The private equity industry (PE) suffered a setback triggered by the financial crisis in 2007. Some have questioned its continued viability. PE is a major alternative asset class with over one trillion dollars under management. Consequently, its viability is a major investor concern.

PE, as we knew it, during its so-called “golden age” of 2003-2007 is gone due to largely self-inflicted wounds. The industry over-expanded and over-reached driven by spendthrift investors and careless credit markets. Given the pressure to employ massive funds raised during the period, many PE firms drifted away from higher value-added middle market transactions to larger public-to-private (P2P) priced transactions leaving their investors with potentially large losses. The pattern is reminiscent of what took place following the collapse of the first PE wave in the late 1980s; and that recovery took over 10 years. Moreover, an uncertain regulatory and tax environment could complicate a future recovery.

The basic PE model of adding value through operational and governance restructuring to underperforming firms remains viable. The expected consequences of the current crisis will be an industry shakeout that will result in fewer, smaller and more focused PE firms. The target market will revert to smaller middle market transactions and away from the P2P deals which characterized the “golden age”. Additionally, the transactions will be more conservatively structured, with less reliance on financial engineering to offset overpriced acquisitions.

The “golden age” also exposed serious governance flaws in PE. The interests of PE general partners (GP) and their limited partners (LP) investors became misaligned. GP were incented to pursue aggressive transactions to increase their transaction fees. LP allowed this because of the high nominal returns on their investments. Thus, another post crisis development is likely to be a shift in power in favor of the LP. This means lower fees, smaller commitments, more transparency, and better alignment of interests.

This article will highlight PE developments and offer observations concerning its future. It begins with an historical review and comparison of the first PE wave in the 1980s with its twenty-first century counterpart. It then examines the economics of PE and its participants. Next, it turns to how PE creates, transfers or destroys value through transaction structuring. Finally, the expected evolution of PE will be outlined.
I. History: Catching the Wave

A. First Wave: Youthful Exuberance of the 1980s

Leveraged acquisitions where the buyer uses the target’s cash flow and assets to finance the transaction have a long history. The 80’s, however, represented the development of firms as fund managers making leveraged acquisitions using dedicated capital. KKR, Blackstone and Carlyle are frequently associated with that period. A famous early transaction, Gibson Greeting Cards, was originated, however, by Wesray Capital, with Bill Simon, a former Salomon Brothers executive and Nixon administration official, as the lead partner. In 1982, Wesray purchased Gibson from RCA for $80 million in a highly-leveraged transaction. Just eighteen months later Wesray initiated an initial public offering (IPO) which valued Gibson at $330 million. Generating a profit of $250 million of which $70 million went to Simon alone. Such returns in so short a time period attracted the attention of both PE firms and their LP investors.

During the early 80’s, the characteristics of most transactions were as follows:

• Small $5-$100 million stable mature middle market firms or divisions of larger firms (e.g. Gibson)
• Modest purchase prices as a multiple of underlying EBITDA
• 100% PE ownership allowing them to make operational improvements
• Exit through an IPO or sale in 3-5 years with expected 25% + IRR
• 60-85% of the acquisition funding was debt provided by banks and finance companies
• LP investors largely composed of endowments and pension funds

Predictably, as the number of transactions and funds raised grew, competition for transactions increased. Driven by strong fundraising and favorable capital markets, PE firms moved to larger P2P transactions in the period 1987-1989. This was aided by Michael Milken’s Drexel Burnham high yield bond efforts which shifted funding away from banks to the capital markets. P2P, frequently hostile, tended to be more expensive as they are subject to auctions. Executing sufficiently large operational improvements to offset the 20% plus premiums to pre-bid stock prices became problematic for larger targets. The result was overpriced, over leveraged capital markets driven transactions. During this period, the purchase prices as a multiple of EBITDA increased from 6X to over 9X. Leverage levels correspondingly increased as a multiple of funded debt from 4X EBITDA to over 6X. These multiples would not be seen again until 2007.

This first “golden age” ended in 1989 as the capital markets began to close down at the beginning of the 1989-1991 recession. The United Airlines transaction, which failed to achieve funding, characterized the situation. During the early 1990’s, multibillion dollar PE related bankruptcies like Federated, Seamens, and Revco occurred. The S&L crisis and Drexel’s collapse deepened the recession. Consequently, PE transactions and fundraising collapsed. Although recovering somewhat, PE activity remained modest for most of the 90’s and going into the twenty-first century.

B. Second Wave: The Second Golden Age

The mega buyout years of 2003 through the first half of 2007 were driven by the same economic forces which underlied the subprime movement. Lulled into a false sense of security by the benign economic conditions of the “Great Moderation,” investors and institutions increased their risk appetite in search of yield.

Endowments and pension funds were attracted to the apparent high yields offered by PE. Additionally, they believed in the diversification benefits of alternative assets. This lead to an over eight-fold increase in fundraising to over $240B in 2007. In fact, the funds raised during the 2004-2007 period exceeded the total commitments to the entire industry since it began in the early 80’s. Fundraisings exceeding $20B for a single fund became common.

Equally important, debt capital markets, including banks, became accommodating as underwriting standards relaxed. Similar to the subprime market, securitization technology was used to expand the pool of debt capital available to leveraged buyouts (LBO’s). This transformed the loan market from an institutional bank market to a capital market. Just as in subprime, banks originated leveraged loans to be bundled, and sold to investment vehicles which raised funds

\(^{a}\)P2P volume increased to over $50B in 1989.

\(^{b}\)This was exemplified in the well known RJR transaction which saw the price increase from $75 per share to over $109. RJR turned out to be a disappointing win for KKR resulting in single digit returns when exited in 1996.

\(^{c}\)See Standard and Poors LCD Comps.com for historic purchase price and debt multiples.

\(^{d}\)Source: Private Equity Analyst.
based on their ratings.

These conditions supported the move to large P2P transactions using complex structuring techniques (described later under Market Developments: affordability Products). This culminated with the record $44B TXU transaction in 2007. Just as had occurred in the late 80’s, only on a greater scale, massive fundraising increased the competition for deals as funds struggled to invest. The emphasis shifted from improving operating earnings to funding the fully-priced deal through financial engineering. The result was excessively-leveraged, over-priced transactions dependent on continued receptive capital markets both for funding and exits. P2P transaction volume ballooned as pricing multiples approached levels not seen since the late 80’s. In effect, PE firms ceased investing in firms and were investing in capital markets. They became better at raising funds than investing.

When the capital markets “closed” during the summer of 2007, due to the subprime crisis, PE firms could no longer obtain funding. Deal flow stopped, valuations declined and LP distributions evaporated as exit opportunities from sales, IPO or recapitalization fell. The combination of portfolio losses and reduced LP distributions curtailed fundraising.

These trends carried over into 2008. Mark-to-market portfolio losses of 30-40% at KKR, Blackstone, Carlyle, and other well-known firms continued. The market stabilized in 2009 albeit at a low level. PE firms have over $400B of unused LP commitments. Their ability to utilize this capacity is problematic in the near term. Liquidity constrained LP have signaled their resistance to additional capital calls. Furthermore, debt financing for leveraged transactions is limited. Consequently, deal volume for the first quarter of 2009 was at a six-year low despite falling acquisition prices.

The lessons of the second golden age are similar to those of the first. The PE market is subject to boom and bust cycles driven by fundraising and capital market conditions. GP sought to maximize their profits through transaction and advisory fees. LP suffered due to misaligned GP incentives.

C. Private Equity Returns

Due to a lack of transparency, many LPs have a difficult time determining whether PE performance was due to luck, skill or risk. Research indicates the risk adjusted returns, on average, modestly outperformed the Standard and Poor’s 500 index before fees, but were negative after GP fees. Whatever value the fund created was largely captured by GP through fees and carried interests. Furthermore, the returns only appeared to be less volatile and correlated because they were thinly traded and infrequently valued. Mark-to-market values highlights the volatility with 2008 portfolio losses of $1.2B and $1.3B at KKR and Blackstone, respectively. Thus, many investors suffered from a private equity illusion.

The questions of why smart institutions make apparently foolish choices were addressed by Lenrer, et al 2007. Institutional investors were directed to alternative investments, including PE, by their advisors to reduce benchmark risk. Essentially, it was a herding strategy. Advisors failing to direct institution allocations into PE would suffer by comparison to their peers.

Returns vary based on additional factors. Some GP have skills allowing them to generate superior returns over time. The persistence of this result will be tested in the upcoming years. Larger funds have lower returns as the size and return relationship appears concave. For example, funds up to $2.5B in size lost 20% of their value on a mark-to-market basis for the December 2007 to December 2008 period. The mega funds, those over $7B, lost 35% for the same period.

\footnote{See Kaplan and STRömberg (2009). This fact was first noticed by Leon Cooperman in the 1980s. He concluded that a large portion of fund returns were from bull market debt-equity arbitrage not GP skill.}

\footnote{Kay (2009) provides an example concerning the impact of fees on investor returns. Warren Buffett’s Bershire Hathaway created $62B in value over the last 42 years. The standard PE 2% p.a., fee and 20% share of gains would have reduced the gain by $57B to just $5B.}

\footnote{See Chancellor (2007).}

\footnote{See Lerner, Schoar, and Wong (2007).}

\footnote{See Kaplan and Schoar (2005).}
Also, different investors, primarily endowments, historically had higher returns over others such as banks and public pension funds.\(^\text{14}\) This may have reflected their superior personnel and due diligence procedures or simply greater risk taking at endowments. Probably the most important determinant of return is the vintage year in which the fund was raised. Subsequent performance is negatively related to fundraising leading to boom and bust cycles as money comes in after good returns and poor returns follow money coming into PE.\(^\text{15}\) Thus, returns on funds raised in 2003 generated returns in the 25% + range, while funds raised during the boom 2006/07 period are likely to be negative.

**II. Private Equity Fund Participants**

**A. General Partners: The Managers**

The major general partners (GP) include well known global institutions such as Blackstone, KKR and Carlyle, each of which has tens of billions under management in multiple funds. These major GP tend to focus on larger transactions, primarily P2P. Additionally, there are scores of smaller PE firms focusing on private middle market buyouts. Many of the problems currently facing PE lie in the cyclical P2P segment where the ability of GP to add value is challenging. Increases in fundraising leads to increased prices and debt levels. The relationships are reflected in Table 1.

The market crisis curtailed both fundraising and the availability of debt. This caused the collapse in P2P transactions. The smaller middle market segment, although impacted, proved to be more stable.

GP add value in the following manner:

- **Buy “right” (not overpaying):** Avoiding overpaying for a firm becomes difficult in boom market auction transactions.
- **Grow income:** Difficult to grow fast enough to cover premiums to market paid during the 2003-2007 period for P2P.\(^\text{16}\)
- **Financial engineering:** Compensate for high prices with increased leverage through financial engineering. Depends on availability of under priced debt.
- **Sell Right:** Exit multiple expansion depends on the state of the M&A market.

GP follow a cycle. First, they form a fund. Then they raise commitments from the Limited Partners (LP). Next, they acquire and operate firms. Finally, they exit their investments distributing profits to themselves and their LP. If successful, they repeat the process by raising new funds. The structure of a typical PE fund is outlined in Figure 2.

The controlling operational document for PE firms is the Limited Partnership Agreement\(^\text{17}\). It outlines the size of the fund, term, use, and investment period. Additionally, it has governance provisions outlining the GP discretion and LP decision input. These provisions were substantially loosened during the “golden years” leaving GP with wide discretion. Perhaps mostly importantly, the agreement outlines the economics regarding GP fees, profit sharing, (the carry), and LP distributions. The carry, typically 20% of any transaction upside, realized on exit is typically reduced by losses on failed investments and an agreed upon hurdle rate on invested capital. The hurdle rate is usually set at 8%. The potentially lucrative nature of PE is illustrated in Figure 2.

Figure 2 illustrates the importance of improving operating income and achieving an exit multiple expansion based on EBIDTDA growth in creating investment value. The upside was common during the golden years, while the downside or worse is now the case.

A recent boom period development is the public PE firm. Perhaps, the best known is Blackstone’s 2007 IPO which provided a cash-out for the GP and permanent capital for Blackstone.\(^\text{18}\) This is a curious development as it substantially changes GP incentives and reduces LP discipline. The subsequent valuation implosion of these public private partnership and investor reluctance may limit this development.

**B. Limited Partners: The Investors**

Major LP groups include banks, public pension plans, private pension plans, wealthy individuals, sovereign wealth funds, and endowments. LP investments are in the form of unfunded commitments. The GP “calls” for the cash funding of the commitments each time it makes an investment.

LPs were drawn to PEs by high nominal returns and diversification, which appeared to generate excess (or “alpha”) returns. For example, according to Cambridge...
Table I. Cyclical Movement in Transaction Characteristics (2003 to 2007)

B stands for billions and MM stands for millions.

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundraising</td>
<td>$30B</td>
<td>$244B</td>
</tr>
<tr>
<td>Purchase Price EBITDA Multiple</td>
<td>7X</td>
<td>9.6X</td>
</tr>
<tr>
<td>Funded Debt to EBITDA Multiple</td>
<td>4.6X</td>
<td>6.2X</td>
</tr>
<tr>
<td>LBO Volume</td>
<td>47B</td>
<td>433B</td>
</tr>
<tr>
<td>Average Deal Size</td>
<td>716 MM</td>
<td>2.095B</td>
</tr>
<tr>
<td>% of P2P to LBO Volume</td>
<td>15%</td>
<td>45%</td>
</tr>
</tbody>
</table>

Source: S&P LCD Comps, Private Equity Analyst

Figure 1. A Typical Private Equity Structure

Source: Bank of France
### Figure 2. Transaction Economics*

<table>
<thead>
<tr>
<th></th>
<th>Now</th>
<th>Downside</th>
<th>Base</th>
<th>Upside</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EBITDA of acquired firm</strong></td>
<td>100</td>
<td>100</td>
<td>125</td>
<td>150</td>
</tr>
<tr>
<td><strong>Sale Value (PPX)</strong></td>
<td>800 (8X)</td>
<td>800 (8X)</td>
<td>1250 (10X)</td>
<td>1800 (12X)</td>
</tr>
<tr>
<td><strong>Financing Equity @25%</strong></td>
<td>200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Debt @ 75%</strong></td>
<td>600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exit Proceeds</strong>**</td>
<td>800</td>
<td>1250</td>
<td>1800</td>
<td></td>
</tr>
<tr>
<td><strong>Less debt in year 5</strong></td>
<td>&lt;600&gt;</td>
<td>&lt;600&gt;</td>
<td>&lt;600&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Return original equity</strong></td>
<td>&lt;200&gt;</td>
<td>&lt;200&gt;</td>
<td>&lt;200&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Gain to allocate</strong>*</td>
<td>0</td>
<td>450</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td><strong>Gross IRR</strong></td>
<td>0</td>
<td>17.60</td>
<td>37.97</td>
<td></td>
</tr>
<tr>
<td><strong>Return to GP (20%)</strong></td>
<td>-</td>
<td>90</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td><strong>Return to LP (80%)</strong></td>
<td>-</td>
<td>360</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td><strong>LP IRR</strong></td>
<td>0</td>
<td>12.47</td>
<td>31.95</td>
<td></td>
</tr>
</tbody>
</table>

*Assumes no prior losses and satisfaction of the hurdle rate
**Assumes no interim dividends, debt amortization and management fees
***Ignores possible management options tied to performance

The above example illustrates the importance of improving operating income and achieving an exit multiple expansion based on EBITDTA growth in creating investment value. The upside was common during the golden years, while the downside or worse is now the case.

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The credit crisis has left many LP overexposed to PE as the value of their portfolios has fallen. Additionally, they are liquidity constrained due to declining distributions and continued capital calls. Many LP are resisting capital calls, and some are defaulting. Furthermore, LP have substantially reduced their PE commitments. First half 2009 fundraising is now at its lowest level in seven years.\(^{19}\) Some LP are selling their PE interests in the secondary market, often at a discount of up to 40%, to rebalance their portfolios to escape capital call commitments.\(^{20}\) Finally, as the balance of power shifts from GP to LP, investors are pressuring GP to reduce fees, cut commitments and improve fund governance.

Many LP acted as unsophisticated trend chasers with a limited appreciation of PE risk and economics. Consequently, they flooded PE firms with capital in search of excess returns. They received largely beta, market or systematic, returns having paid alpha fees to GP.\(^{21}\) The GP used the wall of capital to bid up target acquisition prices. They covered the negative impact of high prices through increased leverage utilizing financial engineering structuring opportunities provided by aggressive capital markets.

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### III. Transaction Structuring: The Key to Adding Value

Transaction skills allow the private equity acquirer to satisfy seller expectations while achieving its return requirements. This increases the odds of overcoming competing bids without falling prey to the “winners curse”. This is a complicated process which involves operating in two interrelated environments. This includes institutional factors usually handled by legal and accounting advisors. These include corporate and securities law, accounting, and

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\(^{19}\)Pitchbook.


\(^{21}\)See Kaplan (2009).
tax, and regulatory considerations. For example, a recent development is a shifting of transaction closing risk to the seller through the return of tightly worded material adverse change (MAC) clauses.

Next is the financial structuring environment. This involves matching issuer funding preferences with market availability. Funding preference concern dilution, control, flexibility, and risk tolerance. Most private equity firms have a high risk tolerance, and therefore seek to maximize financial leverage and ownership control while maintaining covenant flexibility. As will be demonstrated, their ability to achieve these sometimes conflicting objectives is dependent on market conditions and their structuring skills involving matters such as seniority, security, amortization, and covenants. Successful transaction structuring allows the private equity firm to reduce funding costs, increase funding availability and expand debt capacity by exploiting market opportunities.

**A. Loan market developments: Expanding Capacity**

LP effectively outsource the transaction selection and structuring function to the GP for which the GP receives fees and carry. GP structuring performance is heavily influenced by capital market conditions. The bull capital market of 2003-2007, in particular the debt market, resulted in declining underwriting standards and more aggressive transaction structures with rising debt levels, just as it had during the late 80’s. This time, instead of the risk being offloaded to the high yield bond market, it was placed into a transformed loan market.

As previously mentioned, utilizing securitization technology, loan placement capacity was greatly expanded by pooling and placing loans in the shadow banking CLO market. Banks supported the development as it allowed them to earn fees as an arranger. This was part of their ‘originate to distribute model’. Banks could increase their loan capacity by quickly selling down the majority of their exposures. Banks received large fees for underwriting and syndicating PE related loans, which composed the majority of the target’s capital structure. For example, during the first half of 2007, PE firms paid out over $8.4B in fees to banks. This gave them excellent negotiation power over the banks regarding loan terms. Consequently, they obtained favorable loan terms, especially weak covenants.

The credit crisis disrupted CLO funding and curtailed their loan buying. This left the originating banks with an unwanted inventory of depreciating noninvestment grade leveraged loans to PE sponsored transactions.

**B. Market Driven Structuring: the key**

Debt levels as a multiple to EBITDA rose to their highest level since the 80s during the 2003-2007 period. This increase was facilitated by changes in the leveraged finance market, which temporarily expanded debt capacity. They included the entry of new credit investors and the development of issuer-friendly debt instruments.

**C. Debt Capacity Framework**

Debt capacity is determined by comparing the firm’s internal and external repayment capabilities to scheduled principal and interest payments. Operating cash flow (that is, EBITDA less cash taxes, capital expenditures and working capital increases) is the starting point for gauging internal

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22A major source of expanded debt capacity was provided by the “shadow” banks. These included nonbank entities such as hedge funds and other investment vehicles like loan funds. They were largely a structured finance creation, and have essentially disappeared since the market crisis began.

23For example, in the record $44B TXU transaction loans represented $37B. The facility size required multiple arranging banks including Citi, Goldman, Credit Suisse, and Lehman among others. Up to 80% of the loans were placed with CLO funds.

24See Fitch (2007).

Table II. Bank Exposure to Major 2007 LBO Deals - September 2007 (in Billion $)

<table>
<thead>
<tr>
<th>Bank</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citi</td>
<td>$37</td>
</tr>
<tr>
<td>Bank of America</td>
<td>$31</td>
</tr>
<tr>
<td>Lehman Bros</td>
<td>$29</td>
</tr>
<tr>
<td>JP Morgan Chase</td>
<td>$28</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>$21</td>
</tr>
</tbody>
</table>

Additional debt capacity is provided by market dependent external sources including asset sales and refinancing, which can reduce debt to levels serviced by internal operating cash flow.

Buyouts are frequently predicated on increasing cash flow through operating improvements to offset an aggressive capital structure. The scale, reliability and reasonableness of the improvements are key risk considerations. Additionally, reducing cash interest and debt amortization can be used to expand debt capacity depending on investor risk appetite considerations.

Transactions can also be based on temporary capital structures. Debt is quickly reduced through subsequent asset sales and debt refinancings. An example is Blackstone’s 2007 $38 billion Equity Office Partners purchase. The transaction was structured as an asset breakup with properties sold to various buyers. The key to the transaction was the discrete nature of the assets with identifiable market values and a then receptive real estate market.

Refinancings include both explicit bridge facilities and opportunistic implicit transactions. The multi-billion-dollar TXU Energy equity bridge is an example of the former refinancing transaction type. The takeout was dependent on the PE sponsor raising equity to retire the bridge. Implicit refinancings are based on the sponsor capitalizing on improved operations or enterprise value multiple expansion to reduce debt pricing or to retire existing debts through a recapitalization, initial public offering (IPO) or sale of the entire firm. A key refinancing risk measure is the relationship of the buyout entry purchase price EBITDA multiple to the exit multiple needed to cover the debt.

Receptive capital market conditions underlie debt capacity expansion. These conditions supported structural innovations that reduce annual debt service and expand debt capacity. The terms and type of debt matter as much as the level of debt in PE transactions as is reflected in Figure 3.

D. Market Developments: Affordability Products as Financial Engineering

Both the consumer and corporate subprime markets used financial engineering to increase leverage levels through affordability products. A product comparison is as follows:

| Private Equity and Subprime Affordability Products |
|---------------------------------|---------------------------------|---------------------------------|
| Structured Products Used        | Subprime                        | Private Equity                  |
| Interest Only                   | Yes – adjustable rate Mortgages | Trance B Loans                  |
| Negative Amortization           | Option Adjustable Rate Mortgages| Payment-In-Kind                 |
| Second Mortgage                 | Piggyback/Home Equity Loans     | Second Lien                     |
| Liberal Documentation           | Alt A                           | Covenant Lite                   |

The same underwriting firms developed both sets of affordability products utilizing similar financing engineering techniques.

The objective is to obtain higher returns through increased leverage to permit the funding of fully priced assets. This is achieved through different payment, seniority, security priorities, and covenant levels. Products formerly existing in discrete silos have been placed in a wider continuum between debt and equity. The new products address funding and asset class gaps. The result is more complex capital structures reflecting multiple financing layers directed at investors with differing risk appetites.

Product options expanded beyond the formerly simple list of loans, mezzanine debt and high-yield bonds. Figure 4 lists formerly available product options. Many of the new products relied upon the then favorable market conditions reflecting greater investor appetite. Product development has focused on three areas:

- Products that reduce debt service, interest and principal amortization.
- Products that increase collateral-based debt capacity by segregating collateral pools.
- Products that increase flexibility by reducing covenants.
Figure 3. Changing Nature of Leveraged Finance Capital Structures

<table>
<thead>
<tr>
<th>2003</th>
<th>1H 07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bear Market Menu</td>
<td>Bull Market Menu</td>
</tr>
</tbody>
</table>

- Common equity > 30%
- Unsecured/mezzanine (1x)
- Senior secured bank loans (4x)
  - Amortizing T/LA—40%
  - B/C tranches—60%
- Common equity < 30%
- Hybrid preferred (0.5x)
- PIK notes (0.5x)
- Unsecured/mezzanine (1x)
- Carve-out collateral (1x)
  - Securitization
  - OPCO/PROPCO
- SL loans (1x)
- Senior secured FL bank loans (4x)
  - Amortizing T/LA—20%
  - B/C tranches—80%

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Term</th>
<th>Amortization</th>
<th>Covenants (financial)</th>
<th>Senior</th>
<th>Security</th>
<th>Call</th>
<th>Debt Capacity Impact</th>
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<td>Term Loan</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- A</td>
<td>7</td>
<td>40% in 5 yrs</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>- B</td>
<td>8+</td>
<td>1% P.A.</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<td>SL (Second Lien)</td>
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<td>Balloon</td>
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<td>Yes</td>
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<tr>
<td>Covenant lite</td>
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<td>Balloon</td>
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<td>OPCO/PROPCO</td>
<td>10+</td>
<td>Bullet</td>
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<tr>
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<tr>
<td>Mezzanine</td>
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<td>High yield bonds</td>
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<td>Depends No</td>
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<tr>
<td>PIK</td>
<td>10+</td>
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<td>No</td>
<td>No</td>
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<td>Depends</td>
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</tbody>
</table>

FDX—5x+  
PPX—7x+  

FDX—6x+  
PPX—9x+

Figure 4. Debt Product Options – Subject to Availability.
**Products that reduce debt service, interest and principal amortization.** Cash interest expense reductions are achieved through two avenues. Most loans contain pricing flex provisions, which permit pricing changes. Most 2004-2007 flex efforts were downward given existing aggressive market conditions. These reductions allowed debtors to reduce their interest expense. Another product used to reduce cash interest is the payment-in-kind (PIK) toggle instrument sometimes known as “pay if-you-can” debt. This option allowed issuers to pay interest coupons by issuing new notes. Debtors conserved cash in an economic downturn by switching to a noncash interest payment. Thus, the combination of low nominal interest rates, declining credit spreads and the flexibility to suspend cash interest payments supported increased leverage.

Debt service was further reduced by a structural shift away from amortizing term loans. Term loans have been tranched into amortizing loans, term loan A (TLA), held by banks. The institutional tranches known as term loan B (TLB) are placed with CLOs. TLA amortizes up to 40% by the end of their term, while TLB amortizes only 1% per annum with the balance due at maturity. TLA fell from 50% of loan facilities to less than 25%. The TLB shift represents the change in investor base to nonbank institutional investors who, unlike banks, seek longer-duration assets. It constitutes a substantial reduction in debt service and enhances debt capacity.28

Further debt capacity increases were achieved through a more efficient use of asset collateral values to obtain higher loan-to-value advances. Traditional first lien loan (FL) holders have lower collateral advance rates expressed as a %age of the underlying collateral. Other investors may offer higher advance rates by taking a second lien (SL) on the same assets for an additional return. They grew as an effective, low-cost substitute for traditional junior capital mezzanine and high-yield bonds, which declined in relative importance during the period. According to S&P, they grew rapidly and peaked at more than $29 billion in 2006, representing almost 8% of institutional loans. Hedge funds were the major SL investors.

**The consequences of the PE bubble bursting on the industry and transactions will be substantial.** The industry will be smaller. PE firms with large portfolio legacy problem investment will have trouble raising new funds. These firms will most likely liquidate over time. LP will become more sophisticated regarding risk adjusted returns. Consequently, they will insist on lower fees and better fund governance. These developments are similar to those which occurred in the venture capital industry following the collapse of the tech boom.

28Non-amortizing revolving credit lines could also have been used. This would have complicated syndication efforts as CLO are operationally unable to accommodate the variable funding nature of revolvers.

**Products that increase collateral-based debt capacity.** Additional collateral-based debt capacity increases were generated by separating collateral pools. This allowed issuers to tap investor bases willing to advance larger sums against a specific collateral pool. For example, a lower-risk FL facility tied to inventory and receivables and a higher-risk, higher-return FL loan tied to noncurrent assets could be structured. These are known as cross-lien facilities, as the liens cross each other against different collateral pools. Securitization was also used. It involved the transfer of specific assets, frequently accounts receivable, to a bankruptcy remote special purpose entity which issues securities against the assets.

A related asset-based financing tool is an OPCO/PORPCO structure frequently used in real-estate-intensive transactions involving retailers like Toys R Us. Real estate ownership is transferred to a new firm, PROPCO, which leases the stores back to the OPCO operating entity, usually at a higher-market rental rate. The PROPCO then obtains long-term mortgage financing. The OPCO cash flows are adjusted to reflect the rent increase.

**Products that increase flexibility by reducing covenants.** Financial covenants, such as an interest coverage ratio, are used to control debtors to ensure performance goals are achieved. The covenant triggers lender action before the debtor’s enterprise value falls below its outstanding debt. The move to nonbank investors reduces the desire for covenant protection. These nonbank investors were interested in foregoing protection in favor of higher yield and relied on trading to manage their exposures. Consequently, S&P estimates the first quarter, 2007, volume of loans with limited or no financial covenants, known as a “covenant
E. Impact of Affordability Products: The HCA Example

The 2006 $33 billion HCA transaction broke the previous record for the largest LBO held by RJR since 1989. Although the TXU transaction surpassed HCA as the largest LBO, HCA was a pacesetting transaction using various products in a complex capital structure with eight different debt layers (Figure 5). Aggressive transactions the size of HCA would not have been possible without the use of affordability products.

Debt capacity is dynamic. The terms and type of debt instruments matter as much as the level of debt. The development of new issuer-friendly debt instruments expanded debt capacity, but were dependent on market conditions. The 2007 market crisis triggered a market reevaluation of risk appetite and reduction in debt capacity. The risk is being caught with the wrong structure when the market changes, leading to a sudden increase in financial distress. Thus, the right debt level for your deal should reflect both the current and expected market conditions.

V. The Future of PE: The End or a New Beginning?

PE as a management model remains viable. It adds value through superior representation and governance at underperforming firms. During the intermediate term of 2 to 3 years, PE focus will be on repairing the damages incurred during the “golden years”. Many potential troubled transactions were based on expected performance that is unobtainable in the current environment. Thus, the emphasis will be on improving legacy investments primarily in the mega transactions. The steps to be taken include:

- Refinancing to extend maturities
- Exchanges of debt for equity
- Raising new equity
- Bankruptcy

These actions will undoubtedly hamper returns leading to more single digit “RJR” type returns on these transactions. LP will use their enhanced bargaining positions to improve their Limited Partnership Agreement terms. GP may also experiment with alternative structures including equity only and minority stakes in public firms known as PIPEs (private investment in public entities).

Eventually, the industry will exit the restructuring stage. It will then return to relative obscurity as it did during the 90s. The industry will be smaller with 20–40% of PE disappearing, especially those funds with large losses in their legacy portfolios. Those remaining will have a greater degree of industry focus to achieve operational improvements. Also, funds will be smaller and directed away from P2P to middle market transactions. The structures will be less leveraged and involve to more traditional bank debt instead of relying on capital markets. Returns should improve as purchase prices decline reflecting reduced competition. This quiet period, as it did following the last correction, could last over 10 years.

There are, however, some qualifications, which could disrupt the process. First, proposed taxation of carried interests and other changes could disrupt GP economics. Second, and perhaps more importantly, is threatened regulation. In Europe, for example, proposed regulations could negatively impact PE. The proposed European regulations impose minimum capital requirements, require external valuation certification for all investments, establish leverage caps, and require enhanced disclosure on all PE firms with more than 500 million Euros under management. The US approach is more benign. To date, it involves registering private equity firms with the Securities and Exchange Commission as investment advisors, which the Private Equity Council supports. Finally, the economy could have a continuing chilling impact on PE. The industry needs relatively stable conditions as occurred during the “Great Moderation” period over the past 25 years. If the economy falls into a longer Japanese style balance sheet recession, PE will suffer accordingly.

29Another effect is the potential reduced recovery rate for creditors when the defaults occur. See Fitch (2009).

30Mega transactions involving P2P are defined as those exceeding $5B in size. There were 55 such transactions during the 2004 - 2007 period.

31Additional changes will include a tightening of covenants, which will increase bank control over transactions.


33Well known existing bankruptcies include The Tribune (Zell), Chrysler (Cerberus) and Linens ‘N Things (Apollo).
(a) Capital Structure

Funded debt multiple: 6.53x trailing 12-month EBITDA
Purchase price multiple: 7.7x trailing 12-month EBITDA

<table>
<thead>
<tr>
<th>Capital Structure Components</th>
<th>Amount (Billions)</th>
<th>Term</th>
<th>Spread (initial)</th>
<th>Amortization</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL Debt</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Revolving credit</td>
<td>$2</td>
<td>6 yrs</td>
<td>L+250 bps</td>
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<td>Asset-based facility</td>
<td>$2</td>
<td>6 yrs</td>
<td>L+175 bps</td>
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<td>Term loan A</td>
<td>$2.25</td>
<td>6 yrs</td>
<td>L+250 bps</td>
<td>50%</td>
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<td>Term loan B</td>
<td>$9.3</td>
<td>7 yrs</td>
<td>L+250 bps</td>
<td>1% P.A.</td>
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<td>European term loan</td>
<td>$1.25</td>
<td>7 yrs</td>
<td>L+250 bps</td>
<td>1% P.A.</td>
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<td>SL Debt</td>
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<tr>
<td>Cash pay</td>
<td>$4.2</td>
<td>8 yrs</td>
<td>9.75%</td>
<td>1% P.A.</td>
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<tr>
<td>PIK/toggle</td>
<td>$1.5</td>
<td>8 yrs</td>
<td>10.00%</td>
<td>1% P.A.</td>
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<tr>
<td>Existing unsecured</td>
<td>$7.47</td>
<td>2009</td>
<td>7.5%</td>
<td>N/A</td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: public documents

VI. Conclusion: Back to the Future Again

The continued viability of the PE model remains strong when properly employed. PE remains an established ownership alternative along with the public market, family and corporate ownership. The credit crisis ended the excesses caused by the glut of fundraising and aggressive capital markets. This is substantially the same pattern as occurred following the excesses of the last cycle in the 1980s. PE will re-enter a rebuilding stage similar to the 1990s.

The consequences of the PE bubble bursting on the industry and transactions will be substantial. The industry will be smaller. PE firms with large portfolio legacy problem investment will have trouble raising new funds. These firms will most likely liquidate over time. LP will become more sophisticated regarding risk adjusted returns. Consequently, they will insist on lower fees and better fund governance. These developments are similar to those which occurred in the venture capital industry following the collapse of the tech boom.

PE firms will redirect their focus on smaller middle market targets size. Size is enemy of return for both transactions and funds. Transactions will be less expensive and less leveraged. Returns will increase as the depressed markets offer many attractive opportunities. Sponsors will move beyond financial engineering to improving operations.

Absent undue government interference, the industry will recover as it did in the 1990s. Over time, however, memories of the industry’s cyclical nature may fade. This will lead to the return of excessive fundraising and aggressive transactions bringing us back to the future again.
References


