Analysis of the Impact of Increasing Carried Interest Tax Rates on the U.S. Economy

PART II DRAFT



Dr. John Rutledge Chairman, Rutledge Capital LLC

November 2007



 $\frac{\text{Center for Capital Markets}}{\overline{\text{C o m p e t i t i v e n e s s}}}$

U.S. Chamber of Commerce



Copyright © 2007 by the U.S. Chamber of Commerce. All rights reserved. No part of this work, covered by the copyrights herein, may be reproduced or copied in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information and retrieval systems—without written permission of the publisher.

The Impact of Increasing Carried Interest Tax Rates on the U.S. Economy

Part II

Dr. John Rutledge Chairman, Rutledge Capital LLC

November 2007

Table of Contents

Executive Summary	
Abstract	7
I. Introduction	
II. Background	
III. What Is Carried Interest?	
The Limited Partnership Structure	
Economics of a Limited Partnership	
Recent Trends	
IV. The History of Private Equity	
V. Why Is Private Equity Important to the Economy?	
VI. Review of Literature on Private Equity and the Economy	
Academic Literature	
Congressional Hearings	
VII. Proposed Tax Increases	
VIII. Collecting the Tax	
Baseline—Current Law	
Alternative Structures for Private Equity	
Likely Impact on Tax Collections and Industry Structure	
IX. Who Will Bear the Burden of the Tax?	
How would a tax affect the investment market?	
Who pays the tax?	
Extreme Cases	
The Market for Companies: The General Partner and Entrepreneur	71
Summary of Impacts	
X. How Will Higher Tax Rates Impact the Economy?	
XI. Summary and Conclusion	
References	
Biography	

Table of Figures

Figure 1: Total Assets of Limited Partnerships, 1993–2005	10
Figure 2: Limited Partnership Agreements, 1993–2005	11
Figure 3: Aggregate Private Equity Fund Commitments	12
Figure 4: Allocation of Fund Value between the General Partner, Limited Partners, a	ind
Lenders	18
Figure 5: Number of Partnerships, 2005	23
Figure 6: Number of Partners in Partnership Agreements, 2005	24
Figure 7: Total Assets of All Partnerships, 2005	25
Figure 8: Net Short-Term Capital Gain of All Partnerships, 2005	26
Figure 9: Net Long-Term Capital Gain of All Partnerships, 2005	27
Figure 10: Portfolio Income Distributed to Partners of All Partnerships, 2005	28
Figure 11: Capital Commitments by Type of Investor, 2006	29
Figure 12: Top Marginal Federal Income Tax Rates and Capital Gains Rates, 1916-2	2004
	30
Figure 13: Allocation of Fund Value between the General Partner, Limited Partners,	and
Lenders	55
Figure 14: Dynamics of the Investment Market	59
Figure 15: Dynamics of the Investment Market	59
Figure 16: The GP-LP Investment Market	60
Figure 17: Higher Carried Interest Tax Rates	61
Figure 18: Market Impact	61
Figure 19: Breakdown of Tax Revenue Contributions	63
Figure 20: Tax Shifting Under Perfectly Inelastic Supply	64
Figure 21: Breakdown of Tax Revenue Contributions	65
Figure 22: Tax Shifting Under Perfectly Inelastic Demand	66
Figure 23: Breakdown of Tax Revenue Contributions	66
Figure 24: Tax Shifting Under Perfectly Elastic Supply	67
Figure 25: Breakdown of Tax Revenue Contributions	68
Figure 26: Tax Shifting Under Perfectly Elastic Demand	69
Figure 27: Breakdown of Tax Revenue Contributions	70
Figure 28: The Market for Companies	72
Figure 29: Tax Shifting in the GP-Entrepreneur Investment Market	72
Figure 30: Tax Shifting in the GP-Entrepreneur Investment Market	73
Figure 31: Investment Decision-Making Process in a Sample Fund	74
Figure 32: The Investment Decision-Making Process	75
Figure 33: The Investment Decision-Making Process after a Tax	76
Figure 34: Dynamics of the Investment Market	77
Figure 35: Individual Long-Term Capital Gains Tax Rates, 2005–2006	80

Executive Summary

Members of Congress have recently proposed to more than double the tax rate on the general partner's share of a limited partnership's profits, known as carried interest, from the long-term capital gains rate of 15% to ordinary income tax rates of up to 35%. This increased tax on limited partnerships would represent a departure from longstanding tax principles. It would undermine incentives for innovation, entrepreneurship, capital formation, and productivity growth that lead to rising paychecks for American workers. It would drive down the values of American pension funds, companies, and real estate even as America's preeminent position in the global economy is being challenged by China, India, and other fast-growing emerging market nations where government leaders are designing policies to attract American capital.

The partnership structure is not a loophole. It has served as the cornerstone of the American way of organizing business and investment ventures for more than 50 years. It is not a tax haven for a few wealthy individuals. In 2005, 16.2 million American investors were partners in 2.8 million partnerships, holding \$13.7 trillion in assets to engage in business and investment ventures in every sector of the American economy.

Hundreds of academic researchers have examined the impact of private equity on U.S. companies. Their evidence is unequivocal: private equity has positive productivity and financial performance effects wherever it is invested. Companies backed by private equity have better governance. They are more profitable, more productive, and faster growing than both public companies and the economy as a whole, and they hire more workers.

Venture capital has an extraordinary record in creating new businesses, new technologies, new business models, and new jobs. Venture-backed companies accounted for \$2.3 trillion in revenue, 17.6% of gross domestic product (GDP), and 10.4 million private sector jobs in 2006.¹ Venture-backed companies grow faster, are more profitable, and hire more people. They are better innovators and secure more patents than public companies. From 1980 to 2001, all of the net growth in employment came from companies younger than five years old.²

Real estate partnerships have increased the availability and lowered the cost of capital to build homes, shopping centers, office buildings, and hospitals. In 2006, investors provided \$4.3 trillion in capital to the U.S. real estate sector, mainly through partnerships by private investors (\$451 billion), pension funds (\$162 billion), foreign investors (\$55 billion), life insurance companies (\$30 billion), private financial institutions (\$5.1

For more information regarding footnotes, see Reference section.

¹ Global Insight, <u>Venture Impact: The Economic Importance of Venture Capital Backed Companies to the</u> <u>U.S. Economy</u> (Arlington, VA: National Venture Capital Association, 2007).

² Stewart Brand, "The Best Thing That Governments Can Do to Encourage Innovation Is Get Out of the Way," <u>The Economist</u>. Oct. 11 (2007).

billion), real estate investment trusts (\$315 billion), and public untraded funds (\$37.4 billion).³

Carried interest is a core element of partnership finance in every sector of the U.S. economy engaged in capital formation, including real estate, private equity, hedge funds, energy, manufacturing, health care, research and development (R&D), retail, and distribution. Its purpose is to align the incentives between limited and general partners, and to focus everyone's efforts on the long-term success of the partnership's investments by making the general partner's share of the fund's profits contingent upon the successful harvest of the portfolio. Increasing tax rates on long-term capital gains income designated as a general partner's carried interest would alter the long-accepted tax principle that partnership income flows through to the partners who pay tax based on the character of the income received by the partnership.

Increasing the tax rate on carried interest would lead to wholesale changes in the structure of partnership agreements that have evolved over the past 50 years. New structures, including loan-purchase arrangements, shifting general partner expenses to portfolio companies, more leveraged capital structures, or a return to the deal-by-deal founder structures used in the early days of private equity would be expensive and inefficient—and would increase risk. Incremental net tax collections would be small.

To the extent that the tax increase could not be avoided by restructuring, the costs of higher taxes would be borne by all members of the investment process, including general partners as lower after-tax income, limited partners and their beneficiaries as higher costs and lower after-tax returns, and owners and employees of portfolio companies as lower business valuations and slower growth.

Increasing carried interest taxes would disrupt longstanding business practices in U.S. capital markets and reduce the amount of long-term capital available to the U.S. economy, undermining America's preeminent position in the world as the leader in invention, innovation, technology, and entrepreneurial activities. Raising tax rates would reduce productivity, employment, and growth.

Raising tax rates on the long-term capital gains of limited partnerships would drive capital offshore, reduce the productivity of American workers, and limit the ability of U.S. companies to compete in global markets. It will cost American jobs and reduce American incomes.

In today's global economy, countries have to compete for the capital they need to grow. Raising tax rates on long-term capital gains of U.S. partnerships would hang a "not welcome here" sign on our door.

³Jonathan D. Miller, *Emerging Trends in Real Estate* (Urban Land Institute and PricewaterhouseCoopers, 2007), p. 21.

Foreign governments have learned that ample supplies of capital, modern technology, and experienced management are the keys to creating the rising incomes and economic growth their people are demanding. They are becoming more capital-friendly every day, changing tax and regulatory policies to reduce risk and increase after-tax returns for foreign investors who bring capital to their countries. They are waiting for America to make a mistake that would drive our capital offshore and into their welcoming arms. Raising tax rates on long-term capital gains for America's partnerships is just the mistake they have been waiting for.

Abstract

This study looks at recent congressional proposals to increase the tax rate on the general partner's share of a limited partnership's profits, known as carried interest, from the long-term capital gains rate of 15% to ordinary income tax rates of 35%. We show that carried interest is an element of \$15.3 trillion in partnership capital used by 16.2 million Americans in every sector of the U.S. economy engaged in capital formation. Increasing the tax rate on carried interest would lead to changes in the structure of partnership agreements; incremental tax collections would be small. To the extent that the tax increase could not be avoided by restructuring, the costs would be borne by all the members of the investment process, including general partners, limited partners and their beneficiaries, as well as owners and employees of portfolio companies. Increasing carried interest taxes would reduce the amount of long-term capital available to the U.S. economy and undermine investment, innovation, entrepreneurial activity, productivity, growth, and the ability of U.S. companies to compete in the global market.

I. Introduction

In today's polarized political climate leading up to the 2008 elections, a number of presidential candidates and members of Congress have singled out private equity sponsors, venture capital funds, hedge funds, and other businesses organized using limited partnership structures for punitive attention. They are proposing more than a doubling of income tax rates on the general partner's contractual share of profits, known as "carried interest," from long-term capital gains rates to ordinary income levels.

On October 25, Chairman Charles Rangel of the House Committee on Ways and Means proposed a tax bill that the *New York Times* described as "a massive overhaul of the American tax system with serious implications for the private equity and hedge funds industries."⁴

Then, on November 1, 2007, the House Ways and Means Committee passed H.R. 3996, an \$81 billion tax package billed as the "Temporary Tax Relief Act of 2007," on a 22-13 party-line vote.⁵ This bill contained a provision to tax all general partner income, including the long-term capital gains component, as ordinary income—which, according to their calculations, would raise \$25.6 billion in tax revenues over ten years. Treasury Secretary Henry M. Paulson Jr. has said that the White House opposes the plan, asserting in a statement that it "would dramatically raise taxes in ways that in my judgment would hinder America's ability to compete in the global economy."⁶

It may not be a coincidence that the Dow Jones Industrial Average Index fell 360 points the same day. Or that the same week, reflecting the climate of rising tax rates, Cisco announced⁷ a strategic initiative with state-owned China Development Bank to invest in innovative high-growth Chinese companies; Morgan Stanley announced⁸ that it raised a \$1.5 billion Asia private equity fund; the China Investment Corporation announced⁹ it was in discussions to buy stakes in three more large U.S. private equity funds; Carlyle¹⁰ laid out its China strategy; CITIC, China's largest securities firm, said that it would buy a stake in Bear Stearns; General Motors¹¹ announced it would build a major research and development (R&D) operation in China; and Ford announced R&D alliances with two Chinese universities.

This is taking place at a time when the U.S. capital markets are caught in the grip of the subprime mortgage crisis, banks are trying to deal with \$300 in illiquid leveraged loan commitments, and analysts are worried about the possibility of recession.

⁴ http://dealbook.blogs.nytimes.com/2007/10/25/the-rangel-tax-bill-the-reaction

⁵ http://nationaljournal.com/pubs/congressdaily/

⁶ http://dealbook.blogs.nytimes.com/2007/10/25/the-rangel-tax-bill-the-reaction

⁷ http://money.cnn.com/news/newsfeeds/articles/marketwire/0322791.htm ⁸ http://www.business-

standard.com/smartinvestor/storypage.php?leftnm=lmnu6&subLeft=1&autono=300141&tab=r

⁹ http://www.economist.com/business/displaystory.cfm?story_id=10064501

¹⁰ http://blog.washingtonpost.com/washbizblog/2007/10/carlyle_group_cofounder_outlin.html

¹¹ http://www.latimes.com/business/la-fi-gm30oct30,1,1210547.story?track=crosspromo&coll=la-headlines-business&ctrack=1&cset=true

The Chamber would like to better understand how carried interest affects the U.S. economy as a whole and how different sectors and industries may be impacted by the proposed tax increase. The Chamber approached Rutledge Capital to conduct a study of these issues. Rutledge Capital has conducted policy impact studies for the Chamber in the past, and has twenty years of experience in the private equity industry, including structuring partnership agreements and raising and investing two private equity funds.

In early September, the Chamber released Part 1 of the study,¹² which presented a preliminary macro-level survey of the impacts of proposed changes in the treatment of carried interest. This paper incorporates the earlier report and presents the final results of the study. The structure of the paper is as follows: First, we define carried interest, look at the history of private equity, examine which industries rely on limited partnerships to structure investments, and show the size of the asset base investing through partnerships as well as how fast it is growing. We then outline the major proposed changes in tax treatment, analyze the likely impact of a tax increase on the economy, and look at who bears the burden of a tax increase—the general partner, the limited partner, or the operating company being financed. Next, we examine the channels through which the proposed tax increase would impact the capital markets, including prices, rates of return, and level of investment. Finally, we look at the broad impact of the proposed tax changes on the overall economy, jobs, incomes, investment activity, and tax revenues.

¹² The executive summary and full report are available for download at <u>http://www.uschamber.com/ccmc/default.htm?n=tb</u>

II. Background

Members of Congress have recently proposed legislation that would significantly increase tax rates on capital deployed in long-term investments in the United States. They propose more than doubling the tax rate on the general partner's share of a limited partnership's profits, known as carried interest, from the long-term capital gains rate of 15% to ordinary income tax rates of up to 35%.

This increased tax on limited partnerships would represent a departure from longstanding tax principles. It would undermine incentives for innovation, entrepreneurship, capital formation, and productivity growth that lead to rising paychecks for American workers. It would drive down the values of American pension funds, companies, and real estate even as America's preeminent position in the global economy is being challenged by China, India, and other fast-growing emerging market nations who have designed policies to attract American capital.

By calling for punitive tax treatment of certain sectors and industries, those who would raise tax rates risk undermining America's preeminent position in the world as a leader in invention, innovation, entrepreneurial activities, and growth.

The proposed tax increases on carried interest are not targeted rifle shots at a few wealthy individuals—they are a shotgun blast that will hit every investor in America who uses a partnership to structure their business and investment activities.



Figure 1: Total Assets of Limited Partnerships, 1993–2005

Source: IRS Statistics of Income Division, Fall SOI Bulletin, September 2007.

America's partnership structure is not a loophole. It has served as the cornerstone of the American way of organizing business and investment ventures for more than 50 years. It is not a tax haven for a few wealthy individuals. In 2005, based on the most recent publicly available data on partnership tax returns from the Internal Revenue Service, 16.2 million American investors were partners in 2.8 million partnerships, holding \$13.7 trillion in assets, as shown in Figure 1 and Figure 2, to engage in business and investment ventures in every sector of the American economy.

Rutledge Capital estimates, based upon the most recent Federal Reserve Board flow of funds data,¹³ put total assets invested in American partnerships at \$15.3 trillion in Q3 2007. These \$15.3 trillion dollars of assets underpin the market values of the \$69.2 trillion of stocks, bonds, mortgages, mutual funds, real estate, and other assets owned by American households and nonprofit organizations.¹⁴



Figure 2: Limited Partnership Agreements, 1993–2005

Source: IRS Statistics of Income Division, Fall SOI Bulletin, September 2007.

¹³ Federal Reserve, <u>Flow of Funds Accounts of the United States: Flows and Outstandings</u> (Washington, DC.: Board of Governors of the Federal Reserve System, 2007). p. 67.

¹⁴ Federal Reserve, <u>Flow of Funds Accounts of the United States: Flows and Outstandings</u>. p. 116. Table B.100.e: Balance sheets of Households and Nonprofit Organizations with Equity Detail. Figures are for the end of 2006.

The number of partnerships has increased steadily from less than 1.5 million in 1993 to 2.8 million in 2005, as shown in Figure 2. There were 16.2 million partners in partnerships in 2005.



Figure 3: Aggregate Private Equity Fund Commitments

Source: Private Equity Intelligence, Ltd.

Although total commitments to private equity funds rise and fall with the availability of attractive investment opportunities, they have shown a strong upward trend over the past decade, as shown above in Figure 3, reflecting increasing allocations from pension funds and other large institutional investors.

Hundreds of academic researchers have examined the impact of private equity on U.S. companies. Their evidence is unequivocal: Private equity investors have positive productivity and financial performance effects wherever they invest. Companies backed by private equity have better governance, hire more workers, are more profitable, more productive, and grow faster than public companies and the economy as a whole.

Venture capital has an extraordinary record in creating new businesses, new technologies, new business models, and new jobs. Venture-backed companies accounted for \$2.3 trillion of revenue, 17.6% of GDP, and 10.4 million private sector jobs in 2006.¹⁵ Venture-backed companies grow faster, are more profitable, and hire more people. They are better innovators and secure more patents than public companies. From 1980 to 2001, all of the net growth in employment came from companies younger than five years old.¹⁶

¹⁵ Global Insight, <u>Venture Impact: The Economic Importance of Venture Capital Backed Companies to the</u> <u>U.S. Economy</u>.

¹⁶ Brand, "The Best Thing That Governments Can Do to Encourage Innovation Is Get Out of the Way."

Real estate partnerships have increased the availability and lowered the cost of capital to build homes, apartment buildings, shopping centers, office buildings, and hospitals. In 2006, investors provided \$4.3 trillion in capital to the U.S. real estate sector, mainly through partnerships by private investors (\$451 billion), pension funds (\$162 billion), foreign investors (\$55 billion), life insurance companies (\$30 billion), private financial institutions (\$5.1 billion), real estate investment trusts (\$315 billion), and public untraded funds (\$37.4 billion).¹⁷

Carried interest is a core element of partnership finance in every sector of the U.S. economy engaged in capital formation, including real estate, private equity, hedge funds, energy, manufacturing, health care, R&D, retail, and distribution. Its purpose is to align the incentives between limited and general partners and to focus everyone's efforts on the long-term success of the partnership's investments by making the general partner's share of the fund's profits contingent upon the successful harvest of the portfolio. Increasing tax rates on long-term capital gains income designated as a general partner's carried interest would alter the long-accepted tax principle that partnership income flows through to the partners who pay tax based on the character of the income received by the partnership.

Increasing the tax rate on carried interest would lead to wholesale changes in the structure of partnership agreements that has evolved over the past 50 years. New structures, including loan-purchase arrangements, shifting general partner expenses to portfolio companies, more leveraged capital structures, or a return to the deal-by-deal founder structures used in the early days of private equity, would be expensive and inefficient; these structures would also increase risk for investors. Incremental net tax collections would be small.

To the extent that the tax increase could not be avoided by restructuring, the costs of higher taxes would be borne by all members of the investment process, including general partners as lower after-tax income, limited partners and their beneficiaries as higher costs and lower after-tax returns, and owners and employees of portfolio companies as lower business valuations and slower growth.

Increasing carried interest taxes would disrupt longstanding business practices in U.S. capital markets and reduce the amount of long-term capital available to the U.S. economy. This would undermine America's preeminent position in the world as the leader in invention, innovation, technology, and entrepreneurial activities. Raising tax rates would reduce productivity, employment, and growth.

Selectively raising tax rates on the long-term capital gains of limited partnerships will drive capital offshore, reduce the productivity of American workers, and limit the ability of U.S. companies to compete in global markets. It will cost American jobs and reduce American incomes.

¹⁷ Miller, <u>Emerging Trends in Real Estate</u>. p. 21.

In today's global economy, countries have to compete for the capital they need to grow. Raising tax rates on long-term capital gains of U.S. partnerships would hang a "not welcome here" sign on our door.

Foreign governments have learned that ample supplies of capital, modern technology, and experienced management are the keys to creating the rising incomes and economic growth that their people are demanding. Developing countries are working to improve their domestic infrastructure, such as education, transportation, and telecommunications, to improve the business environment.¹⁸ These governments are becoming more capital-friendly every day, changing tax and regulatory policies to reduce risk and increase after-tax returns for foreign investors who bring capital to their countries.

China has lowered tax rates and instituted personal property laws, and continues to open industries to foreign cooperation, including banking, telecommunications, securities, insurance, and tourism. India has special fiscal incentives and promotes local skills development to meet the need of foreign companies, and has streamlined approval procedures for foreign investment.¹⁹ In Asia and the Pacific, economic partnership and trade agreements are improving their competitiveness in order to attract more foreign direct investment (FDI) and better meet the challenges emanating from heightened competition.²⁰

They are waiting for us to make a mistake that would drive America's capital offshore and into their welcoming arms. Raising tax rates on long-term capital gains for America's partnerships is just the mistake they have been waiting for.

The timing of these proposals to increase tax rates on capital income could not be worse. Recently, U.S. mortgage markets have seized up under the weight of the subprime mortgage crisis. The leveraged loan market, which provides the capital for mergers and acquisitions and the growth capital for U.S. companies, is frozen like a fly in amber while financial institutions attempt to find a way to deal with \$300 billion in "toxic" loan commitments made when credit market conditions were more favorable. In addition, oil prices are more than \$90 per barrel as a result of worsening political tension in the Persian Gulf, temporary supply interruptions due to tropical storms, and the seemingly unstoppable juggernaut of double-digit economic growth in Asia.

¹⁸ Andrew Charlton, "Incentive Bidding for Mobile Investment: Economic Consequences and Potential Responses," <u>Governing Finance and Enterprises</u> (OECD Development Centre, 2003), vol. Working Paper No. 203.

¹⁹ Jennifer Joksch, <u>How India Attracts Foreign Investors</u> (Stuttgard: 2006).

²⁰ UNCTAD, "World Investment Report 2003," <u>Conference on Trade and Development</u> (2003).

III. What Is Carried Interest?

Carried interest arises when two or more investors who bring different skills and assets to the venture come together to form a new business venture or investment project.

A real estate developer, for example, may have an idea for a project, project plans, ability to get zoning approvals, know-how, an organization, a network of trusted people, and a reputation for quality, but may not have adequate funds to develop the project. A pension fund, university endowment, insurance company, or other investor may have the money to finance the project, but may lack the entrepreneurial assets brought by the developer.

The Limited Partnership Structure

A half-century ago, Congress created a flexible investment vehicle to encourage entrepreneurship and capital formation by allowing these parties to work together. That vehicle is the partnership, in which partners contribute their unique assets, the partners have great flexibility to divide up the gains from their investment in any way they deem appropriate, and all income to the partnership flows through the partnership to be taxed to the individual partners, based solely on the character of the income—ordinary income, dividends, interest, fees, short-term capital gains, or long-term capital gains—that the partnership receives in the course of its business.

Since its inception, the partnership structure has been a resounding success, giving American investors and entrepreneurs the tools to create and grow businesses; build housing developments, shopping centers, and hospitals; develop oil and gas fields; start new technology companies; and finance mergers and acquisitions.

Based on the most recent publicly available data on partnership tax returns from the Internal Revenue Service, in 2005 16.2 million American investors were partners in 2.8 million partnerships holding \$13.7 trillion in assets to engage in business and investment ventures in every sector of the American economy. Rutledge Capital estimates, based upon the most recent Federal Reserve Board flow of funds data,²¹ put total assets invested in American partnerships at \$15.3 trillion in Q3 2007. These \$15.3 trillion dollars of assets underpin the market values of the \$69.2 trillion of stocks, bonds, mortgages, mutual funds, real estate, and other assets owned by American households and nonprofit organizations.²²

When creating and structuring investment partnerships that have a life of 5-10 years or more, investors work hard to make sure that the interests of the various partners are aligned to avoid later potential conflicts. Limited partners, like the financial investor in

²¹ Federal Reserve, <u>Flow of Funds Accounts of the United States: Flows and Outstandings</u>. p. 67.

²² Federal Reserve, <u>Flow of Funds Accounts of the United States: Flows and Outstandings</u>. p. 116. Table B.100.e: Balance sheets of Households and Nonprofit Organizations with Equity Detail. Figures are for the end of 2006.

the property development example mentioned above, may put up 90–99% of the financial capital but lack the intangible entrepreneurial assets to carry out a successful project. Because of this, limited partners typically agree to carve out a portion—usually 20%—of the ultimate gains of a project for the general partner, who may contribute only 1–10% of the financial capital. This is done in recognition of the fact that the reputation, network, know-how and other intangible assets of the general partner are extremely valuable. General partners typically have more information about new operating details of an investment than the limited partners. To protect limited partners from conflicts that result from this asymmetry of information, the partners often agree that the general partner must wait until the end of the partnership—after all of the limited partner's capital, partnership expenses and fees, and usually a preferred return have been paid—before the general partner receives their portion of the gain. These delayed payments, which are carried on the partnerships capital accounts until the end of the partnerest."

In addition to carried interest, the general partner collects an annual management fee from the partnership—usually 2% of total committed capital per year—as compensation for the work of managing the partnership's activities and maintenance. The general partner may collect additional fees for investment banking activities and advisory services to portfolio companies. Such management fees are, and always have been, treated as ordinary income and taxed at ordinary income tax rates.

Under well-established tax principles, all partnership income is passed through to the individuals making up the partnerships based solely on the character of the income received. To the degree that the partnership receives fees or interest payments, all partners—general partners and limited partners—will be taxed at ordinary income rates. To the degree that the partnership receives long-term capital gains or short-term capital gains, the partners will pay taxes on that income in the appropriate way.

According to University of Chicago's David Weisbach, this arrangement is in accord with the long-accepted principle of partnership taxation that the existence of the partnership structure should matter as little as possible to its tax treatment; that is, the tax results from operating the partnership "should vary as little as possible from the results that the partners would get if they engaged directly in partnership activity."²³

A recent study by Andrew Metrick and Ayako Yasuda of the Wharton School showed that management fees for a typical private equity fund make up about 2/3 of the total value received by general partners over the life of the partnership, with the remaining 1/3 comprised of carried interest.²⁴

To the extent that carried interest is composed of income from dividends, interest, fees for services, or short-term capital gains, it is taxed at ordinary income tax rates of up to 35%. The remaining portion of carried interest from the partnership's long-term capital

²³ David A. Weisbach, The Taxation of Carried Interests in Private Equity Partnerships (2007). p. 39.

²⁴ Andrew Metrick and Ayako Yasuda, "The Economics of Private Equity Funds," <u>Swedish Institute for</u> <u>Financial Research Conference on The Economics of the Private Equity Market (2007)</u>, vol.

gains—less than 1/3 of total general partner earnings—is taxed at the long-term capital gains tax rate, which is currently 15%.

Economics of a Limited Partnership

General and limited partners do not have identical interests, assets, or abilities. Instead, they share a conviction that together they can successfully pursue an opportunity that no single partner or class of partners can achieve alone. To better align their interests, general and limited partners create a partnership agreement to govern their behavior and relationship during the period of the venture.

Partnership agreements are negotiated at arm's length, sometimes over many months, between the general partner and one or more lead representatives of the limited partners, who is often the largest initial investor with many years of experience. In addition to the annual management fee (often 2% per year during the initial investment period and less for the remainder of the fund) and the size of the carried interest allocation to the general partner (often 20% of net profits), there are myriad other parameters and conditions that must be negotiated in a partnership agreement, including: (1) the term of the partnership, (2) the length of the investment period, (3) whether capital commitments are funded initially or called when investments are made, (4) the hurdle rate (often 8–10%), (5) the allocation of partnership expenses, (6) the disposition of fees from portfolio companies and investment banking activities, (7) the method of calculating capital accounts, (8) rates of return and carried interest, (9) provisions regarding key partners, and (10) procedures for winding up the activities of the fund.

While each partnership agreement is unique, we can illustrate the economics of a representative limited partnership using Figure 4 below, which depicts the order in which partners receive distributions. In this example, we assume that a partnership makes only one investment at the beginning of the fund, holds the investment for three years, then sells the investment and distributes the proceeds according to the partnership agreement.





As shown in Figure 4, when the general partner (GP) sells the investment for "Total Value at Harvest," represented by the entire amount, the lenders receive the amount in the green rectangle, representing principal and interest on any money borrowed to fund the original investment. Then the limited partners (LPs) receive an amount equal to their original investment plus the management fees paid by the fund to the general partner over the course of the fund, represented by the yellow box just above the lenders' proceeds. Next, the limited partners receive their preferred return, calculated by compounding the hurdle rate as an interest charge on all capital and fees over the life of the investment. If the hurdle rate is 10%, for example, and the capital was invested for three years, the preferred return would be 46% of the total equity investment. At this point, the general partner has not received any carried interest.

After limited partners have received their initial investment and preferred return, the general partner enjoys a catch-up return period to collect more than 20% of the incremental gains (in this example we have used 50%). Sufficient carried interest makes the total carried interest equal to 20% of total profits. Above that, further gains are split 80/20 between the limited partners and general partner.

Note where the general partner appears in the capital structure—last in line. This means that the general partner's share of gains is more risky that the return of the limited partners. This gives the general partner powerful incentives to maximize the value of the investment. As we will see in later sections, companies owned and governed by private equity investors enjoy a significant performance advantage over other companies.

Metrick and Yasuda (2007) analyzed confidential data from one of the largest pension fund investors to estimate distributions of the parameters of partnership agreements for 238 venture and buyout funds raised between 1992 and 2006. They used these estimates to report statistics about the compensation of private equity partners and professionals, including present values of management fees, revenue, and carried interest per \$100 of committed capital in the fund.

Their results, shown below in Table 1 and shown as summarized in a recent paper by the Joint Committee on Taxation (2007) in Table 2, show that carried interest payments make up 37.7% of venture revenues and 31.1% of buyout revenues. This constitutes an upper bound on the amount of income that could be taxed at long-term capital gains rates, because some portion of the gains reported as carried interest was received by the partnership in the form of interest, dividends, or fees, all of which are taxed at ordinary income tax rates.

Venture Capital Fund Characteristics (94 funds)							
Present Value of	Mean	25%	25% Median				
Carry per \$100	\$8.98	\$8.40	\$8.86	\$9.32			
Management fees per \$100	\$14.80	\$12.04	\$14.61	\$26.69			
Total revenue per \$100	\$23.78	\$20.92	\$23.50	\$17.61			
Carry per partner	\$7.04	\$2.14	\$4.45	\$7.68			
Management fees per partner	\$10.57	\$3.69	\$7.13	\$12.67			
Total revenue per partner	\$17.61	\$5.74	\$11.21	\$19.99			
Carry per professional	\$2.69	\$1.09	\$1.95	\$3.43			
Management fees per professional	\$4.19	\$1.73	\$3.43	\$5.20			
Total revenue per professional	\$6.87	\$2.76	\$5.68	\$8.56			

Table 1: Revenue Estimates

Buyout Firm Characteristics (144 funds)							
Present Value of	Mean	25%	Median	75%			
Carry per \$100	\$5.41	\$4.98	\$5.35	\$5.93			
Variable revenue per \$100	\$7.54	\$6.29	\$7.46	\$8.46			
Management fees per \$100	\$10.35	\$8.77	\$10.34	\$11.65			
Fixed revenue per \$100	\$12.22	\$10.11	\$11.78	\$14.02			
Total revenue per \$100	\$19.76	\$16.49	\$19.36	\$22.56			
Carry per partner	\$10.27	\$3.38	\$6.27	\$12.73			
Variable revenue per partner	\$14.21	\$4.25	\$8.94	\$17.94			
Management fees per partner	\$18.47	\$6.85	\$12.93	\$24.33			
Fixed revenue per partner	\$21.70	\$7.15	\$14.63	\$27.35			
Total revenue per partner	\$35.93	\$11.38	\$24.07	\$46.57			
Carry per professional	\$3.54	\$1.27	\$2.32	\$3.80			
Variable revenue per professional	\$4.92	\$1.94	\$3.31	\$5.69			
Management fees per professional	\$6.52 \$2.74 \$4.67		\$4.67	\$7.41			
Fixed revenue per professional	\$7.66	\$3.39	\$5.25	\$8.77			
Total revenue per professional	\$12.58	\$5.21	\$8.56	\$14.72			

Source: Metrick and Yasuda (2007)

Present Value of:	Mean of 94 Venture Capital Funds	Mean of 144 Buyout Funds
Carry per \$100 invested (\$)	8.98	5.41
Fees per \$100 (\$)	14.80	11.91
Total revenue per \$100 (\$)	23.78	17.37
Fund Size (\$ millions)	322.00	1,238.00

Table 2: Present Value of Partner Revenue

Source: Calculations based on Metrick and Yasuda "The Economics of Private Equity Funds."

In the next section, we will look at who makes up the 16.2 million people who are partners in limited partnership agreements.

IV. Who Uses Private Equity Partnerships?

Recent Trends

As you can see from Table 3, below, American investors organize partnerships for all kinds of business and investment ventures. For example, in 2005, the most recent year available, the Internal Revenue Service reports that 2.8 million partnerships were doing business across all industries. 16.2 million people acted as partners and the total assets held by these partnerships added up to \$13.7 trillion. These same partnerships reported \$42.6 billion in short-term capital gains and \$277.7 billion in long-term capital gains— 86.7% of their total capital gains were long-term capital gains.

If we look at the partnerships separated into various sectors, we can see that the largest category of partnerships, by assets, is security and financial partnerships. There, 2.9 million people were partners in 219,171 partnerships, which held \$6.5 trillion of financial assets like stock, bonds, private equity, venture capital, hedge funds, and trusts.

Table 3: Limited Partnership Composition,200

				Securities,		
				commodity	Funds, Trusts,	
		Construction		contracts and	and Other	Real Estate and
	All	and	Retail and	other financial	Financial	Rental and
Item	Industries	Manufacturing	Wholesale Trade	investments	Vehicles	Leasing
Number of Partnerships	2,763,625	226,981	189,976	219,171	42,499	1,295,948
Number of Partners	16,211,908	747,614	734,234	2,916,021	381,051	6,460,956
Total Assets	13,734,256,305	692,146,826	230,873,076	6,493,379,458	896,854,569	3,100,977,800
Total Income	3,553,589,456	999,701,295	766,156,493	219,930,480	8,858,762	184,803,494
Net Short-Term Capital Gain	42,563,416	171,017	15,005	34,040,461	3,334,016	3,729,917
Net Long-Term Capital Gain	277,651,703	3,866,355	672,712	171,818,522	27,454,702	45,049,435
Portfolio Income Distributed						
directly to Partners	535,267,067	7,895,565	1,869,981	328,110,297	56,278,458	72,134,260
Long-Term Capital Gain as % of Total Capital Gain	86.7%	95.8%	97.8%	83.5%	89.2%	92.4%
% Portfolio Income Coming from Long-Term Capital Gains	51.9%	49.0%	36.0%	52.4%	48.8%	62.5%
% Portfolio Income Taxed as Ordinary Income	48.1%	51.0%	64.0%	47.6%	51.2%	37.5%

	Professional, Scientific and	Health Care	Arts		Agriculture, Forestry	
	Technical	Education and	Entertainment,	Accomodation	Fishing, Hunting	
Item	Services	Social Assistance	and Recreation	and Food Services	and Mining	Other
Number of Partnerships	170,245	70,544	49,267	96,004	155,810	247,180
Number of Partners	611,046	328,770	332,198	388,076	974,783	2,337,159
Total Assets	131,302,194	82,518,305	65,870,456	169,544,802	283,733,118	1,587,055,701
Total Income	279,567,822	142,702,225	44,000,084	128,039,831	117,463,376	662,365,594
Net Short-Term Capital Gain	243,123	-2,007	-82,194	22,743	319,256	772,079
Net Long-Term Capital Gain	3,223,857	996,173	1,103,483	1,094,689	3,002,256	19,369,519
Portfolio Income Distributed						
directly to Partners	6,326,423	1,377,854	1,327,363	1,726,318	9,458,809	48,761,739
Long-Term Capital Gain as % of Total Capital Gain	93.0%	100.2%	108.0%	98.0%	90.4%	96.2%
% Portfolio Income Coming from Long-Term Capital Gains	51.0%	72.3%	83.1%	63.4%	31.7%	39.7%
% Portfolio Income Taxed as Ordinary Income	49.0%	27.7%	16.9%	36.6%	68.3%	60.3%

Note: Money amounts are in thousands of dollars.

Source: IRS Statistics of Income Division, Fall SOI Bulletin, September 2007.

Partnerships are used in many other sectors as well, as depicted in the charts below.



Figure 5: Number of Partnerships, 2005

Source: IRS Statistics of Income Division, Fall SOI Bulletin, September 2007.

Real estate activities dominate the number of partnerships, accounting for 46% of the total number, but many other sectors are represented. Other sectors include retail and wholesale trade; construction and manufacturing; agriculture, forestry, fishing, hunting, and mining; hotels and food service; arts, entertainment and recreation; health care, education, and social assistance; and professional, scientific, and technical services.



Figure 6: Number of Partners in Partnership Agreements, 2005

Source: IRS Statistics of Income Division, Fall SOI Bulletin, September 2007.

More than 16.2 million people were partners in a limited partnership agreement in 2005. Almost half of them (40% or 6.5 million people) were in real estate partnerships.



Figure 7: Total Assets of All Partnerships, 2005

Source: IRS Statistics of Income Division, Fall SOI Bulletin, September 2007.

Investment partnerships for the purpose of owning securities and financial assets are the largest component of total partnership assets, accounting for \$6.5 trillion, or 46% of total assets. \$3.1 trillion (23%) in real estate assets makes up the second largest category.

The large share of financial assets relative to real estate and other hard assets reflects the trends in U.S. financial markets since 1981. Tax cuts on capital income and the sustained systematic decline in interest rates in an environment of subdued inflation caused investors to move a sizeable portion of their portfolios out of commodities, real estate, and other inflation hedge assets and into stocks, bonds, and mutual funds. This was the source of the quarter-century bull market the United States enjoyed over this time. More recently, the reduction in dividend and capital gains rates in 2003 significantly increased the value of U.S. assets by raising their after-tax returns to investors. America's deep

capital markets, the massive \$55.9 trillion net worth²⁵ of American households, and flexible financing methods are important drivers in innovation and entrepreneurial activities, which support growth and job creation.



Figure 8: Net Short-Term Capital Gain of All Partnerships, 2005

Source: IRS Statistics of Income Division, Fall SOI Bulletin, September 2007.

In 2005, partnerships collected \$42.6 billion in short-term capital gains. More than threequarters (79%) of short-term capital gains were collected by partnerships investing in securities with just 8% coming from funds, trusts, and other financial vehicles. Hedge fund gains are almost entirely short-term capital gains, which are taxed at ordinary income rates. Industry sources report that hedge funds turn over 35% of their securities

²⁵Federal Reserve, <u>Flow of Funds Accounts of the United States: Flows and Outstandings</u>. p. 116. Figure is for year-end 2006.

each quarter, or 82.2% in less than one year.²⁶ The implied mix of 82% short-term capital gains and 18% long-term capital gains would produce an average tax rate of 31.4% on total capital gains for hedge funds.



Figure 9: Net Long-Term Capital Gain of All Partnerships, 2005

Source: IRS Statistics of Income Division, Fall SOI Bulletin, September 2007.

Securities partnerships make up the largest share of long-term capital gains. Together with funds, trusts, and other finance vehicles, they make up 63% of total long-term capital gains collected by partnerships. This category includes most private equity partnerships, such as leveraged buyouts, mezzanine financing, growth financing, and venture capital. All make investments they intend to hold over a number of years. Real estate partnerships are also responsible for a large share of long-term capital gains for the same reason—they own long-term assets.

²⁶ Ed Easterling, "Hedge Funds: Myths and Facts," <u>Crestmont Research</u> April 10, 2007 (2007).

Figure 10: Portfolio Income Distributed to Partners of All Partnerships, 2005



Source: IRS Statistics of Income Division, Fall SOI Bulletin, September 2007.

In 2005, the partners of limited partnership agreements collected \$535 billion in portfolio income, 62% of which was contributed by securities partnerships. Funds, trusts, and other financial vehicles and real estate made up 11% and 14% of total portfolio income, respectively.



Figure 11: Capital Commitments by Type of Investor, 2006

Source: Private Equity Council

In 2006, public pension funds (26%), fund of funds (14%), and corporate pension funds (12%) were the largest investors in private equity funds. Together, all pension funds make up about half of total commitments.

IV. The History of Private Equity

The term *entrepreneur* was coined 200 years ago by the Frenchman Jean-Baptiste Say to describe the plucky upstart who "shifts economic resources out of an area of lower and into an area of higher productivity and greater yield."²⁷ For most of the past 100 years, U.S. policy makers have realized the important role that entrepreneurs play in innovation and growth by making tax rates on long-term capital gains less than half the top marginal tax rate on ordinary income.



Figure 12: Top Marginal Federal Income Tax Rates and Capital Gains Rates, 1916–2004

Source: Department of the Treasury, Office of Tax Analysis (February 9, 2007) downloaded from: http://www.treas.gov/offices/tax-policy/library/capgain1-2006.pdf; Revised Tax Rate Schedules: Internal Revenue Service, downloaded April 12, 2004, from: http://www.irs.gov/pub/irs-drop/rp-03-85.pdf

Private equity markets are where these "plucky upstarts" get the capital they need to build companies. Traditionally, entrepreneurs sought funding from wealthy families, which are referred to today as *angel* investors. But it was the institutionalization of funding entrepreneurial ventures that allowed today's private sector to develop into the force it is today.

²⁷ Brand, "The Best Thing That Governments Can Do to Encourage Innovation Is Get Out of the Way."

American Research and Development Corporation (ARD), the first publicly traded, closed-end investment company, was founded in 1946 by Georges Doriot to finance companies being started by military personnel returning home from the war.²⁸ ARD not only provided the funding to start companies; it also supplied managerial expertise and guidance to entrepreneurs. Their most notable success was Digital Equipment Corporation, which went public in 1968.

Into the 1950s, few discernable institutions provided capital for new business formation. Spurred to action by successful Soviet ventures like the 1957 Sputnik launch, Congress took steps to promote venture capital investments. The first initiative was allowing individuals to write off losses against investments of \$25,000 or more.²⁹ The second, and more important, was the Small Business Investment Act of 1958. The Small Business Investment Act of 1958. The Small Business Investment Act created Small Business Investment Companies (SBIC)—private corporations licensed by the U.S. Small Business Association (SBA) to provide professionally managed capital to small companies. SBICs were allowed to supplement their capital with loans from the U.S. Small Business Administration and received numerous tax benefits.

Later, financial professionals began to finance venture capital through the use of limited partnerships. William Draper became the first West Coast venture capitalist when he founded the firm of Draper, Gaither, and Anderson in 1958.³⁰ Bygrave and Timmons report that Tommy David and Arthur Rock were the first venture capital limited partnerships in 1961. Around the same time, Laurance Rockefeller founded Venrock, an outgrowth of a family-owned investment vehicle.³¹

Slow growth and a weak stock market during the 1970s forced investors to develop strategies for nonventure private equity investing. Between 1970 and 1979, only 25% of the fund raised by Donaldson, Lufkin, and Jenrette's (DLJ) Sprout Group was invested in start-ups; the rest was put into leveraged buyouts (LBOs). For most of the 1970s, the amount of money in the private equity market remained constant between \$2.5 billion and \$3.0 billion, with incoming commitments of less than \$100 million per year.³²

In 1977, an SBA task force recommended changing the Employee Retirement Income Security Act (ERISA) regulations, taxes, and securities laws as a way to reignite stagnant business formation. This led the Department of Labor to reinterpret the "prudent man" provision governing ERISA pension fund investments to open the door for investments in

http://www.venrock.com/index.cfm?fuseaction=content.contentDetail&id=8747

²⁸ George W. Fenn, Nellie Liang and Stephen Prowse, "The Economics of the Private Equity Market," <u>Staff Series</u> (Washington D.C.: Board of Governors of the Federal Reserve System, 1995), vol.; P. Liles, Sustaining the Venture Capital Firm (Cambridge, MA: Management Analysis Center, 1977).

<u>Sustaining the Venture Capital Firm</u> (Cambridge, MA: Management Analysis Center, 1977). ²⁹ Daniel A. Wingerd, "The Private Equity Market: History and Prospects," <u>Investment Policy</u> (1997), vol. 1.

 ³⁰ History of Draper Fisher Jurvetson, accessible at: http://www.dfj.com/about_dfj/index.html.
³¹ Heritage of Venrock, available at:

³² Wingerd, "The Private Equity Market: History and Prospects," vol.

the securities of small or new companies.³³ This change in policy unleashed an avalanche of capital, quickly creating demand for small-company stocks and new issues. Venture capital partnerships multiplied rapidly.

Another ERISA provision required that "plan assets" must be managed by registered investment advisers under the SEC Investment Advisers Act of 1940, which prohibited managers from receiving performance-related compensation—the primary incentive of a limited partnership. In 1980, the Department of Labor ruled that limited partnership investments would have a "safe harbor" exemption from plan asset regulations. The Small Business Investment Incentive Act of 1980 classified private equity partnerships as business development companies rather than investment advisory firms, exempting them from SEC registration.

From 1980 to 1982, the two years following these regulatory changes, private equity commitments reached \$3.5 billion. By 1987, commitments reached \$17.8 billion. During the 1980s, a large number of partnerships were formed specifically to provide private equity capital for nonventure financing. In 1987, Kohlberg, Kravis and Roberts (KKR), raised a record \$5.6 billion fund for nonventure investments.

As the private equity market has matured, partnerships have specialized based on industry, market capitalization, "buy and build" strategies, financially distressed firms, and types of financing. Mezzanine partnerships emerged to provide debt financing to leveraged buyouts.

At the same time that the United States is looking to increase the tax burden on private equity, countries around the globe are clamoring to attract it. According to the World Bank, developed and developing countries are keenly competing to attract foreign capital with incentive packages to attract new investments, such as (1) targeted tax concessions, (2) infrastructure, (3) local skills development, and (4) improved regulations. Governments are working hard to create economic climates that encourage entrepreneurship, innovation, and foreign investment.

³³ Fiduciary Standards and the Prudent Man Rule under the Employment Retirement Income Security Act of 1974.

V. Why Is Private Equity Important to the Economy?

Carl Schramm, president of the Kaufman Foundation, which studies entrepreneurship and innovation, says that "for the United States to survive and continue its economic and political leadership in the world, we must see entrepreneurship as our central comparative advantage. Nothing else can give us the necessary leverage to remain an economic superpower."³⁴

Scholars agree. Over the past thirty years, a vast academic literature has grown on partnerships in general and private equity partnerships in particular. Although there are varying opinions on different aspects of private equity markets, the vast majority of researchers agree on several key points.

First, private equity is a large and extremely important part of the U.S. economy that has played an irreplaceable role in the restructuring of American companies over the past twenty-five years into today's strong global competitors.

Second, private equity arises partly in response to a market failure in the public markets, known as the "Jensen hypothesis,"³⁵ in which some entrenched managers of public companies fail to look after the interests of their shareholders. The stronger governance and tighter control exercised by private equity investors combined with the closely aligned interests of the private equity investors and the managers of their portfolio companies through partnership agreements, work to correct this problem.

Third, private equity is a major and growing source of expansion capital for familyowned "middle market" companies that are too small or otherwise unsuited for the public markets. These small companies are the backbone of the American economy, accounting for more than half of GDP and virtually all employment growth.

Fourth, private equity sponsors and the network of operating resources they bring to portfolio companies significantly improve productivity, profitability, asset management, and growth. According to Steven Kaplan, Professor at the University of Chicago School of Business and one of the leading experts in the area, "the academic evidence for the positive productivity effects of private equity is unequivocal."³⁶ Rutledge (2006) examined the stock market performance of a unique sample of newly public companies in which private equity firms retained an ownership and governance role in the company after the public offering.³⁷ She found that these companies significantly outperformed the overall stock market during the period of private equity control, confirming the Jensen hypothesis.

³⁴ Brand, "The Best Thing That Governments Can Do to Encourage Innovation Is Get Out of the Way."

³⁵ M.C. Jensen, "The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems," Journal of Finance 48 (1993). ³⁶ The Wall Street Journal, <u>Trading Shots: Taxing Private Equity</u>, 2007, The Wall Street Journal, Available:

http://online.wsj.com/article/SB118243677822843434.html, July 25, 2007.

³⁷ Elizabeth S. Rutledge, Portfolio Companies of Private Equity Sponsors: A Test for Long-Run Excess Returns after the Ipo, Department of Economics (Princeton, NJ: Princeton University, 2006).

Fifth, private equity in the form of venture capital invested in computers, industrial, energy, retail, distribution, software, health care, and consumer products has had an extraordinary record in creating new businesses, new technologies, new business models, and new jobs. According to Venture Impact, a study prepared by Global Insight (2007), venture-backed companies like Intel, Microsoft, Medtronic, Apple, Google, Home Depot, Starbucks, and eBay accounted for \$2.3 trillion of revenue, 17.6% of GDP, and 10.4 million private sector jobs in 2006. Venture-backed companies grow faster, are more profitable, and hire more people than the overall economy.

Finally, private equity in the form of real estate partnerships has dramatically increased the availability and lowered the cost of capital to build homes, shopping centers, office buildings, and hospitals. *Emerging Trends in Real Estate* (Urban Land Institute, 2007), reports that in 2006, investors provided \$4.3 trillion in capital to the U.S. real estate sector, including \$3.2 trillion in debt capital and \$1.1 trillion in equity capital. Of the equity capital, the bulk was provided through partnerships by private investors (\$451 billion), pension funds (\$162 billion), foreign investors (\$55 billion), life insurance companies (\$30 billion), private financial institutions (\$5.1 billion), real estate investment trusts (REITs) (\$315 billion), and public untraded funds (\$37.4 billion).³⁸

Private equity in America is invested in every sector at every stage of business, as shown in the tables below.

³⁸ Jonathan D. Miller, <u>Emerging Trends in Real Estate</u> (Washington, D.C.: ULI-the Urban Land Institute, 2006). p. 21.
No.	Sector	Companies	Deals	Investment(\$M)
1	Software	186	187	1,108.1
2	Biotechnology	98	99	1,091.2
3	Media and Entertainment	95	96	508.5
4	Industrial/Energy	82	83	920.6
5	Medical Devices and Equipment	76	76	825.5
6	Telecommunications	74	74	585.1
7	Semiconductors	55	55	513.2
8	IT Services	48	51	353.9
9	Financial Services	31	31	280.2
10	Networking and Equipment	29	29	289.1
11	Business Products and Services	23	23	194.7
12	Electronics/Instrumentation	21	21	152.8
13	Consumer Products and Services	20	20	57.3
14	Healthcare Services	14	15	96.3
15	Computers and Peripherals	13	13	87.7
16	Retailing/Distribution	13	13	40.0
17	Other	1	1	0.0
	Total	879	887	7,104.2

Table 4: Venture Capital Investment in U.S. Companies by Industry/Technology Sector, 7/01/2007 to 9/30/2007

Source: PricewaterhouseCoopers/Venture Economics/NVCA MoneyTree Survey (2007)

Table 5: Venture Capital Investment in U.S. Companiesby Stage, 7/01/2007 to 9/30/2007

No.	Stage	Companies	Deals	Investment(\$M)
1	Seed	42	42	46.8
2	Startup	196	197	1,054.9
3	Other Early Stage	66	66	307.6
4	Expansion	289	293	2,712.5
5	Later Stage	287	289	2,982.4
	Total	880	887	7,104.2

Source: PricewaterhouseCoopers/Venture Economics/NVCA MoneyTree Survey (2007)

No.	State	Companies	Deals	Investment(\$M)
1	California	377	382	3,283.4
2	Massachusetts	110	110	979.6
3	New York	54	54	345.6
4	Texas	38	39	386.2
5	Washington	38	38	235.6
6	Colorado	24	24	196.6
7	Pennsylvania	24	24	186.9
8	New Jersey	18	18	109.9
9	Georgia	17	17	124.2
10	Florida	15	15	98.6
11	Illinois	13	14	135.6
12	Maryland	13	14	195.6
13	Virginia	13	13	63.2
14	North Carolina	12	12	86.7
15	Minnesota	11	11	73.3
16	Ohio	11	11	36.0
17	Utah	10	10	78.4
18	Arizona	8	8	53.5
19	Oregon	7	7	46.8
20	Connecticut	6	6	26.8
21	D. of Columbia	6	6	70.6
22	Missouri	5	5	13.6
23	Tennessee	5	5	12.5
24	Kansas	4	4	6.7
25	Wisconsin	4	4	31.7
26	New Mexico	4	4	2.3
27	New Hampshire	4	4	10.6
28	Kentucky	4	4	122.0
29	Hawaii	2	2	1.9
30	Michigan	2	2	4.4
31	Indiana	2	2	16.3
32	lowa	2	2	6.0
33	Oklahoma	2	2	4.5
34	Vermont	2	2	4.1
35	South Carolina	2	2	5.8
36	Alabama	1	1	25.0
37	Delaware	1	1	1.5
38	Louisiana	1	1	8.1
39	Montana	1	1	4.0
40	West Virginia	1	1	1.2
41	Rhode Island	1	1	1.5
42	Puerto Rico	1	1	2.2
43	Maine	1	1	1.0
44	Idaho	1	1	4.2
	Total	879	887	7,104.2

Table 6: Venture Capital Investment in U.S. Companiesby State, 7/01/2007 to 9/30/2007

Source: PricewaterhouseCoopers Venture Economics/NVCA MoneyTree Survey (2007)

VI. Review of Literature on Private Equity and the Economy

Academic Literature

Although it is not possible to review all of the articles in this paper, in this section we will discuss several papers that are especially relevant to our topic. I have also included in the reference section a selection of literature for further reading.

1. Abrams (2007)³⁹

Abrams discusses current issues surrounding carried interest tax changes, concluding that while current tax law was drafted largely out of administrative convenience, it is in fact a fairly good compromise between the many conceptual and practical difficulties of fashioning a proper tax treatment for investment activities. He argues that while surely some portion of the returns could be considered compensation for services, it is not valid to classify all of the carried interest received by the general partner as compensation since a large part of carried interest is in fact the risky return on a capital investment and should qualify for capital gain treatment.

Abrams considers Fleischer's (2006) proposed cost-of-capital approach as a compromise, arguing that though much of the logic is sound, the proposal has very little effect on tax revenues since with every cost-of-capital charge paid by the general partner, the limited partners are allowed a corresponding deduction, except for nonprofit tax-exempt entities for whom the deduction holds no value. Because of the small impact this system would have on tax revenues, Abrams suggests that even if Fleischer's approach were the correct one, the transaction cost of changing current tax law is greater than the ultimate benefits of such a change, due largely to undesirable complexity and avoidance issues.

2. Cumming, Siegel, and Wright (2007)⁴⁰

In an extraordinarily thorough review article in the September 2007 issue of the *Journal* of Corporate Finance, Cumming, Siegel, and Wright conclude that "there is a general consensus that across different methodologies, measures, and time periods, regarding a key stylized fact: leveraged buyouts (LBOs) and especially, management buyouts (MBOs), enhance performance and have a salient effect on work practices. More generally, the findings of the productivity studies are consistent with recent theoretical and empirical evidence, Jovanovic and Rousseau (2002) suggesting that corporate

³⁹ Howard E. Abrams, "Taxation of Carried Interests," <u>Tax Notes</u> 2007.

⁴⁰ Douglas Cumming, Donald S. Siegel and Mike Wright, "Private Equity, Leveraged Buyouts and Corporate Governance," <u>Journal of Corporate Finance</u> 13.4 (2007).

takeovers result in the reallocation of a firm's resources to more efficient uses and to better managers."

3. Fenn and Liang $(1995)^{41}$

This thorough review of the history and structure of private equity and venture capital was published as a staff study of the Federal Reserve Board. The report traces the positive role that regulatory and tax changes have historically played in fueling investment activity through the widespread adoption of limited partnerships as the dominant form of organizing private equity ventures.

Fenn and Liang describe the rise of the partnership as the most effective structure for dealing with issues of information and incentive structure between the general partner, institutional investors, and portfolio companies. Fenn and Liang emphasize that the expansion of the private equity market has increased access to outside equity capital for both classic start-up companies and established private companies.

Relevant to the current proposed regulatory and tax changes, Fenn and Liang describe the abrupt slowing of venture capital investment in the late 1960s and early 1970s due to a shortage of qualified entrepreneurs, a sharp increase in the capital gains tax rate, and a change in tax treatment of employee stock options. These changes not only discouraged investments in start-ups but drove fund managers to shift to other strategies for private equity investing. The result, they note, was an increase in leveraged buyouts of larger, more established companies and very little investment in new ventures.

4. Fleischer (2006)⁴²

Fleischer proposes a "cost-of-capital" approach under which the general partners of investment partnerships with more than \$25 million in capital under management would be allocated an annual cost-of-capital charge (e.g., 6% of the 20% profits interest times the total capital under management) as ordinary income. The limited partners would then be able to deduct the corresponding amount (or would capitalize the expense, as appropriate). Fleischer argues that this tax treatment more closely reflects the economics of the arrangement, explaining "in the typical fund, the GP effectively receives a nonrecourse, interest-free compensatory loan of 20% of the capital in the fund, but the foregone interest is not taxed currently as ordinary income."

Fleischer claims that his cost-of-capital approach also provides a reasonable compromise on the character of income issue: "as when an entrepreneur takes a below market salary and pours her efforts back into the business as 'sweat equity,' the appreciation in the value of a private equity fund reflects a mix of labor income and investment income. A

⁴¹ George W. Fenn, Nellie Liang and Stephen Prowse, "The Economics of the Private Equity Market," Staff Series (Washington, DC: Board of Governors of the Federal Reserve System, 1995), vol. ⁴² Victor Fleischer, "Two and Twenty: Partnership Profits in Hedge Funds, Venture Capital Funds and

Private Equity Funds," Colloquium on Tax Policy and Public Finance (NYU School of Law: 2006), vol.

cost-of-capital approach disaggregates these two elements, allowing service partners to receive the same capital gains preference that they would receive on other investments, but no more."

5. Jensen (1989)⁴³

Jensen argues against the 1980s protest and backlash from business leaders and government officials calling for regulatory and legislative restrictions against privatization (takeovers, corporate breakups, divisional spin-offs, leveraged buyouts, and going-private transactions). He believes that this trend from public to private ownership represents organizational innovation and should be encouraged by policy. Jensen explains that there is a conflict in public corporations between owners and managers of assets known as the "agency problem," particularly in distribution of free cash flow. He argues that weak public company management in the mid-1960s and 1970s triggered the privatizations of the 1980s. He sees LBO firms as bringing a new model of general management that increases productivity because private companies are managed to maximize long-term value rather than quarterly earnings. He argues that private equity revitalizes the corporate sector by creating more nimble enterprises. Jensen further asserts that it is important that the general partners of LBO partnerships take their compensation on back-end profits rather than front-end fees because it provides strong incentives to do good deals, not just do deals.

6. Jensen (1993)⁴⁴

Jensen describes the problems that accompany the "modern Industrial Revolution" of the past twenty years, citing that "finance has failed to provide firms with an effective mechanism to achieve efficient corporate investment." He explains that large corporations today do not follow the rules of modern capital-budgeting procedures, most specifically succumbing to agency problems that misalign managerial and firm interests—damaging managers' incentives to maximize firm value instead of personal gain. The classic structure of private equity buyouts helps to realign incentives through increased managerial equity holding, increased monitoring via commitment to service debt, and the active involvement of investors whose ultimate returns depend on the firm's value upon exit. Jensen provides a framework for analyzing expected longevity and improved performance in the long run, arguing that financial sponsor involvement in companies that have previously been underperforming and wasting free cash flow can permanently improve the company's performance through improved organization and practices.

 ⁴³ M. Jensen, "The Eclipse of the Public Corporation," <u>Harvard Business Review</u> 67.5 (1989).
⁴⁴ M.C. Jensen, "The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems," Journal of Finance 48 (1993).

7. Kaplan (1989)⁴⁵

In a classic article, Kaplan examines a sample group of seventy-six large management buyouts of public companies from 1980 to 1986, presenting evidence for long-term changes in operating results for these companies. Kaplan found that in the three years following the buyout, the sample companies experienced increases in operating income, decreases in capital expenditures, and increases in net cash flow. Consistent with these documented operating changes, the mean and median increases in market value (adjusted for market returns) were 96% and 77% over the period from two months before the buyout announcement to the post-buyout sale. Kaplan provides evidence that the operating changes and value increases are due to improved incentives as opposed to layoffs, managerial exploitation of shareholders via inside information or wealth transfer from employees to investors.

8. Knoll (2007)⁴⁶

Knoll presents the first academic analysis to quantify the tax benefit to private equity managers of the current treatment of carried interests and the additional tax that the Treasury would collect if current tax treatment were changed in accord with recent proposed legislation. He points out that it is misleading to look at one party in isolation because private equity investments involve several parties including general partner, limited partner, and portfolio company owners and managers who are joined by negotiated business agreements. Knoll uses a method for estimating tax impacts that was developed twenty-five years ago by Merton Miller and Myron Scholes (1982). Using the Miller-Scholes methodology, he estimates the tax implications of raising tax rates on carried interest for all parties in the private equity transaction. Using estimates of the composition of limited partners, Knoll calculates estimates of net tax revenue gain from the proposed tax increase.

Knoll estimates, based on assumed \$200 billion of annual limited partner investments and with no change in the composition of the partnerships or structure of the fund agreements, that the change in tax treatment as a combination of ordinary income tax rates and accelerating taxation of corporate entities would generate an additional \$2 to \$3 billion per year. He notes, however, that it is highly likely that the structure of private equity funds will change in response to the tax treatment revisions, shifting some portion of the burden of increased taxes to limited partners and to the portfolio companies. Assuming that companies are generating taxable profits and can use the additional expense deduction, shifting carried interest to portfolio companies would virtually cancel out any additional taxes paid by the general partners, with the result that increasing carried interest tax rates would generate little or no net increase in tax collections.

⁴⁵ S.N. Kaplan, "The Effects of Management Buyouts on Operating Performance and Value," <u>Journal of Financial Economics</u> 24 (1989).

⁴⁶ Michael S. Knoll, "The Taxation of Private Equity Carried Interests: Estimating the Revenue Effects of Taxing Profit Interests as Ordinary Income," <u>Social Science Research Electronic Paper Collection</u> (Philadelphia, PA: 2007), vol.

9. Metrick and Yasuda (2007)⁴⁷

Metrick and Yasuda (2007) analyze the economics of the private equity industry using a novel dataset with detailed records of 238 private equity funds raised between 1992 and 2006. They build a model to estimate expected revenues to managers as a function of the revenue provisions in the limited partner contracts. Metrick and Yasuda find major differences between the two major sectors of the private equity industry: venture capital and buyout funds. While buyout fund managers earn lower revenue per managed dollar relative to managers of venture capital funds, they have considerably higher present values for revenue per partner and per professional.

Metrick and Yasuda report that their results show an industry that is labor-intensive and skill-based. In spite of similar goals of finding and financing businesses, the spectrum from venture to buyouts has significant heterogeneity. The key differences are in scalability of professional skills. Once successful, a buyout manager can apply the skills learned on a \$100 million company to a \$1 billion company. In contrast, venture funds invest by definition in small businesses and start-ups. The investments are more labor intensive because the firms must be held until they are of adequate size and profitability to harvest. The skills that are essential in helping firms in their start-up phase are not applicable to larger, more mature enterprises. These differences translate into the revenue differences per partner described above and have implications for organizational economies of scale and the relationship between fund characteristics and future fund terms.

10. Nikoskelainen and Wright (2007)⁴⁸

The authors use a data set comprising 321 exited buyouts in the United Kingdom (UK) from 1995 to 2004 to investigate the realized value increase in exited leveraged buyouts. Nikoskelainen and Wright test Michael C. Jensen's (1993) free cash flow theory, showing that value increase and return characteristics of LBOs are related to the associated corporate governance mechanisms, most notably managerial equity holdings. They also show that return characteristics and the likelihood of a positive return are related to the size of the target company and to any acquisitions executed during the holding period.

⁴⁷ Andrew Metrick and Ayako Yasuda, "The Economics of Private Equity Funds," <u>Swedish Institute for</u> <u>Financial Research Conference on The Economics of the Private Equity Market (2007)</u>, vol.

⁴⁸ Erkki Nikoskelainen and Mike Wright, "The Impact of Corporate Governance Mechanisms on Value Increase in Leveraged Buyouts," Journal of Corporate Finance 13.4 (2007).

11. Renneboog, Simons, and Wright (2007)⁴⁹

This paper examines the magnitude and sources of the expected shareholder gains in UK Public-to-Private (PTP) transactions from 1997 to 2003. They show that pretransaction public shareholders receive a premium of 40%. They test the sources of value creation from the delisting and find that the main sources of value are undervaluation of the target firm in the public market, increased interest deduction and tax savings, and better alignment of owner-manager incentives.

12. Sanchirico (2007)⁵⁰

Sanchirico (2007) clarifies the nature of the tax status of profit shares (carried interest) as capital gains rather than regular income and evaluates some of the main arguments for an against the current tax treatment. He breaks down the nature of fund managers revenues and frames the argument as joint tax arbitrage, and describes in detail the complications of the financial relationship between the investor and manager in terms of both tax timing and rate. Sanchirico cautions that this is a complex issue that cannot be easily isolated as implied by the proposals to change the current tax treatment. He notes that the perceived tax advantage of fund managers is being held up for putative treatment due to lucrative fund returns. The social reaction to the large revenues received by some very successful private equity managers distracts policy makers from the complicated financial relationship of investment returns, risk, and tax liability between fund manager and their investors. Because they are so inextricably bound, it is neither prudent nor possible to target any part of the relationship without impacting the rest. Sanchirico also argues that focusing on this one aspect will divert attention from the broader need for regulatory reform.

13. Weisbach (2007)⁵¹

Weisbach argues that the arguments behind the Levin bill are misplaced for two reasons: (1) the labor involved in private equity investment is no different than the labor that is intrinsically involved in any investment activity, and should be treated no differently; and (2) even if there were good reasons for taxing carried interest as ordinary income, the tax changes would be "complex and avoidable, imposing costs on all involved without raising any significant revenue."

To support his first point, he compares private equity investment to purchasing stock through a margin account. In both situations, investors combine their capital with that of

⁴⁹ Luc Renneboog, Tomas Simons, and Mike Wright, "Why Do Public Firms Go Private in the UK? The Impact of Private Equity Investors, Incentive Realignment and Undervaluation," <u>Journal of Corporate Finance</u> 13.4 (2007).

⁵⁰ Chris W. Sanchirico, "The Tax Advantage to Paying Private Equity Fund Managers with Profit Shares: What Is It? Why Is It Bad?," <u>University of Pennsylvania, Institute for Law & Economics</u>.Research Paper 07–14 (2007).

⁵¹ David A. Weisbach, <u>The Taxation of Carried Interests in Private Equity Partnerships</u> (2007).

third parties, and labor effort is requires to make the investment. The only difference between the two scenarios is that private equity funds issue limited partnership interests as a means of financing their investment instead of margin debt. Weisbach argues that there are no valid reasons to change the way that these sponsors are taxed simply because they have chosen a different method of financing their activities or because they use a partnership.

The problem of complexity and avoidance that Weisbach describes is independent of the issue of what is appropriate according to tax law, and is concerned mostly with practicality. In order to change the tax treatment of carried interest as proposed, we would first have to define carried interests. In addition, if that were accomplished satisfactorily, fund managers would have little problem avoiding the bulk of these new taxes by acquiring nonrecourse loans from limited partners.

Weisbach concludes that the decision of private equity fund managers to use limited partnerships instead of debt to finance their investments does not warrant such a significant change in tax law; and that even if it did, the small increases in tax revenues (after investors have avoided the bulk of the impact of the tax rate increase with simple changes in financing structure) would not outweigh the difficulties and costs that the new laws would present.

14. Wright, Wilson, and Robbie (1996)⁵²

The authors examine the longevity and longer term effects of smaller buyouts. The evidence presented shows that the majority of these companies remain as independent buyouts for at least eight years after the transaction, and that entrepreneurial actions concerning both restructuring and product innovation are important parts of entrepreneurs' strategies over a ten-year period or more. Wright, Wilson and Robbie also provide an analysis of the financial performance and productivity of these companies using a large sample of buyouts and nonbuyouts. Their analysis shows that buyouts significantly outperformed a matched sample of nonbuyouts, especially from year 3 onwards. Regression analysis showed productivity differential of 9% on average from the second year after the buyout onward. Companies that remained buyouts for ten or more years experienced substantial changes in their senior management team, and were also found to undertake significant product development and market-based strategic actions.

15. Wright and Robbie (1998)⁵³

Wright and Robbie provide a thorough review of the literature on venture capital and private equity industries, extending previous reviews by Tyebjee and Bruno (1984), Fried and Hisrich (1995), and Barry (1994). They cite several reasons why they believe venture

⁵² M. Wright, N. Wilson and K. Robbie, "The Longer Term Effects of Management-Led Buyouts," Journal of Entrepreneurial and Small Business Finance 5.3 (1996). ⁵³ Mike Wright and Ken Robbie, "Venture Capital and Private Equity: A Review and Synthesis," <u>Journal of</u>

Business Finance & Accounting 25.5&6 (1998).

capital merits attention. Foremost among technical problems is the impact of asymmetric information in new or radically changing business financing and investing. Their main point, however, is that because of the narrow focus of research, only about 50% of the activities in the venture capital market are investigated at all. This deprives the literature of any comprehensive overview or consideration of many important factors and forces at work in the venture capital market. Wright and Robbie attempt to fill in these gaps by providing a view from both the industry/market level and from the firm level with a principal focus on the supply side of the market. They suggest that there is still a need for industry/market level research and that the field would benefit from investigating the connections between the industry and firm level issues.

Wright and Robbie also argue that formal theoretical models have not been developed. They acknowledge the work of some scholars who have attempted to construct approaches to model the problem of asymmetric information, aspects of contractual arrangements and negotiation, and the difficulties of identifying, attracting, and investing in high-quality ideas and entrepreneurs. However, they feel that these attempts have not yet adequately or usefully captured the characteristics of the venture capital market. Finally, they suggest that new sources of data, such as analysis of enterprises that have been financed by venture capital, may be an avenue to overcome current difficulties in applying traditional research models.

Congressional Hearings

Senate Finance Committee Hearings

1. Auerbach, Alan J.⁵⁴

Auerbach argues for an even more comprehensive reform of carried interest tax rates because the proposed solutions, while progressive, reduce returns and do not eliminate underlying problems because they focus only on certain sectors. Although he concedes that nothing will be entirely right, capital gains rates should not be lower than other tax rates. Auerbach cautions that the costs and benefits need to be carefully considered. In his opinion, if the tax burden can be avoided or shifted, then changing the tax code is not a good solution.

Auerbach notes that pension fund investments in private equity funds were \$350–400 billion. While he believes that actual tax yield would be in the neighborhood of 10 to 20 basis points, the economic incentive shifts could reduce the number of active general managers. A shrinking industry makes pricing less competitive and increases the probability of the tax burden passing onto the limited partners, including pension funds.

⁵⁴ Alan J. Auerbach, "Carried Interest III: Taxation and Pensions," <u>Senate Finance Committee Hearing</u> (Washington, DC: U.S. Senate, 2007, Sept. 6), vol.

Auerbach favors maintaining incentives using a comprehensive approach to changes in the tax code; he believes that taking away all favorable treatment would decrease incentive for avoidance.

2. Read, Russell⁵⁵

Read, the chief investment officer for California Public Employees' Retirement System (CalPERS), testified about the structure of CalPERS' investments in private equity. Private equity revenue growth has allowed them to diversify within their Alternative Investment Management (AIM) portion.

The extensive time and effort in the private equity due diligence process benefits investors by increasing the likelihood of success and mitigating risk of failure. Read emphasized the consistency of private equity returns from the top quartile of investment managers. California investment companies have achieved 12% employment growth in the last year, compared to 1% in California overall.

House Committee on Ways and Means Hearing, September 6, 2007

3. Fleisher, Victor⁵⁶

Senator Fleisher (2006) advocates changing the tax law under the assumption that the tax treatment of carried interest as specified in earlier tax code is now outdated. He cites tax rate inequities across similar services but concedes that no one knows the best answer.

4. Gergen, Mark P.⁵⁷

Gergen argues in favor of carried interest being classified as ordinary income. He believes that the general manager should have to declare as compensation all returns in excess of the pro rata returns on their share of contributed capital, and that the tax code should differentiate between fund returns and manager returns. He suggests that the carried interest problem exists because Section 702(b) follows the entity theory with the character of income determined at the partnership level. From the perspective of the fund, income is a return to capital. From the perspective of the manager, it is compensation.

⁵⁵ Russell Read, "Carried Interest III: Taxation and Pensions," <u>U.S. Finance Committee</u> (Washington, DC: U.S. Senate, 2007, Sept.6), vol.

⁵⁶ Fleischer, "Two and Twenty: Partnership Profits in Hedge Funds, Venture Capital Funds and Private Equity Funds," vol.

⁵⁷ Mark P. Gergen, <u>How to Tax Carried Interests</u> (Washington, DC: House Committee on Ways and Means, 2007).

Gergen addresses the evasion scenario of using nonrecourse loans and describes the philosophical argument for the current tax code, such as viewing the manager's capital contribution as an intangible and viewing carried interest as a return on capital contributed by the manger. Overall, he suggests that claims that the Levin bill or his own proposals create complexity without changing results are not accurate.

5. Holtz-Eaken, Douglas⁵⁸

Holtz-Eaken condemns tax-based distortions as an impediment to robust growth and to competing in global markets. He argues for a solution of reducing the growth of government spending to minimize the impact of taxes on families and incentives.

Holtz-Eaken proposes a neutral system where the taxpayer's liability should equal the benefits they receive from the taxes. He addresses the inequality issue by showing that in 2004, the bottom 40% paid no income tax when accounting for the returned credits and benefits. Holtz-Eaken is in favor of reducing government spending and supports a consumption tax to realign incentives. He believes a consumption tax would increase economic efficiency and allow lower rates by broadening the base.

6. Ifshin, Adam⁵⁹

Ifshin, testifying as the representative from the Real Estate Roundtable, argues that the tax change would seriously hinder real estate entrepreneurship and have severe ripple effects on the economy. He maintains that real estate investors reinvest their gains in new projects rather than remove them from the market. Thus, reducing the gains through increased taxes would inhibit both the funds available for investment and the rate of return on investments.

Ifshin describes the general managers' skills and other intangibles as their capital contribution, with the general managers bearing a disproportionate amount of risk. The general manager fronts the expenses of all projects, from initial deal sourcing, due diligence costs, approvals, and financing and legal fees which are nonreimbursable if a deal falls through, as well as the opportunity costs of bypassing other investment alternatives. Changing the tax code would change the incentive structure, affecting the choice of debt over equity and decreasing the risk tolerance. This shift would lower the amount of projects in lower -income neighborhoods and harm communities that need it most.

 ⁵⁸ Douglas Holtz-Eaken, "Carried Interest III: Taxation and Pensions," <u>U.S. House Committee of Ways and Means</u> (Washington, DC: U.S. House of Representatives, 2007, Sept. 6), vol.
⁵⁹ Adam Ifshin, "Testimony before the House Committee on Ways and Means," <u>House Committee on</u>

⁵⁹ Adam Ifshin, "Testimony before the House Committee on Ways and Means," <u>House Committee on</u> <u>Ways and Means</u> (Washington, D.C.: 2007), vol.

7. Levin, Jack S.⁶⁰

Levin asserts that the long-term capital gains tax should remain at a lower rate to encourage capital investment and to offset the inflationary devaluation of the investment. Levin argues that historically, knee-jerk anti-affluent tax decisions have been highly detrimental to the U.S. economy. He cites as an example the 1969 congressional hearings that enacted the Alternative Minimum Tax (AMT) provision as a solution to the problem of 21 wealthy individuals who had paid no federal income tax in 1967. Levin cautions that trying to target the general managers of private equity partnerships would do more than penalize the general managers; a change in the tax rate would harm the economy and jeopardize job creation. He notes that in the past twenty years, venture capital and private equity funds have financed business growth that supplied more jobs than traditional big business.

8. Orszag, Peter R. (CBO)⁶¹

Orszag argues that innovations in financial markets contribute to economic growth, dampen business cycles, and decrease volatility. In comparing private equity and hedge funds, Orszag notes that hedge funds take on greater risk and have investments of much shorter duration compared with private equity. Private equity target companies, he adds, tend to outperform the market after the private equity companies exit. He suggests that the Black-Scholes option pricing technique could be applied to value profits interest, but admits that it is not possible to know the duration or volatility of the investment.

A reclassification of revenue from carried interest/capital gains to ordinary income would impact not only financial institutions but also real estate partnerships. Orszag suggests that the United States needs to maintain stability and perception of fairness, and he is not concerned about driving capital offshore. The bigger issue is trying to separate long-term capital gains from ordinary income, but he believes that a low capital gains tax rate has only had a modest effect on capital formation and economic activity.

9. Rosenblum, Bruce⁶²

Rosenblum describes private equity as essential to capital formation. He addresses many misconceptions about carried interest. Carried interest is not the equivalent of a stock option; it is equivalent to founders stock due to restrictions and financial incentives. He argues that the holders of carried interest bear significant economic risks, such as the real risk of a company not making a positive return or suffering out-of-pocket losses from

⁶⁰ Jack S. Levin, "Testimony before the House Committee on Ways and Means," <u>House Committee on</u> <u>Ways and Means</u> (Washington D.C.: 2007), vol.

⁶¹ Peter R. Orszag, "The Taxation of Carried Interest," <u>House Committee on Ways and Means</u> (Washington, D.C.: 2007), vol.

⁶² Bruce Rosenblum, "Testimony before the House Committee on Ways and Means," <u>House Committee on</u> <u>Ways and Means</u> (Washington, D.C.: 2007), vol.

deals not completed. Rosenblum views partnerships as owning capital assets, and thus they should receive capital gain at sale.

Rosenblum testifies that it is naïve to assume that legislation will not have an effect on the economy; however, legislation would have reverberating rather than immediate effects. Consequences will include lower returns for investors, loss of competitiveness in world markets, and migration of capital activity. He argues that is it highly possible that private equity managers will increasingly move overseas to take advantage of favorable tax environments

10. Silver, Jonathan⁶³

Silver, managing director at a venture capital firm and representative of the National Venture Capital Association, sees venture capital as contributing to long-term growth through creating new companies, jobs, and new industries through investment in innovation. Venture capitalists act as founders, investing time and money in the entrepreneur and providing financing at performance milestones. Silver notes that it is important to see venture capitalists and entrepreneurs as cofounders. For the venture capital investor, there is significant risk; approximately 40% of all venture-backed companies fail and only 20% achieve realizable gains. Venture capital is a small industry, representing only 0.2% of the U.S. gross domestic product (GDP).

Silver believes that if Congress passes H.R. 2834 without amendment, it will send a message to the U.S. venture capital community that says that the government does not believe that what venture capitalists do creates value. Silva sees three consequences. First, there would be less ability to take risk. Second, there would be less ability to attract talented professionals. Finally, there would be less ability to keep capital in the United States, as talented employees and investment capital would begin to favor non-U.S. firms as U.S. tax laws become less accommodating.

11. Steuerle, C. Eugene⁶⁴

Steuerle argues that any time Congress creates differentials in taxation, tax professionals are extraordinarily adept at leveraging up those differentials and applying them. He describes a tax arbitrage that reduces national income and product, and encourages too much production of some items and too little of others. Conversely, he believes that tax policy should reduce tax differentials. Steuerle claims that the Tax Code should not favor debt over equity.

⁶³ Jonathon Silver, "Hearing on Fair and Equitable Tax Policy for America's Working Families," <u>U.S.</u> <u>House Committee of Ways and Means</u> (Washington, DC: U.S. House of Representatives, 2007, Sept. 6), vol.

⁶⁴ C. Eugene Steuerle, "House Committee on Ways and Means," <u>U.S. House Committee on Ways and Means</u> (Washington, DC: U.S. House of Representatives, 2007, Sept. 6), vol.

VII. Proposed Tax Increases

On June 22, 2007, Representative Sander Levin, along with Representatives Charles Rangel and Barney Frank and a dozen other members of the House of Representatives, introduced H.R. 2834 to address "Investment Management Services Taxation,"⁶⁵ which could have a large potential impact on the economy and capital markets. The legislation would add a new Section 710 to the IRS Code of 1986, reclassifying the carried interest of an investment services partnership interest (ISPI) from capital gains to ordinary income tax treatment. It would also more than double tax rates on carried interest earned by general partners of investment partnerships—as well as on investment funds created as limited liability companies who choose to be taxed as partnerships—from the current long-term capital gains rate of 15% to the 35% ordinary income tax rate. Additionally, H.R. 2834 would limit the amount of losses available to managers of the partnerships; a net loss would be treated as an ordinary loss.

In the bill's accompanying fact sheet, the bill's sponsors state that the tax increase will apply to "any investment management firm without regard to the type of assets, whether they are financial assets or real estate."⁶⁶ In addition to private equity funds, venture capital funds, and hedge funds, the increase will affect all investment partnerships, including both REITs and publicly traded partnerships.

Alarmingly, House Committee on Ways and Means Chairman Charles Rangel announced that the tax increase may be applied retroactively to partnership agreements signed many years in the past, stating that "due to the potential erosion of our tax revenues in this case, my historic opposition to retroactive tax legislation may not apply."⁶⁷ This bill is such a stark departure from long-accepted tax principles that one law firm, in a message to its clients and friends, stated: "This bill, if enacted, would have broad sweeping effects on the structure of investment funds, and would represent a sea change in the private investment funds industry."⁶⁸

On October 25, Chairman Rangel of the House Committee on Ways and Means proposed a tax bill that the *New York Times* described as "a massive overhaul of the American tax system with serious implications for the private equity and hedge funds industries."⁶⁹ On November 1, 2007, the House Committee on Ways and Means passed H.R. 3996, an \$81 billion tax package billed as the "Temporary Tax Relief Act of 2007," on a 22-13 party-

⁶⁵ Committee on Ways and Means, Press Release, "Levin, Democrats Introduce Legislation to End Carried Interest Tax Advantage, June 22, 2007.

⁶⁶ S. Levin, "Levin and Democrats Introduce Legislation to End Carried Interest Tax Advantage," (Washington, DC: U.S. House of Representatives, 2007, June 22), vol.

⁶⁷ House Committee on Ways and Means, <u>Rangel Applauds Senate Legislation on Publicly Traded</u> <u>Partnerships</u>, 2007, Available:

http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds, June 14, 2007.

⁶⁸ Proskauer Rose, <u>Congress Takes Formal Steps to Tax Carried Interest as Ordinary Income</u>, 2007,

Available: http://www.proskauer.com/news_publications/client_alerts/content/2007_06_26, June 26, 2007.

⁶⁹ http://dealbook.blogs.nytimes.com/2007/10/25/the-rangel-tax-bill-the-reaction

line vote.⁷⁰ This bill contained a provision to tax all general partner income, including the long-term capital gains component, as ordinary income—which, according to their calculations, would raise \$25.6 billion in tax revenues over ten years. Treasury Secretary Henry M. Paulson Jr. has said that the White House opposes the plan, asserting in a statement that it "would dramatically raise taxes in ways that in my judgment would hinder America's ability to compete in the global economy."⁷¹

It may not be a coincidence that the Dow Jones Industrial Average Index fell 360 points the same day. Or that the same week, reflecting the climate of rising tax rates, Cisco announced⁷² a strategic initiative with state-owned China Development Bank to invest in innovative high-growth Chinese companies; Morgan Stanley announced⁷³ that it raised a \$1.5 billion Asia private equity fund; the China Investment Corporation announced⁷⁴ it was in discussions to buy stakes in three more large U.S. private equity funds; Carlyle⁷⁵ laid out its China strategy; CITIC, China's largest securities firm, said that it would buy a stake in Bear Stearns; General Motors⁷⁶ announced it would build a major R&D operation in China; and Ford announced R&D alliances with two Chinese Universities.

This is taking place at a time when the U.S. capital markets are caught in the grip of the subprime mortgage crisis, banks are trying to deal with \$300 in illiquid leveraged loan commitments, and analysts are worried about the possibility of recession.

The Senate Committee on Finance held three hearings on the subject of carried interest: the first on July 11,⁷⁷ the second on July 31, and the third on September 6.⁷⁸ Senator Baucus, in his opening statement at the first hearing, stated his concern that "Some hedge fund managers and private equity managers are taking home more than \$100 million a year in what is called 'carried interest income.' And much of that income is taxed at the long-term capital gains rate of 15%."⁷⁹ This raises a question: "Are some people of great wealth merely taking advantage of the tax code to pay less than their full and proper share?"⁸⁰

⁷⁰ http://nationaljournal.com/pubs/congressdaily/

⁷¹ http://dealbook.blogs.nytimes.com/2007/10/25/the-rangel-tax-bill-the-reaction/

⁷² http://money.cnn.com/news/newsfeeds/articles/marketwire/0322791.htm

⁷³ http://www.business-

standard.com/smartinvestor/storypage.php?leftnm=lmnu6&subLeft=1&autono=300141&tab=r

⁷⁴ http://www.economist.com/business/displaystory.cfm?story_id=10064501

⁷⁵ http://blog.washingtonpost.com/washbizblog/2007/10/carlyle_group_cofounder_outlin.html

⁷⁶ http://www.latimes.com/business/la-fi-gm30oct30,1,1210547.story?track=crosspromo&coll=la-headlines-business&ctrack=1&cset=true

⁷⁷ E. Solomon, <u>Senate Finance Committee Hearing on Carried Interest I</u> (Washington, DC: U.S. Senate, 2007, July 11).

⁷⁸ Chuck Grassley, <u>Senate Finance Committee Hearing: Carried Interest II</u> (Washington, DC: U.S. Senate, 2007, July 31).

⁷⁹ Baucus, Max, 2007, Carried Interest I, Senate Finance Committee (Washington. DC).

⁸⁰ By "taking advantage of the tax code to code to pay less than their full and proper share," Senator Baucus means simply following current law when calculating their taxes.

Later in his testimony, Senator Baucus again refers to hedge funds, which "now manage nearly \$2 trillion in assets."⁸¹ But hedge funds generally hold securities for very short times and pay ordinary income tax rates on short-term capital gains income, which makes up the bulk of their profits and carried interest.⁸² The rhetorical value of his statement is obvious—everybody loves to hate hedge fund managers, making them a great whipping boy for the press. But the facts are clear; hedge funds are a minor factor in the issue of taxing long-term capital gains as carried interest.

Senator Baucus lays down a set of ground rules for the discussion that suggests he is fully aware of the critical importance of investment and capital formation for the American economy:

No matter what we may ultimately decide to do, we will in no way wish to change the interests of the limited partners. [...] Entrepreneurs create new jobs. We do not want to stifle the mother of invention. [...] We want to ensure that our entrepreneurial system continues to function well. We want to ensure that people are free to continue to create wealth.⁸³

Senator Grassley, in his statement, echoes many of the same ideas by stating what the inquiry and any proposal that it may produce is "not about":

This bill [is not] an attack on capital formation [or] a tax increase on a single industry. [...] Not about raising taxes on capital income. [...] Not an attack on the investor class. [...] Not a revenue grab from private equity firms or hedge funds. [...] Not about well-settled tax policy principles regarding capital assets, or the propriety of current law capital gains rates.⁸⁴

Senator Grassley reminds us that "keeping taxes low on investment returns is sound tax policy." And later, that "lower taxes on capital gains and corporations can help American businesses compete in the global economy."⁸⁵

These are important and worthy principles. It is the conclusion of this report, however, that the proposal to increase tax rates on America's partnerships would violate every one of them.

⁸¹ Baucus (2007).

⁸² See Ed Easterling, "Hedge Funds: Myths and Facts," <u>Crestmont Research</u> April 10, 2007 (2007). Hedge fund industry data suggest that hedge funds turn over roughly 35% of their portfolios every quarter, or 82% per year, which suggests that more than 80% of hedge fund profits and carried interest payments take the form of short-term capital gains, which are taxed at ordinary income rates.

⁸³ Max Baucus, "Carried Interest I," <u>Senate Finance Committee Hearing</u> (Washington, DC: U.S. Senate, 2007, July 11), vol.

⁸⁴ Chuck Grassley, "Carried Interest I," <u>Senate Finance Committee Hearing</u> (Washington, DC: U.S. Senate, 2007, July 11), vol.

⁸⁵ Grassley, "Carried Interest I," vol.

The durability, flexibility, and tax treatment of the partnership as the dominant vehicle for undertaking new business and investment ventures is the cornerstones of the American business and investment model. The partnership is in no small measure responsible for the innovation, entrepreneurial activity, and growth that have made U.S. capital markets and the U.S. economy the envy of every country in the world. We must be cautious if we want to remain the preeminent country in the global economy.

VIII. Collecting the Tax

It is one thing to impose a tax on an activity; it is another to collect it. Tax policy sets the rules or constraints on individual behavior. Taxpayers are then free to arrange their business and personal lives to minimize the negative impact of taxes on their lives in any way that is consistent with the tax code. General partners are no different from other taxpayers in this regard.

During recent hearings in both the House and Senate, multiple witnesses testified that raising the tax rate on a general partner's carried interest from the historical long-term capital gains rate to the ordinary income tax rate would trigger significant changes in the way general partners structure their business activities. These changes are likely to meaningfully undermine the amount of taxes collected at the higher proposed tax rates. This section presents a brief summary of the principal approaches that a general partner could take to reduce the impact of the tax increase on their after-tax income and wealth.

The ultimate impact of increasing tax rates on carried interest from the long-term capital gains rate of 15% to the ordinary income rate of 35% will be determined, of course, by the degree to which it can be legally avoided by simple changes in the behavior and contractual arrangements among the various parties involved in private equity investing activities. I state this obvious point because many analysts⁸⁶ have reached the conclusion that such a tax increase will be largely avoided.

The best analysis I have found to date of the amount of additional tax revenues that would be generated by higher carried interest tax rates is the study conducted by Knoll (2007). Using Black-Scholes analysis of the value of the embedded call option on partnership gains implied by carried interest, and a careful analysis of the impact of the tax rate change on each class of investor, Knoll estimates that changing both the character and timing of carried interest income would generate additional tax revenues of between \$2 billion and \$3.2 billion dollars, or 1.0% to 1.6% of invested capital, before taking into account likely changes in partnership structure. This is hardly a bonanza. Accounting for likely changes in the business arrangements between general partners, limited partners, and operating companies, however, erases even these modest revenue gains. If general partners shift carried interest charges to their portfolio companies, for example, Knoll

⁸⁶ See, for example, Knoll (2007), Weisbach (2007), Kaplan (WSJ, July 25, 2007), Fleischer (2006), and Sanchirico (2007).

explains that "the tax savings by portfolio companies will exceed the additional taxes collected from general partners on their carried interest."⁸⁷

In summary, Knoll concludes: "It is, thus, possible that there will be little or no net increase in tax collections from taxing carried interests as ordinary income and accelerating taxation to the grant date once the structure of private equity funds adjusts in response."

Before we start lynching private equity managers for their likely future (entirely legal) efforts to avoid a tax increase, let's take a moment to ask why it is highly likely that it can be avoided. The reason is simple—the carried interest profits that Congress is trying to tax actually are long-term capital gains.

To illustrate this point, if a group of financial investors came together to form a partnership to engage in exactly the same investment activities as today's private equity partnerships, but with no general partner, 100% of the profits from the partnership would be taxed at long-term capital gains rates because that is the partnership's purpose. All that today's partnership structure has done is to take a slice of the same long-term capital gains and assign them to the general partner as an incentive to contribute intangible assets—brand, reputation, deal flow network, and experience—to the venture. The fact that limited partners do so willingly, through arm's-length negotiations with general partners, serves as a measure of the value that a good general partner brings to the table.

As Knoll (2007) convincingly shows, whether the tax increase raises any revenues at all depends entirely on the nature of the limited partners that make up a partnership. To the extent that limited partners are tax-paying high net worth individuals, for example, and make up approximately 20% of current private equity assets, taxing carried interest at ordinary income rates would collect no money at all since the increased income to the general partner is exactly offset by the increased deductions for the limited partner. For corporations, which comprise another 20% of private equity assets, the analysis is more complicated but the result is very nearly the same.

For tax-exempt investors, however—the pensions, charitable foundations, university endowments, and foreign investors that make up 50% of today's private equity pool—the story is different. To the degree that general partners are able to pass along the higher tax rate by negotiating higher fees or carried interest, tax-exempt investors will not be able to benefit from deducting the additional expense. As a result, the only reason why raising tax rates on the carried interest income generated by a partnership's long-term capital gains is an interesting (i.e., potentially revenue generating) proposition is that tax-exempt organizations have grown to be large and important long-term investors for the American economy. Increasing carried interest tax rates are, in part, an assault on the tax-exempt nature of these organizations.

⁸⁷ Knoll (2007), p. 18.

If carried interest tax rates can be largely avoided, of course, they are unlikely to be a major problem for the economy or the capital markets. The more important question to ask is what will happen if the tax increase cannot be avoided.

Baseline—Current Law

Under longstanding tax principles, partnerships are taxed as pass-through vehicles. All distributions to partners of limited partnerships are taxed based on the character of the income received by the partnership. According to a recent paper by Weisbach (2007), the underlying principle is that the existence of the partnership structure should not influence the taxes paid by individual partners if they were to undertake the same investment activities outside the partnership.

Currently, all fees received by the general partner, including annual contractual management fees and fees earned from portfolio companies or other sources, are taxed as ordinary income. Together, according to several sources, such fees make up about two-thirds of total income for general partners (Metrick and Yasuda, 2007). Carried interest—the partner's contractual share of total partnership profits, or gains, over the life of a partnership—can come from several different sources, including interest income, fees paid directly to the partnership (as opposed to fees paid to the general partner), short-term capital gains, and long-term capital gains. Under current law, general partners are taxed based on the character of the partnership income making up the carried interest. The portion of carried interest comprising interest, fees, and short-term capital gains is taxed at ordinary income rates of 35%. Only the long-term capital gains portion of carried interest from the sale of partnership investments are taxed at long-term capital gains rates.



Figure 13: Allocation of Fund Value between the General Partner, Limited Partners, and Lenders

Graphically, we can represent the allocation of value between general partner, limited partners, and lenders by Figure 13 above, reproduced from Section III. If Congress were to pass a law doubling tax rates on the long-term capital gains portion of carried interest—represented by the areas of the two orange rectangles in Figure 13—it is reasonable to expect that private equity sponsors would rearrange their business affairs in the most beneficial way within the new law.

Before discussing alternative ways to structure private equity, I want to raise three points. The first is that private equity sponsors are not evading taxes by paying long-term capital gains tax rates of 15% on the portion of their carried interest from long-term capital

gains; they are simply following the law. It is inappropriate to use recriminatory language to describe lawful behavior.

Second, taxing carried interest is not a loophole; it is the way partnerships have been taxed for more than half a century.

Third, today's way of organizing private equity through partnerships is the most efficient way to do it; it represents the results of 50 years of trial and error by some of the brightest, best educated, and most motivated people in America. If Congress changes the law to make the current structure no longer workable, the industry will move away from it—but not without cost, loss of efficiency, and damage to the industry.

Alternative Structures for Private Equity

When a change in the tax law materially impacts the after-tax prospects of one participant in a business transaction, everyone in the group will feel the effects, as we will show in the section on tax incidence. In this case, an increase in the tax rate on carried interest will create incentives for general partners to explore new ways of doing business.

Before I present some of the alternatives available to general partners, I would like to clearly lay out their objective: It is simply to reproduce the economics shown in Figure 13. Since all parties joined partnerships structured in this way by choice and since the group as a whole would be worse off after a tax increase, it must be true that the group would prefer any other structure that would legally reproduce today's economics. The reason why so many scholars have concluded that large fund sponsors will design a way around the tax increase is that there are, in principle, an infinite number of ways to design securities to construct a given stream of cash flow.

I will leave the case of simply renegotiating fees to share the pain among all partners for a later section since that is merely a reflection of bargaining strength, rather than an opportunity to improve the entire group's after-tax position.

Partnership Loan-Based Structures

The most obvious way to restructure a private equity fund would be accomplished by having the general partner borrow money from limited partners and use the proceeds to buy a limited partner interest in the fund. Several researchers have discussed the idea⁸⁸ and the bill passed by the House Committee on Ways and Means contains language designed to prevent it. I am skeptical that the barn door will remain closed.

Revised Partnership Capital Structure

A second route would be to change the capital structure of private equity investments. General partners would raise smaller private equity funds so they could take a 20%

⁸⁸ Weisbach (2007), Sanchirico (2007), and Fleischer (2007).

position in the fund as a limited partner. They would then buy companies with a small layer of equity supported by a large layer of a more senior security (subordinated debt with warrants, convertible debt, convertible preferred) that would have a coupon reflecting the desired historical hurdle rate.

Substitution of Portfolio Company Fees

A third route discussed by Weisbach (2007) and Sanchirico (2007), would be to erase carried interest from the partnership agreement and, instead, have the limited partners agree that the general partner can collect advisory fees from the fund's portfolio companies sufficient to offset the loss of after-tax income. Knoll (2007) has pointed out that this route might actually result in negative net tax collections since the portfolio companies, to the extent they were paying taxes, would be able to deduct the fees as ordinary business expenses.

Co-Investment Structures

General partners could buy companies with a small amount of equity, which would allow them to take a larger (20%) position in the stock. Limited partners would provide the remaining capital through co-investments in more senior securities with hurdle-like features outside the partnership.

Alternatives to Partnership Structure

Structure a fund with no carried interest but give the general partner the right to buy out of the money options or warrants from the portfolio companies outside the partnership.

Deal-by-Deal Founder Equity

Finally, general partners could eschew funds entirely and do deals on a deal-by-deal basis, receiving founders stock for their contributions to the venture. This is where the industry started. Most of America was built this way. They could do it again.

Likely Impact on Tax Collections and Industry Structure

All of these changes, of course, would undermine tax collections to some degree from the static revenue estimates of \$2–3 billion per year used to construct the bill. Some scholars (Knoll, 2007) believe there would be little additional revenue collected at all. But that is too simple to be true.

The fact is that all general partners are not created equal. There are a small number of old, large, highly respected industry-leading sponsors that have the resources to deal effectively with any change in the law. But for every industry leader there are thousands of small funds that do not have such resources and do not have the market power to renegotiate agreements with limited partners. In many cases they will simply be driven out of business and the investments they would have undertaken will never be made.

IX. Who Will Bear the Burden of the Tax?

It is important to ask who will pay the new revenues generated by the tax increase. The comments in Senator Baucus and Senator Grassley's statements suggest that the higher tax rates they propose can be crafted to fall solely on the (wealthy) shoulders of private equity sponsors, without reducing the returns of the pension funds and their retirees or the university endowments and their students, and without any negative effects on capital formation or entrepreneurial activity. Unfortunately, that is not how economics works.

Every undergraduate student learns in their first semester of Economics 101 that the incidence of a tax depends on the elasticity, or price sensitivity, of the buyers and sellers—in this case, the limited partners and general partners—and not on who is taxed. General partners will pay through lower after-tax gains, limited partners will pay through higher partnership costs and lower returns, beneficiaries will pay through lower pension benefits, and owners and managers of operating companies will pay through lower values for the companies they are working to build.

As Steve Forbes pointed out, "raising taxes on private equity doesn't just harm fund managers or investors—it also harms the companies that need private equity investments to bring their innovations to market, which, in turn, makes our entire economy less competitive."⁸⁹

Higher tax rates also harm the limited partners who have massive amounts of their beneficiaries' money at stake. In 2006, the 20 largest pension funds invested in private equity represented 10.5 million retirees, including plans from California, New York, Texas, Florida, New Jersey, Ohio, Pennsylvania, and Michigan. Put together, these 10.5 million beneficiaries hold private equity investments that add up to \$111 billion. The 20 largest corporate pension plans in 2006, representing 3.8 million members and including AT&T, DaimlerChrysler, Boeing, GE, and TIAA-CREF, have a collective investment of \$44 billion in private equity funds.⁹⁰

How would a tax affect the investment market?

Economic theory tells us that, irrespective of who pays the statutory burden of a tax, the true incidence of the tax will be shared among all of the participants in the economic activity based on the character of their market positions.

There are three players in the private equity market, as illustrated below in Figure 14. The general partner is the sponsor, the limited partner supplies the capital, and the

⁸⁹ Steve Forbes, <u>Private Equity, Public Benefits</u>, 2007, The Wall Street Journal, Available: http://online.wsj.com/article/SB118532670875877067.html, July 25, 2007.

⁹⁰ Private Equity Council, "Public Value: A Primer on Private Equity," (2007), vol.

entrepreneur on Main Street provides the business they are financing. All would be affected by a tax increase.



Figure 14: Dynamics of the Investment Market

The impact of the proposed tax increases will be determined by the relationships among the general partner, the limited partners, and the owner and managers of the business. First, we will discuss the impact on the general partner-limited partner relationship in the market for raising capital. Second, we will consider the supply-demand balance between the entrepreneur and general partner, respectively, whose impacts on the economy are arguably more important.

The Market for Capital: The General Partner and Limited Partners



Figure 15: Dynamics of the Investment Market

First, let's look at the market for raising capital for private equity investments by focusing on the relationship between the general partner (GP) and the limited partners (LPs).

The GP and LPs make up a market where LPs demand services provided by the GP sourcing and doing deals, and investing and monitoring the LPs' money in investment projects alongside their own. The GP is the supplier in this market. The relevant price the terms of compensation in the partnership agreement—and the volume of activity are determined by market forces as shown below.



Figure 16: The GP-LP Investment Market

The market equilibrium, represented by P_0 on the graph, is the "2 and 20" structure used by most investment funds today. This equilibrium is disturbed by a change in tax rates.



Figure 17: Higher Carried Interest Tax Rates

The GP's supply curve represents all the points at which the GP receives just enough compensation to make it worthwhile for him to provide a given quantity of services. When a tax is imposed on GP services, the GP's after-tax price has decreased by the amount of the tax and the supply curve must shift up to compensate.



The upward shift in the GP supply curve by the amount of the tax, however, does not mean that the GP gets to pass along the entire amount of the tax to the LP. The equilibrium price rises, but not by the full amount of the tax. The result is a higher price and lower quantity than before the tax increase. GPs have a reduction in after-tax pay, LPs face an increase in fees, and the size and number of funds raised will decrease.

Who pays the tax?

When a tax is levied, the law dictates which party is legally responsible for paying the tax, known as the *statutory incidence* of the tax. But market forces dictate the *economic incidence* of the tax. The difference between the statutory incidence and economic incidence of the tax is referred to as tax shifting and can be substantial.⁹¹

This is a universally accepted economic principle found in any microeconomics textbook. In their own textbook, Katz and Rosen (1998) describe the impact of tax shifting:

The statutory incidence of a tax tells us nothing of the economic incidence of the tax. It is irrelevant whether the tax collector (figuratively) stands next to the consumer and takes \$3 every time he or she buys a gallon of wine, or stands next to the seller and collects \$3 every time he or she sells a gallon [...] what matters is the size of the wedge that the tax introduces between the price paid by consumers and the price received by producers. It does not matter from which side the wedge is introduced.⁹²

The real impact on both the general partner and the limited partners comes not from who the government decides is responsible for paying the tax, but rather from how the tax affects income distribution.

If we know the properties (slopes or elasticities) of the supply and demand curves, we can calculate the exact economic incidence of a tax.⁹³ But in the absence of such direct estimates, we are limited to qualitative statements about outcomes.

⁹¹ Michael L. Katz, *Microeconomics*, 3rd ed. (New York: McGraw-Hill/Irwin, 1998).

⁹² Katz, *Microeconomics*.

⁹³ Solving for the economic incidence of a tax on supply and demand curves of known equations can be executed as follows: Given demand and supply functions such that Demand $=P_d=100-0.5Q_d$ and Supply= $P_s=10+0.5Q_s$, we can solve to find the preliminary equilibrium point by setting the curves equal to one another such that $100-0.5Q_d=10+0.5Q_s$, yielding the solution Q=90 and P=55. Now if we impose a tax on the supplier of \$6, the supplier's effective price is reduced by 6, and the supply curve shifts vertically upward by the amount of the tax to compensate, yielding a new supply curve: $P_s-6=10+0.5Q_s$ or $P_s=10+0.5Q_s$. If we now solve for the new equilibrium point by setting this new supply equation equal to the original demand function, such that $16+0.5Q_s=100-0.5Q_d$, we find a new equilibrium solution of Q=84 and P=58. Since the consumer always pays the equilibrium price, the new price paid is \$58, which is only \$3 above the original equilibrium price of \$55. The producer's effective price, however, is still \$6 less than the equilibrium price of \$55. Thus for each unit sold, both the consumer and the supplier are down an additional \$3, showing that in this case the tax is split equally between them while total quantity of goods sold is decreased from 90 to 84. The total amount of tax collected from this ordeal is equal to the amount of

At the new equilibrium point, tax revenues equal the price of the GP's services multiplied by the amount of committed capital. These can be represented by the area of the large box outlined in green below, in Figure 19,⁹⁴ since the vertical distance between the supply curves equals the amount of the tax.



Figure 19: Breakdown of Tax Revenue Contributions

The total tax revenues rectangle described above can be broken down further into the taxes falling on each party by dividing the rectangle horizontally at the original equilibrium price P_0 . The consumer (in this case, the LPs) bears the cost of the blue-shaded area above P_0 . The supplier (in this case, the GP) bears the cost of the tax in the orange shaded area below P_0 .

the tax multiplied by the new price, or (6)(84)=\$504 where the supplier and consumers' contribution are each (3)(84)=\$252, or exactly half of the total tax revenues. (This example can be found in Teresa Bradley and Paul Patton, *Essential Mathematics for Economics and Business*, 2nd ed. (New York: Wiley, 2002). ⁹⁴ The points defining the rectangle are thus (0, 0); $(0, P_1)$; (Q_1, P_1) ; and (P_1-tax, Q_1) .

The distribution of the burden of the tax increase depends on each party's sensitivity to changes in price; that is, on the slopes of their supply and demand functions.⁹⁵ In all but the most extreme cases, in which one of the two curves is either perfectly inelastic/vertical or perfectly elastic/horizontal, the tax will be divided between producer and consumer.

Extreme Cases

To demonstrate that any taxes imposed on the general partner would also fall in part on the shoulders of the limited partners, we will discuss the only four situations in which this would not be true: the extreme cases of perfect inelasticity and perfect elasticity of supply or demand.

Perfectly Inelastic Supply—Seller Pays

In our example, the slope of the supply curve represents how responsive the GP's behavior is to changes in after-tax compensation. A perfectly vertical, or inelastic, supply curve represents a situation in which the GP is entirely insensitive to money, and has few viable alternatives to his current occupation. In this situation, LPs have all the market power and can force the GP to accept the full burden of a tax increase.



Figure 20: Tax Shifting Under Perfectly Inelastic Supply

⁹⁵ The fraction of the tax paid by the consumer is given by the equation $[|m_d| / (|m_d| + |m_s|)]$, and the fraction of the tax paid by the supplier is given by the equation $[|m_s| / (|m_s| + |m_d|)]$ where m_d and m_s are the slopes of the demand and supply functions, respectively. For proof of these formulae, see Bradley and Patton, Essential Mathematics for Economics and Business, 2nd Edition.

A tax imposed on the general partner shifts his supply curve vertically by the amount of the tax but does not result in a higher equilibrium price—the GP bears the full brunt of the tax.



Figure 21: Breakdown of Tax Revenue Contributions

Total tax collections are represented by the area of the orange box, above. All are paid by the GP.

Perfectly Inelastic Demand—Buyer Pays

A vertical, or perfectly inelastic, demand curve represents a situation where the buyer has no acceptable alternatives to the seller's product. In this case bargaining power resides with the seller.



Figure 22: Tax Shifting Under Perfectly Inelastic Demand

In this case, the supply curve again shifts upward by the amount of the tax. The result is an increase in the equilibrium price by the amount of the tax and unchanged quantity.

Figure 23: Breakdown of Tax Revenue Contributions



Tax revenues, represented by the area of the green box, fall entirely on the LPs.

Perfectly Elastic Supply—Buyer Pays

A flat, or perfectly elastic, supply curve represents a situation in which the seller has very good alternatives to doing business with the buyer. Bargaining power thus resides with the seller.



Figure 24: Tax Shifting Under Perfectly Elastic Supply

When a tax is imposed, the supply curve shifts up vertically by the amount of the tax, as before. The equilibrium rises by the full amount of the tax; quantity has been significantly reduced.



Figure 25: Breakdown of Tax Revenue Contributions

The full burden of the tax, represented by the area of the green box, falls on the LPs.

Perfectly Elastic Demand—Seller Pays

A flat, or perfectly elastic, demand curve represents a situation where the limited partners have ample alternatives to investing in private equity by allocating assets to an asset class that features a similar risk-return profile, giving them the position of higher bargaining power.



Figure 26: Tax Shifting Under Perfectly Elastic Demand

The tax increase again shifts the supply curve upward by the amount of the tax, which leaves price unchanged but causes a dramatic reduction in business activity.



Figure 27: Breakdown of Tax Revenue Contributions

Tax revenues, represented by the area of the orange box, above, fall entirely on the general partner but tax collections fall far short of original static projections.

Are these extreme cases realistic depictions of our market?

Discussions in Congress assume that the proposed tax increase will fall entirely on GPs, and that there will be no reduction in after-tax returns to limited partners. Our analysis has shown that this result represents an extreme polar case in which GPs have few alternatives relative to LPs and all market power resides with the latter. This flies in the face of everything we know about the private equity market. Advocates of the bill insist that: (a) the GPs already have too much power and have even been coercing LPs to invest in unproven funds in order to "remain within the good graces of the venture firms,"⁹⁶ and (b) that the GPs are exploiting this tax loophole because of their greed for more money—indicating that they do in fact have plenty of alternatives and are not impervious to the

⁹⁶ Donald B. Trone, "Carried Interest III: The Impact a Proposed Tax on Hedge Funds and Private Equity Investments May Have on the Fiduciary Practices of Retirement Plan Sponsors," <u>U.S. House Committee of</u> <u>Ways and Means</u> (Washington, DC: U.S. House of Representatives, 2007, Sept. 6), vol.
influence of money. Likewise, the persistence of attractive private equity returns for the top managers implies that there is not an endless supply of top managers.⁹⁷

Tax Incidence Bottom Line—Everybody Pays

Without knowledge of the elasticity of the demand and supply curves, we cannot estimate the exact economic incidence of the proposed taxes. No such estimates currently exist. We must conclude that an increase in the carried interest tax rate would be borne by both GPs through lower after-tax income and LPs through lower returns and fewer invested dollars in proportion to their respective market power.

Baumol and Blinder (2003) reiterate this point: "This is no matter whether the legislature says that it is imposing the tax on the sellers or on the buyers. Whichever way it is phrased, the economics are the same: The supply-demand mechanism ensures that the tax will be shared by both of the parties."⁹⁸

The Market for Companies: The General Partner and Entrepreneur

The dynamic between the general and limited partners is important, but it is only one side of the story. We will now focus on the market for investments in companies between the general partner and the entrepreneur.

⁹⁷ Steven N. Kaplan and Antoinette Schoar, "Private Equity Performance: Returns, Persistence, and Capital Flows," <u>The Journal of Finance</u> LX.4 (2005).

⁹⁸ William J. Baumol and Alan S. Blinder, <u>Microeconomics: Principles and Policy</u>, 9th ed. (South-Western College Pub., 2003).



Figure 28: The Market for Companies

Whereas in the GP-LP market the GP acts as the seller and the LPs act as buyers, in this relationship the GP is the buyer of investment opportunities for the partnership's committed capital and the role of the seller is assumed by the entrepreneur, representing the owners and managers of small businesses across America with promising but unfunded ideas. These entrepreneurs are not Wall Street businessmen or CEOs of major corporations—they are Main Street entrepreneurs who need capital to grow their businesses.





Number of Deals Executed

A tax increase on the general partner will shift the demand curve for companies downward, reflecting the reduction in capital committed to the sector from our analysis above. The reduction in demand reduces both the equilibrium price (companies will sell at lower multiples) and quantity (fewer deals will be closed by fewer, smaller funds, as shown in Figure 30).



Figure 30: Tax Shifting in the GP-Entrepreneur Investment Market

As a result, market activity is reduced and the total amount of capital raised by Main Street entrepreneurs declines from the green-shaded rectangle to the smaller yellowshaded rectangle. The tax may be aimed at the general partners, but it will clearly take a toll on Main Street entrepreneurs, owners, and managers as well.

The impact on Main Street can best be understood by examining how fund managers select investments. Every fund manager—whether they are buyout targets for a private

equity fund, entrepreneurial ventures for a venture capital fund, or potential building projects for a real estate fund—looks at a large number of potential investment opportunities in search of high risk-adjusted returns, shown in Figure 31 below.



Figure 31: Investment Decision-Making Process in a Sample Fund

Once the general partner has decided which investment opportunities have made it past this first stage, months of extensive due diligence on the companies will be required to more accurately understand and estimate the risks and returns for each. Finally, at the end of the long due diligence process, the general partner will select a small number of companies to be funded.

How does the general partner make this decision?

Figure 32, below, ranks investment prospects in descending order of expected return (internal rate of return, or IRR).



Figure 32: The Investment Decision-Making Process

Some prospective investments have expected returns well above the general partner's minimum required return shown above in Figure 32—roughly the opportunity cost dictated by competitive conditions in the GP-LP market, which is generally between 20% and 30% for private equity. The projects represented in blue are the ones that will be funded. Others, represented in green, will be turned down.



Figure 33: The Investment Decision-Making Process after a Tax

When a tax is levied on the general partner, the quantity of committed capital in the market decreases and makes investment capital scarcer. The result is an increased cost of capital and a higher hurdle for each investment to have to clear, as shown in Figure 33. As a result of the tax increase, Company D will lose its funding—representing an entrepreneur who will not be able to develop an idea for a new technology or medical research, or a low-income housing development that will not be built, or a CEO of a small business who cannot find a buyer for the company and therefore cannot retire.

And Company D is not the only one hurt by the tax. The companies who still receive financing will fetch a lower price, as shown in Figure 29, because of the downward shifting demand curve for investment opportunities.

Summary of Impacts

The economic principles that drive the investment market discussed in this section illustrate why it not possible to tax only one player in a competitive market. Regardless of what it says in the bill, doubling the tax rate on carried interest will affect general partners, limited partners, and Main Street entrepreneurs alike. All three will share the cost of the tax increase.



Figure 34: Dynamics of the Investment Market

The major impacts of such a tax are summarized below in Table 7.

 Table 7: Summary of the Impacts of Tax on the Investment Industry by

 Group

Impact on the	Impact on the	Impact on the
General Partner	Limited Partner	Entrepreneur
 Less after-tax income Fewer funds Large funds will be able to force more of the tax onto their customers than smaller funds 	 Lower after-tax returns Less committed capital Lower returns and a more volatile portfolio for pension funds and endowments 	 Fewer companies financed Lower price Reduced entrepreneurial Less capital Fewer jobs

X. How Will Higher Tax Rates Impact the Economy?

A number of scholars (e.g., Sanchirico, 2007; Weisbach, 2007; Knoll, 2007) agree that the proper way to make the decision about whether to tax carried interest as ordinary income or capital gains is not by asking what is fair or by using Sesame Street reasoning—"one of these things is not like the other"—but by asking whether carried interest is more like labor income or more like capital income. It should be decided based on the impact of the different tax treatments on the economy, including capital spending, productivity, growth, and the capital markets.

Private Equity's Outsized Impact

In that regard, the evidence is overwhelmingly clear. The growth of private equity and the use of the limited partnership structure to organize investment activities over the past half-century has had an enormous and positive impact on the development of U.S. capital markets and on every sector of the U.S. economy. Inadvertently shrinking the private equity market by increasing tax rates risks reversing those effects.

In a recent article, the American Enterprise Institute's John Chapman asks the right question: "In an economy with \$47 trillion in financial assets, how important is the \$2 trillion private equity sector to economic growth in the United States?"⁹⁹ After reviewing evidence on the impact of private equity on mergers and acquisitions activity, high-tech startups, governance, public companies, liquidity, and entrepreneurship, Chapman concludes that venture capital and buyout firms have an outsized influence on American business and finance.

Regarding the proposed tax, Chapman states: "Just as the \$2 trillion sector has had positive 'leverage' on public markets and business practices out of all proportion to its size in global capital markets, so will it have a negative effect beyond all proportion if enacted." He concludes, "At a time of macroeconomic uncertainty or even turmoil, raising taxes on the progenitors of so much entrepreneurial energy in our economy, and on an institution with outsize importance to economic growth over the past 25 years, makes little sense."

Private equity has helped transform the U.S. economy over the past quarter-century in two separate ways: (1) through the GDP accounts, and (2) through the capital markets.

The most powerful effect of private equity on GDP takes place under the radar of most news coverage. When most Americans think about the U.S. economy, they think of Microsoft, GM, or the other large public companies we see in the news. But public companies account for less than half of GDP. The lion's share of economic output, and virtually all new jobs, are produced by small, private companies that do not have access to public stock, bond, or commercial paper markets when they need funds to grow. Venture capital, mezzanine capital, equipment loans, real estate finance, and leveraged buyouts are their lifeblood.

⁹⁹ http://www.aei.org/publications/filter.all,pubID.26804/pub_detail.asp

The growth of the private equity market has also benefited private equity firms. It has helped them restructure by giving them a liquid market for nonstrategic and underperforming business operations. It has paid their shareholders a premium for the companies they acquire and delivered superior performance after they return to the public markets. And it has provided a model of corporate governance that has raised the bar for performance in corporate boardrooms.

As the 2003 reduction in the dividend tax rate and capital gains rate showed, the principal initial impacts of changing tax rates on capital income are on the values of capital assets, as investors reprice the existing stock of assets to reflect the new information on tax rates. Therefore, reducing tax rates on capital income increased after-tax returns on equities relative to other assets and raising their intrinsic value by more than \$1 trillion. Over time, the lower tax rates had a second impact on corporate capital structure as company after company increased dividend payouts, issued special dividends, or restructured their balance sheets.

In this case, increasing tax rates on private equity gains would work the same way, but in reverse, pushing stock prices, property values, and private company values lower. Higher tax rates on carried interest would push after-tax returns on partnership assets lower relative to returns on other assets here and abroad.

Investors would react to the widened after-tax return gap by redeploying capital away from the lower-return use. Doing so will push the prices of private equity assets portfolio companies—lower, along with the prices of the real estate and other assets held by partnerships, and reduce returns for the investors owning the assets at the time. The result will be lower asset prices and less new investment activity, especially in venture capital, private equity, and real estate, where partnerships are the dominant form of organization. Over time, lower investment means slower capital formation, fewer startups, less innovation, slower productivity growth, lower incomes, and fewer new jobs. What is being advertised as a "soak the rich" tax on Wall Street will have its biggest and most damaging effects on Main Street, because capital is mobile and people are not.

The most important comparison, however, is not between after-tax returns on private equity and returns on other assets in the United States; it is between after-tax returns on capital in the United States and returns in fast-growing countries like China, where the tax rates on both long-term and short-term capital gains are zero, as shown in Figure 35 below.



Figure 35: Individual Long-Term Capital Gains Tax Rates, 2005–2006



Quantitative estimates

In this section we will make an attempt to estimate the quantitative impact of raising carried interest tax rates of the U.S. capital markets. This is more difficult than it would be for public companies for two reasons. First, private companies are not required to publish data on their operations and do not generally choose to do so—there is a paucity of reliable private company data. Second, although there are examples of changes in tax rates on capital gains, dividends, and ordinary income we can study, there are no examples of change in tax rates solely levied on the specific assets owned by private investors who choose to organize their activities through the limited partnership agreement structure, without changing tax rates on other assets. The experiment that we are analyzing has simply never happened before.

We will start by examining the initial impact of the change in carried interest tax rates on after-tax returns on a portfolio of assets managed by private equity firms through partnership structures using IRS Partnership income tax return data. We will look at the implications of the resulting return gap between private equity-owned assets and all other assets for subsequent changes and asset prices, net worth and economic activity.

In the section on tax incidence we reviewed an economic analysis of the impact of imposing a tax on one partner in an economic exchange on the net after-tax position of all partners after markets have had time to adjust to the new tax rates. We concluded that, regardless of which partner is the statutory target of the tax, both partners will share the economic burden based upon their respective market positions and bargaining power. In the absence of reliable estimates of the slopes and elasticities of the supply and demand curves in question it would seem reasonable to expect that the tax would be shared among the partners in proportion to their relative capital accounts. This implies that we can use the fund's overall after tax return as a measure of the tax impact on the individual partners and asset prices.

Impact on After-Tax Returns

An increase in carried interest tax rates paid by general partners—or, equivalently, in the tax rates paid by limited partners, as we saw in the section on tax incidence—would have its principal impact on the economy by reducing the after-tax rate of return on all assets held by partnerships.

The impact of increasing the carried interest tax rate on after-tax returns can be estimated as follows. Assume a Partnership with a General Partner, taxed at an annual rate of t_{GP} , and one Limited Partner taxed at an annual rate of t_{LP} . Assume that the General Partner collects no management fee so that the GP's entire compensation and made up of carried interest¹⁰⁰. And assume that the Limited Partner is a pension fund or other tax-exempt

¹⁰⁰ I am making this assumption for the purposes of illustrating the impact of the tax on capital markets. Many authors have pointed out that up to 60% of general partner income may be made up of fees, interest and short-term capital gains, which are currently taxed as ordinary income. In that case, our assumption will understate the tax currently paid by general partners and overstate the impact of increasing the tax.

investor, so that $t_{LP}=0$. The fund makes only one equity investment of \$100 at the beginning of the fund, and harvests the investment exactly one year and one day later to receive \$120 for a \$20 capital gain. The pretax, or gross, rate of return on the fund is 20% per year, roughly equal to the return on a top private equity fund in recent decades.

The fund's pretax gains are allocated according to the partnership agreement as 80% (\$16) to the Limited Partner and 20% (\$4) to the General Partner. Although the limited partner is tax exempt, the General Partner pays a tax on its income, or carried interest, equal of 15%--the long-term capital gains rate--on its \$4 income, for a total tax bill of 60ϕ . The general partner's after-tax income is \$4.00 - \$0.60 = \$3.40.

The after-tax profit on the total fund can be calculated by adding the after-tax profits of all investors 16.00 + 3.40 = 19.40. The after-tax rate of return on the total fund is total after-tax income divided by the initial investment or, 19.40/100.00 = 19.40% per year, as shown in Table 8, below.

	Carried Interest tax rate			
	0%	15%	38%	44%
Capital	\$100.00	\$100.00	\$100.00	\$100.00
Profit	\$20.00	\$20.00	\$20.00	\$20.00
Pretax Carried Interest	\$4.00	\$4.00	\$4.00	\$4.00
GP tax	\$0.00	\$0.60	\$1.52	\$1.76
GP After-Tax Income	\$4	\$3.40	\$2.48	\$2.24
LP Pretax Gains	\$16.00	\$16.00	\$16.00	\$16.00
LP Tax	\$0.00	\$0.00	\$0.00	\$0.00
LP After-Tax Income	\$16.00	\$16.00	\$16.00	\$16.00
Total Fund Pretax Income	\$20.00	\$20.00	\$20.00	\$20.00
Total Fund Tax	\$0.00	\$0.60	\$1.52	\$1.76
Total Fund After-Tax Income	\$20.00	\$19.40	\$18.48	\$18.24
Total Fund After-Tax Return	20.00%	19.40%	18.48%	18.24%
Impact on After-Tax Return		0%	0.92%	1.16%

Table 8:	Impact of	of tax on	after-tax	returns
----------	-----------	-----------	-----------	---------

Proposed legislation from the House Ways and Means committee would increase carried interest tax rates from the current long-term capital gains rate of 15% to the 35% maximum rate for ordinary income. In addition, they would subject general partners to the self-employment tax of approximately 3% for a total tax rate of 38%. In addition, the 2003 tax cuts are scheduled to expire, which would push the total rate to 44%, almost tripling current rates.

At a tax rate of 38% a general partner would pay 38% of the \$4 pretax profit, or \$1.52, which makes the general partner's after-tax income \$2.48 as shown in Table 8. The after-tax profits of the total fund are 16.00 + 2.48 = 18.48. The after-tax return on the total fund is 18.48/100.00 = 18.48%.

At a tax rate of 44% a general partner would pay 44% of the \$4 pretax profit, or \$1.76, which makes the general partner's after-tax income \$2.24. The after-tax profits of the total fund are 16.00 + 2.24 = 18.24. The after-tax return on the total fund is 18.24/100.00 = 18.24%.

The net impact of increasing carried interest tax rates form the current long-term capital gains rate of 15% to 38% would be to reduce the after-tax return of assets of all assets owned by partnerships by 0.92%, or 92 basis points, from 19.40% to 18.48%.

After the expiration of the 2003 tax cuts the net impact of increasing carried interest tax rates form the current long-term capital gains rate of 15% to 44% would be to reduce the after-tax return of assets of all assets owned by partnerships by 1.16%, or 116 basis points, from 19.40% to 18.24%.

These estimates should be viewed as upper bounds on the tax impact because they assume that all general partner income is long-term capital gains. Current estimates, as reported earlier in the paper, show that as much as 60% of general partner income may be made up of fees and short-term capital gains, which are already taxed as capital gains. If that were the case we would reduce our estimate of the tax impact on fund after-tax returns by 60%, resulting in estimates of 37 basis points at a 38% tax rate and 46 basis points at a 44% tax rate. In the absence of precise estimates of the price sensitivities of the demand and supply relations of the limited and general partners, respectively, we would expect that these reduced returns would accrue to the partners 80/20 in proportion to their respective capital accounts.

Impact on Asset Values

Increasing carried interest tax rates—or, indeed, the tax rates on any partner's gains—will have important impacts on both after-tax incomes and market values of assets owned through partnerships.

The reductions in after-tax returns of 37-120 basis points, estimated above, would have important impacts on U.S. capital markets by driving a gap, or wedge, between the after-tax returns on assets owned by partnerships and those owned outside of partnerships. If assets markets were in equilibrium before the tax increase, i.e., if assets were priced such that investors willingly held all assets, they would no longer be so after the carried interest tax increase. Investors would attempt to reduce their holdings of partnership assets in favor of assets held outside partnerships in order to benefit from their higher relative after-tax returns.

These adjustments would drive the prices of assets owned by partnerships lower. How much lower would depend on the size of partnership asset holdings and on the avenues investors used to reduce their holdings.

To the extent that partnership assets are effectively trapped inside partnerships we would expect to see a reduction in their values sufficient to raise the after-tax return on the now

lower-priced assets equal to that of other assets. Assuming that both partnership and nonpartnership investors own the same assets, this would result in partnerships being valued at less than the value of their underlying assets, which would create incentives for general partners to sell assets prematurely to increase partnership value. General partners who refused to do so would face pressure from limited partners who generally have the power to remove the general partner.

Alternatively, general partners could take steps to terminate partnerships early in order to organize their activities outside the partnership structure at more favorable tax rates. In these conditions we would certainly see a sharp reduction in the rate of partnership formation.

How much would the value of partnership assets fall? As shown in Table 3, total assets of limited partnerships amounted to \$13.7 trillion at the end of 2005, based on the most recently published data from the Internal Revenue Service. Using Rutledge Capital estimates, based on recent Flow of funds reports from the Federal Reserve Board, total partnership assets in Q3/2007 amount to \$15.3 trillion.

Assuming that 40% of general partner income takes the form of long-term capital gains, we saw above that an increase in carried interest tax rates would reduce after-tax returns on total partnership assets by 0.37% to 0.46%, or 37-46 basis points. Using the most recent (2005) figure of \$13.7 trillion for total partnership assets, this implies that asset values would need to fall by 1.9% to 2.4%, or \$260-328 billion.

If we use the more current Rutledge Capital estimate of total partnership assets in Q3/2007 of \$15.3 trillion, the increase in carried interest tax rates would reduce asset values by \$290-365 billion.

These reductions in asset values, of course, would reduce the tax collections at the time the assets are harvested. The resulting tax loss caused by the implied reduction in asset values would be approximately 20% times the general partner's tax rate times the loss, or \$19.8 - \$25.5 billion, which would offset the bulk of estimated increases in tax revenues.

According to the Wall Street journal, the Joint Tax Committee provided the following preliminary estimates of the annual tax receipts from the proposed increase in carried interest tax rates to the House Ways and Means Committee¹⁰¹. These estimates amount to \$25.58 billion over ten years, for an average of \$2.56 billion per year.

¹⁰¹ Wall Street Journal Online, October 26, 2007 at http://blogs.wsj.com/deals/2007/10/26/private-equity-taxation-the-estimates-are-in/

Table 9: JCT Tax Revenue Estimates

2008: \$2.69 billion 2009: \$3.24 billion 2010: \$3.16 billion 2011: \$2.95 billion 2012: \$2.69 billion 2013: \$2.36 billion 2014: \$2.17 billion 2015: \$2.03 billion 2016: \$2.01 billion 2017: \$2.28 billion

An alternative way to estimate the impact of higher carried interest tax rates on asset prices would be to capitalize the JCT tax receipt estimates. If the net income from partnerships is reduced by the tax collections in Table 9, then asset values must decline by their capitalized value in order to leave the after-tax returns of partnership assets and non-partnership assets unchanged.

The average of estimated tax receipts over the first four years of the tax increase is \$3.01 billion per year. The average company in the S&P 500 trades at 17 times trailing earnings. If we view the \$3.01 billion as a reduction in net earnings, this would reduce asset values by approximately \$51.2 billion, considerably less than the estimates above but still a substantial decline in net worth. Alternatively, the S&P 500 trades at 56.8 times annual dividends. A \$3.01 increase in tax collections, viewed as a reduction in dividends, would imply a \$171 billion loss of asset values.

Although the estimates cover a wide range, they are all substantial in size. Our conclusion is that increasing carried interest tax rates would lead to a multi-billion dollar drop in the values of stocks, bonds, land, oil and gas assets, and privately owned businesses owned by partnerships.

This reduction in asset values would reduce collateral values and worsen today's credit crunch in the real estate and business lending markets, reducing output and jobs as a consequence. Over longer periods the reduction in asset values would increase the aftertax cost of capital for business borrowers, reducing capital spending and slowing growth.

XI. Summary and Conclusion

Using language of closing a "tax loophole," members of Congress have proposed legislation that would significantly increase tax rates on capital deployed in long-term investments in the United States. They are making a big mistake. Those who would raise tax rates risk undermining America's preeminent position in the world as a leader in invention, innovation, entrepreneurial activities, and growth. Selectively raising tax rates on the long-term capital gains of limited partnerships will drive capital offshore, reduce the productivity of American workers, and damage the ability of U.S. companies to compete in global markets. It will cost American jobs and reduce American incomes. In today's global economy, countries have to compete for the capital they need to grow. Raising tax rates on long-term capital gains of U.S. partnerships would hang a "not welcome here" sign on our door.

Meanwhile, foreign governments are waiting eagerly. They have learned that ample supplies of capital are the key to creating the rising incomes and economic growth that their people are demanding. They are becoming more capital-friendly every day, changing their tax and regulatory policies to reduce risk and increase returns for foreign investors who bring capital to their countries. They are waiting for us to make a mistake that would drive our capital offshore and into their welcoming arms. Raising tax rates on long-term capital gains for America's partnerships is just the mistake they have been waiting for.

References

- "Cisco Announces Strategic Initiative with China Development Bank to Promote Sustainable Economic Growth in China." <u>CNN.com</u>, 2007.
- "Fiduciary Standards and the Prudent Man Rule under the Employment Retirement Income Security Act of 1974 "Harvard Law Review 88.5 (1975).

"Trojan Dragons." <u>The Economist</u> (2007).

- Abrams, Howard E. "Taxation of Carried Interests." Tax Notes 2007: 183-88.
- Al-Sharkas, Adel A. "The Return in Hedge-Fund Strategies." <u>International Journal of</u> <u>Business</u> 10.3 (2003): 217–31.
- Alti, Aydoğan. "IPO Market Timing." <u>The Review of Financial Studies</u> 18.3 (2005): 1105–38.
- Amihud, Y. Leveraged Management Buy-Outs. New York: Dow-Jones Irwin, 1989.
- Amin, Gaurav S., and Harry M. Kat. "Hedge Fund Performance 1990–2000: Do the 'Money Machines' Really Add Value?" <u>Journal of Financial and Quantitative</u> <u>Analysis</u> 38.2 (2003): 251–74.
- Arena, Matteo P., and Stephen P. Ferris. "When Managers Bypass Shareholder Approval of Board Appointments: Evidence from the Private Security Market." Journal of <u>Corporate Finance</u> 13.4 (2007): 485–510.
- Auerbach, Alan J. "Carried Interest III: Taxation and Pensions." <u>Senate Finance</u> <u>Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, Sept. 6.
- August, Jerald David. "Proposed Legislation Would Impose Application of the Rules of Subchapter C for Public Offerings of Private Equity Funds." <u>Business Entities</u> 9.4 (2007).
- Ball, Ray. "Anomalies in Relationships between Securities' Yields and Yield-Surrogates." Journal of Financial Economics 6.2 (1978): 103–26.
- Bankman, Joseph. "Carried Interest II." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 31.
- Banz, Rolf W. "The Relationship between Return and Market Value of Common Stocks." Journal of Financial Economics 9.1 (1981): 3–18.
- Barber, Brad M., and John D. Lyon. "Detecting Long-Run Abnormal Stock Returns: The Empirical Power and Specification of Test Statistics." <u>Journal of Financial</u> <u>Economics</u> 43 (1997): 341–72.
- Barclay, Michael J., Clifford G. Holderness, and Dennis P. Sheehan. "Private Placements and Managerial Entrenchment." Journal of Corporate Finance 13.4 (2007): 461– 84.
- Barry, C. "New Directions in Research on Venture Capital Finance." <u>Financial</u> <u>Management</u> 23.3 (1994): 3–15.
- Bascha, A., and U. Walz. "Convertible Securities and Optimal Exit Decisions in Venture Capital Finance." Journal of Corporate Finance 7 (2001): 285–306.
- Baucus, Max. "Carried Interest I." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 11.
 - ——. "Carried Interest II." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 31.

 -. "Carried Interest III: Taxation and Pensions." <u>Senate Finance Committee</u> <u>Hearing</u>. Washington, DC: U.S. Senate, 2007, Sept. 6.

- Baumol, William J., and Alan S. Blinder. <u>Microeconomics: Principles and Policy</u>. 9th ed. Mason, OH: South-Western, 2003.
- Bayless, Mark, and Susan Caplinsky. "Is There a Window of Opportunity for Seasoned Equity Issuance?" Journal of Finance 51.1 (1996): 253–78.
- Benninga, Simon, Market Helmantel, and Oded Sarig. "The Timing of Initial Public Offerings." Journal of Financial Economics 75 (2005): 115–32.
- Berglof, E. "A Control Theory of Venture Capital Finance." Journal of Law, Economics, & Organization 10.2 (1994): 247–67.
- Berman, Russell. "Schwarman Declines Invite to Speak on 'Blackstone Bill'." <u>The New</u> <u>York Sun</u> (2007).
- Bernile, Gennaro, Douglas Cumming, and Evgeny Lyandres. "The Size of Venture Capital and Private Equity Fund Portfolios." <u>Journal of Corporate Finance</u> 13.4 (2007): 564–90.
- Bhandari, Laxmi Chand. "Debt/Equity Ratio and Expected Common Stock Returns: Empirical Evidence." Journal of Finance 43.2 (1988): 507–28.
- Black, Fischer. "Capital Market Equilibrium with Restricted Borrowing." Journal of <u>Business</u> 45.3 (1972): 444–54.
- Black, Fischer, Michael C. Jensen, and Myron Scholes. "The Capital Asset Pricing Model: Some Empirical Tests." <u>Studies in the Theory of Capital Markets</u>. Ed. Michael C. Jensen. Vol. 79–121. New York: Praeger, 1972.
- Blomstrom, Magnus, and Ari Kokko. <u>The Economics of Foreign Direct Investment</u> <u>Incentives: Working Paper 168</u>. Stockholm: Stockholm School of Economics, 2003.
- Blume, Marshall, and Irwin Friend. "A New Look at the Capital Asset Pricing Model." Journal of Finance 28.1 (1973): 19–33.
- Board of Governors of the Federal Reserve System. <u>Flow of Funds Accounts of the</u> <u>United States: Flows and Outstandings Second Quarter 2007</u>. Washington, DC: U.S. Federal Reserve, 2007.
- Bottazzi, L., M. Da Rin, and T. Hellmann. "Active Financial Intermediation: Evidence of the Role of Organizational Specialization and Human Capital." <u>ECGI Finance</u> Working Paper 49 (2004).
- Bradley, Teresa, and Paul Patton. <u>Essential Mathematics for Economics and Business</u>. 2nd ed. New York: John Wiley & Sons, 2002.
- Brand, Stewart. "The Best Thing That Governments Can Do to Encourage Innovation Is Get out of the Way." <u>The Economist</u>.Oct. 11 (2007).
- Brav, Alon, and Paul A. Gompers. "The Role of Lockups in Initial Public Offerings." <u>The Review of Financial Studies</u> 16.1 (2004): 1–29.
- Brunnermeier, Markus K., and Stefan Nagel. "Hedge Funds and the Technology Bubble." Journal of Finance 59.5 (2004): 2013–40.
- Bygrave, W. B., and J. A. Timmons. <u>Venture Capital at the Crossroads</u>. Boston: Harvard Business School Press, 1992.
- Campbell, John Y., and Robert J. Shiller. "The Dividend-Price Ratio and Expectations of Future Dividends and Discount Factors." <u>Review of Financial Studies</u> 1.3 (1989): 195–228.

- Capaul, Carlo, Ian Rowley, and William F. Sharpe. "International Value and Growth Stock Returns." Financial Analysts Journal 49. January/February (1993): 27–36.
- Carhart, Mark M. "On Persistence in Mutual Fund Performance." Journal of Finance 52.1 (1997): 57–82.
- Casamatta, C. "Financing and Advising: Optimal Financial Contracts with Venture Capitalists." Journal of Finance 58 (2003): 2059–85.
- Chan, Louis K. C., Yasushi Hamao, and Josef Lakonishok. "Fundamentals and Stock Returns in Japan." Journal of Finance 46.5 (1991): 1739–89.
- Chan, Nicholas T., et al. "Systemic Risk and Hedge Funds." <u>MIT Sloan Research</u> Paper.4535-05 (2005).
- Chapman, John. "Private Equity: Time Is of the Essence." Washington, DC: American Enterprise Institute for Public Policy Research, 2007.
- Charlton, Andrew. "Incentive Bidding for Mobile Investment: Economic Consequences and Potential Responses." <u>Governing Finance and Enterprises</u>: OECD Development Centre, 2003. Vol. Working Paper No. 203.
- Chemmanur, Thomas J., and Imants Paeglis. "Management Quality, Certification, and Initial Public Offerings." Journal of Financial Economics 76 (2005): 331–68.
- Cornelli, F., and O. Yosha. "Stage Financing and the Role of Convertible Debt." <u>Review</u> of Economic Studies 70 (2003): 1–32.
- Covitz, Daniel, and Nellie Liang. <u>Recent Developments in the Private Equity Market and</u> <u>the Role of Preferred Returns</u>. Washington, DC: Division of Research and Statistics, Board of Governors of the Federal Reserve System, 2002.
- Cressy, Robert, Federico Munari, and Alessandro Malipiero. "Playing to Their Strengths? Evidence That Specialization in the Private Equity Industry Confers Competitive Advantage." Journal of Corporate Finance 13.4 (2007): 647–69.
- Cumming, Douglas, Donald S. Siegel, and Mike Wright. "Private Equity, Leveraged Buyouts and Corporate Governance." <u>Journal of Corporate Finance</u> 13.4 (2007): 439–60.
- Cuny, Charlge J., and Eli Talmor. "A Theory of Private Equity Turnarounds." Journal of Corporate Finance 13.4 (2007): 629–46.
- Dai, Na. "Does Investor Identity Matter? An Empirical Examination of Investments by Venture Capital Funds and Hedge Funds in Pipes." <u>Journal of Corporate Finance</u> 13.4 (2007): 538–63.
- DeAngelo, H, L DeAngelo, and E. M. Rice. "Going Private: Minority Freezeouts and Stockholder Wealth." Journal of Law and Economics 27 (1984): 367–401.
- DeBondt, Werner F. M., and Richard H. Thaler. "Further Evidence on Investor Overreaction and Stock Market Seasonality." <u>Journal of Finance</u> 42.3 (1987): 557–81.
- Dechow, Patricia M., Amy P. Hutton, and Richard G. Sloan. "An Empirical Assessment of the Residual Income Valuation Model." <u>Journal of Accounting and Economics</u> 26.1 (1999): 1–34.
- Denis, D. J., D. K. Denis, and A. Sarin. "Ownership Structure and Top Executive Turnover." Journal of Financial Economics 45 (1997): 193–221.
- Do, Viet, Robert Faff, and J. Wickramanayake. "An Empirical Analysis of Hedge Fund Performance: The Case of Australian Hedge Funds Industry." <u>Journal of</u> <u>Multinational Financial Management</u> 15.4-5 (October) (2005): 377–93.

- Dodd, Randall. "Tax Breaks for Billionaires: Loophole for Hedge Fund Managers Costs Billions in Tax Revenue." <u>EPI Policy Memorandum</u> (2007).
- Donahue, Andrew J. "Carried Interest I." <u>Senate Finance Committee Hearing</u>. Washington, D.C.: U.S. Senate, 2007, July 11.
- Dopfel, Frederick E. "How Hedge Funds Fit." Journal of Portfolio Management 31.4 (2005): 9–20.
- Douglas, George W. <u>Risk in the Equity Markets: An Empirical Appraisal of Market</u> <u>Efficiency</u>. Ann Arbor, MI: University Microfilms, Inc., 1968.
- Easterling, Ed. "Hedge Funds: Myths and Facts." <u>Crestmont Research</u> April 10, 2007 (2007).
- Eckbo, B. Espen, Ronald W. Masulis, and Oyvind Norli. "Seasoned Public Offerings: Resolution of the 'New Issues Puzzle'." Journal of Financial Economics 56.2 (2000): 251–91.
- Elango, B., et al. "How Venture Capital Firms Differ." Journal of Business Venturing 10 (1995): 157–79.
- Faille, Christopher. "Ernst & Young Report: The Wholesome Sources of Pe Profits." <u>HedgeWorld</u>.Sept. 27 (2007).
- Fama, Eugene F., and Kenneth R. French. "The Capital Asset Pricing Model: Theory and Evidence." Journal of Economic Perspectives 18.3 (2004): 25–46.
 - ——. "Common Risk Factors in the Returns on Stocks and Bonds." <u>Journal of Financial Economics</u> 33.1 (1993): 3–56.

- Fama, Eugene F., and James D. MacBeth. "Risk, Return, and Equilibrium: Empirical Tests." Journal of Political Economy 81.3 (1973): 607–36.
- Federal Reserve. <u>Flow of Funds Accounts of the United States: Flows and Outstandings</u>. Washington, DC.: Board of Governors of the Federal Reserve System, 2007.
- Fenn, George W., Nellie Liang, and Stephen Prowse. "The Economics of the Private Equity Market." <u>Staff Series</u>. Washington D.C.: Board of Governors of the Federal Reserve System, 1995.
- Financial Systems and Bank Examination Dept. "Recent Developments in Hedge Funds." <u>Bank of Japan Research Bulletin (Nippon Ginko Chousa Kiho)</u> (2006).
- Fleischer, Victor. "Two and Twenty: Partnership Profits in Hedge Funds, Venture Capital Funds and Private Equity Funds." <u>Colloquium on Tax Policy and Public Finance</u>. NYU School of Law, 2006.
- Forbes, Steve. "Private Equity, Public Benefits." Wall Street Journal, 2007. A14.
- Fortson, Danny. "Dubai Financial Doubles Stake in Marfin Investment Group." <u>The</u> <u>Independent</u>, 2007.
- Frank, John B. "Carried Interest II." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 31.

- Frankel, Richard, and Charles M. C. Lee. "Accounting Valuation, Market Expectation, and Cross-Sectional Stock Returns." Journal of Accounting and Economics 25.3 (1998): 283–319.
- Frankfurter, G. M., and E. Gunay. "Management Buy-Outs: The Sources and Sharing of Wealth between Insiders and Outside Shareholders." <u>Quarterly Review of</u> <u>Economics and Finance</u> 32 (1992): 82–95.
- Fried, V., and R. Hisrich. "The Venture Capitalist: A Relationship Investor." <u>California</u> <u>Management Review</u> 37.2 (1995): 101–13.
- Friend, Irwin, and Marshall Blume. "Measurement of Portfolio Performance under Uncertainty." <u>American Economic Review</u> 60.4 (1970): 607–36.
- Füss, Roland, and Frank Herrmann. "Long-Term Interdependence between Hedge Fund Strategy and Stock Market Indices." <u>Managerial Finance</u> 31.12 (2005): 29–45.
- George, Bill. "Private Equity, Public Gain." <u>BusinessWeek</u>. Washington, DC, 2007. Vol. August 21.
- Gergen, Mark P. <u>How to Tax Carried Interests</u>. Washington, DC: House Committee on Ways and Means, 2007.
- Gibbons, Michael R.. "Multivariate Tests of Financial Models: A New Approach." Journal of Financial Economics 10.1 (1982): 3–27.
- Gilson, Ronald J. "Engineering a Venture Capital Market: Lessons from the American Experience." <u>Stanford Law Review</u> 55.April (2003).
- Global Insight. <u>Venture Impact: The Economic Importance of Venture Capital Backed</u> <u>Companies to the U.S. Economy</u>. Arlington, VA: National Venture Capital Association, 2007.
- Goh, J., et al. "Going-Private Restructuring and Earnings Expectations: A Test of the Release of Favorable Information for Target Firms and Industry Rivals." <u>Working paper</u>, 2002.
- Gompers, P., et al. "Venture Capital Investment Cycle: The Impact of Public Markets." <u>NBER Working Paper</u> 11485 (2005).
- Gompers, Paul A., and Josh Lerner. "The Really Long-Run Performance of Initial Public Offerings: The Pre-Nasdaq Evidence." Journal of Finance 58.4 (2003): 1355–92.
- Grassley, Chuck. "Carried Interest I." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 11.
 - ——. "Carried Interest III: Taxation and Pensions." <u>U.S. Senate Finance Committee</u> <u>Hearing</u>. Washington, DC: U.S. Senate, 2007, Sept. 6.
- Grocer, Stephen. "Trading Shots: Taxing Private Equity." <u>Wall Street Journal</u>.July 25 (2007).
- Haemming, Martin. "Globalization of Venture Capital." <u>Israel Venture Capital Journal</u> 3.1 (2003).
- Harjoto, Maretno, and John Garen. "Inside Ownership Beyond the IPO: The Evolution of Corporate Ownership Concentration." Journal of Corporate Finance 11 (2005): 661–79.
- Harris, R., D. S. Siegel, and M. Wright. "Assessing the Impact of Management Buyouts on Economic Efficiency: Plant-Level Evidence from the United Kingdom." <u>The</u> <u>Review of Economics and Statistics</u> 87 (2005): 148–53.

- Haugen, Robert <u>The New Finance: The Case against Efficient Markets</u>. Englewood Cliffs, N.J.: Prentice Hall, 1995.
- Hazlett, Thomas W., et al. <u>Sending the Right Signals: Promoting Competition through</u> <u>Telecommunications Reform</u>. Washington, DC: U.S. Chamber of Commerce, 2004.
- HedgeFund.net. <u>Hfn Hedge Fund Industry Asset Flow/Performance Report: Q2 2007</u>: HedgeFund.net, 2007.
- Hellmann, T., and M. Puri. "Venture Capital and the Professionalization of Start-up Firms: Empirical Evidence." Journal of Finance 57 (2002): 169–97.
- Holtz-Eaken, Douglas. "Carried Interest III: Taxation and Pensions." <u>U.S. House</u> <u>Committee of Ways and Means</u>. Washington, DC: U.S. House of Representatives, 2007, Sept. 6.
- House Committee on Ways and Means. "Levin, Democrats Introduce Legislation to End Carried Interest Tax Advantage." 2007. June 22, 2007.
 - http://waysandmeans.house.gov/News.asp?FormMode=release&ID=532>.
- Hsu, David, and Martin Kenney. <u>Organizing Venture Capital: The Rise and Demise of</u> <u>American Research & Development Corporation, 1946–1973*</u>, 2004.
- Ifshin, Adam. "Carried Interest II." <u>Senate Finance Committee Hearing</u>. Washington D.C.: U.S. Senate, 2007, July 31.

—. "Testimony before the House Committee on Ways and Means." <u>House</u> <u>Committee on Ways and Means</u>. Washington, D.C., 2007.

- Internal Revenue Service. "Data Book 2006." <u>Publication 55B</u>. Washington, D.C.: United States Department of the Treasury, 2007.
- Jain, Bharat A, and Omesh Kini. "The Post-Issue Operating Performance of IPO Firms." Journal of Finance 49.5 (1994): 1699–726.
- Javers, Eamon. "The 'Mother of All Tax Bills'." <u>BusinessWeek</u> 2007, October 25 ed.
- Jegadeesh, Narasimhan, and Sheridan Titman. "Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency. ." Journal of Finance 48.1 (1993): 65–91.
- Jensen, M. "Agency Costs of Free Cash Flow, Corporate Finance and Takeovers." American Economic Review 76 (1986): 323–29.
- Jensen, M. C. "The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems." Journal of Finance 48 (1993): 865–80.
- Jensen, Michael C. "The Performance of Mutual Funds in the Period 1945–1964." Journal of Finance 23.2 (1986): 389–416.
- Joint Committee on Taxation. "Present Law and Analysis to Tax Treatment of Partnership Carried Interests and Related Issues, Part I (Jcx-62-07)." 2007.
- Joksch, Jennifer. How India Attracts Foreign Investors. Stuttgard, 2006.
- Jones, Darryll K. "Carried Interest I." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 11.

- Jopson, Barney, and Peter Smith. "Africa Developing a Taste for Private Equity." January 14 ed. London: Financial Times, 2007.
- Kaplan, S. N. "The Effects of Management Buyouts on Operating Performance and Value." Journal of Financial Economics 24 (1989): 217–54.
 - ——. "Management Buyouts: Evidence on Taxes as a Source of Value." <u>Journal of Finance</u> 44 (1989): 611–32.
- Kaplan, Steven N., and Antoinette Schoar. "Private Equity Performance: Returns, Persistence, and Capital Flows." <u>The Journal of Finance</u> LX.4 (2005): 1791–823.
- Kaplan, S. N., and P. Strömberg. "Financial Contracting Theory Meets the Real World: An Empirical Analysis of Venture Capital Contracts." <u>Review of Economic</u> <u>Studies</u> 70 (2003): 281–315.
- Katz, Michael L. Microeconomics. 3rd ed. New York: McGraw-Hill/Irwin, 1998.
- Kingson, Charles I. "Carried Interest II." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 31.
- Knoll, Michael S. "The Taxation of Private Equity Carried Interests: Estimating the Revenue Effects of Taxing Profit Interests as Ordinary Income." <u>Social Science</u> <u>Research Electronic Paper Collection</u>. Philadelphia, PA, 2007.
- Kothari, S. P., Jay Shanken, and Richard G. Sloan. "Another Look at the Cross-Section of Expected Stock Returns." Journal of Finance 50.1 (1995): 185–224.
- Lakonishok, Josef, Andrei Shleifer, and Robert W. Vishny. "Contrarian Investment, Extrapolation, and Risk." Journal of Finance 49.5 (1994): 1541–78.
- Lee, C. I., et al. "Board Composition and Shareholder Wealth: The Case of Management Buyouts." <u>Financial Management</u> 21 (1992): 58–72.
- Lee, D. S. "Management Buyout Proposals and inside Information." Journal of Finance 47 (1992): 1061–79.
- Lehn, K., and A. Poulsen. "Free Cash Flow and Stockholder Gains in Going Private Transactions." Journal of Finance 44.771–788 (1989).
- Lerner, J. "Venture Capitalists and the Oversight of Private Firms." Journal of Finance 50 (1995): 301–18.
- Levin, Jack S. "Testimony before the House Committee on Ways and Means." <u>House</u> <u>Committee on Ways and Means</u>. Washington D.C., 2007.
- Levin, S. "Levin and Democrats Introduce Legislation to End Carried Interest Tax Advantage." Washington, DC: U.S. House of Representatives, 2007, June 22. Press Release.
- Li, Mingsheng, Thomas H. McInish, and Udomsak Wongchoti. "Asymmetric Information in the IPO Aftermarket." <u>The Financial Review</u> 40 (2005): 131–53.
- Lichtenberg, Frank R., and Donald Siegel. "The Effects of Leveraged Buyouts on Productivity and Related Aspects of Firm Behavior." <u>Journal of Financial</u> <u>Economics</u> 27 (1990): 165–94.
- Liles, P. <u>Sustaining the Venture Capital Firm</u>. Cambridge, MA: Management Analysis Center, 1977.
- Lintner, John. "The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets." <u>Review of Economics and Statistics</u> 47.1 (1965): 13–37.

- Ljungqvist, Alexander, and Matthew Richardson. "The Cash Flow, Return and Risk Characteristics of Private Equity." <u>Working Paper 9454</u>: National Bureau of Economic Research, 2003.
- Loughran, Tim, and Jay R. Ritter. "The Operating Performance of Firms Conducting Seasoned Equity Offerings "Journal of Finance 52.5 (1997): 1823–50.
- Lowenstein, L. "Management Buyouts." <u>Columbia Law Review</u> 79 (1985): 730-84.
- Lucas, Deborah J, and Robert L McDonald. "Equity Issues and Stock Price Dynamics." Journal of Finance 45.4 (1990): 1019–43.
- Manigart, S., et al. "Determinants of Required Return in Venture Capital Investments: A Five-Country Study." Journal of Business Venturing 17 (2002): 291–312.
- Marais, L., K. Schipper, and A. Smith. "Wealth Effects of Going Private for Senior Securities." Journal of Financial Economics 23 (1989): 155–91.
- Markowitz, Harry. "Portfolio Selection." <u>Journal of Finance</u> 7.1 (1952): 77–99. ——. <u>Portfolio Selection: Efficient Diversification of Investments</u>. Cowles
 - Foundation. Vol. Monograph No. 16. New York: John Wiley & Sons, Inc., 1959.
- McConnell, J. J., and H. Servaes. "Additional Evidence on Equity Ownership and Corporate Value." <u>Journal of Financial Economics</u> 27 (1990): 595–612.
- Means, House Committee on Ways and. "Rangel Applauds Senate Legislation on Publicly Traded Partnerships." 2007. June 14, 2007. ">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds>">http://waysandmeans.house.gov/news.asp?FormMode=release&id=525&keywords=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rangel+applauds=rang
- Merton, Robert C. "An Intertemporal Capital Asset Pricing Model." <u>Econometrica</u> 41.5 (1973): 867–87.
- Metrick, Andrew, and Ayako Yasuda. "The Economics of Private Equity Funds." <u>Swedish Institute for Financial Research Conference on The Economics of the</u> Private Equity Market 2007.
- Mikkelson, W. H., M. M. Partch, and K. Shah. "Ownership and Operating Performance of Companies That Go Public." <u>Journal of Financial Economics</u> 44 (1997): 281– 307.
- Miller, Jonathan D. "Emerging Trends in Real Estate." Eds. Stephen Blank, et al.: Urban Land Institute and PricewaterhouseCoopers, 2007.
- Miller, Merton, and Myron Scholes. "Rates of Return in Relation to Risk: A Reexamination of Some Recent Findings." <u>Studies in the Theory of Capital</u> Markets. Ed. Michael C. Jensen. New York: Praeger, 1972. 47–78.
- Miller, Merton H., and Myron S. Scholes. "Executive Compensation, Taxes and Incentives." <u>Financial Economics: Essays in Honor of Paul Cootner</u> (1982): 190– 201.
- Mitchell, Kate D. "Carried Interest I." <u>Senate Finance Committee Hearing</u>. Washington, D.C.: U.S. Senate, 2007, July 11.
- Mitchell, Mark L., and Erik Stafford. "Managerial Decisions and Long-Term Stock Price Performance." Journal of Business 73.3 (2000): 287–329.
- Mullins, Brody, and Sarah Lueck. "Democrats Lose Zeal for Raising Hedge-Fund Tax." <u>Wall Street Journal.com</u> 2007.
- Murray, Fred F. "Uncertainties Increase for Taxation of Private Equity." <u>Tax</u> <u>Management Weekly Report</u> 26.28 (2007).

Muscarella, C. J., and M. R. Vetsuypens. "Efficiency and Organizational Structure: A Study of Reverse Lbos." <u>The Journal of Finance</u> 45 (1990): 1389–413.

National Venture Capital Association. "Letter to Congress." Oct. 29, 2007.

Nielsen, Kasper Meisner. "Institutional Investors and Private Equity." Copenhaen, Denmark: Centre for Economic and Business Research, 2006.

- Nikoskelainen, Erkki, and Mike Wright. "The Impact of Corporate Governance Mechanisms on Value Increase in Leveraged Buyouts." Journal of Corporate <u>Finance</u> 13.4 (2007): 511–37.
- Orszag, Peter R. "Carried Interest I." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 11.
 - ———. "The Taxation of Carried Interest." <u>House Committee on Ways and Means</u>. Washington, D.C., 2007.
- Palepu, K. G. "Consequences of Leveraged Buyouts." Journal of Financial Economics 27 (1990): 247–62.
- Pástor, Luboš, and Pietro Veronesi. "Rational IPO Waves." <u>The Journal of Finance</u> LX.4 (2005): 1713–57.
- Piotroski, Joseph D. "Value Investing: The Use of Historical Financial Statement Information to Separate Winners from Losers." <u>Journal of Accounting Research</u> 38.Supplement (2000): 1–51.
- PricewaterhouseCoopers, Venture Economics, and NVCA MoneyTree Survey. "Moneytree Venture Capital Profile for United States." 2007.

 $<\!\!http://vx.thomsonib.com/VxComponent/static/stats/2007q3/nation_us1.html>.$

- Private Equity Council. "Private Equity Backgrounder." 2007.
- ———. "Public Value: A Primer on Private Equity." 2007.
- PRNewswire. <u>More Than 500 Entreprenerurs Urge Congress to Retain Current Capital</u> <u>Gains Tax Treatment for Venture Capital Carried Interest Incentive</u>. National Venture Capital Association. October 29 ed. Washington, DC, 2007.
- Proskauer Rose. "Congress Takes Formal Steps to Tax Carried Interest as Ordinary Income." 2007. June 26, 2007.

<http://www.proskauer.com/news_publications/client_alerts/content/2007_06_26 >.

- Prowse, Stephen. <u>Equity Capital and Entrepreneurs</u>. Kansas City, MO: Federal Reserve Board of Kansas City, 1999.
- Ravikoff, Ronald B., and Myron P. Curzan. "Social Responsibility in Investment Policy and the Prudent Man Rule." <u>California Law Review</u>, 1980. 518–46. Vol. 68.
- Read, Russell. "Carried Interest III: Taxation and Pensions." <u>U.S. Finance Committee</u>. Washington, DC: U.S. Senate, 2007, Sept.6
- Reinganum, Marc R. "A New Empirical Perspective on the Capm." Journal of Financial and Quantitative Analysis 16.4 (1981): 439–62.
- Renneboog, Luc, Tomas Simons, and Mike Wright. "Why Do Public Firms Go Private in the Uk? The Impact of Private Equity Investors, Incentive Realignment and Undervaluation." Journal of Corporate Finance 13.4 (2007): 591–628.
- Repullo, R., Suarez, J. "Venture Capital Finance: A Security Design Approach." <u>Review</u> of Finance 8 (2004): 75–108.

- Requenex II, Arturo, and Timothy S. Shuman. "U.S. Private Equity Funds Making Cross-Border Investments: Primary Tax Considerations." <u>Journal of Taxation</u> 106.6 (2007).
- Ritter, Jay. <u>Returns on Ipos During the Five Years after Issuing, for Ipos from 1970–</u>2003. Manuscript. March. University of Florida.
- Ritter, Jay, and Ivo Welch. "A Review of IPO Activity, Pricing, and Allocations." Journal of Finance 57.4 (2002): 1795–828.
- Robinson, R. B. "Emerging Strategies in the Venture Capital Industry." Journal of <u>Business Venturing</u> 2 (1987): 53–77.
- Rochananonda, Chadin. <u>Tax Incentives and Fdi in Thailand</u>: Fiscal Policy Office Ministry of Finance in Thailand, 2006.
- Roll, Richard. "A Critique of the Asset Pricing Theory's Test' Part I: On Past and Potential Testability of the Theory." <u>Journal of Finance</u> 4.2 (1977): 129–76.
- Rosenberg, Barr, Kenneth Reid, and Ronald Lanstein. "Persuasive Evidence of Market Inefficiency." Journal of Portfolio Management Spring.11 (1985): 9–17.
- Rosenblum, Bruce. "Carried Interest II." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 31.
- Ross, Andrew. "Private Equity Goes to Bat against Tax Bill." DealBook.July 31 (2007).
- Ross, Stephen A. "The Arbitrage Theory of Capital Asset Pricing." <u>Journal of Economic</u> <u>Theory</u> 13.3 (1976): 341–60.
- Russell Indexes. "Russell 2000 Historical Values." 2006. March 26 2006. http://www.russell.com/US/indexes?US/2000.asp.
- Rutledge, Elizabeth S. <u>Portfolio Companies of Private Equity Sponsors: A Test for Long-</u> <u>Run Excess Returns after the IPO</u>. Department of Economics. Princeton, NJ: Princeton University, 2006.
- Rutledge, John. <u>Analysis of the Impact of Increasing Carried Interest Tax Rates on the</u> <u>U.S. Economy</u>. Ed. Center for Capital Markets. Washington, DC: U.S. Chamber of Commerce, 2007.
- Sahlman, W. A. "The Structure and Governance of Venture Capital Organizations." Journal of Financial Economics 27 (1990): 473–521.
- Sanchirico, Chris W. "The Tax Advantage to Paying Private Equity Fund Managers with Profit Shares: What Is It? Why Is It Bad?" <u>University of Pennsylvania, Institute</u> for Law & Economics.Research Paper 07-14 (2007).
- Schmidt, K. M. "Convertible Securities and Venture Capital Finance." Journal of Finance 58 (2003): 1139–666.
- Senate Finance Committee. Carried Interests: Q & A. Washington, D.C., 2007.
- Sharpe, William F. "Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk." Journal of Finance 19.3 (1964): 425–42.
- Sheppard, Lee A. "Blackstone Proves Carried Interests Can Be Valued." <u>Tax Notes</u> (2007): 1236–43.
- Silva, Lauren, Rob Cox, and Martin Hutchinson. "Golden Era of Unreal Returns in Private Equity World Is Gone." <u>Wall Street Journal (online edition)</u>. New York, NY, 2007.

- Silver, Jonathon. "Hearing on Fair and Equitable Tax Policy for America's Working Families." <u>U.S. House Committee of Ways and Means</u>. Washington, DC: U.S. House of Representatives, 2007, Sept. 6.
- Slovin, M. B., M. E. Sushka, and Y. M. Bendeck. "The Intra-Industry Effects of Going-Private Proposals." Journal of Finance 46 (1991): 1537–50.
- Smith, A. J. "Corporate Ownership Structure and Performance: The Case of Management Buyouts." Journal of Financial Economics 27 (1990): 143–64.
- Solomon, E. <u>Senate Finance Committee Hearing on Carried Interest I</u>. Washington, DC: U.S. Senate, 2007, July 11.
- Solomon, Eric. "Testimony of Treasury Assistant Secretary for Tax Policy." <u>Committee</u> <u>on Finance on the Taxation of Carried Interest</u>. U.S. Treasury Department Office of Public Affairs, 2007.
- Stambaugh, Robert F. "On the Exclusion of Assets from Tests of the Two-Parameter Model: A Sensitivity Analysis." <u>Journal of Financial Economics</u> 10.3 (1982): 237–68.
- Standard & Poors. "S&P 500 Historical Data." 2007. March 26 2006. http://www2.standardard and poors.com/servlet/Satellite?/pagename=sp/page/indicesIndexPg &r=1&1=EN&b=EN&b=4&s=6&ig=51&i=56&xcd=500>.
- Stanfill, William D. "Carried Interest II." <u>Senate Finance Committee Hearing</u>. Washington, DC: U.S. Senate, 2007, July 31.
- Stattman, Dennis. "Book Values and Stock Returns." <u>The Chicago MBA: A Journal of</u> <u>Selected Papers</u> 4 (1980): 25–45.
- Stein, Jeremy. "Rational Capital Budgeting in an Irrational World." <u>Journal of Business</u> 69.4 (1996): 429–55.
- Steuerle, C. Eugene. "House Committee on Ways and Means." <u>U.S. House Committee on</u> <u>Ways and Means</u>. Washington, DC: U.S. House of Representatives, 2007, Sept. 6.
- Tanenbaum, Edward. "Carried Interests: Attacks on Timing and Characterization." <u>Tax</u> <u>Management International Journal</u> 36.6 (2007).
- The Wall Street Journal. "Trading Shots: Taxing Private Equity." 2007. The Wall Street Journal. July 25, 2007.

<http://online.wsj.com/article/SB118243677822843434.html>.

- Thompson, S., and M. Wright. "Corporate Governance: The Role of Restructuring Transactions." <u>Economic Journal</u> 105 (1995): 690–703.
- Tobin, James. "Liquidity Preference as Behavior toward Risk." <u>Review of Economic</u> <u>Studies</u> 25.2 (1958): 65-86.
- Torabzadeh, K. M., and W. J. Bertin. "Leveraged Buyouts and Shareholder Wealth." Journal of Financial Research 10 (1987): 313–319.
- Travlos, N. G., and M. M. Cornett. "Going Private Buyouts and Determinants of Shareholders' Returns." <u>Journal of Accounting, Auditing & Finance</u> 8 (1993): 1– 25.
- Trone, Donald B. "Carried Interest III: The Impact a Proposed Tax on Hedge Funds and Private Equity Investments May Have on the Fiduciary Practices of Retirement Plan Sponsors." <u>U.S. House Committee of Ways and Means</u>. Washington, DC: U.S. House of Representatives, 2007, Sept. 6.

- Tyebjee, T., and A. Bruno. "A Model of Venture Capitalist Investment Activity." <u>Management Science</u> 30.9 (1984): 173–83.
- UNCTAD. "World Investment Report 2003." <u>Conference on Trade and Development</u> (2003).
- U.S. Chamber of Commerce. "U.S. Chamber of Commerce Opposes Tax Increase On "Carried Interest." <u>Press Release</u>. Washington, DC, 2007.
- U.S. House of Representatives. "Tax Reduction and Reform Act of 2007." Washington, DC, 2007. H.R. 3970: House of Representatives. October 30, 2007. http://waysandmeans.house.gov/media/pdf/110/Summary%20for%20Distribution.pdf>.
- Van de Gucht, L. M., and W. T. Moore. "Predicting the Duration and Reversal Probability of Leveraged Buyouts." <u>Journal of Empirical Finance</u> 5 (1998): 299– 315.
- Vaughan, Martin. "On Party-Line Vote, Panel Passes Amt, Extenders Package." <u>Congress Daily</u> Nov. 1 2007.
- Vuolteenaho, Tuomo. "What Drives Firm Level Stock Returns?" Journal of Finance 57.1 (2002): 233–64.
- Weisbach, David A. <u>The Taxation of Carried Interests in Private Equity Partnerships</u>, 2007.
- Wheeler, Tim, and Nina Shumofsky. <u>All Partnerships: Total Assets, Trade or Business</u> <u>Income and Deductions, Portfolio Income, Rental Income, and Total Net Income,</u> <u>by Selected Industrial Group</u>. Washington DC: Internal Revenue Service, United States Department of the Treasury, 2007.
- Wingerd, Daniel A. "The Private Equity Market: History and Prospects." <u>Investment</u> <u>Policy</u>, 1997. 26–41. Vol. 1.
- Wright, Mike, and Ken Robbie. "Venture Capital and Private Equity: A Review and Synthesis." Journal of Business Finance & Accounting 25.5&6 (1998): 0306–686X.
- Wright , M., S. Thompson, and K. Robbie. "Venture Capital and Management-Led Leveraged Buy-Outs: European Evidence." <u>Journal of Business Venturing</u> 7 (1992): 47–71.
- Wright, M., N. Wilson, and K. Robbie. "The Longer Term Effects of Management-Led Buyouts." <u>Journal of Entrepreneurial and Small Business Finance</u> 5.3 (1996): 213–34.
 - ——. "The Longer Term Performance of Management Buy-Outs." *Frontiers of Entrepreneurship Research* Spring (1997): 555–69.
- Zainulbhai, Adil S. "Clearing the Way for Robust Growth: An Interview with India's Chief Economic Planner." *The McKinsey Quarterly* (2007).
- Zeng, Douglas Zhihua, and Shuilin Wang. "China and the Knowledge Economy: Challenges and Opportunities." <u>World Bank Policy Research Working Paper</u> #4223, 2007.
- Zhang, Shaorong. "Underpricing, Share Overhang, and Insider Selling in Follow-on Offerings." *The Financial Review* 40 (2005): 409–28.
- Zibel, Alan. "Industry Groups Warn against Tax Hike." Forbes.com (2007).

Biography: Dr. John Rutledge

Chairman, Rutledge Capital LLC <u>www.rutledgecapital.com</u> <u>jr@rutledgecapital.com</u>

Dr. John Rutledge was one of the principal architects of the Reagan economic plan in 1980–81 and has been an advisor to the Bush administration on tax policy. He is the chairman of Rutledge Capital LLC, a private equity investment firm that has invested more than \$150 million in middle-market manufacturing, distribution, and service companies. He is a member of the advisory boards of B.V. Group, a venture capital, hedge fund, and real estate investment firm, and First Q Capital, a hedge fund. Active in China, Dr. Rutledge is chief advisor for finance and investment to the governor of the Haidian District in Beijing and a visiting professor at the Chinese Academy of Sciences. He is a board member of the Progress and Freedom Foundation, the Heartland Institute, and a senior fellow at the Pacific Research Institute.

Dr. Rutledge has an active lecture practice, giving talks on global economics, capital flows, financial markets, investment strategies, the impact of technology on the economy, and strategies for owning and growing the value of a business. He has been active in both academia and government policy, and he has started, run, chaired, owned, and harvested dozens of companies, and has managed real money in both mutual funds and private equity.

Dr. Rutledge first introduced his Asset Market Shift framework for analyzing capital markets in *The Wall Street Journal* in the 1980s. The framework, in which interest rates and other asset prices are determined by private arbitrage behavior, applies a theoretical foundation from thermodynamics to portfolio management. Dr. Rutledge uses the framework to track asset market shifts and develop strategies that attract capital and build wealth, bridging the gap between macroeconomic analysis and portfolio management. Over the past twenty years he has used this framework on economic analysis, asset allocation, portfolio selection, business strategy, restructuring, acquisitions, and divestitures.

Dr. Rutledge advises institutional and individual investors how to structure portfolios to take advantage of opportunities created by a temporary divergence of prices from intrinsic value. His many clients include governments, corporations, and financial institutions around the world. When in the United States, Dr. Rutledge appears weekly on Friday afternoon on Fox Business Channel and Saturday morning on Fox News' *"Forbes* on Fox." He also appears regularly on CNBC's "Kudlow & Company," PBS' "Wall Street Week with Fortune," and CNN's "In the Money."

Dr. Rutledge wrote the Business Strategy column for *Forbes* for more than a decade and writes for Forbes.com and TheStreet.com. He is also the author of the acclaimed Rutledge Blog on economic and technology issues at **www.rutledgeblog.com**. Dr. Rutledge is one of the principal authors of the U.S. Chamber of Commerce study on

telecom reform and has written two books, *Rust to Riches* and *A Monetarist Model of Inflationary Expectations*, and hundreds of articles for *The Wall Street Journal*, the *American Spectator, Barron's, Forbes, Fortune*, the *National Review*, the *Financial Times, US News and World Report, Business Week*, and other publications. He has testified before congressional committees and has advised government officials in the United States, United Kingdom, Ireland, and Kuwait.

Dr. Rutledge began his career as a professor of monetary economics, international finance, and econometrics at Tulane University and Claremont McKenna College. In 1978, he founded the Claremont Economics Institute, an economic advisory business in Claremont, California. He holds a BA from Lake Forest College and a PhD from the University of Virginia. He divides his time between New York, California, Maui, and Beijing.

November 2007



 $\frac{\text{Center for Capital Markets}}{\text{C o m p e t i t i v e n e s s}}$

U.S. Chamber of Commerce 1615 H Street, NW Washington, DC 20062