



Cornell University
ILR School

Cornell University ILR School
DigitalCommons@ILR

Articles and Chapters

ILR Collection


2-2012

A Primer on Private Equity at Work: Management, Employment, and Sustainability

Eileen Appelbaum

Center for Economic and Policy Research

Follow this and additional works at: <http://digitalcommons.ilr.cornell.edu/articles>

 Part of the [Corporate Finance Commons](#), [Finance and Financial Management Commons](#), [Human Resources Management Commons](#), and the [Labor Relations Commons](#)

Thank you for downloading an article from DigitalCommons@ILR.

Support this valuable resource today!

This Article is brought to you for free and open access by the ILR Collection at DigitalCommons@ILR. It has been accepted for inclusion in Articles and Chapters by an authorized administrator of DigitalCommons@ILR. For more information, please contact hlmdigital@cornell.edu.

A Primer on Private Equity at Work: Management, Employment, and Sustainability

Abstract

[Excerpt] Private equity, hedge funds, sovereign wealth funds and other private pools of capital form part of the growing shadow banking system in the United States; these new financial intermediaries provide an alternative investment mechanism to the traditional banking system. Private equity and hedge funds have their origins in the U.S., while the first sovereign wealth fund was created by the Kuwaiti Government in 1953. While they have separate roots and distinct business models, these alternative investment vehicles increasingly have been merged into overarching asset management funds that encompass all three alternative investments. These funds have wielded increasing power in financial and non-financial sectors – not only via direct investments but also indirectly, as their strategies – such as high use of debt to fund investments – have been adopted by investment arms of banks and by publicly-traded corporations.

This primer focuses on private equity (PE) because this is the new financial intermediary that most directly affects the management of, and employment relations in, operating companies that employ millions of U.S. workers. However, as the boundaries among alternative investment funds have begun to blur, we will touch on hedge funds and sovereign wealth funds as their activities relate to private equity.

To address the question of why these new financial intermediaries have become prominent in the last three decades, we begin by outlining the changes in financial regulation in the U.S. and the characteristics of labor market institutions that have facilitated the emergence and rapid growth of private equity and other alternative investment funds. We outline the changes in size and scope of the private equity industry; describe the generic PE business model, using examples from the retail sector where it has been particularly active; and examine the sources of gains for PE investors. We then review the impact of private equity buyouts on the sustainability of the operating companies and on workers and employment relations in these companies. In the period since the collapse of the housing and real estate markets and the onset of recession and financial crisis, the risk of financial distress and even bankruptcies among the highly leveraged operating companies in PE portfolios has increased. We examine this increased risk to operating companies in this period. In addition, we discuss the experience of private equity firms in the post-crisis period, noting the signs of recovery in the sector as well as the continuing challenges facing private equity investors. We illustrate our points – both positive and negative – with brief case examples to help clarify the issues. We conclude with proposals for regulatory changes that are needed to curb the destructive outcomes associated with some types of private equity activity.

Keywords

private equity, management, employment relations, sustainability

Disciplines

Corporate Finance | Finance and Financial Management | Human Resources Management | Labor Relations

Comments

Required Publisher Statement

© [Routledge](#). Final version published as: Appelbaum, E. & Batt, R. (2012). A primer on private equity at

work: Management, employment, and sustainability. *Challenge*, 55(5), 5-38. Reprinted with permission. All rights reserved.

Suggested Citation

Appelbaum, E. & Batt, R. (2012). *A primer on private equity at work: Management, employment, and sustainability* [Electronic version]. Washington, D.C.: Center for Economic and Policy Research. Retrieved [insert date], from Cornell University, ILR School Selected Works site: <http://digitalcommons.ilr.cornell.edu/articles/935>

A Primer on Private Equity at Work

Management, Employment, and Sustainability

Eileen Appelbaum and Rosemary Batt

February 2012



Contents

Executive Summary	1
Introduction.....	4
The Institutional Environment.....	4
Financial Regulation.....	5
Labor Market Regulation.....	8
Private equity: Origins, Growth, and Business Model	9
Emergence of Private Equity.....	9
Size, Scale, and Scope of Private Equity in the U.S.....	11
The Private Equity Business Model.....	13
The Private Equity Model in Retail	15
Sources of Private Equity Gains	16
Private Equity and Employment: What Does Research Show?	17
Management and Employment Relations.....	20
Private Equity in the Post-crisis Period.....	22
Performance of Private Equity Funds.....	24
Risk of Bankruptcy of Portfolio Companies	27
Investment in Private Equity by Hedge Funds and Sovereign Wealth Funds.....	29
Hedge Funds	30
Sovereign Wealth Funds	30
Private Equity’s Challenges.....	32
Conclusion and Recommendations.....	34
References.....	37

About the Authors

Eileen Appelbaum is a Senior Economist at the Center for Economic and Policy Research in Washington, D.C. and Rosemary Batt is the Alice Cook Professor of Women and Work at Cornell University, ILR School, in Ithaca, N.Y.

Acknowledgments

The authors thank Jae Eun Lee for her very able research assistance and the Russell Sage Foundation for financial support.

Executive Summary

Private equity (PE) companies have engaged in two big waves of leveraged buyouts in the U.S. in the last 30 years. The first was book-ended by the 1979 buyout by KKR of the Houdaille Corporation, a Fortune 500 conglomerate employing 7,700 people and by another spectacular KKR deal – its record-setting buyout of RJR Nabisco for \$31.1 billion in 1989. The second wave began in the late 1990s and peaked in 2006-2007, with aggregate transaction value in private equity buyout deals in 2007 reaching \$607 billion and the number of deals reaching 1,500.

Private equity companies are investment firms that recruit private pools of capital from pension funds, endowments, hedge funds, sovereign wealth funds, and wealthy individuals. They use extensive debt financing to take ownership and control of relatively mature businesses in a leveraged buyout. That is, private equity firms buy businesses the way that individuals purchase houses – with a down payment or deposit supported by mortgage finance. A critical difference, however, is that homeowners pay their own mortgages, whereas private equity funds require the firms they buy for their portfolios to take out these loans – thus making them, not the private equity investors, responsible for the loans. The only money that the private equity firm and the investors in its funds have at risk is the initial equity they put up as a down payment.

Private equity is a lightly regulated financial intermediary that provides an alternative investment mechanism to the traditional banking system. Among the financial intermediaries that have emerged as major players, it is the one that most directly affects the management of, and employment relations in, operating companies that employ millions of U.S. workers. This primer provides an introduction to private equity – the institutional environment in which it emerged, its size and scope, its business model, and how it operates in different industries. We are especially interested in private equity's effects on jobs, management decision-making, and the sustainability of productive enterprises in the U.S.

Our examination of widely cited studies of private equity helps to illuminate some of the major controversies over private equity. On employment impacts, for example, we examine the most rigorous empirical evidence, the widely cited National Bureau of Economic Research (NBER) study of the effects of private equity on employment. It finds a “clear pattern of slower growth at [private equity] targets post buyout” – a differential that cumulates to 3.2 percent of employment in the first two years post-buyout and 6.4 percent over five years (Davis et al. 2011:17). This slower growth, the researchers note, “reflects a greater pace of job destruction” at firms taken over by private equity post-buyout than at comparable establishments (2011:18). They nevertheless conclude that employment growth at private-equity-owned firms is only slightly slower than at other similar companies. They reach this conclusion by calculating not only the net effect of employees hired and fired by the private equity owned company, but also by adding in any employees in businesses that the company acquired while it was owned by PE. The jobs of these acquired employees, however, are not new jobs in the economy and clearly were not created by private equity.

The returns earned by pension funds and other investors in private equity funds is another debate that we clarify in our review of academic research. The body of evidence raises serious questions about the pay-offs to pension funds and other limited partners (as distinct from the profits earned by the private equity firm that sponsors the funds) due in part to the long time horizon to which limited partners must commit their funds regardless of whether the funds are actually invested. The

lack of transparency and reporting requirements also makes it difficult to be certain of the outcome; but it is far from evident that the majority of these investors do better than they would have done by investing in the S&P 500 index.

The well-known relationship in finance between greater use of debt and higher risk of bankruptcy also has been largely absent from discussions of private equity. High levels of leverage increase the risks of financial distress – debt restructuring, bankruptcy, or even liquidation – particularly in economic downturns and periods of slow growth such as the current one. A series of recent high profile bankruptcies, or near bankruptcies, are noteworthy. Bankruptcy incurs a set of costs – legal, organizational, and reputational – that lower the value of the firm and raise the costs of future borrowing. Private equity firms tend to ignore these costs despite evidence that the high leverage typical of a leveraged buyout (LBO) leads to higher rates of bankruptcy and reorganization. This primer explores the risk of bankruptcy in LBOs in detail.

This primer also examines the new challenges private equity faces in the post-crisis period. We review how the industry has coped with the last few difficult years; and while it appears to have begun to recover, it still faces important challenges. The continued slow growth of the economy limits the number of potentially lucrative targets – increasing the competition for and the price of the more attractive companies. Overpaying for a portfolio company at purchase can sharply reduce returns at exit. Some private equity firms are sitting on high levels of committed funds (so-called ‘dry powder’), which they have not been able to put to work earning returns for investors and which they are under pressure to invest. Many have been unable to exit their portfolio firms without incurring losses or lower than anticipated returns. Unable to sell mature investments to the market – either through an initial public offering (IPO) on a stock exchange or as a strategic purchase by another company, PE firms are increasingly selling portfolio companies to other private equity firms. As a result of these challenges, some PE firms are having difficulty attracting limited partners and raising new funds and have sought greater participation by hedge funds and sovereign wealth funds.

Private equity can play a valuable role in the U.S. economy. Successful companies too small to go public that are having difficulty raising capital for expansion may turn to private equity for the infusion of capital they need in order to grow. Publicly-traded companies that are doing okay but lag the industry’s leaders can benefit from an influx of management know-how as well as capital that private equity can provide. Too often, however, the behavior of private equity firms is governed by a set of perverse incentives that tend to reduce productive investment and increase risk taking.

First, incentives favor the high use of leverage, which increases the risk of bankruptcy or financial distress to portfolio companies. That is because responsibility for repaying the debt incurred when the private equity firm buys a company falls on the company that was acquired – not on the private equity firm. The only money the private equity firm and the investors have at risk is the initial equity they put up as a down payment – which is typically a third or less of the total cost. Second and following from the first point, greater use of leverage magnifies the returns to private equity from its successful investments while minimizing the losses from its unsuccessful efforts.¹ Thus, the

¹ Consider an individual who purchases a house for \$100,000 with a \$10,000 down payment and a mortgage for \$90,000. If the house goes up in value by \$30,000 to \$130,000, the buyer will have a net gain of \$20,000 (the \$30,000 increase less the down payment of \$10,000. This is a 200% return on the initial investment of \$10,000. If the house declines in value by \$30,000 and the homeowner defaults on the loan, the bank will foreclose. The individual will lose only his or her initial investment of \$10,000. The lender will lose \$20,000. A similar logic is at work when private equity buys companies putting up very little equity and financing the rest of the purchase with debt.

occasional bankruptcy of a portfolio company will have little effect on the fund's returns and even less on the private equity firm that sponsors the fund – although it may be devastating for the failed company's employees, creditors, suppliers, and vendors. And third, the U.S. tax code treats debt more favorably than equity since interest on the debt can be deducted from income. In what might be called tax-payer funded capitalism, the reduced taxes from the higher interest deduction increase the firm's value and returns to investors without creating any new value. This is simply a transfer of wealth from taxpayers to private equity.

Management in acquired companies that have been loaded up with too much debt face a situation with its own perverse incentives. The managers have been handed a debt structure by their private equity owners and have been told to deliver the high return these investors expect. The promise to the managers, who typically have been given a huge equity upside, is this: If they can deliver, they will be richer than they ever dreamed possible. They, along with the private equity investors, typically will cash out in 3 to 5 years when the fund exits the investment. What happens after that is of no concern to the private equity firm – or to the target company's top executives. Managers of companies whose debt burden precludes them from investing in new technology, employee skills, or organizational improvements have a strong incentive to downsize jobs. In the short term, at least, this will boost profit margins and make the company appear attractive to prospective buyers.

This kind of downsizing is facilitated by the fact that in the U.S., companies are not required to provide severance payments based on years of service to employees who are let go. An employee with a sterling record of performance over 20 or 30 years can be let go with little or no notice and without a severance package that recognizes his or her investment in valuable firm-specific skills. Executives, by contrast, regardless of their years of tenure, expect a generous severance package, but there is no requirement for similar treatment of workers. Downsizing is costless to the company – at least over the short term.

This primer concludes with recommendations for policy changes to remedy this situation by:

- Improving transparency and oversight,
- Reducing the perverse incentives that lead to overburdening some portfolio companies with debt and increasing the risk to them of financial distress,
- Ending the fiction that the share of a fund's profits that are paid to the private equity firm that manages the portfolio is not income but capital gains,
- Requiring PE firms to review their compensation practices to ensure they do not encourage excessive risk taking by members of the firm, and
- Reducing the incentive for managers in PE-owned companies to choose downsizing of workers over investing in the company to improve efficiency.

Introduction

Private equity, hedge funds, sovereign wealth funds and other private pools of capital form part of the growing shadow banking system in the United States; these new financial intermediaries provide an alternative investment mechanism to the traditional banking system.² Private equity and hedge funds have their origins in the U.S., while the first sovereign wealth fund was created by the Kuwaiti Government in 1953. While they have separate roots and distinct business models, these alternative investment vehicles increasingly have been merged into overarching asset management funds that encompass all three alternative investments. These funds have wielded increasing power in financial and non-financial sectors – not only via direct investments but also indirectly, as their strategies – such as high use of debt to fund investments – have been adopted by investment arms of banks and by publicly-traded corporations.

This primer focuses on private equity (PE) because this is the new financial intermediary that most directly affects the management of, and employment relations in, operating companies that employ millions of U.S. workers. However, as the boundaries among alternative investment funds have begun to blur, we will touch on hedge funds and sovereign wealth funds as their activities relate to private equity.

To address the question of why these new financial intermediaries have become prominent in the last three decades, we begin by outlining the changes in financial regulation in the U.S. and the characteristics of labor market institutions that have facilitated the emergence and rapid growth of private equity and other alternative investment funds. We outline the changes in size and scope of the private equity industry; describe the generic PE business model, using examples from the retail sector where it has been particularly active; and examine the sources of gains for PE investors. We then review the impact of private equity buyouts on the sustainability of the operating companies and on workers and employment relations in these companies. In the period since the collapse of the housing and real estate markets and the onset of recession and financial crisis, the risk of financial distress and even bankruptcies among the highly leveraged operating companies in PE portfolios has increased. We examine this increased risk to operating companies in this period. In addition, we discuss the experience of private equity firms in the post-crisis period, noting the signs of recovery in the sector as well as the continuing challenges facing private equity investors. We illustrate our points – both positive and negative – with brief case examples to help clarify the issues. We conclude with proposals for regulatory changes that are needed to curb the destructive outcomes associated with some types of private equity activity.

The Institutional Environment

Part of the power and dramatic growth in the activities of private equity and other alternative investment funds is related to the weak regulatory environment in the U.S. – particularly in terms of the financial regulatory regime, and to a lesser extent, labor market laws and institutions.

² Private equity buyouts differ from venture capital activity in that they are later-stage changes in ownership and control of a target firm. The transactions are led by a private equity firm or consortium of such firms and the purchase of the target firm typically entails extensive debt financing, with the acquired company responsible for repaying the debt. In contrast, venture capital takes an equity stake in start-up firms or firms at an early stage of development.

Financial Regulation

Four laws provide the securities regulatory framework for U.S. public corporations and the financial services industry: the Securities Act of 1933, the Securities Exchange Act of 1934, the Investment Company Act of 1940 (Company Act), and the Investment Advisers Act of 1940 (Advisers Act). The Securities Act is a disclosure (“sunshine”) law that prohibits fraud and ensures that companies supply investors with information they need to make reasonable investment decisions (company’s business operations, financial statements, risk factors). The Securities Exchange Act gives authority to the Federal Securities and Exchange Commission (SEC) to regulate and oversee the securities industry, including transfer agents and brokerage firms, the stock exchanges, and the Financial Industry Regulatory Authority (FINRA). It monitors publicly-traded firms via requirements for registration, public reporting, and detailed record keeping (Goldberg, Pozen, and Hammerle 2010).

The Company Act and Advisers Act have more substantive provisions. The Company Act requires investment funds to disclose their financial policies and conditions; restricts a range of activities such as use of leverage, short selling, and asymmetric performance fees; requires a board governance structure with a substantial percentage of disinterested members; and prohibits activities that may pose conflicts of interest between these funds and affiliated parties. The Advisers Act, by contrast, requires the registration of fund managers, enforces compliance with fiduciary responsibilities, and limits the performance fees that may be charged (Goldberg, Pozen, and Hammerle 2010).

Congress exempted small funds from coverage under these laws, however, if they did not sell interests through general advertising or general solicitation. Exempt were those funds that have fewer than 100 ‘accredited investors’ or 499 ‘qualified purchasers’. ‘Accredited investors’ are individuals with an annual income over \$200,000 (\$300,000 including spouse) or net worth of over \$1 million, or institutional investors with over \$5 million in investments. ‘Qualified purchasers’ are those with more than \$5 million in investments or who represent qualified purchasers with at least \$25 million in investments. Fund advisors have been exempt from the Advisers Act if they have fewer than 15 clients, with each fund counting as one ‘client’ (Fruhan 2010:10). The Dodd-Frank Act of 2010 changed this rule, as detailed below, to require all funds with \$150 million or more in assets under management to register with the SEC (Main 2011).

As a result of the exemptions in securities laws, most private equity and hedge funds and fund advisers have avoided regulatory oversight. This has allowed them, in contrast to mutual funds for example, to engage in financial practices such as selling securities short, making use of substantial leverage, and adopting performance-based fees that increase with fund gains but do not necessarily decrease with losses. The funds operate with little transparency (even to their investors) and without board oversight.

While private investment pools have a long history in the U.S., as we detail below, the use of private equity and other private investment vehicles did not explode until the 1990s, after a series of laws deregulated banking and financial services in the U.S. Several key pieces of legislation are noteworthy. First, in the 1970s and 1980s, the U.S. Congress passed legislation that freed up large pools of capital for investment in the stock market and new financial intermediaries. This included pension legislation that allowed pension funds and insurance companies, for the first time, to hold shares of stock and high risk bonds in their portfolios (Employment Retirement Income Security Acts, ERISA, of 1974 and 1978). Based on modern portfolio theory, ERISA and Labor Department regulations governing this Act substituted the ‘Prudent Investor Rule’ for the ‘Prudent Man Rule.’

Under ERISA the fiduciary must make a determination that the investment is prudent as part of the portfolio of the pension plan, taking into consideration the diversification, liquidity, and projected return of the portfolio. The fiduciary's investment decisions in individual assets are evaluated not in isolation but in the context of the portfolio as a whole (FDIC 2005). This enabled pension funds to invest in nontraditional assets.

Similarly, in 1982, Congress passed legislation allowing Savings and Loan banks (S&Ls) to make commercial loans (the Garn-St. Germain Act of 1982). This opened the door for investment in risky commercial activities, including junk bonds. High risk bonds are rated by credit rating agencies as below investment grade because they have a higher likelihood of default (while yielding higher returns). They are more speculative in nature, and hence 'junk bonds'. At the same time, the Reagan administration relaxed its enforcement of antitrust and securities laws and allowed mergers that would have been challenged in the past. Corporate raiders grew more powerful after state anti-takeover laws were struck down by the U.S. Supreme Court in 1982 (Jarrell 1983). These legislative and judicial changes led to the emergence of large pools of liquid capital for junk bonds, which facilitated leveraged buyouts and the purchase of large blocks of shares of publicly-traded companies by corporate raiders. Leveraged buyouts were used by investors to acquire companies using a small amount of their own capital and borrowing the rest based on the assets of the acquired company which were pledged as collateral. With a debt to equity ratio of 80/20 or higher, target companies saddled with this level of debt often experienced distress or went bankrupt. This leveraged buyout model, however, became a central building block of the private equity model of the 1990s, which we discuss in greater detail below.

Second, in the 1990s, the U.S. Congress continued to deregulate banking in a series of laws that repealed the Glass-Steagal Act of 1933 – the law that separated commercial and investment banks in order to reduce speculative behavior following the 1929 stock market crash. In 1999, the Gramm-Leach-Bliley Act (GLBA) allowed commercial banks, investment banks, securities firms, and insurance companies to consolidate. This provided non-bank financial institutions with access to insured deposits at commercial banks and dramatically increased the pools of capital available for trading and speculation, a practice that the Dodd-Frank financial reform act is designed to curb. Finally, in 2004, the Securities and Exchange Commission allowed investment banks to hold less capital in reserve, thereby facilitating greater use of leverage in trading activities (Lowenstein 2004).

Third, this activity was facilitated by the wider use and/or development of new financial instruments – commercial mortgage-backed securities used to securitize the debt private equity funds lever on the firms they acquire as well as collateralized debt obligations, credit default swaps, and other derivatives that were not regulated. The U.S. Congress explicitly excluded these financial instruments from regulation under the 2000 Commodity Futures Modernization Act. As new financial intermediaries emerged in greater numbers, the SEC tried to enact stronger transparency rules. In 2004, the SEC changed its rules to require hedge fund managers and private equity fund sponsors to register as investment advisors under the 1940 Investment Advisors Act. The rule change was challenged, however, and the SEC lost the case (U.S. Court of Appeals for the DC Circuit 2006). Finally, U.S. tax laws favor private equity and hedge funds in a number of ways. As limited partnerships, both private equity and hedge funds act as “a pass-through vehicle in which dividends, interest, capital gains, and expenses flow through annually to all of its partners” (Goldberg et al. 2010:8). The share of profits that flow back to the PE and hedge fund firms from their portfolio investments are distributed to the investment firm's partners and are defined as 'carry,' or 'carried interest,' rather than performance-based pay, because they are not taxed until they are realized. The

industry argues that they represent interest in the partnership's capital rather than payment for services, although this is disputed by many tax experts (Fleischer 2007-08, 2008). This allows carried interest to be treated as deferred or long-term capital gains rather than ordinary income. Capital gains are taxed at a 15 percent rate, rather than the corporate income or ordinary income rate, which is as high as 35 percent (Fleischer 2008; Marples 2008; GAO 2008a: 72).

In addition, most private equity and hedge funds register off-shore in order to avoid other tax requirements. They use the offshore fund for certain U.S. tax exempt investors and for non-U.S. investors. Hedge fund managers, for example, may further increase the benefits of deferred 'carried interest' by being compensated in shares of 'foreign-charter funds,' which are not taxed as long as they are held offshore; these funds may compound tax-free, which results in further tax advantages (Jickling and Marples 2007:6). Finally, U.S. tax laws provide incentives to use the leveraged buyout model because the interest on debt is subtracted from taxable income, whereas retained earnings or dividends are taxable as profit.

In the wake of the financial crisis and widespread support for financial reform, the industry attempted to avoid new regulation through voluntary self-regulation and extensive lobbying of Congress. The Dodd-Frank Wall Street Reform and Consumer Protection Act, passed in July, 2011, includes the Private Fund Investment Advisers Registration Act of 2010 (the "Registration Act"), which directly affects private equity and hedge funds. The Registration Act amended the Advisers Act of 1940 so that private equity and hedge funds with more than \$150 million in assets are no longer exempt from its requirements, including the SEC registration, recordkeeping, and reporting obligations (Goodwin Procter 2010). Final regulations were passed in June 2011, requiring registration by March 2012. Reporting requirements include basic organizational and operational information on each fund managed; the size and ownership of each fund; nature of services; types of clients; employees; advisory and non-advisory activities; and potential conflicts of interest (Federal Register 2011; PriceWaterhouseCoopers 2011). Large funds, defined as hedge funds with more than \$1.5 billion in assets and private-equity funds with \$2 billion or more in assets are among the funds that will have the highest reporting requirements. These include roughly 230 U.S.-based hedge funds and 155 private-equity fund advisers (Main 2011).

While the industry has argued that these requirements are onerous and costly and will jeopardize their data security, others argue that they constitute only modest changes – reporting requirements that will not touch the underlying business models of these financial intermediaries. In addition, while several pieces of legislation have been proposed to tax carried interest as ordinary income, all have failed to date; and the likelihood of passage in the foreseeable future is unlikely (MacGillis 2011; Rubin, Sloan, and Talev 2011).

These modest changes in U.S. financial regulations for private equity and hedge funds stand in contrast to the action taken by the European Union's (EU) Alternative Investment Funds Managers Directive (AIFMD), which takes effect in 2013, and will need to be implemented by member states by 2014. The directive instructs member states to adopt legislation requiring much more extensive reporting requirements as well as substantive changes in rules regarding maximum debt and the implementation of adequate risk management systems in order to identify, manage, and monitor risks for each type of investment fund (Europa 2010, European Union 2011).

Labor Market Regulation

The U.S. is also well-known for its weak employment protections and labor market regulations compared to its European counterparts. At the individual level, U.S. employment law is based on the ‘employment-at-will’ doctrine, which means that employers may hire or fire employees at will – although firms do worry about individual lawsuits as well as the reputational effects of relying on dismissals or mass layoffs to adjust workforce levels. At the collective level, U.S. labor laws have established a decentralized industrial relations system in which employees may gain union representation only by winning a majority of votes in an election process at the level of the workplace or firm. Unions, therefore, must organize workers and negotiate contracts on a workplace by workplace or firm-level basis. This system is designed to limit union power by requiring high levels of union resources, both for administering existing contracts and organizing new members. While industrial unions were successful in the post-World War II period in organizing a large percentage of workers in manufacturing industries and negotiating ‘pattern’ contracts that applied across firms, those patterns have largely broken down as union power has eroded and union density has fallen – now to only 8 percent of the private sector workforce.

Two aspects of the U.S. institutional environment regarding labor are of particular relevance to the role of new financial intermediaries. First, unlike their European counterparts, U.S. workers and unions have no information or consultation rights so that there is no requirement that they have advance notice regarding the sale or change of ownership of a corporation. If a private equity fund purchases an enterprise, employees and the union are likely to be informed only after the transaction has occurred.

Second, the decentralized nature of the employment system also applies to the U.S. pension system, which is an employer-based system. Historically, private sector unions have negotiated pension funds to cover their retired members, including multi-employer Taft Hartley funds. Union employees in the public sector pay into a state pension fund, which they draw on in retirement. Over time, this has led to the creation of a multi-billion dollar pension fund system that some have referred to as ‘workers’ capital.’ Unions and public sector officials have a fiduciary responsibility to ensure that these investment funds yield adequate returns, and many have invested in private equity and hedge funds as a source of high returns.

The structure of this system has created a dilemma for U.S. unions. On the one hand, they have chosen to invest in these financial intermediaries in order to secure high returns for their retired members. On the other hand, they have encountered private equity investors that buy firms in which their active members work and at times find themselves fighting new owners who are engaged in cost-cutting or derogation of contract rules. The result is that the U.S. labor movement as a whole has not developed a unified position or public campaign to influence the activities of new financial intermediaries in ways that the European labor movement has done. As a result, the public has very little knowledge of how private equity, hedge funds, or other private investment pools work, or how they affect the management and employment relations in the firms that they own.

Private equity: Origins, Growth, and Business Model

This weak regulatory environment governing capital, product, and labor markets has created a space for new financial intermediaries to operate with few constraints. The deregulation of these markets over the last three decades has, in fact, created incentives to shift capital investment from mainstream institutions to alternative ones that have even fewer constraints on how they operate. In the following sections, we provide a detailed account of the emergence of private equity in the U.S., how the PE business model functions and, to the extent possible, how this affects outcomes of interest for shareholders, employees, unions, and consumers.

Emergence of Private Equity

The private equity firms of today draw on the legacy of the leveraged buyout model of the 1980s; with the most prominent among them – firms such as Kohlberg, Kravis, and Roberts (KKR), Blackstone, and Carlyle – among the original architects of that model. The earliest use of a leveraged buyout to take a publicly-traded company private in the U.S. may have been the purchase of all the shares of what is now known as United Parcel Service (UPS) by its managers in 1933 in the midst of the great depression (Ablum and Burgis 2000). But it was the 1979 buyout by KKR of the Houdaille Corporation, a Fortune 500 conglomerate employing 7,700 people that altered Wall Street's view of financial engineering and launched the era of large leveraged buyouts (Holland 1989; Baker and Smith 1998; Anders 2002; Carey and Morris 2010). The Houdaille deal, which required very little investment by KKR, was financed by debt that was assumed not by the purchaser but by the acquired company. It yielded spectacular returns for shareholders and served both as inspiration and model for the deals that followed. The 1980s were a boom period for the buyout firms that acquired publicly-traded and private companies and the corporate raiders who bought large blocks of shares in publicly-traded companies (including, at times, all the shares) – precursors of today's private equity and hedge fund operators – as they made extensive use of leverage to takeover or restructure companies.

The poor profit performance of U.S. conglomerates in the 1970s and the decade-long bear market in stocks from the early 1970s presented LBO firms and corporate raiders with an opportunity to increase shareholder value in the 1980s via leveraged buyouts. The 1980s wave of highly leveraged financial transactions that began with Houdaille was book-ended by another spectacular KKR deal – its record-setting buyout of RJR Nabisco for \$31.1 billion in 1989 (Baker and Smith 1998; Anders 2002) – a record in nominal terms that held for the next 17 years.

Finance theorists provided the justification for this new development. Jensen and Meckling (1976) and others developed a new theory of the firm – agency theory – that set forth the theoretical rationale for a clear focus by managers on maximizing shareholder value. Agency theory argues that the employment of a professional staff of salaried managers to run large corporations and the wide dispersion of ownership of shares of stock of publicly-traded companies allow managers – the agents – to pursue their own agendas rather than managing the firm in the interest of its shareholders – the principals. Managers traditionally used their hierarchical positions of power to control labor and extract value through the production process (Galbraith 1952; Chandler 1997, 1990; Lazonick 1992; O'Sullivan 2000). Under managerial capitalism, relations between management and labor were generally built on low-trust (Fox 1974), but managers needed to build minimum levels of trust among stakeholders in order to ensure on-going production and productivity growth.

In this context, corporate managers used the free cash flow generated by company operations to pursue strategies aimed at inducing a diverse group of stakeholders to contribute to the enterprise and to ensure labor peace and cooperation. Whatever the motives or effects of these expenditures by corporate managers on hard-to-measure improvements in the firm's competitive position, financial economists argue that in the short-term, these managers do not maximize value for the company's current shareholders.

Leveraged buyouts that took publicly-traded companies private and concentrated ownership in a few hands and the concerted effort by corporate raiders to take control of companies allowed these shareholders to monitor managers closely. According to agency theory, this would solve the principal-agent problem and lead to increased efficiency and higher returns to shareholders. Loading the acquired companies with debt made it impossible for spending decisions to be financed out of retained earnings. Instead, managers needed to borrow in credit markets, thus subjecting managerial decisions about the use of funds to a market test. In contrast to managerial capitalism, which relied on retained earnings to finance investments in worker skills and loyalty or to develop new technologies, agency theory makes the case for the primacy of shareholder value and the distribution of these earnings to shareholders. It thus provides the rationale for leveraged buyouts and hostile takeovers.

Michael Milken is credited with almost single-handedly creating the junk bond market beginning in 1982. In fact, only a few S&Ls engaged in these transactions; 69 percent of all junk bonds held by S&Ls were held by just 11 institutions tied to Michael Milken and the investment bank Drexel Burnham Lambert that employed him (Akerlof and Romer 1993). With the help of the S&Ls that were close to him, Milken and Drexel Burnham Lambert were able to manipulate outcomes to create a near perfect record of underwriting success and to achieve almost no defaults on the junk bonds they sold. However, the bankruptcy of several S&Ls with close ties to Milken led to his downfall. The legal complaint against him said that Milken formed more than 500 different partnerships that purchased securities underwritten by Drexel and thus assured that public offerings were fully subscribed. More importantly, Milken was able to use his links to S&Ls close to him to provide new long-term financing to bankrupt companies, thus reducing the observed default rate on junk bonds he brokered (Akerlof and Romer 1993).

The decade ended in scandal and the collapse of Drexel Burnham Lambert, followed by a bust for leveraged buyouts as credit dried up. The S&L crisis led to passage of the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) in 1989, which placed limitations on the activities of S&Ls and required them to withdraw from the junk bond market. The economic slowdown and recession in 1990 had a particularly dramatic effect on the debt-laden companies acquired in leveraged buyouts and was marked by the bankruptcies of a number of high profile LBOs, including Federated Department Stores, the Revco drug stores, Walter Industries, FEC Trucking, and Eaton Leonard. The Nabisco deal also came under stress and required an infusion of additional equity from KKR.

As investors became wary of these deals and the junk bond market collapsed, access to credit, so necessary for the corporate raiders and the large leveraged buyouts involved in taking publicly-traded companies private, dried up. Buyouts of smaller companies and of divisions of larger companies continued, but the number of LBO deals and hostile seizures of corporate control by corporate raiders declined dramatically in the 1990s.

Size, Scale, and Scope of Private Equity in the U.S.

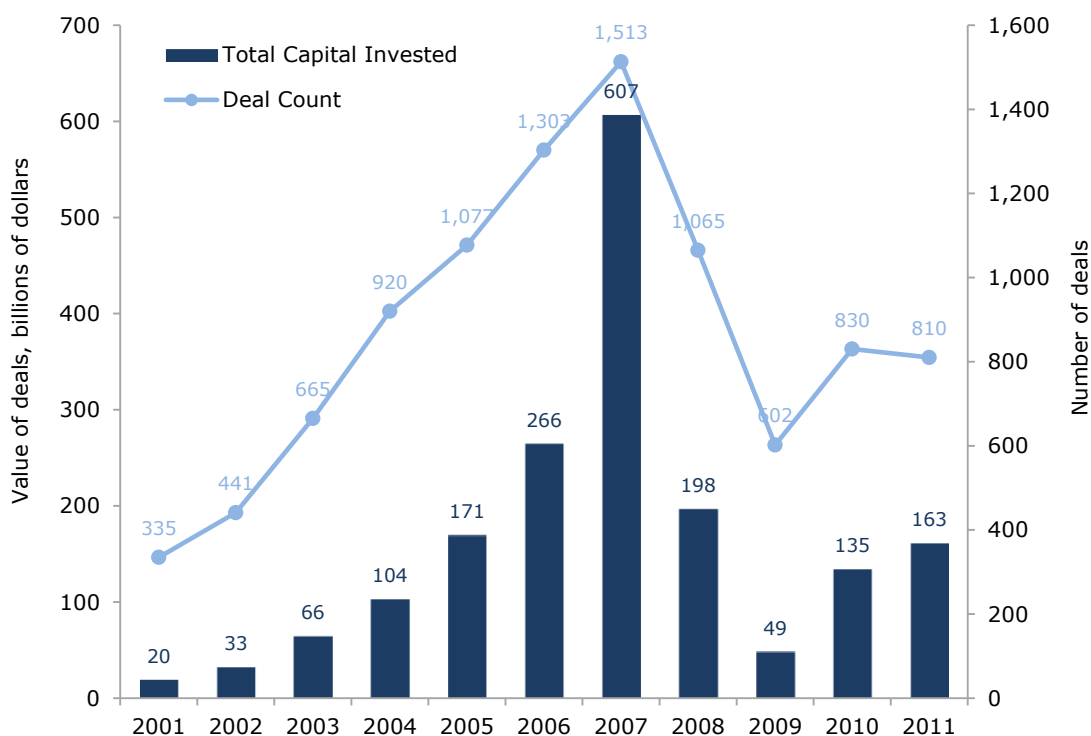
It was not until the late 1990s that a second wave of LBOs occurred. Rechristened as private equity and hedge fund firms, KKR, Blackstone, Carlyle, and others were again able to raise large, unregulated pools of financial capital, which they combined with extensive debt financing to acquire operating companies in LBOs – including large deals that took publicly-traded companies private. The private equity firms raised these pools of equity capital through funds in which investors (the limited partners) commit a certain amount of money and pay management fees to the private equity firm (the general partner). The limited partners provide most of the capital while the general partner manages the fund and makes all of the decisions. Limited partners include pension funds, endowments, and wealthy individuals; but pension funds generally make the largest contributions.

In the low interest rate environment of the 2000s, pension funds were lured by PE firms' promises of considerably higher returns than are available via investments in bonds or stock. PE firms have attempted to meet this promise through more risky investments in a portfolio of companies acquired by leveraging the equity of the private equity funds with high levels of debt on the acquired companies, which are held for just a few years before being resold.

In 2007, at the peak of the boom in private equity buyouts, the top four investors in PE funds were CalPERS (California Public Employees' Retirement System), CalSTERS (California State Teachers' Retirement System), PSERS (Pennsylvania Public School Employees' Retirement System), and the Washington State Investment Board (Private Equity Analyst 2008, cited in Kaplan and Strömberg 2009). Access to workers' capital in pension funds enabled PE firms to expand the scale and scope of their operations and to become global in their investment activities. Both the number and transaction value of leveraged buyouts backed by a private equity firm increased rapidly between 2003 and 2007.

According to Pitchbook (an independent research firm specializing in private equity data and analysis), in 2003 the U.S. transaction value (total capital invested) reached \$66 billion and 665 deals (see **Figure 1** below). For the full year 2007, U.S. transaction value reached over \$600 billion and over 1500 deals. Deal activity slowed substantially beginning in the second half of 2007, and by 2009 was below its level of 2003. These data are broadly consistent with Capital IQ (another prominent data and analytics firm for the financial industry), estimates reported by Strömberg (2008), and Kaplan and Strömberg (2009: Figure 2 and Table 1).

FIGURE 1
Number and Value of Private Equity Deals in the U.S.



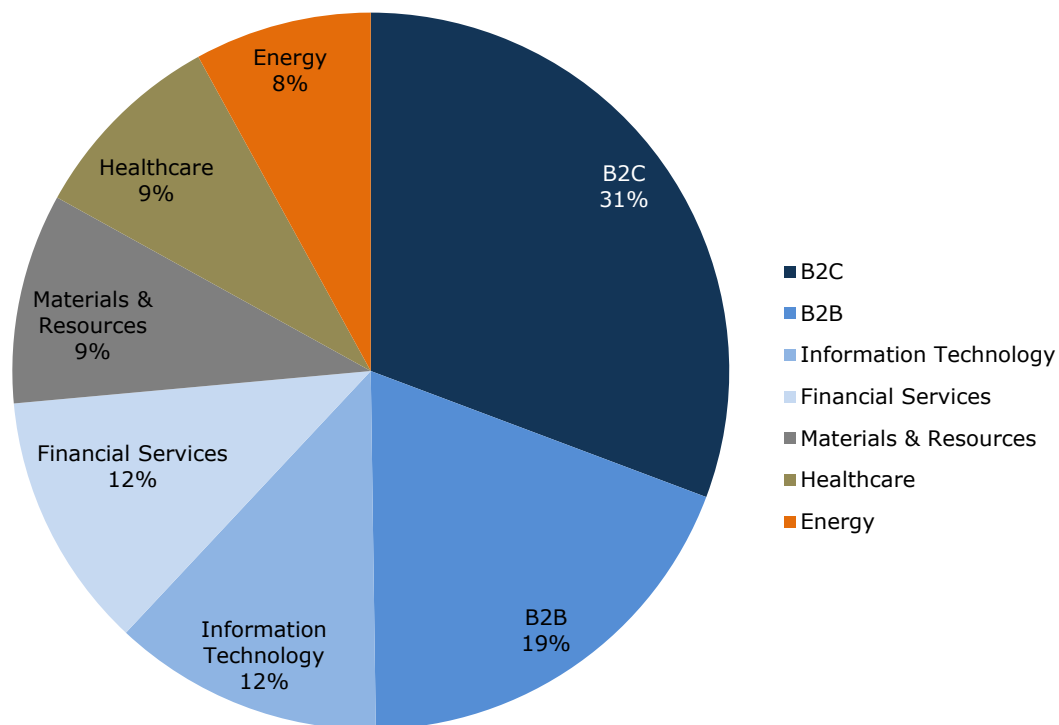
Source: PitchBook Data, Inc.

Estimates of the total capital controlled by private equity vary. According to Wharton Private Equity, private equity and venture capital funds had around \$2 trillion in capital committed globally in 2011, up from a figure of around \$8 billion in the U.S. in 1991. Private equity buyout funds account for about two-thirds of the capital in this sector (about \$1.3 trillion) and, with leverage, they control an investment portfolio that is several times the base capital (Wharton Private Equity 2011). According to the Private Equity Growth Capital Council, the industry trade association, there are 2,300 private equity firms headquartered in the U.S., 14,200 private equity-backed companies headquartered in the U.S., and 8.1 million employees on the payrolls of PE-backed companies (Private Equity Growth Capital Council website 2011). A search of PitchBook's data on PE-backed and PE-owned companies in the U.S. as of January 9, 2012 found a total of 16,320 PE-backed companies headquartered in the U.S. This includes publicly-traded companies in which PE funds have invested. If we restrict the search to companies that are owned by private equity, we find that 6,986 U.S. companies are currently private equity-owned.

The 1980s buyout wave was heavily weighted towards relatively large transactions, mainly in such mature industries as manufacturing and retail. In terms of transaction value, just under half the transactions were leveraged buyouts of publicly-traded firms and nearly a fifth were acquisitions of large divisions of such firms (Kaplan and Strömberg 2009). Secondary transactions, in which a PE fund exits an old investment and sells the portfolio company to another PE firm in a leveraged buyout, accounted for just 2 percent of transaction value. This changed substantially in the buyout wave of the mid-2000s. Public to private transactions dropped to a third of transaction value,

acquisition of divisions of publicly-traded firms increased to a quarter of transaction value, and secondary buyouts increased to just over a quarter. PE buyouts of independent private firms, which accounted for nearly a third of PE activity in the 1980s boom, dropped to 14 percent in the mid-2000s (Kaplan and Strömberg 2009: Table 1). Buyout activity spread to other industries in the 1990s and 2000s, including information technology, health care, and financial services. In the 2000s, business to business (B2B) and business to consumer (B2C) transactions increasingly included a wide range of business and consumer services in addition to manufacturing as buyout targets; and buyouts of infrastructure (included in the materials and resources sector) became more popular. The current distribution of PE activity is shown in **Figure 2**.

FIGURE 2
Industry Distribution of PE Activity in 2011



Source: PitchBook Data, Inc.

The Private Equity Business Model

As noted earlier, private equity funds are financial intermediaries in which an investment firm – the general partner of the fund – raises capital from pension funds, mutual funds, insurance companies, university endowments, sovereign wealth funds and wealthy individuals – the limited partners – in order to acquire a portfolio of properties and operating companies. The portfolio companies are acquired with the expectation that the fund will make a profitable exit from the investment in a few years. The general partner makes the decisions about which properties or companies to buy, how they should be managed, and when they should be sold. The limited partners share in any gains (or losses), but do not have a say in decision-making. The investment firm typically sponsors multiple special purpose private equity investment funds, each of which is structured as a separate partnership. Funds are typically set up for ten years, during which time the limited partners cannot withdraw their capital and new investors cannot join the fund. While a fund typically has a life span

of ten years, it must usually invest capital committed by the limited partners in the first three to five years of the fund's life or return the uncommitted capital and relevant management fees to the limited partners. Because the portfolio companies are private, they are not marked to market (Metrick and Yasuda 2010). Only at the end of the fund's lifetime, after all investments in portfolio companies have been realized, can asset values be calculated. Profits are then distributed to the fund's partners and the fund is liquidated.

Each fund is a separate special purpose entity and each deal in which an operating company is acquired for the fund's portfolio is structured as a separate corporation. Deals made by one of a private equity firm's investment funds do not affect either the sponsoring firm or other funds it has raised. If a portfolio company of one fund experiences distress or enters bankruptcy, the equity partners in the fund will lose their stakes in this firm and creditors can seize the property or business, but the PE firm that sponsored the private equity investment is not liable for the fund's losses. For example, in 2006, private equity firms Tishman Speyer and BlackRock purchased the landmark Manhattan rent-regulated apartment complexes, Stuyvesant Town and Peter Cooper Village. When the PE venture failed, CW Capital took control of the properties on behalf of the multitude of investors in commercial mortgage-backed securities who hold the \$3 billion mortgage. The Tishman Speyer and BlackRock companies lost their initial investments of \$112.5 million, offset somewhat by the \$18 million a year in management fees they collected. The losses were far larger for the limited partners in the PE fund, who provided the equity investment in the property. These included the Church of England, the government of Singapore, and three public employee pension funds in California and Florida that lost a total of \$850 million. Higher rents that had been imposed on tenants turned out to be illegal; and at the time of bankruptcy, residents were owed \$200 million in overpayments they made to the PE owners. However, Tishman Speyer, with a \$33.5 billion portfolio of projects on four continents and \$2 billion in cash at the time of the default on the Manhattan properties, has no responsibility to make up the losses or reimburse the tenants. Failure of the Manhattan project hardly made a dent in the company's 10-year average annual returns (Bagli 2010a, Bagli 2010b, Carmiel 2010).

Firms that sponsor private equity funds operate on a '2 and 20' model. They typically collect a flat 2 percent management fee on all funds committed to the investment fund by the limited partners, whether or not the funds have been invested. Limited partners hold funds that have been committed but not yet invested in low-yielding liquid assets so that they are available when the PE firm calls on them. The firm that sponsors the fund – the general partner in the fund – also receives 20 percent of all investment profits once a hurdle rate of return has been achieved. As a result of these fees and of the necessity to hold committed funds in liquid assets, returns to the limited partners are generally lower than the advertised returns to the general partner. Profits realized by the private equity fund's general partners are referred to as carried interest and taxed at the lower capital gains rate, currently 15 percent in the U.S., not at the top personal income or corporate rate of 35 percent.

Private equity firms buy businesses the way that individuals purchase houses – with a down payment or deposit supported by mortgage finance. In the case of private equity, the major part of the purchase price is typically funded by borrowing from investment banks, hedge funds, or other large lenders. These are short-term loans on which lenders earn interest, and then quickly package the loans into commercial mortgage-backed securities, which are resold. A critical difference is that homeowners pay their own mortgages, whereas private equity funds require portfolio firms to take out these loans – thus making them, not the private equity investors, responsible for the loans. The investment firms that sponsor private equity funds argue that this debt can be serviced and paid

down out of the higher earnings of the portfolio company that result when the principal-agent problem is solved and greater efficiency is achieved.

Metrick and Yasuda (2010:5) summarize the main characteristics of private equity as: a) the fund acts as a financial intermediary that invests capital directly in portfolio companies; b) it invests only in private companies (or buys public companies and immediately takes them private) so that companies cannot be immediately traded on a public exchange; c) the fund is active in monitoring and supporting portfolio companies; and d) its primary goal is to maximize returns for investors via the sale or initial public offering (IPO) of the firm. Thus PE's focus is on the overall returns to a fund's investors from the fund's portfolio of firms over a period of a few years, and not on the long-term competitiveness or sustainability of any individual operating company in its portfolio.

The Private Equity Model in Retail

Private equity's interest in the retail sector was piqued by the growth of retail conglomerates in the 1980s – large, unwieldy enterprises that proved too difficult for executives at corporate headquarters to manage effectively. By the 1990s, shareholders were pressuring retail conglomerates to divest themselves of struggling divisions. Private equity firms proved willing buyers, not only of divisions of larger companies but of independent retail chains. Several characteristics make retail chains good candidates for buyout by private equity firms (Mike Moriarty, partner with A.T. Kearney, quoted in Kavilanz 2009): First, retailers' real estate can be monetized. Private equity companies fund their buyouts largely with debt. This is facilitated when the operating company that is being acquired is rich in assets that can be used to secure the debt. Most retail chains own at least some of the valuable properties that house their operations. At the height of the real estate boom, the value of the underlying real estate for some retail chains was greater than the market capitalization of the entire firm – making acquisition of the company by a PE firm seem riskless. Second, retail throws off a lot of cash. The interest on the debt used to fund the buyout needs to be paid down with cash, and retail operations generate lots of cash.

Traditionally, retail businesses preferred to hold little debt and to own the properties where their stores are located. In an industry very much affected by the business cycle and by sudden changes in consumer tastes and purchasing patterns, this approach gives retailers the flexibility to survive the inevitable bad times. Private equity turns this business model on its head and mortgages the properties of the operating companies it buys. Typically, private equity owners split the retail chain into an operating company that operates the stores and a property company that owns all of the chain's real estate assets. Proceeds from the sale of the real estate assets are used for distributions and dividends to repay the PE owners for their initial investment, guaranteeing that the PE partners will prosper regardless of whether the retail chain is successful.

The leveraged buyout of Mervyn's Department Store Chain provides an example of how PE can prosper even when the retail operation it acquires fails. In 2004, Mervyn's was a major mid-tier retailer with 30,000 employees and 257 stores, including 155 that were owned by the company. A consortium of PE firms consisting of Cerberus Capital Management, Sun Capital Partners, and Lubert-Adler and Klaff Partners purchased the chain in early September for \$1.2 billion (Misonzhnik 2009).

At the time of the acquisition, the PE consortium created a property company, MDS Realty, to own the firm's valuable real estate assets and an operating company, Mervyn's Holdings LLC, to own the

store operations. The PE partners put in \$400 million in equity and transferred Mervyn's real estate assets to MDS Realty, a company controlled by the PE fund investors. To fund the buyout, the PE firms used Mervyn's real estate as collateral to borrow \$800 million. MDS Realty then leased the real estate back to Mervyn's stores at high rents in order to service the debt and to extract value over time (Cleary Gottlieb Steen and Hamilton, LLP 2010). A year later, having held the properties long enough to obtain capital gains tax treatment, MDS Realty sold the store properties (Levenfeld Pearlstein, LLC Case Study 2011). The new real estate owners required Mervyn's to sign individual 20-year leases for each store at high rents scheduled to rise further each year, a requirement that was acceptable to Mervyn's PE owners and may have had a positive influence on the price at which the store properties were sold.

Mervyn's, which had operating income of \$160 million in 2003, its last full year of operation before being acquired by private equity owners, suffered a \$64 million loss in 2007 – *before* the onset of recession. Mervyn's loss, it should be noted, was less than the \$80 million annual increase in its rent payments following the LBO. The operating company's attempts to renegotiate store leases failed. On July 29, 2008, the chain's PE owners took the company into bankruptcy. The high rents, which the chain's landlords refused to lower, proved a stumbling block to the sale of Mervyn's to new owners and the chain was liquidated, closing its remaining 177 store operations and throwing the remaining 18,000 employees out of work (U.S. Bankruptcy Court 2008a). Mervyn's owed the Levi Strauss company more than \$12 million and owed all of its vendors in excess of \$102 million (U.S. Bankruptcy Court 2008b). The private equity owners, however, were little affected by the liquidation. Profits realized through the real estate deals far exceeded losses on the retail side (Lattman 2008) (see Appelbaum, Batt, and Clark 2011 for a detailed discussion of this case).

Sources of Private Equity Gains

The literature on private equity typically identifies three different sources of gains for private equity firms, which may be combined in different ways in the various industry sectors and whose importance may vary as competitive conditions change (Folkman, Froud, Williams, and Johal 2009). One source of gains is improvements in operating company revenues and reductions in cost ratios that raise margins and increase profits. The operating company may raise sales revenues via management improvements that lead to organic growth or via strategic acquisitions. It can reduce labor cost ratios via better use of technology or via downsizing the workforce and an intensification of work. This last possibility is essentially a rent transfer from employees to PE investors. A second source of gains is an increase in the multiple of earnings at which the company can be sold compared to the multiple of earnings at which it was initially bought. The multiple may increase because the operations of a poorly performing operating company have improved under PE ownership, warranting a higher multiple. Or, it may have increased because a bull market in stocks has raised the multiples at which nearly all companies are selling. The third source of gains is financial engineering via leverage at the time the operating company is acquired and tax arbitrage as the acquired company's debt structure and relationships among subsidiaries are altered to reduce tax payments. This is basically a rent transfer from taxpayers to PE investors. Kaplan and Strömberg (2009) estimate that the use of debt in a leveraged buyout can raise the value of the acquired company by 4 to 40 percent depending on how the deal is structured. They estimate that the increase in value from altering the acquired company's debt structure to include substantially more debt is probably 10 to 20 percent. Additionally, the operating company may be required to take on additional debt or to sell property assets and pay out the proceeds as a dividend or distribution –

often called a recapitalization dividend – to the investment fund’s general and limited partners. This is a transfer of resources from the acquired company to the company’s PE shareholders.

There is, in addition, a fourth source of gains for PE investors. Unlike managers in a publicly-traded company or a family-owned enterprise whose fortunes rise and fall with the company they manage and whose long-term achievement is tied to the long-term success of that company, private equity investors are focused solely on maximizing the returns to the PE fund over the life of the fund. They may see an opportunity to increase shareholder returns by breaching the implicit contracts between owners and other stakeholders in their portfolio companies who are critical to the stability and long-term competitiveness of the enterprise (Schleifer and Summers 1988). Intentionally or unintentionally, they may default on implicit contracts that managers had established between shareholders and stakeholders prior to the buyout, including understandings based on commitments to pay higher wages to older, more experienced workers and on customary payment arrangements with suppliers (Appelbaum et al. 2011).

Thus the sources of earnings for the general and limited partners in a private equity fund are (1) operating profits during the holding period between acquisition of and exit from the portfolio companies; (2) the difference between the price at which the company is acquired and the price at which it is divested at exit, which may be the result of improvements in earnings at a constant price to earnings multiple or of an increase in the multiple; (3) financial engineering – the use of leverage (debt) to boost returns and payment of recapitalization dividends and distributions financed by issuing junk bonds or by stripping the operating company and selling off its assets and (4) repudiation of implicit contracts between owners and other stakeholders and defaulting on stakeholder claims (see Thompson 2003: 366-8 on this last point).

In the financial market conditions that prevailed from 2001 to 2007 – low interest rates and easy access to borrowed funds, a bull market in stocks, and a real estate bubble – operating profits related to increasing revenues or reducing labor costs accounted for only a fraction of PE firms’ earnings, although improvements in margins may have been critical to increasing the price obtained for the operating company at exit. Leverage, including the use of dividend recapitalizations, and not the alignment of interests of managers and shareholders, explains the success of these firms during the bubble years and the challenges they faced once the bubble burst. What is striking is how little the earnings of the private equity firms (as opposed to the sustainability of the operating companies) depended on product market strategy or wage and employment practices during this period (Folkman, Froud, Williams, and Johal 2009).

Private Equity and Employment: What Does Research Show?

Few researchers have examined the employment and productivity effects of private equity in the U.S.; the exception is a comprehensive analysis that draws on industry data on PE transactions (Capital IQ) and combines this with the U.S. Census Bureau’s Longitudinal Business Database (LBD) that covers the entire non-farm private sector (Davis, Haltiwanger, Jarmin, Lerner, and Miranda 2008, 2009, 2011). In the 2008 employment paper, “Private Equity and Employment,” the data consisted of 5,000 U.S. target firms and about 300,000 target establishments in these firms, acquired in private equity transactions from 1980 to 2006. An establishment refers to an actual work site – for example, a single store, warehouse, office, or corporate headquarters. A firm may be a single establishment or it may have multiple establishments. In the 2011 employment paper of the same name, the data consist of a much smaller number of target firms and establishments – 3,200

U.S. target firms and 150,000 target establishments – acquired in private equity transactions from 1980 to 2005. No explanation for the changes in the end date for transactions and in the sample is provided in the later paper. In both studies, control groups were constructed by matching target establishments (or target firms) to other establishments (or firms) that are comparable in terms of age, size, and single/multi-establishment status (i.e., whether they are independent or part of a larger organization). Employment outcomes were analyzed by tracking employment at target establishments for 5 years before and after the private equity transaction and for two years post-buyout for target firms, and then comparing these with employment outcomes at control establishments and firms.

The findings are instructive. In a dynamic economy like the U.S., business both creates jobs and destroys them. The 2008 analysis – which included an additional year of data, 55 percent more private equity transactions, and double the number of establishments – found that gross job creation was no greater in target establishments of firms bought out by PE than at control establishments. Gross job destruction, however, was substantially greater in targets (Davis et al. 2008: 44). The average cumulative two-year employment difference at target establishments was 6.7 percent in favor of controls (Davis et al. 2008: 52).³ The authors report that there is virtually no net employment growth differences between target and control establishments following acquisition by PE in manufacturing (which accounted for about a quarter of PE transactions), but employment fell rapidly in retail trade, services, and FIRE (finance, insurance, and real estate) (Davis et al. 2008: 44). However, this result for manufacturing does not appear to be supported by data reported in Figure 11A, p. 61 which shows an employment decline in this sector as well. An analysis at the firm level of those firms in the sample that did not disappear (via merger, strategic or distressed acquisition, complex reorganization, or death of the firm) in the two years after being bought out by PE suggests that these negative employment effects of private equity observed at the establishment level persist despite being offset somewhat by greenfield job creation in new establishments in the first two years post-transaction, which is higher for target firms than for controls. Of course, there could have been job loss at the firms that disappeared that is not accounted for in this analysis.

Results of the 2011 analysis of the smaller subsample of target firms and establishments are more favorable to private equity but do not entirely negate the earlier findings regarding job destruction in PE-acquired establishments and firms. For the sample used in the establishment-level analysis, the researchers examine PE transactions from 1980 to 2000 in order to track target establishments for five years before and after the transaction. For the sample used in the firm-level analysis, they examine transactions from 1980 to 2003 and track outcomes for two years after the transaction occurs. The full matched sample of firms contains 2,265 target firms from 1980 to 2003, accounting for 104,000 establishments (Davis et al. 2011:21). The end point for both of these analyses is 2005, two to three years before the bursting of the housing and real estate bubbles and the onset of the recession and financial crisis in the U.S.

At the establishment-level, the researchers find a greater risk of job loss at target establishments following a buyout by private equity, with about half of this greater risk due to a higher probability

³ The employment growth rate of an establishment or firm over a period t is defined as the change in employment over that period divided by the average of employment at the beginning and at the end of the period. Employment growth at targets is calculated. The researchers also calculate what the employment growth at targets would have been had they grown at the same rate as controls. Aggregating and calculating the difference between these two growth rates (targets minus ‘controls’) yields the ‘net growth rates of employment’ year by year before and after the PE buyout as well as the cumulative difference. For details, see Davis et al. 2011, pp. 15 to 17 and Figure 5a on p. 41.

that an establishment will be shut down following a PE buyout (Davis et al. 2011: 18). At the firm level, they find that PE-owned firms are more likely to create new greenfield establishments. Summarizing their findings, the researchers report that “employment shrinks more rapidly, on average, at target establishments than at controls after private equity transactions. The average cumulative difference in favor of controls is about 3 percent of initial employment over two years and 6 percent over five years” (Davis et al. 2011:4). Not only does net employment in target establishments shrink relative to net employment in control establishments, but “[g]ross job destruction at these target establishments outpaces destruction at controls by a cumulative 10 percentage points over five years post buyout. These results say that pre-existing employment positions are at greater risk of loss in the wake of private equity buyouts” (Davis et al. 2011: 32). Manufacturing, Retail, and Services are the industry sectors in which private equity was most active in the 1980 to 2001 period (Figure 3, p. 39). The five-year cumulative effect on employment in establishments in these sectors was negative in all three industry sectors, and most strongly negative in the Retail sector (Figure 8, p. 43).

Despite these findings, the researchers conclude that employment growth in PE target firms is only slightly less than in controls. They report that “employment shrinks by less than 1 percent at target firms relative to controls in the first two years after private equity buyouts” (Davis et al. 2011:5). However, they reach this conclusion by adding together not just the numbers of jobs gained and lost at continuing establishments, the job losses at establishments that shut down, and the jobs gained at greenfield establishments, which seems reasonable. They also add in the effects of acquisitions and divestitures of establishments. It is unclear why the authors include acquisitions and divestitures of existing establishments in calculating the net effect of PE on employment. Acquiring an establishment with a hundred employees may increase employment in a PE-owned firm by 100 workers, but there is no job creation as a result of this action. Acquisition of the establishment in this example neither increases employment in the establishment nor creates new jobs in the economy. Similarly, divestiture may reduce employment in PE-owned firms, but need not reduce employment in the establishment or the economy.

One further finding of this analysis warrants attention. Including acquisitions and divestitures, the researchers find that in private equity buyouts in which publicly-traded firms are taken private, “target employment contracts by more than 10 percent relative to controls” in the first two years post-buyout (Davis et al. 2011:30). Looking more narrowly at job creation and destruction in public to private PE transactions, column 1 of Table 7 (p. 49) shows that while employment growth in continuing establishments of target firms modestly exceeds that in control firms, deaths of establishments in target firms greatly exceed those in control firms and births of establishments (new greenfield establishments) in target firms lag substantially behind those in control firms. This suggests that without the inclusion of acquisition and divestiture of establishments, the employment contraction at PE target firms in public-to-private buyouts relative to control firms would be even steeper.

The researchers report a striking contrast in private equity buyouts of private (i.e., independent) firms – with employment at targets apparently growing 10 percent relative to controls in the first two years post buyout. But here, as shown in column 2 of Table 7, nearly all of the positive job “creation” is the result of far greater acquisition of existing establishments by PE targets than by controls. Employment growth in continuing establishments of target firms modestly exceeds that in control firms, deaths of establishments in targets modestly exceed those in controls, and establishment births in targets lag slightly behind those in controls. This suggests that, without the

inclusion of acquisition and divestiture of establishments, the effect of PE buyouts of private firms on employment in targets would be small relative to controls.

Some commentators argue that private equity firms tend to target firms that have not adjusted to the changing economy and were already losing market share and reducing employment. Further downsizing after the takeover by private equity investors is presented as a necessary measure to revitalize the company and preserve the remaining jobs. The evidence on employment gains in target companies relative to controls in the five years prior to the private equity leveraged buyout does not support this view. Davis et al. (2011: 17) note that on average employment growth was actually stronger in establishments of businesses acquired by private equity than in control establishments in the five-year period prior to the buyout. This is consistent with the Becker and Pollet (2008) finding that greater profitability is a significant predictor that a public company will go private.

With respect to productivity growth among U.S. manufacturing firms, Davis et al. (2009) found that labor productivity growth was higher in establishments of target firms than in control firms. Almost three-quarters (72 percent) of this differential is due to productivity improvements in the continuing establishments of these firms, including downsizing or closing of less productive establishments and the reallocation of activity to more productive establishments. Target firms were much more likely to close establishments with lower productivity than were the controls. Thus, much of the apparent improvement in productivity was simply a composition effect. Again, the sample was restricted to firms that can be tracked for two years after the PE investment and omits firms that disappear entirely which may, of course, have been poor performers with low productivity growth. It is not possible with aggregate data such as these to distinguish between cases in which productivity increases are due to greater investments in employee skills, new technology, and work organization and those in which it is due to frightened workers (Cappelli 1999) going along with management's intensification of work out of fear that their work site will be downsized or closed (Thompson 2011).

These findings for employment and productivity gains appear broadly consistent with the case study literature.

Management and Employment Relations

Private equity has a mixed record of working with unions in the U.S. There are a small number of boutique private equity firms, such as Yucaipa, which have decent reputations for working with unions, and in fact, use that record as a source of comparative advantage (Croft 2009). In addition, a few high profile cases involving large private equity firms have a track record of negotiating in good faith with unions. However, a more common approach has been to demand deep concessions or attempt to marginalize or decertify unions.

One example of positive union relations is the 2007 buyout of TXU, the Texas utility company now known as Energy Future Holdings, by a consortium that includes KKR, the Texas Pacific Group, and the private equity arm of Goldman Sachs. It was the largest PE buy-out in history – worth \$48 billion. To close the deal, the new owners spent \$17 million in lobbying Texas politicians and environmental groups, who backed the deal on the promise of the closure of coal-powered plants. The AFL-CIO viewed the takeover as a success because the new owners negotiated with the union (the International Brotherhood of Electrical Workers, IBEW), backed by the AFL-CIO's then Secretary-Treasurer and now President, Richard Trumka. The contract ensured union recognition

and no job loss for three years (Beeferman 2009, Kosman 2009:10-11). However, the larger question is the sustainability of the enterprise at all. The economics of the deal assumed that natural gas prices would rise, but they have not; and in fact, energy prices fell as a result of increased competition and the economic recession. In the meantime, the private equity owners have been unable to exit the deal, and the company (renamed Energy Future Holdings) currently holds \$20 billion of the \$40 billion in debt from the original buyout, which is due in 2014 (Anderson and Creswell 2010).

Another high profile case is the Hospital Corporation of America (HCA), the largest for-profit health care entity in the U.S., providing roughly 4 percent to 5 percent of all hospital services in the country and employing 190,000 people. In 2006, the company was taken private by a consortium of investors (Bain Capital Partners, LLC, KKR, Merrill Lynch Global Private Equity, Citigroup Inc., Bank of America Corporation and HCA CEO Dr. Thomas F. Frist, Jr). One of the largest leveraged buyouts in U.S. history, the investors put up \$5.5 billion and leveraged the remaining 75 percent of the \$21 billion deal (Mollenkamp 2010). The private equity owners have negotiated in good faith with its unions (the Service Employees International Union and the National Nurses Union) and even signed a neutrality agreement that allowed the unions to organize new members in some hospitals in typically non-union southern states. At the same time, HCA hospitals were notorious for understaffing – an issue the unions continuously campaigned on (Milazzo 2010).

More importantly, the deal raises fundamental questions about how private equity owners make high returns without jeopardizing patient care or the sustainability of the enterprise. The PE owners attempted to exit the deal in 2010 with an IPO, but, when the market did not allow them to, they paid themselves \$4.25 billion in a series of dividend recapitalizations – in part by issuing junk bonds and loading the company with additional debt. Such dividend recapitalizations appear to contradict the argument that PE returns come from building value in portfolio companies and derive from the difference between the price PE paid to acquire the company and the price at which it sells when it exits the investment (Primack 2011b). In March, 2011, HCA was finally successful in going public, with a \$3.8 billion IPO. While the owners more than recouped their initial investment, HCA is now saddled with \$26 billion in debt – \$12 billion more than the company's assets (Kosman 2011; Reuters 2011; Terry 2011).

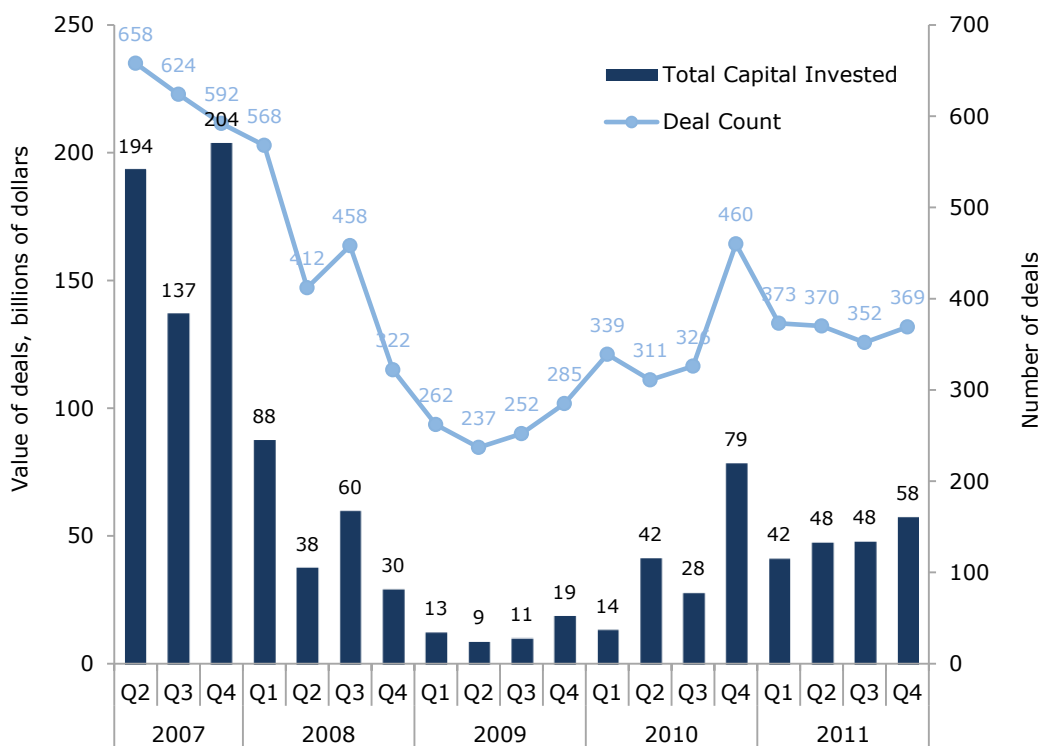
A more typical example comes from the Teamsters Union. In 2007, private equity firms KKR and CD&R purchased USFoodService in a leveraged buyout from Dutch supermarket chain Royal Ahold. Management-union relations were cooperative under Ahold, but the new owners refused to consider the union's offer to partner on productivity improvements. Instead, they pursued a campaign of cost-cutting and work intensification; started shifting work to non-union worksites; and launched an anti-union campaign against one organizing drive that led the National Labor Relations Board to cite the company for 200 violations of the law (Appelbaum and Batt 2010, Appendix 2). At the end of 2011, the Teamsters again charged the company with unfair labor practices, this time in Streater, Illinois, for retaliation against an employee for union activity and for refusing to bargain in good faith. The strike lasted over a month and spread to USFoodservice locations in some ten states before the company agreed to bargain and a settlement on this issue was reached. The Teamsters and USFoodService are now preparing for a new round of contract negotiations (Lattman 2011; Teamsters 2011a, 2011b).

Private Equity in the Post-crisis Period

The economic recession began in the U.S. in December 2007 and was exacerbated by the ensuing financial crisis – the near-collapse of Bear Stearns in the spring and the failure of Lehman Brothers in fall of 2008. The recession ended officially in June 2009, although the nation enters 2012 with the jobs crisis far from over. The new investment funds were very much affected by the financial crisis.

Practitioner accounts, corroborated by the available empirical evidence, suggest that the private equity industry is highly cyclical (see Kaplan and Strömberg 2009: 137-143 for a review of theory and data). According to Pitchbook (see **Figure 3**), the number of deals fell by more than half between the second quarter of 2007 and the second quarter of 2009, from 658 to 237, while deal value declined from a high of \$204.0 billion in the fourth quarter of 2007 to a low of \$9.3 billion in the second quarter of 2009. The number and volume of deals have both recovered somewhat since the trough, but were at 369 deals worth \$57.8 billion in the fourth quarter of 2011. Deal count and total capital invested remain well below their highs; quarterly levels of private equity activity have remained about the same over the last four quarters and below the level in the fourth quarter of 2010 (Pitchbook 2011).

FIGURE 3
Number and Value of Private Equity Deals in the U.S., by Quarter



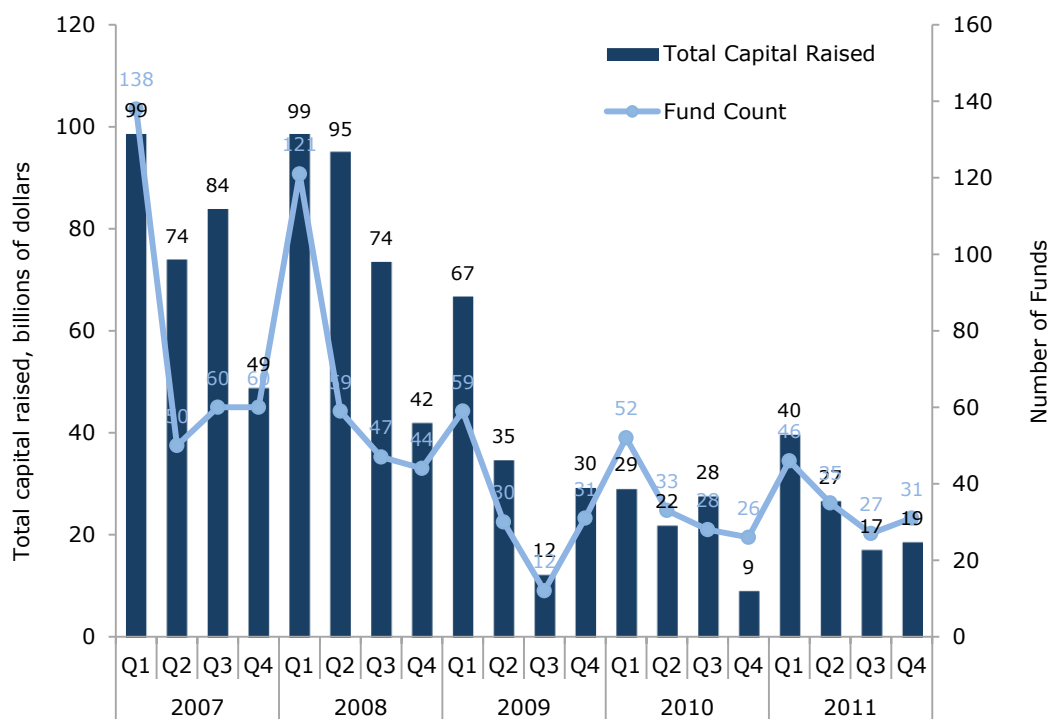
Source: PitchBook Data, Inc.

Fundraising continues to be difficult for U.S. private equity firms (see Figure 4). After a strong first quarter of 2011, in which 42 funds closed having raised \$39.1 billion, the number of funds closed and the amount of total capital raised declined in subsequent quarters of 2011. Even the strong

showing in the first quarter was substantially below results for the first quarter of 2009, when 60 funds closed, having raised \$65 billion. Despite the tough fundraising environment, there are over 300 U.S. private equity funds currently seeking commitments, the same as in the peak year of 2007.

The availability of cheap financing impacts booms and busts, with the level of leverage driven by the cost of debt rather than by firm- and industry-specific factors. In periods of easy financing, deal volume increases, private equity firms use greater leverage to acquire target firms, and valuations of target firms are higher. This results, ultimately, in an increase in troubled investments as more highly leveraged companies, whether private equity owned or not, are likely to experience greater distress during economic downturns. An increased number of private equity-owned firms, especially those acquired in leveraged buyouts at market peaks, have experienced high rates of distress during the subsequent contraction. Some well-known companies acquired by private equity during the boom and burdened by the weight of the debts they carried were forced to seek bankruptcy protection – Friendly’s, Simmons, and Reader’s Digest among them – while some major retail chains were unable to emerge from bankruptcy and were liquidated, for example, Linens ‘n Things, Mervyns, Borders, and Circuit City.

FIGURE 4
Fund Raising by Private Equity Firms



Source: PitchBook Data, Inc.

Tight credit markets make refinancing difficult for some highly indebted companies, despite the current low U.S. interest rates associated with prolonged recession. The semiconductor company Freescale, for example, was taken private in 2006 by a group of private equity firms including Blackstone Group LP, Carlyle Group, Permira Fund, and TPG Capital LP at \$40 a share (Carlyle Group 2006). By 2011, with debt and capital lease obligations of \$7.6 billion and assets of \$4.1 billion plus cash and cash equivalents of just over \$1 billion, it was forced to turn to the stock

market to raise funds to pay down its debts (Baldwin and Davies 2011). The company's IPO in May 2011 yielded an average of just \$18 a share (Baldwin and Davies 2011). While this improved Freescale's balance sheet somewhat, it was not a successful outcome for the company's PE investors.

Harrah's is another highly mortgaged PE-owned company under pressure from its debt structure. Harrah's casino (now renamed Caesars Entertainment Corp), was taken private in 2008 by Apollo Management and TPG Capital at \$90 a share. The PE partners tried to recoup their investment via an IPO that offered shares at \$15 to \$17 a share, but aborted the effort in November 2010 when even this share price proved too high for investors (de la Merced and Nicholson 2010). As the economy continues to struggle with low growth and jittery financial markets, private equity investors are likely to have increasing difficulty going forward in refinancing the large debt loads carried by their portfolio companies.

Performance of Private Equity Funds

Private equity funds are widely believed to outperform the stock market by a large margin and to yield high returns for the limited partners that invest in them net of the substantial fees paid to the fund's general partner. They have certainly proven to yield high returns for the general partners – the firms that raise the PE investment funds. However, studies of the economic performance of PE funds suggest a much more mixed picture for the limited partners in these funds. While gross returns may exceed returns for the S&P 500, this may not be true of the returns received by the limited partners net of fees and carried interest paid to the fund's general partner.

In their influential study of fund returns received by the limited partners in PE funds net of fees, Kaplan and Schoar (2005) found that on average these returns are slightly less than those of the S&P 500 index. The wide variability in the returns earned by these funds means that returns to limited partners frequently underperform the broad stock market.

The researchers used a database, provided by Thompson Venture Economics (VE), of voluntary reporting of fund returns by PE firms and their limited partners. These data are also the basis of the standard performance benchmark published by Thompson Venture Economics and by various industry associations. Kaplan and Schoar analyzed data for the period 1980-2001, which includes the bursting of the stock market bubble in 2000 at the end of the dot-com boom but does not include the much more severe economic crisis following the bursting of the housing bubble in 2006. The analysis focused on funds that had reached the end of their life cycle and were liquidated by 2001. Thus, returns were calculated based on actual returns to the limited partners and not on the subjective estimates of interim returns by general or limited partners for portfolio investments not yet exited in funds that have not yet been liquidated. Fund returns vary widely. The researchers found that returns to limited partners in private equity funds, net of fees and the carried interest collected by the private equity firm, were on average slightly less than what would have been earned by investing the Standard and Poor's 500 index. On average private equity investors earned 93 to 97 percent of what they would have earned by investing in the S&P 500 index. Importantly, returns in this study are calculated based on actual returns to the limited partners and not on subjective estimates of interim returns for funds not yet liquidated. Returns for funds at the 25th percentile were less than two-thirds of the return of the S&P 500; returns at the median were four-fifths of those of the S&P 500; and returns at the 75th percentile were 12 percent higher than those of the S&P 500. On a size-weighted basis, the returns were 72 percent at the 25th percentile, 83 percent at

the median, and 3 percent higher at the 75th percentile. Thus, returns for funds whose performance places them in the top quarter of funds outpaced the market for publicly-traded companies.

The problem for limited partners in PE funds is that not everyone can be in the top quartile. Most investors will not be able to gain access to the top funds with proven track records, especially investors who are new to private equity. For these investors, investments in private equity are likely to underperform the broad market, rather than to outperform it. And this is without taking into account the greater risk associated with the greater debt and less liquidity and transparency of PE investments (Saft 2010).

Kaplan and Schoar found that fund performance is persistent – firms that sponsor a fund that outperforms the stock market in one period are likely to outperform with follow-on funds as well. Fund flows are pro-cyclical and new funds are likely to be started in boom times when the PE firms are doing well. In these periods, a larger share of fund flows goes to new entrants in the PE industry. However, funds started in boom times are less likely to do well and raise follow-on funds, suggesting that in boom times a greater share of fund flows go to poorly performing funds.

Utilizing the same VE data set, Phalippou and Gottschalg (2005/2008, 2009) investigated the accuracy of the standard performance benchmarks for private equity funds. Their results show that the average private equity fund under-performs the S&P 500 index net-of-fees by about 3 percent per year and over-performs that index gross-of-fees by 3 percent per year. They found that the Thompson Venture Economics benchmark overstates the returns to PE funds for several reasons (see also Morris 2010). First, the standard performance benchmarks for PE funds (unlike the analysis by Kaplan and Schoar) include subjective (so-called ‘accounting’ or imputed) estimates of NAV (net asset value) for funds that have not yet exited all their investments and paid out returns to the limited partners.⁴ This biases returns upward. Second, standard practice is to weight fund returns by the value of capital committed at the inception of the fund rather than by amount of capital actually invested. The bias could, in principal, go in either direction. Comparing the result using actual capital committed as the weight with the result using standard practice, the researchers found that standard practice biases the results upward. This suggests that poor performing funds invest capital more quickly than average. Third, relying on voluntary reporting by the general partners in PE funds introduces self-selection bias – the reporting firms may not be representative of the industry and the sample may be biased toward better performing firms. Comparing the VE data with a commercially available data set, the authors showed that this is, indeed, the case. While an analysis of funds’ returns using these standard practices yields a slight advantage for PE funds compared to the S&P 500, the researchers found that adjusting for these three biases changes this result substantially.

4 According to the Government Accountability Office (Bovbjerg 2010), “valuations of private equity investments are uncertain during the fund’s cycle, which often lasts 10 years or more. Unlike investments which are traded and priced in public markets, plans have limited information on the value of private equity investments until the underlying holdings are sold. Some (direct benefit pension) plan representatives we interviewed explained that fund managers often value underlying holdings at their initial cost until they are sold through an initial public offering or other type of sale. In some cases private equity funds estimate the value of the fund by comparing companies in their portfolio to the value of comparable publicly-traded assets. However, an investment consultant explained that such periodic valuations have limited utility. Prior to the sale of underlying investments, assessing the value of a private equity fund is difficult. In 2008, plan officials we interviewed acknowledged the difficulty of valuing private equity investments and generally accepted it as a trade-off for the potential benefits of the investment.”

Phalippou and Gottschalg (2007) raise a further issue with reported returns. PE returns are often reported as the internal rate of return (IRR), which measures the annual yield on investment based on the underlying cash flows. IRR calculations implicitly assume that cash proceeds from the sale of an operating company can be reinvested at the same IRR over the entire life of the PE fund. This may not always be possible. The so-called modified IRR calculation corrects for this problem, but is rarely reported by PE firms. As in the Kaplan and Schoar analysis, Phalippou and Gottschalg found that the top quartile of PE funds outperformed the S&P 500, and that superior performance by PE firms is persistent. However, using the modified IRR yields returns that are far less impressive. Using the full VE database of 1,184 PE funds raised from 1980 to 1995, they found that the top 25 percent of funds, as ranked by IRR, had an average net-of-fees IRR of 35.2 percent. However, the top 25 percent as ranked by the modified IRR had an average internal rate of return of 18.56 percent – respectable, but “much more in line with other investment opportunities” according to Phalippou and Gottschalg.

Higson (2010) reviewed recent studies of PE fund performance. He observes that the research is dominated by the performance of funds launched in the 1980s and 1990s and liquidated in the 1990s and early 2000s – a period of generally stable macroeconomic conditions that does not include the recent period of economic turmoil. He also notes that PE fund performance is compared to the performance of the S&P 500 despite the fact that PE investors “accept extreme illiquidity and leverage (debt) risk relative to the S&P” (2010:7). His conclusion is that the best funds persistently outperform the broad stock market, but that most funds do worse. He concludes that “[t]hus far, the balance of evidence describes an economy in which buyout investment creates some value on average, but with enormous underlying variation where general partners scoop the pot on average so limited partners get, at best, the market return” (2010:8).

This evidence suggests that while top performing private equity funds have earned high returns for investors – and returns at funds raised by the most successful PE firms have often been exceptional – investments in an S&P 500 index fund would have outperformed investments by limited partners in 75 percent of PE funds.

In 2011, Kaplan and a group of colleagues (in an unpublished paper) again examined returns to limited partners. Arguing that VE data on returns used in the earlier study understate buyout fund performance, Kaplan and his coauthors used self-reported data from those limited partners that use Burgiss systems for record keeping and fund investment monitoring. As with the VE data, this is also an incomplete sample and introduces an unknown selection bias. In contrast to the Kaplan and Schoar analysis (2005), the Burgiss data include the estimated value of any unrealized investments in a fund as of the reporting date as part of fund distributions at that date. The authors report that unrealized investments are less than 3 percent for the median fund in pre-1999 vintages, but rise to 10 percent for the median 1999 fund, to 38 percent for the median 2000 fund, 55 percent for the median 2002 fund, 71 percent for the median 2003 fund, and exceed 80 percent for vintages after 2003 (p. 15). Thus, the bulk of the fund distributions for 2002 and later vintages are estimates based on the performance of publicly-traded companies selected by the limited partner as comparable to companies still in the fund’s portfolio. It would seem that there may be a temptation for pension funds and other limited partners to choose the comparison companies in a manner that places their investments in the best possible light. The exercise of valuing assets that are not publicly-traded is inherently subjective and certainly there is no guarantee that companies in the fund’s portfolio could be sold at the price of the publicly-traded companies used for comparison. Using the Burgiss data to examine the performance of private equity buyout funds relative to the performance of public

markets, the authors find that returns from investments in buyout funds exceeded stock market returns on average in every year from 1984 to 2008 with the exception of 1985, 1992, 1996, 2006, and 2008.

It is important to note that for the 2000 and later vintages these PE returns are largely based on estimates. In contrast to the 2005 Kaplan and Schoar study, they are not based on returns that pension funds or other limited partners can take to the bank. Performance results in the 2011 paper are reported by size of the fund, but – again in contrast to the 2005 paper – results are not reported separately for each quartile of funds based on fund performance.

The unknown, but possibly important, biases that result from the lack of transparency and public reporting requirements and the use of estimated values for companies still in the portfolio make it difficult to draw conclusions about how well investments in private equity perform for pension funds and other limited partners. It is anything but clear that these investments, on average, yield superior returns.

These results pre-date the severe financial crisis of 2008-2009 whose reverberations are still being felt. We discuss the challenges facing PE funds in recent years more fully below. Here we briefly note a few challenges that are likely to reduce returns for these funds going forward. First, PE funds are doing fewer megadeals, which in the past were often quite lucrative. Bigger PE firms are raising funds that are smaller than funds raised before the financial crisis; smaller PE funds and those with sub-par returns are having difficulty raising follow-on funds. Second, the slow economic recovery makes it difficult to identify buyout targets likely to yield high returns on exit and increases competition for attractive target companies – thus raising their acquisition price. Higher prices to acquire an operating company tend to reduce returns from the investment. Third, with access to credit more difficult for some firms, PE funds have had to finance buyouts with more equity and less debt. This reduces returns associated with leverage and with tax arbitrage. Fourth, the volatile stock market makes exit through profitable IPOs more problematic and less frequent. In short, the ability of private equity funds to score outsized returns for their limited partner investors is likely to be constrained by these changes in the environment in which PE operates.

Risk of Bankruptcy of Portfolio Companies

PE-owned buyout companies have substantially higher levels of debt than comparable publicly-traded companies. One study of 153 buyouts between 1985 and 2006 by large private equity firms, for example, found that buyout firms had an average net debt to enterprise value level of 67 percent, compared to 14 percent for comparable publicly-traded firms. Average net debt to EBITDA (earnings before interest, taxes, depreciation, and amortization) was 5.4 percent in the buyouts and 1.1 percent in the public firms (Axelson, Jenkinson, Stromberg, and Weisbach 2007, cited in Stromberg 2008:7).

High levels of leverage increase the risks of financial distress – debt restructuring, bankruptcy, or even liquidation – particularly in economic downturns and periods of slow growth such as the current one. The risks of financial distress associated with high levels of leverage, while well known in finance and economics, are often ignored in discussions of private equity, which embraced the radical idea that portfolio companies – saddled with large amounts of debt underpinned by only a small pillow of equity – would not be at greater risk on the downside of business cycles. Platt (2009: 13) describes the standard view in finance: “Bankruptcy imposes a number of costly nonfunctional

expenses on the firm such as legal expenses, trustee fees, costs associated with the plan of reorganization, and the loss of business due to the stigma. These costs lower the value of the firm. ... As the debt ratio rises, the probability of bankruptcy rises and the expected value of bankruptcy costs increase.” Even companies that are able to restructure their debts and avoid insolvency bear costly expenses – legal fees and other costs associated with restructuring debt as well as higher borrowing costs in the future.

Private equity firms tend to ignore these costs despite evidence that the high leverage typical of an LBO leads to higher rates of bankruptcy and reorganization. A study of bankruptcy rates worldwide among private equity-owned firms between January 1970 and June 2007, for example, found that these highly leveraged firms did experience higher bankruptcy rates than comparable publicly-traded firms (Strömberg 2008). Strömberg found that for the LBOs that occurred between 1970 and 2002, the rate of bankruptcy or reorganization was twice as high as it was for publicly-traded companies. For LBOs completed by 2002, a total of 7 percent of the deals ended in bankruptcy or reorganization while the acquired company was in PE hands. Assuming that firms are held on average for 6 years, Strömberg calculates that this works out to an annual default rate of 1.2 percent a year. He notes as a comparison that the annual default rate for publicly-traded companies over this period was 0.6 percent (Strömberg 2008:8). In Strömberg’s view this higher risk of default was compensated by the expectation of much higher returns.

This conclusion can be justified on the grounds that the primary goal of a private equity fund is to maximize returns for investors. The expectation that some portfolio firms will need to restructure debt or even default is built into the notion that funds hold a portfolio of companies, some of which will yield spectacular gains when sold and some of which will not succeed. The rate of financial distress for portfolio firms appears to be much higher for those bought out by more aggressive private equity firms. Thus, the *Wall Street Journal’s* analysis of Bain Capital’s performance under Mitt Romney’s leadership found that of the 77 businesses that Bain invested in from 1984 to early 1999, 22 percent either filed for bankruptcy reorganization or were liquidated by the end of the eighth year (12 percent by the end of the fifth year) following the investment (Maremont 2012) – far higher than the overall percent of PE deals that ended in financial distress in the Strömberg study. The *Wall Street Journal* noted that while Bain produced ‘stellar returns’ for investors in its funds – about \$2.5 billion in gains for its investors on about \$1.1 billion invested in the 77 companies – just a small number of deals produced the bulk of the gains (Maremont 2012).

Private equity investors – the general and limited partners in a PE fund – are largely protected from the effects of financial distress or bankruptcy among operating companies in the fund’s portfolio. The legal structure governing private equity funds limits these partners’ losses to the equity invested in the distressed portfolio company. If a portfolio company defaults on its loans, only the equity that was initially used to buy that company is at risk. This can sometimes involve non-trivial losses for the limited partners. However, the relatively low rates of financial distress or bankruptcy among PE portfolio companies prior to June 2007, while higher than for publicly-traded companies, meant that these failures had little effect on expected returns for the PE funds, and even less for the general partners in these funds. However, the effects of distress and restructuring were devastating for other stakeholders – the managers, workers, suppliers, and bond holders of the affected operating companies.

Strömberg’s analysis does not cover the period of the financial crisis and its aftermath. Since then, operating companies held by PE funds have come under intense pressure as they struggled to

survive the economic downturn and weak recovery while servicing their high levels of debt. Portfolio companies have adopted cost cutting measures in order to survive the recession. Bankruptcies of U.S. companies reached a record high level in 2009 and included highly leveraged portfolio companies of private equity funds. These economic troubles persist: after declining in 2010 and the first half of 2011, bankruptcies are again on the rise. Moody's recently raised concerns about LBOs with an initial transaction value of more than \$400 billion, noting their indifferent performance, high default rates, and the potential for further defaults of balance sheet restructuring over the several years in companies such as Hawker Beechcraft and HD Supply. Many of the companies bought at or near the peak of the boom have struggled with high initial leverage and debt-financed dividend payouts to PE investors that limited their ability to adapt during the recession (Global Credit Research 2011). In September 2011, the number of bankruptcies was similar to that last seen in April 2009 (Miller, Kosch, and MacKenzie 2011). Indeed, the largest bankruptcy of 2011 was NewPage Corporation in September (Hals, Zeidler, and Humer 2011). NewPage, owned by PE firm Cerberus Capital Management, is the largest North American maker of glossy magazine paper (Kary and Pearson 2011). Other high profile cases include several restaurant chains owned by PE firm Sun Capital – Friendly's, the iconic ice cream parlor and family restaurant; SSI Group, which operates Grandy's and Souper Salad restaurants; and Real Mex, which operates El Torito Restaurant and Chevys Fresh Mex – all entered bankruptcy in September and October.

In the case of Friendly's, Sun Capital sought to use the bankruptcy proceedings to write off debt and to rid itself of the company's pension obligations to its nearly 6,000 employees and retirees, while continuing to own the restaurant chain. Immediately after Friendly's entered bankruptcy, another Sun Capital affiliate announced its intention to acquire Friendly's. With less than two months between the bankruptcy announcement and the date set for the auction of Friendly's, no other bidders came forward. Sun Capital was allowed to "buy" Friendly's in a "credit-bid" sale – that is, Sun Capital could hold onto ownership of Friendly's by wiping out a \$75 million loan it had previously made to Friendly's (Brickley 2011) and assuming some of Friendly's liabilities. A key part of Sun Capital's restructuring plan is to shift liability for Friendly's pension plan to the federal government's Pension Benefit Guaranty Corporation (PBGC). Generally, PBGC does not require companies to make good on pension plans they can no longer afford. But in an unusual move, PBGC announced that it will fight Sun Capital's attempt to stick U.S. taxpayers with the bill. PBGC objects to what appears to be a transparent effort by Sun Capital to take advantage of the bankruptcy process to abandon pension obligations while continuing to keep its ownership of Friendly's (U.S. Bankruptcy Court 2011, Abelson 2011).

Investment in Private Equity by Hedge Funds and Sovereign Wealth Funds

Private equity has expanded its sources of capital in recent years by attracting investments from hedge funds and sovereign wealth funds. This activity has allowed private equity funds and hedge funds to create large investment management firms with diversified portfolios to increase their returns and hedge against losses. Hedge funds have particularly increased their investments in private equity since the mid-2000s in order to take advantage of the inflow of institutional investors and to make up for poor performance (Bloomberg-Businessweek 2007), which has plummeted since that time (Lack 2012). In 2005, for example, private equity represented 7 percent of hedge fund investment, according to industry sources (Cullen 2006). However, because hedge funds are more liquid (investments can be exited in one year or less) than private equity funds, they have developed strategies for "locking-up" investor capital for two or three year periods (often generating investor resistance) or creating 'side pockets,' which are similar to a single-asset private equity fund (Wilson

2007). Sovereign wealth funds have been active investors in private equity – both as limited partners in PE funds and as investors in the shares of those private equity firms that are publicly-traded. This approach allows sovereign wealth funds to invest in U.S. companies indirectly, without coming under the scrutiny that accompanies directly buying out companies or taking a major stake in a publicly-traded firm. The difficult fund raising environment in the post-crisis period particularly has made investments in PE funds by sovereign wealth funds a welcome source of capital for private equity.

Hedge Funds

In addition to investing directly in private equity, hedge funds also complement the activity of private equity either by taking minority positions in target companies or by purchasing portfolio companies when private equity exits them. In the post-crisis period, hedge funds have been particularly active in buying the distressed debt of PE-owned companies. In December, 2011, for example, hedge fund Avenue Capital Group reached a tentative agreement, pending approval of creditors, to take over 70 percent ownership in Quiznos sandwich chain and assume \$870 million in bad debt. The debt had accrued from the 2006 LBO by private-equity firm CCMP Capital Advisors LLC and Consumer Capital Partners. The plan would require creditors to forgive some debt and push out due dates, while Quiznos' debt would be cut by about one-third, still leaving it with \$570 million to pay off (Spector 2011).

Since the onset of the financial crisis, hedge fund investment in distressed debt has yielded the highest returns for hedge funds compared to other strategies – with average overall returns of 3.94 percent in 2011 (Or and Barr 2011). While these returns are low by comparison to returns earned during the boom period, many hedge funds have been struggling in the aftermath of the crisis. The industry is known for mega-funds that wield enormous power in financial markets, but it is populated by a large number of smaller funds – a total of about 5,000 funds in 2010 (Fruhan 2010:3-4). While the top 100 funds posted a three-year average annual return of 20.83 percent in the 2008-2010 period, the rate for all hedge funds was 2.24 percent (Sullivan 2010); and the average for 2011 was -4.37 percent, according to data from Hedge Fund Research (Financial Times 2011). While some companies continue to see positive returns, several of the most prominent hedge funds, including Paulson Advantage, Altis, MLM Macro Fund, CRM Windringe, Altima Global Special Situations Fund, registered more than 20 percent losses in 2011 (Farrell 2011; Investment Europe 2012).

In buying distressed debt of highly leveraged companies, hedge funds are filling a void in the supply of capital where traditional sources such as commercial banks are unwilling to take the risk and refinance the debt of struggling companies. While hedge funds fill a needed role in the post-crisis period, the cost of capital is high – with interest rates of 12.5 percent and higher. Moreover, hedge funds are known for their short time horizons, raising questions about whether they will quickly foreclose on loans that fall in arrears, taking ownership of the company and, in effect, transforming the debt they own into equity – a strategy referred to as ‘loan to own’ (Ahmed 2011).

Sovereign Wealth Funds

Sovereign wealth funds – funds that invest on behalf of sovereign nations – encompass a wide variety of investment vehicles. For instance, the government of the United Arab Emirates manages the Abu Dhabi Investment Authority (ADIA) as a sovereign saving fund, Mubadala Development

Company and Dubai World as government investment corporations, and Abu Dhabi National Energy Company as an affiliated corporate entity (Butt et al. 2007). It also operates other relatively small funds or corporations such as the International Petroleum Investment Company, Emirates Investment Authority, Abu Dhabi Investment Council, and Ras Al Khaimah (RAK) Investment Authority. ADIA investment holds minority stakes in Citigroup Inc. (4.9 percent), Apollo Management (9 percent) and Hyatt Hotels Corporation (10.9 percent) while Istithmar World, the private equity arm of the Dubai World, controls a 100 percent stake in Barneys New York, a 100 percent stake in Loehmann's, a 10 percent stake in Perella Weinberg Partners (a financial services boutique) and a 33.3 percent stake in Education Media and Publishing Group International (EMPGI).

In recent years, sovereign wealth funds have shifted from low-risk strategies to higher-risk/higher-return investment choices and are now employing a higher-risk/higher return strategy (Weiss 2008). In addition, dissatisfied with fund performance during the financial crisis, sovereign wealth funds are undertaking a dramatic shift from indirect and passive investors to direct and proactive ones. Qatar Investment Authority (QIA), for example, was given a seat on the board or represented at the director level for its investment in Veolia Environment and in Harrods (Monitor 2011). Recently sovereign wealth funds have begun to take minority ownership stakes in the private equity firms themselves. The Abu Dhabi Investment Authority (ADIA), for example, bought a 9 percent stake in Apollo Management and a 7.5 percent stake in the Carlyle Group. More recently, the Kuwait Investment Authority and the Government of Singapore Investment Corporation have gained a 5 percent stake in TPG (Zuckerman 2011), and China Development Bank is seeking a minority stake in TPG (Sender 2011).

While sovereign wealth funds appear to be expanding their influence over their investment targets they are significantly constrained in their ability to control U.S. companies by laws, regulations and concerns about national security (Rose 2008, GAO 2009, Lattman and de la Merced 2011). To sidestep political attention, sovereign wealth funds have avoided acquiring more than 10 percent of a company or have willingly forgone voting rights (Swann 2010). Nevertheless, the current legal framework of the U.S. ignores the influence of sovereign wealth funds through indirect investment strategies, with no rules requiring private equity firms and hedge-funds to fully disclose contract details (Rugaber 2008).

One of the major concerns regarding sovereign wealth funds' investment in U.S. private equity and hedge funds is their penetration into national security and governmental domains. Although most sovereign wealth funds refrain from investing in politically sensitive targets, their relationship with private equity firms who invest in those targets has been brought into question. The most well-known relationship may be the one between Abu Dhabi-based Mubadala Development Company and the Carlyle Group., which has extensive investments in energy and defense-related firms and firms with government contracts (Kinder Morgan, one of the largest pipeline transportation and energy storage companies in North America; *ARINC*, one of the leading providers of communications and integration systems to government agencies, airports and surface transportation networks, and *Allison Transmission*, transmission provider for all vehicle suppliers to the Pentagon (SEIU, 2008)). In 2007, Carlyle sold a 7.5 percent stake in its general partnership to Mubadala and in 2010, Mubadala made an additional \$500 million investment (Carlyle Group 2011).

The China Investment Corporation (CIC) provides a case in point of sovereign wealth funds increased investment in private equity and hedge funds. These investments include a \$3 billion

investment in Blackstone Group with non-voting rights in 2007 and a \$5 billion investment in Morgan Stanley in the same year (Singh 2008). In early 2008, CIC launched a \$4 billion private equity fund with JC Flowers & Co. primarily focusing on the U.S. financial sector. CIC contributed \$3.2 billion for about an 80 percent stake, while JC Flowers & Co. and other general partners provided the rest of the investment fund (Strasburg and Carew 2009). CIC investment in PE and HF has accelerated in the post-crisis period. In 2009 and 2010, CIC invested \$1 Billion in Oaktree Capital Management LP, which oversees more than \$60 billion in assets and was one of the firms involved in the Public-Private Investment Partnership, or PPIP, the government program designed to rid banks of toxic assets (Strasburg and Carew 2009). CIC also has a \$714m stake in U.S. asset manager BlackRock, a New York firm that is the world's largest money manager (China Daily 2010). More recently, it has agreed to invest \$1.5 billion in the private equity market through a partnership with Lexington Partners, Goldman Sachs, and Pantheon Ventures (Arnold 2010).

Private Equity's Challenges

After several years of lackluster performance, there are now some signs that the private equity market has begun to recover. One measure of this is the increase in billion dollar leveraged buyout deals. According to data-provider Pitchbook (Pitchbook News 28 and 29 November, 2011), there were 33 U.S. private equity deals over \$1 billion in 2011 through November. The largest was the November KKR-led consortium deal in which Samson Investment Company was acquired for \$7.2 billion. This topped Apax Partners' \$6.1 billion purchase of Kinetic Concepts (Primack 2011a). KKR finished with an agreement to acquire Capital Safety Group from Arle Capital Partners in a \$1.12 billion deal. Nevertheless, these do not compare to the \$21 billion buyout of HCA in 2006 or the \$48 billion buyout of TXU in 2007. Private equity firms continue to face a range of challenges.

One challenge is that the recession has made it difficult to find opportunities for investment, and private equity funds continue to have large amounts of 'dry powder' – committed funds from limited partners that must be invested or, for funds nearing the end of their established investment periods, returned to investors along with the relevant management fees. Pressures to spend these funds on acquisitions and a dearth of promising target companies in a slowly growing economy have led to higher prices (as a multiple of earnings) for acquisitions. These high prices may mean disappointing returns when PE funds exit the investments in a few years.

Difficulty finding promising uses for dry powder combined with difficulty exiting mature investments in the current economic situation has also led to an increase in secondary buyouts in which a PE-owned company is sold to a PE fund of a different PE firm. Thus, secondary buyouts such as the acquisition of Capital Safety Group – leveraged transactions in which both the buyer and the seller are private equity funds – have increased in recent quarters (Prequin 2011: 3). These transactions solve two problems for private equity firms. First, they give PE firms an opportunity to invest some of their huge overhang of dry powder without public scrutiny over the price paid or the wisdom of the deal that comes with bidding for a firm not owned by PE. Second, it enables the private equity firms on the other side of the deal to reduce their large inventory of mature portfolio companies and make distributions to their limited partners. Limited partners are unable to provide PE funds with much new money until such distributions are made. As a result, private equity to private equity transactions have become increasingly popular. One of the largest of these deals in the U.S. was the 2010 leveraged buyout of MultiPlan Inc., a health care business that puts together medical networks for major health care insurers. The company was acquired by private-equity firms

BC Partners and Silver Lake Partners from Carlyle Group and Welsh, Carson, Anderson & Stowe in a transaction that values the company at \$3.1 billion (Lattman 2010).

For the seller, a secondary buyout is an opportunity to exit an investment and provide a distribution back to the limited partners at a time when stock markets are volatile and IPOs are less attractive. For the buyer, it presents an opportunity to deploy idle committed funds (Preqin 2011). But such transactions are not without their critics. Large public pension funds and sovereign wealth funds that are limited partners in multiple funds with multiple private equity firm sponsors may find themselves involuntarily on both sides of the secondary buyout – receiving a distribution from the fund that sells the portfolio company while at the same time participating in the purchase of the same company, but at a higher price. In addition, the secondary buyout gives the operating company's management team an opportunity to cash out their ownership shares in the company, raising questions about their commitment to the company after the transaction occurs. Finally, there is concern from some limited partners that while secondary buyouts may be less risky investments, the high valuations in a secondary buyout limit the returns that can be earned (Preqin 2011).

With estimates of dry powder running from \$376 billion as of mid-November 2011 (Preqin 2011: 5) to \$436 billion (Pitchbook 2011:1), the industry remains under pressure to return capital to limited partners. This, in turn, has spurred new fundraising by private equity firms anxious to remain a force for acquisitions (Ernst and Young 2011:11; see also Lex Column, *Financial Times*, 2011). Returns to the limited partners in most private equity funds proved disappointing in 2008, 2009, and 2010, which has made raising new funds challenging. Despite a loosening of credit markets in 2010, newer or less successful private equity firms have had difficulty raising successor funds as older funds mature. Even established private equity firms have faced difficulty attracting limited partners and some have even failed to attain the hurdle rate of return at which they can claim a share of the profits. The volatile stock market has made it difficult for some funds to exit their investments in portfolio companies successfully via IPOs. Portfolio companies are being held for longer periods of time despite a pick-up in exit activity in 2010 and 2011 as uncertainty continues to depress sales of private equity-owned firms (Ernst and Young 2011).

One positive note: While refinancing debt as it matures has posed some difficult challenges, private equity firms have successfully refinanced much of the huge volume of bonds scheduled to mature in the next few years. This has bought them time for the hoped-for recovery in jobs, earnings, and consumer spending to take hold. While helpful, these amend and extend agreements (sometimes referred to as amend and pretend) have allowed some shaky companies to escape bankruptcy or restructuring, but may have required them to cut employment and reduce prices and may have left them too weak to undertake new investments or projects (Hals, Zeidler, and Humer 2011).

Despite these concerns, some companies that follow private equity are optimistic about the future of the industry. For example, Pitchbook (2011) anticipates a pickup in private equity activity across the board at the end of 2011 and during 2012. In support of this view, the company cites the breadth of private equity activity in 2011Q3 that has occurred across deal sizes, fund sizes, industries, and geographies and looks for further improvements to build on this foundation in the fourth quarter and 2012.

Conclusion and Recommendations

This primer on private equity examined the features of the U.S. regulatory framework that have shaped the behavior of financial intermediaries. Private equity, hedge funds, and sovereign wealth funds have been exempt even from registration and reporting requirements, have not been required – as banks are – to hold reserves, and have faced no limits on their use of leverage. U.S. financial market regulations have allowed these intermediaries to operate with virtually no public oversight or transparency to investors. Deregulation of financial services from the 1970s on made possible the growth of large pools of private capital. The preferential tax treatment of debt relative to equity and of carried interest relative to wage and salary earnings further encouraged the expansion of alternative investments. While the Dodd-Frank financial reforms of 2010 instituted registration and reporting requirements beginning in 2012 for private equity and hedge funds, the law did not change the tax code or limit business practices such as the extensive use of leverage that these financial firms have relied on. The lax financial regulatory environment is coupled with a weak union movement and labor laws that provide few mechanisms for employees to challenge or negotiate over new forms of management introduced by private equity and activist hedge funds.

Compared with other alternative investment vehicles, private equity has clearly had the most direct impact on management decision-making, business operations, employment levels, and labor relations in portfolio firms. The purpose of taking a target firm private is to be able to restructure operations without any oversight from outside investors, regulators, or the public. While much of PE activity continues to focus on financial engineering, PE managers have increasingly incorporated consultants with specific industry expertise into their organizations, who are then deployed to work in portfolio companies in those industries. Moreover, as private equity, hedge funds, and sovereign wealth funds are increasingly incorporated into large multi-purpose asset management firms, the distinctions among them have begun to blur. PE invests in publicly-traded enterprises; hedge funds buy the distressed debt of PE-owned portfolio companies; while sovereign wealth funds take on the limited partner role and invest in PE funds.

The outcomes for managers and employees in PE-owned portfolio companies are highly diverse and depend on a range of contingent factors, including industry conditions, the size and strategy of the PE firm, the assets of the portfolio company itself, the direction of the stock market, and general economic conditions that influence interest rates at which funds for LBOs can be borrowed and the market success of portfolio firms. At one extreme, there are cases of boutique PE firms that specialize in turning around companies and have a record of negotiating with unions and trying to maintain employment stability. These, however, represent a very small share of PE investment funds. At the other extreme are a series of large LBOs by leading PE firms that have saddled companies with high levels of debt and have resulted in bankruptcies, employment loss, and losses to creditors and suppliers. Still pending are a series of LBOs from the 2005-07 period, which have huge debt loads, much of which PE has been able to refinance. But slow economic growth persists and the future of investments made at the height of the real estate boom is uncertain. Some analysts anticipate high rates of financial distress and bankruptcy for portfolio companies although the effects on the large PE firms are likely to be muted. The one large scale quantitative study using U.S. data found that employment gains are no greater in PE-owned establishments than in other similar companies, while employment losses are much higher and are concentrated in particular industries, including retail and services. The study showed that the higher productivity in PE-owned firms compared to control firms was partially attributed to closing less productive units and reallocating

workers to more productive sites. The data did not provide insights into the mechanism by which productivity improvements at continuing units were achieved – whether through investments in skills, technology, and innovation designed to improve long-term competitiveness or through short-term cost-cutting and work intensification. The evidence on PE's track record with unions is mixed: while some PE firms have negotiated with existing unions, others have worked to intensify work, prevent unionization, and marginalize existing unions. In both cases, however, the private equity model of high leverage and financial engineering poses a substantial threat to employees and their unions – regardless of whether a contract is negotiated – of whether their enterprise is sustainable in the long term.

One of the key lessons from the U.S. experience is that the regulatory environment does not constrain the kind of financial engineering and risky behavior of PE firms that raises the probability of financial distress or bankruptcy and that permits the extraction of high levels of value for the PE investors even as the portfolio company struggles to exist. Indeed, PE owners uncertain of a profitable exit from a portfolio investment may resort to dividend recapitalizations, in which more debt is piled onto the portfolio company in order to pay the PE owners a large dividend and help them recoup their original investment despite the increased risk of distress for the firm. Not only do such actions undermine the argument that PE returns are due to improvements in firm performance that allows the PE firm to sell the portfolio company for more than it paid to purchase it, but in several instances PE firms have been accused by creditors of 'bleeding-out' the company and causing it to become insolvent. Sun Capital faces such an accusation (among others) in relation to the bankruptcy of the Mervyn's department store chain and Apax Partners and TPG Capital face a similar complaint in the case of TIM Hellas (Appelbaum, Batt, and Clark 2011; Primack 2011b).

Moreover, little data exists regarding the impact of PE ownership on the quality of jobs and the quality and types of services offered. In recent years, for example, PE has aggressively purchased hospitals and nursing homes in the U.S. As exemplified in the case of HCA, the PE owners have already repaid themselves and profited from their investment while placing huge debt obligations on the HCA hospitals; but there has been no study of the impact of these actions on patient care or services. In the crisis-ridden health care system of the U.S., how would patient outcomes change if profits were reinvested to improve care delivery systems rather than used to pay down debt? This question points to important concerns about the opportunity costs of extracting high levels of short-term profits from on-going enterprises.

Several regulatory changes are needed to curb the destructive outcomes associated with some types of financial intermediary activity. Beyond the recently-enacted reporting requirements, two substantive financial reforms are particularly warranted: limits on the excessive use of leverage and elimination of preferential tax treatment for debt relative to equity and for the carried interest earned by principal in some financial intermediaries. In the employment arena, recognition of the investments employees make in firm-specific skills and requiring that workers, like executives, be offered severance packages commensurate with their years of service would help to make layoffs a last resort. The excessive use of debt is a primary cause of private-equity-owned firms' short-term focus on cost-cutting, downsizing, and work intensification, as well as a major contributor to increased risk of financial distress of portfolio companies and even bankruptcy.

The threat of bankruptcy did not appear particularly worrisome to PE investors in the bubble economy of the 2000s, when credit was readily available, stock prices were generally rising, and the higher risks faced by highly leveraged firms were more than offset by the very high payoffs from

successful portfolio companies. Moreover, the occasional bankruptcy has little effect on the overall returns to PE firms. Investments are diversified and structured so that the general and limited partners may lose their equity stakes in a portfolio firm that goes bankrupt and creditors can seize the property or business, but the PE partners are not liable for the portfolio company's losses. If the investors in the struggling portfolio firm had previously paid themselves dividends, even these losses may be eliminated or at least mitigated. The higher incidence of financial distress and bankruptcy in the 'long slump' that followed the bursting of that bubble and that persists even now, four years after the onset of recession and financial crisis, cannot be dismissed so lightly. Fear of losses has increased the difficulty PE firms' face in recruiting LP investors. The large overhang of committed funds that PE firms have not yet invested (so-called dry powder) and the reliance of PE firms on secondary sales (sales of a portfolio company to another PE firm) are indications of the challenges PE funds currently face in finding new investments expected to yield high returns and in exiting mature investments.

For the individual portfolio firm, of course, bankruptcy has always meant disaster for the managers, employees, creditors, and suppliers whose jobs and livelihood depend on the success of the company, as well as customers who rely on its goods and services. In the post-crisis period – in view of the instability and uncertainty of markets in at least the intermediate term – analysts expect many firms, highly leveraged in the pre-crisis years – to face distress, restructuring of their debts and, when that is not possible, bankruptcy.

One approach to reducing the excessive use of debt is to reduce the preferential treatment that debt receives in the U.S. tax code. Another solution, adopted by the EU in its reforms for alternative investment funds, is to limit the amounts of leverage that can be used by private equity and by hedge funds on the grounds that “[l]everage employed by a wide variety of actors throughout the financial system has contributed to the fragility of the financial markets and amplified the effects of the financial crisis” (Europa 2010). The EU Directive also introduces rules on pay practices in alternative investment firms to ensure that the firms adopt “remuneration policies that are consistent with and promote sound risk management and do not encourage risk-taking” (Europa 2010). These measures are intended to eliminate incentives for the excessive use of debt in the acquisition of, or investment in, operating companies.

A measure under consideration in the U.S. would eliminate the preferential tax treatment given to financial intermediaries, although this reform has repeatedly failed to pass one or both houses of Congress. The Obama administration's proposal would redefine the 'carried interest' that private equity and hedge fund managers receive as ordinary income subject to higher tax rates. While this reform is unlikely to modify the risky behavior adopted by financial intermediaries, it would begin to redress the serious problem of inequity in compensation between the highly compensated executives employed by financial intermediaries and ordinary Americans.

References

- Abelson, J. 2011. "US Alleges Fraud in Friendly's Case," *Boston Globe*, December 13.
<http://www.bostonglobe.com/business/2011/12/13/alleges-fraud-friendly-case/ixJo8F37WGJyCzUy9Vcx2I/story.html>.
- Ablum, T., and M.B. Burgis. 2000-2001. "Leveraged Buyouts: The Ever Changing Landscape." *DePaul Business Law Journal*, 13:109-125.
- Akerlof, G. A. and P.M. Romer. 1993. "Looting: The Economic Underworld of Bankruptcy for Profit." *Brookings Papers on Economic Activity*, 24:1-74.
- Ahmed, A. 2011. "Bank Said No? Hedge Funds Fill a Void in Lending." *New York Times*, June 8.
<http://dealbook.nytimes.com/2011/06/08/bank-said-no-hedge-funds-fill-a-void-in-lending/>.
- Anders, G. 2002. *Merchants of Debt: KKR and the Mortgaging of American Business*. Beard Books.
- Anderson, J, and J. Creswell. 2010. "For Buyout Kingpins, the TXU Utility Deal Gets Tricky." *New York Times*, February 27. <http://www.nytimes.com/2010/02/28/business/energy-environment/28txu.html>.
- Appelbaum, E., R. Batt, and I. Clark. 2011. "Financial Capitalism, Breach of Trust and Collateral Damage," Paper presented at the *BJIR* 50th Anniversary Conference, December 2011,
- Arnold, M. 2010. China Fund in Private Equity Push. *Financial Times*, Feb. 17.
<http://www.ft.com/intl/cms/s/0/1691a3a6-1bf8-11df-a5e1-00144feab49a.html#axzz1e5ctgIAf>.
- Axelson, U., T. Jenkinson, P. Stromberg, and M. Weisbach. 2008. "Leverage and Pricing in Buyouts: An Empirical Analysis." Working Paper, Swedish Institute for Financial Research.
- Bagli, C.V. 2010a. "Buying Landmarks? Easy. Keeping Them? Maybe Not." *New York Times*, January 16. <http://www.nytimes.com/2010/01/17/business/17tish.html>.
- 2010b "Stuyvesant Town's Lenders Take over Property." *New York Times*, October 26.
<http://www.nytimes.com/2010/10/27/nyregion/27stuytown.html>.
- Baker, G.P. and G. D. Smith. 1998. *The New Financial Capitalists: Kohlberg Kravis Roberts and the Creation of Corporate Value*. New York: Cambridge University Press.
- Baldwin, C., and M. Davies. 2011. "Freescale Shares Rise in NYSE Debut." *Reuters*, May 26.
<http://www.reuters.com/article/2011/05/26/us-freescale-ipo-idUSTRE74O83R20110526>
- Beeferman, L. 2009. "Private Equity and American Labor: Multiple, Pragmatic Responses Mirroring Labor's Strengths and Weaknesses." *Journal of Industrial Relations*, 51(4).

- Becker, B., and J. Pollet. 2008. "The Decision to Go Private." Working paper. June.
- Bernstein, S., J. Lerner, and A. Schoar. 2009. "The Investment Strategies of Sovereign Wealth Funds." Working Paper. Harvard University
- Bernstein, S., J. Lerner, M. Sørensen, and P. Strömberg. 2009. "Private Equity and Industry Performance," in A. Gungur and J. Lerner (eds.), "Globalization of Alternative Investments Working Papers Volume 3: The Global Economic Impact of Private Equity Report 2010". New York: World Economic Forum USA, 2010, 3-22.
- Bloomberg-Businessweek. 2007. "Hedge Funds Jump Into Private Equity." News and Insights. *Bloomberg-Businessweek*, February 26.
http://www.businessweek.com/magazine/content/07_09/b4023048.htm.
- Brickley, P. 2011. "Sun Capital to Recapture Friendly's with 'Credit Bid'." *Wall Street Journal*, December 30.
<http://online.wsj.com/article/SB10001424052970204720204577128813255393348.html>.
- Butt, S., A. Shivdasani, C. Stendevad, and A. Wyman. 2007. "Sovereign Wealth Funds: A Growing Global Force in Corporate Finance." *Journal of Applied Corporate Finance*, 19(1): 73-83.
- Cappelli, P. 1999. *The New Deal at Work: Managing the Market-Driven Workforce*. Boston, MA: Harvard Business School Press.
- Carlyle Group homepage. 2011.
<http://www.carlyle.com/mediapercent20room/newspercent20archive/2010/item11792.html>
- 2006. "Freescale Semiconductor Reaches Agreement with Private Equity Consortium in \$17.6 Billion Transaction; Freescale Stockholders Offered \$40 per Share in Cash." September 15.
<http://www.carlyle.com/mediapercent20room/newspercent20archive/2006/item6927.html>.
- Carmiel, O. 2010. "Ackman's Group Exits Stuyvesant Town Investment With \$45 Million Intact." *New York Times*, October 27. <http://www.bloomberg.com/news/2010-10-27/ackman-s-group-exits-stuyvesant-town-investment-with-45-million-intact.html>.
- Carey, D. and J. E. Morris. 2010. *King of Capital: The Remarkable Rise, Fall, and Rise Again of Steve Schwarzman and Blackstone*. New York: Crown Business.
- Chandler, A. 1977. *The Visible Hand: The Managerial Revolution in American Business*. Cambridge, MA: Harvard University Press.
- 1990. *Scale and Scope: The Dynamics of Industrial Capitalism*. Cambridge, MA: Harvard University Press.
- Chhaochharia, V., and L. Laeven. 2008. *Sovereign Wealth Funds: Their Investment Strategies and Performance*. Working Paper, International Monetary Fund.

- China Daily. 2010. "CIC US Equity Holdings Revealed." *China Daily*, February 8.
http://www.china.org.cn/business/2010-02/08/content_19383378.htm
- Cleary Gottlieb Steen & Hamilton LLP. 2010. "Delaware Bankruptcy Court Allows Debtor's Suit against Seller in LBO to Proceed." *Cleary Gottlieb Alert Memo*. New York: Cleary Gottlieb Steen & Hamilton, March 29.
- Croft, T. 2009. *Up From Wall Street: The Responsible Investment Alternative*. New York: Cosimo.
- Cullen, A. 2006. "When Hedge Funds Meet Private Equity." Harvard Business School: Working Knowledge for Business Leaders. February 20. <http://hbswk.hbs.edu/archive/5215.html>
- Davis, S., J. Haltiwanger, R. Jarmin, J. Lerner, and J. Miranda. 2008. "Private Equity and Employment," in A. Gurung, and J. Lerner, (eds.). *Globalization of Alternative Investments Working Papers Volume 1: Global Economic Impact of Private Equity 2009*. New York: World Economic Forum USA, 2008, 43-64.
<http://www.weforum.org/s?s=Globalization+of+Alternative+Investments+Working+Papers+Volume+1percent3A+Global+Economic+Impact+of+Private+Equity+2009>
- 2009. "Private Equity, Jobs, and Productivity," in A. Gurung and J. Lerner, (eds.), *Globalization of Alternative Investments Working Papers Volume 2: Global Economic Impact of Private Equity 2009*. New York: World Economic Forum USA, 2009, 27-43.
http://www.weforum.org/pdf/cgi/pe/Full_Report.pdf.
- 2011. "Private Equity and Employment." NBER Working Paper 17399. Cambridge, MA: National Bureau of Economic Research. Available at <http://www.nber.org/papers/w17399>.
- de la Merced, M., and C. Nicholson. 2010. "Business Briefing – Finance; Harrah's Withdraws Its Initial Stock Offering." *New York Times*, November 20.
<http://query.nytimes.com/gst/fullpage.html?res=9B0CEFDDB143DF933A15752C1A9669D8B63&ref=harrasentertainmentinc>.
- Dick, T., A. Granwell, G. Rokoff. 2011. "Proposed Regulations Would Ease Sovereign Wealth Funds' Investment in US Private Funds." *International Tax Alert*, November 15.
<http://www.dlapiper.com/proposed-regulations-would-ease-sovereign-wealth-funds-investment-in-us-private-funds/>.
- Ernst and Young. 2011. "Return to Warmer Waters: A Study of 2010 North American Exits." Ernst and Young.
- Europa. 2010. "Directive on Alternative Investment Fund Managers ('AIFMD'): Frequently Asked Questions." Press Release from the Directorate General Communication of the European Commission. Brussels: European Commission.
<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/572&format=HTML&aged=0&language=EN&guiLanguage=en>.
- European Union. 2011. "Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives

- 2003/41/EC and 2009/65/EC.” *Official Journal of the European Union*, June. l_17420110701en00010073.pdf available from <http://eur-lex.europa.eu>.
- Farrell, M. 2011. “Big Hedge Funds are Getting Slaughtered.” *CNN Money*. September 7. http://money.cnn.com/2011/09/06/markets/hedgefund_redemptions/.
- Federal Deposit Insurance Corporation (FDIC). 2005. Trust Examination Manual, Section 3, Part 1 C and Appendix E, Statute 404. <http://www.fdic.gov/regulations/examinations/trustmanual/>.
- Federal Register. 2011. “Exemptions for Advisers to Venture Capital Funds, Private Fund Advisers With Less Than \$150 Million in Assets Under Management, and Foreign Private Advisers.” Rules and Regulations, Federal Register, 76(129) July 6.
- Fleischer, V. 2007-08. “Taxing Blackstone.” *Tax Law Review*, 61: 89-120.
- , 2008. “Two and Twenty: Taxing Partnership Profits in Private Equity Funds.” *New York University Law Review*, 83: 1-58.
- , 2009. “A Theory of Taxing Sovereign Wealth.” *New York University Law Review*, 84: 440-513.
- Financial Times*. 2011. “Hedge Funds’ Year in the Pain Trade.” *Financial Times*. December 8. <http://www.ft.com/intl/cms/s/0/267d5ffc-21a1-11e1-a19f-00144feabdc0.html>.
- Folkman, P., J. Froud, K. Williams, and S. Johal. 2009. “Private Equity, Levered on Capital or Levered on Labor.” *Journal of Industrial Relations* 51(4): 517-527.
- Fox, A. 1974. *Beyond Contract: Work, Power, and Trust Relations*. London: Faber.
- Fruhan, W. 2010. “The Hedge Fund Industry.” Cambridge, MA: Harvard Business School. 9-208-126. April 7.
- Galbraith, J. K. 1952. *American Capitalism: The Concept of Countervailing Power*. London: Penguin.
- Global Credit Research. 2011. “Moody’s: Lackluster Performance for Bubble-Era Buyouts,” December 7. http://www.moodys.com/research/Moodys-Lackluster-Performance-for-Bubble-Era-Leveraged-Buyouts-PR_232792.
- Goldberg, L., R. Pozen, and M. Hammerle. 2010. “Note: Disclosure, Regulation, and Taxation of Hedge Funds versus Mutual Funds in the US.” Cambridge, MA: Harvard Business School, 9-310-131. August 28.
- Goodwin Procter. 2010. “Private Fund Investment Advisers Registration Act of 2010 Signed Into Law.” Goodwin Procter Alert. http://www.goodwinprocter.com/Publications/Newsletters/Client-Alert/2010/0723_Private-Fund-Investment-Advisers-Registration-Act-of-2010.aspx - 7/23/2010.

- Government Accountability Office (GAO). 2008. "Recent Growth in Leveraged Buyouts Exposed Risks That Warrant Continued Attention." Report No. 08-885. Washington, D.C.: GAO.
- 2009. "Laws Limiting Foreign Investment Affect Certain US Assets and Agencies Have Various Enforcement Processes." Report 09-608. Washington, D.C.: GAO.
- Hals, T., S. Zeidler, and C. Humer. 2011. "Insight: New Bankruptcy Ripples May Emerge," *Reuters*. October 11. <http://www.reuters.com/article/2011/10/11/us-bankruptcy-idUSTRE7995RH20111011>.
- Harris, R., T. Jenkinson, and S. Kaplan. 2011. "Private Equity Performance: What Do We Know?" University of Chicago: Unpublished manuscript.
- Higson, C. 2010. "Does PE Outperform or Underperform? The PE Performance Puzzle." Coller Institute of Private Equity, London Business School.
- Holland, M. 1989. "How to Kill a Company: Anatomy of a Leveraged Buyout." *Washington Post*, April 23. Available at www.applet-magic.com/kkr.htm accessed 8-10-11.
- Investment Europe. 2012. "Investment Intelligence for the Fund Professional." Investment Europe. <http://www.investmenteurope.net/investment-europe/news/2136093/hedge-funds-suffer-2011-hsbc-private-bank>.
- Jarrell, G. 1983. "State Anti-Takeover Laws and the Efficient Allocation of Corporate Control: An Economic Analysis of *Edgar v. Mite Corp.*" *Supreme Court Economic Review*, 2: 111-129.
- Jensen, M. and W. Meckling. 1976. "The Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics*, 3(4): 305-360.
- Jickling, M., and D. Marples. 2007. "Taxation of Hedge Fund and Private Equity Managers." Congressional Research Service. Report Code RS22689. July 5.
- Kansas, D. 2011. AIG Share Sale: Kuwait, Singapore Funds Express Interest. *Wall Street Journal*, May 18. <http://blogs.wsj.com/marketbeat/2011/05/18/aig-share-sale-kuwait-singapore-funds-express-interest/>.
- Kansas City Business Journal. 2009. "Timeline of YRC: 2003-2010." August 18.
- Kaplan, S. and P. Strömberg. 2009. "Leveraged Buyouts and Private Equity." *Journal of Economic Perspectives*, 23(1): 121-146.
- Kaplan, S. and A. Schoar. 2005. "Private equity Performance: Returns, Persistence, and Capital Flows." *The Journal of Finance*, 60(4):1791-1823.
- Kary, T. and S. Pearson. 2011. "New Page, Cerberus-Owned Papermaker, Files for Bankruptcy." *Bloomberg-Businessweek*, November 8. <http://www.businessweek.com/news/2011-09-07/newpage-cerberus-owned-papermaker-files-for-bankruptcy.html>.

- Kavilanz, P. 2009. "Buyers Shop for Good Deals on Stores." *CNN Money*, Feb. 11.
http://money.cnn.com/2009/02/11/news/economy/retail_privateequity/index.htm
- Kosman, J. 2009. *The Buyout of America: How Private Equity Will Cause the Next Great Credit Crisis*. New York: Penguin Group.
- 2011. "Bain's Huge HCA IPO Gain." *New York Post*, March 11.
http://www.nypost.com/p/news/business/bain_huge_hca_ipo_gain_QQsVgFa3EOtBy4GohMc5dI
- Lack, S. 2012. *The Hedge Fund Mirage: The Illusion of Big Money and Why It's Too Good to Be True*. New York: John Wiley & Sons.
- Lattman, P. 2008. "Mervyn's Fights to Keep Its Store Doors Open." *Wall Street Journal*, July 21.
<http://online.wsj.com/article/SB121659710322668977.html>
- 2010. "Buyout-Shop Swap Multiplan in \$3.1 Billion LBO." *Deals & Deal Makers, Wall Street Journal*. July 9.
<http://online.wsj.com/article/SB10001424052748703609004575355392787558722.html#>
- Lattman, P., and M. de la Merced. 2011. "SEC Looking Into Deals With Sovereign Funds." *Deal Book*, January 13. <http://dealbook.nytimes.com/2011/01/13/s-e-c-looking-into-deals-with-sovereign-funds/>
- Lazonick, W. 1992. "Controlling the Market for Corporate Control: The Historical Significance of Managerial Capitalism." *Industrial and Corporate Change*, 1(3): 445-488.
- Levenfeld Pearlstein. 2011. "Real Estate Case Study 1." <http://www.lplegal.com/about-lp/success-stories/real-estate-case-study-1>.
- Lex Column. 2011. "PE Lessons." *Financial Times*, October 6: 12.
- Lowenstein, R. 2004. *Origins of the Crash: The Great Bubble and its Undoing*. London: Penguin.
- MacGillis, A. 2011. "In Cantor, Hedge Funds and Private Equity Firms Have Voice at Debt Ceiling Negotiations." *Washington Post*, July 25. http://www.washingtonpost.com/politics/in-cantor-hedge-funds-and-private-equity-firms-have-voice-at-debt-ceiling-negotiations/2011/07/22/gIQAZYNVYI_story.html
- Main, C. 2011. Hedge Fund Secrets, Bank Capital Deadline, Gupta: Compliance. *Bloomberg-Businessweek*, October 27. <http://www.businessweek.com/news/2011-10-27/hedge-fund-secrets-bank-capital-deadline-gupta-compliance.html>
- Maremont, M. 2012. "Romney at Bain: Big Gains, Some Busts," *Wall Street Journal*, January 9.
<http://online.wsj.com/article/SB10001424052970204331304577140850713493694.html>

- Marples D. 2008. "Taxation of Private Equity and Hedge Fund Partnerships: Characterization of Carried Interest." Washington, D.C. Congressional Research Service. Report RS22717. July 8.
- Metrick, A. and A. Yasuda. 2010. "Venture Capital and Other Private Equity," Working Paper. New Haven: Yale School of Management, December.
- Milazzo, L. 2010. "CA Nurses Strike Against Billion Dollar Felon HCA. December 25. <http://blogs.alternet.org/speakeasy/2010/12/25/ca-nurses-strike-against-billion-dollar-felon-hca/>.
- Miller, H., T. Kosch, and D. MacKenzie. 2011. "Harvey Miller, Tiffany Kosch, and Donald S. MacKenzie Analyze the Companies Currently on Life Support." Webinar, The Deal LLC, November 3.
- Misonzhnik, E. 2009. "Private Equity Racks Up Checkered Record in Retail Buyouts," *Retail Traffic*, June 29. <http://retailtrafficmag.com/retailing/operations/private-equity-retail-buyout-record-0629/index2.html>.
- Mollenkamp, C. 2010. "HCA Pays Big Dividend to Its Owners." *Wall Street Journal*. November 10. <http://online.wsj.com/article/SB10001424052748703585004575604920844241284.html>.
- Monitor Group. 2011. "Braving the New World: Sovereign Wealth Fund Investment in the Uncertain Times of 2010." June. <http://www.monitor.com/tabid/69/ctl/ArticleDetail/mid/705/CID/20110606072349951/CTID/1/L/en-US/Default.aspx>.
- Morris, P. 2010. *Private Equity, Public Loss?* UK: Centre for the Study of Financial Innovation, July.
- Or, A., and A. Barr. 2011. "Hedge-Fund Assets Reclaim Pre-Crisis Level, Aim Higher." *Wall Street Journal*, March 10. <http://online.wsj.com/article/SB10001424052748704132204576190392446337456.html>.
- O'Sullivan, M. 2000. *Contests for Corporate Control: Corporate Governance and Economic Performance in the United States and Germany*. Oxford, Oxford University Press.
- Phalippou, L. and O. Gottschalg. 2008. "Performance of Private Equity Funds," March. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=473221.
- 2009. "Performance of Private Equity Funds." *Review of Financial Studies*, 22(4).
- Pitchbook. 2011. *The Private Equity Breakdown 4Q2011*.
- Platt, H.D. 2009. "The Private Equity Myth." *Journal of Business Valuation and Economic Loss Analysis*, 4:1-17. Published by Berkeley Electronic Press.
- Prequin. 2011. "Secondary Buyouts." *Private Equity Spotlight*, 7(11): November.

- PriceWaterhouseCoopers, LLC. 2011. "A Closer Look: the Dodd-Frank Wall Street Reform and Consumer Protection Act." www.pwcregulatory.com.
- Primack, D. 2011a. "Term Sheet." *Fortune*, November 23.
- , 2011b. "Term Sheet." *Fortune*, December 7.
- Private Equity Growth Capital Council. 2011. "PE by the Numbers." Private Equity Growth Capital Council website. <http://www.pegcc.org/education/pe-by-the-numbers/>.
- Rose, P. 2008. Sovereign Wealth Funds: Active or Passive Investors? 118 *Yale Law Journal Pocket* Part 104. <http://yalelawjournal.org/the-yale-law-journal-pocket-part/scholarship/sovereign-wealth-funds:-active-or-passive-investors?/>.
- Reuters. 2011. "Popular IPO Values HCA at \$30-\$31 a Share." *Reuters News*, March 9. <http://archive.chicagobreakingbusiness.com/2011/03/popular-ipo-values-hca-at-30-31-a-share.html>.
- Rubin, R., S. Sloan, and M. Talev. 2011. "Obama Proposes Tax on Bonds, Carried Interest for Wealthy." *Bloomberg-Business Week*, September 13. <http://www.businessweek.com/news/2011-09-13/obama-proposes-tax-on-bonds-carried-interest-for-wealthy.html>.
- Rugaber, C. 2008. "Funds Transparency Woes Could Worsen." *AP Business*, March 3. http://www.boston.com/news/education/higher/articles/2008/03/03/funds_transparency_woes_could_worsen/.
- Saft, J. 2010. "Private Equity and the Cost of Hope." *Reuters News*, Forexyard, September 28. www.forexyard.com/en/news/COLUMN-Private-equity-and-the-cost-of-hope-James-Saft-2010-09-28T190021Z.
- Schleifer, A. and L. H. Summers. 1988. "Breach of Trust in Hostile Takeovers," in A. J. Auerbach, ed., *Corporate Takeovers: Causes and Consequences*, pp. 33-68. Cambridge, MA: National Bureau of Economic Research.
- Sender, H. 2011. "CDB Seeks to Join TPG Stake Purchase." *Financial Times*, May 22. <http://www.ft.com/intl/cms/s/0/8e4d7f2a-849b-11e0-afcb-00144feabdc0.html#axzz1f2ObvWGX>.
- Service Employees International Union (SEIU). (2008). "Sovereign Wealth Funds and Private Equity: Increased Access, Decreased Transparency". April. <http://www.behindthebuyouts.org/storage/Sovereignpercent20Wealthpercent20Fundspercent20andpercent20Privatepercent20Equitypercent20Finalpercent20Reportpercent20Aprilpercent202008.pdf>.
- Singh, K. 2008. "Frequently Asked Questions About Sovereign Wealth Funds." Public Interest Research Centre. <http://www.thecornerhouse.org.uk/resource/sovereign-wealth-funds>.

- Spector, M. 2011. "Quiznos Unwraps Debt Plan: Tentative Deal Would Give One of Sandwich Chain's Lenders Majority Ownership." *Wall Street Journal*, December 22.
<http://online.wsj.com/article/SB10001424052970204464404577112551867262744.html>.
- Strasburg, J., and R. Carew. 2009. "Oaktree to Receive \$1 Billion from CIC." *Wall Street Journal*.
September 28. <http://compliancesearch.com/wallstreetjobreport/current-affairs/oaktree-to-receive-1-billion-from-cic/>.
- Strömberg, P. 2008. "The New Demography of Private, Equity." The Globalization of Alternative Investments Working Papers Volume 1: The Global Economic Impact of Private Equity Report 2008, World Economic Forum, January: 3-26.
- Sullivan, T. 2010. "Nicely Trimmed Smaller, Stronger Hedge-fund Industry Emerged from Financial Crisis." *Barrons*. May 24.
http://online.barrons.com/article/SB127438820517194427.html#articleTabs_panel_articlepercent3D1.
- Swann, JC de. 2010. "China Goes to Wall Street: Beijing's Evolving US Investment Strategy. Foreign Affairs." April 29. <http://www.foreignaffairs.com/articles/66398/jc-de-swaan/china-goes-to-wall-street>
- Teamsters. 2011a. "Teamster Sympathy Pickets Return To US Foods." December 1.
<http://www.teamster.org/content/teamster-sympathy-pickets-return-us-foods>.
- 2011b. "Teamsters Reach Settlement With US Foods." December 6.
<http://www.teamster.org/content/teamsters-reach-settlement-us-foods>.
- Temple, P. 2001. *Hedge Funds: The Courtesans of Capitalism*. Chichester: UK: Wiley and Sons.
- Terry, K. 2011. "Big IPO for HCA Hospital Chain, But Buyers' Remorse Remains a Distinct Possibility." *Bnet*. <http://www.bnet.com/blog/healthcare-business/big-ipo-for-hca-hospital-chain-but-buyers-8217-remorse-remains-a-distinct-possibility/2687>.
- Thompson, P. 2011. "The Trouble with HRM." *Human Resource Management Journal*, 21(4): 355-367.
- 2003. "Disconnected Capitalism: Or Why Employers Can't Keep their Side of the Bargain." *Work, Employment and Society*, 17(2): 359-378.
- U.S. Court of Appeals for the DC Circuit. 2006. "Goldstein, Phillip, et al. vs. DEC, #04-1434." June 23.
- United States Bankruptcy Court for the District of Delaware. 2008a. "Affidavit of Charles R. Kurth, Executive Vice President and Chief Financial and Administrative Officer of the Debtors, In Support of First Day Motions." In the United States Bankruptcy Court for the District of Delaware, Chapter 11, Case No. 08-11586 (KG), Jointly Administered, In re: Mervyn's Holdings, LLC, et al., Debtors. State of California, County of Alameda, July 29.

- 2008b. "List of Creditors Holding the Thirty Largest Unsecured Claims," In the United States Bankruptcy Court for the District of Delaware, Chapter 11, Case No. 08-11586 (KG), Jointly Administered, In re: Mervyn's Holdings, LLC, Debtor. A Delaware Limited Liability Company, July 29.
- 2011. "Declaration of Steven C. Sanchioni of Friendly Ice Cream Corporation in Support of Debtors' Chapter 11 Petitions and First Day Motions," In the United States Bankruptcy Court for the District of Delaware, In re: Friendly's Ice Cream Corporation, et al., Debtors, Chapter 11, Case No. 11-13167.
- Weiss, M. 2008. "Sovereign Wealth Funds: Background and Policy Issues for Congress." CRS Report for Congress. Congressional Research Service.
- Wharton Private Equity Website. 2011. "Wharton on Private Equity," University of Pennsylvania. <http://knowledge.wharton.upenn.edu/pe/>.
- Wilson, Ri. 2007. "Hedge Funds and Private Equity." August. <http://richard-wilson.blogspot.com/2007/08/hedge-funds-and-private-equity.html>
- Zuckerman, G. 2011. "Kuwait and Singapore Acquire Slice of TPG." *Wall Street Journal*, April 2. <http://online.wsj.com/article/SB10001424052748703806304576236424131916608.html>.