1 - .35), before tax. The adjustment is somewhat more complicated when the timing is also accelerated. In that case, the limited partners would make a cash payment to the general partner at grant equal to the general partner's tax (and the limited partners' tax saving) at the ordinary income tax rate grossed up by one minus that tax rate. There also would be a payment in the opposite direction at realization equal to the general partner's tax saving from basis (and limited partners' tax increase because of the lost offset) at the capital gains tax rate grossed up by that tax rate. See Sanchirico, supra note 10, at 20-21.

\textsuperscript{197} The structure of the transaction or the composition of the limited partnership can be changed going forward, but such changes cannot be made for existing transactions unless the parties to that transaction agree. And there is little reason for the limited partners to agree when the additional tax is imposed on the general partner only.

\textsuperscript{198} See supra note 99 and accompanying text.
their investment in private equity markedly without sharply
drawing down their investments in other areas.

The potential problem I see with a move away from institutional
and corporate investors and towards individual investors has more
to do with agency costs than with raising capital. Private equity
firms often prefer large investors. They keep transaction costs low,
but more importantly large investors restrain agency problems by
monitoring performance.\footnote{See Josh Lerner & Antionette Schoar, The Illiquidity Puzzle: Theory and Evidence from Private Equity, 72 J. Fin. Econ. 3, 4-5 (2004).} Such monitoring is more difficult to
induce with smaller investors because each investor has a stronger
incentive to free ride off the efforts of other investors. And shifting
that responsibility to intermediaries raises its own set of agency
problems.

VII. THE JOINT COMMITTEE’S TAX REVENUE ESTIMATE

In October 2007, the JCT released its estimate of the revenue
consequences of taxing carried interests at ordinary income tax
rates when received.\footnote{J. Comm. on Taxation, Estimated Revenue Effects of the Chairman’s Amendment in the Nature of a Substitute to H.R. 3996 (2007).} That estimate was part of the revenue estimate for a large tax reform bill, H.R. 3996, introduced by
Representative Rangel.\footnote{H.R. 3996, 110th Cong. (1st Sess. 2007).} The carried interest provision in H.R.
3996 was almost identical to that in H.R. 2834, introduced by
Representative Sander Levin (D-MI), which only addressed carried
interests.\footnote{H.R. 2834, 110th Cong. (1st Sess. 2007).} The JCT estimated the revenue effects from such
provisions for ten years from 2008 through 2017.\footnote{The JCT assumed that the law would have taken effect before the beginning of 2008. See J. Comm. on Taxation, supra note 200.} The estimates
in the JCT report are as follows:
204. The JCT makes estimates to the nearest million dollars even if the amounts are large and the precision surrounding those estimates is poor.

205. All of the numbers I give in this Article assume that there is no restructuring or change in the composition of the partners. I discuss qualitatively, not quantitatively, the impact of restructuring and changing the composition of the partners.

206. See Donmoyer, supra note 20.

Table 7
JCT Estimated Revenue Effects of Taxing Carried Interests as Ordinary Income
(millions of dollars)

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<tr>
<td></td>
<td>2,661</td>
<td>3,232</td>
<td>3,159</td>
<td>2,951</td>
<td>2,687</td>
<td>2,360</td>
<td>2,169</td>
<td>2,028</td>
<td>2,097</td>
<td>2,281</td>
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I have several observations about Table 7. First, over ten years, the total additional tax revenue is estimated to be $23.852 billion, which averages out to $2.4 billion per year. That number is within the range of numbers that I have given. Second, the JCT numbers are very precise—to the nearest $1 million. They are far more precise than anyone can be confident about. Third, the JCT estimates are actual dollars, not present value dollars. Fourth, the JCT estimate is not only for private equity. As others have pointed out, the provision would likely also apply to investments in real estate and natural resources in which the active partner is paid, in whole or in part, with a profit interest. I made no attempt to estimate the revenue from those industries because I did not have the requisite data. Fifth, the JCT revenue estimates show additional revenue reaching a peak in 2009 and then declining by about one-third over the next five years. Thus, the JCT estimates seem to imply that the JCT believes there will be substantial restructuring or composition changes that will reduce tax collections.

CONCLUSION

This Article has been described as the first academic attempt to estimate the revenue consequences of changing the tax treatment of private equity fund managers’ carried interests. It seeks to
determine how much additional tax revenue the federal government would collect if carried interests were taxed as ordinary income and if that tax were accelerated to the date of grant. Assuming no change in the composition of limited partners and that the structure of private equity funds does not change, I estimate that taxing carried interests at ordinary income rates and accelerating taxation to grant would increase the present value of additional tax collections by between 1 and 1.5 percent of invested capital each year. Of that amount, accelerating taxation would account for 10 to 20 percent of the increase; the rest would come from changing the character of the income and expense. Assuming annual investments by limited partners of $200 billion, the present value of additional tax collections would be between $2 billion and $3 billion per year.

In arriving at those estimates, I assumed that the structure of private equity funds and the composition of the limited partnerships would not change in the event that carried interests are taxed as ordinary income. If such a reform is enacted, private equity fund managers and investors will have a strong incentive to find alternative structures to undo the effect of any reform. And if that is not possible, they will have a strong incentive to change the composition of their limited partnerships by substituting wealthy individuals for other limited partners in order to mitigate the tax consequences of reform. It is thus possible that there would be little or no net increase in tax collections from taxing carried interests as ordinary income once the industry adjusts in response.

Finally, whatever the other merits of taxing carried interests at ordinary tax rates, it is very clear in the context of existing budget deficits and priorities that reforming the tax treatment of current interests will provide relatively little tax revenue for other purposes. For example, the annual tax cost of the AMT patch, which has been linked to private equity tax reform, is more than 15 times the annual tax benefit from carried interest reform, even before allowing for any response from the private equity industry.