CAMBRIDGE ASSOCIATES LLC

U.S. MARKET COMMENTARY

U.S. Private Equity: Sleeping Off the Overhang Hangover

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Eric Winig, Andrea Auerbach, & Kyle Anderson

For all the hand-wringing over the private equity overhang, most problems seem confined to the large buyout space; things look a sight better for mid-market funds, some of which may be poised to capitalize on opportunities created by the credit crisis.

Of all the asset classes that went parabolic from 2004 to 2008, private equity (PE) funds (a.k.a. leveraged buyouts) may have done the best Icarus impression. After attracting record amounts of money for three straight years starting in 2005, the buyout market collapsed in the wake of the financial crisis, with the number of transactions plummeting as the cheap financing that made such deals so profitable dried up. Much of the money raised, meanwhile, sits uncalled, which will likely impact returns for both current and future investors even if fund raising remains depressed.

Several questions are thus worth asking. To begin with, to what degree will the huge amount of capital overhang weigh on the industry, not only in terms of dragging down returns for future investments, but also with regard to "mission creep" for larger funds (i.e., populating funds with smaller deals than originally planned, or "drifting" into different strategies and/or geographies)? Conversely, will existing investors be left "holding the bag" on unprofitable investments made at the height of the bubble, while investors in later vintage funds realize better returns? Finally, given that buyout returns over the past several years reflect exits fueled by an epic credit bubble, should investors question the validity of the buyout model itself?

We conclude that PE remains a legitimate investment option, given a few important caveats. First, there are indeed limits on the amount of money that can be deployed through this strategy; we believe that most large funds will continue to struggle to "manage their capital" wisely for several years. However, we do not believe such funds will "creep" into smaller-market deals as much as commonly feared, and are (partly for this reason) more positive on mid-market funds, particularly those in the lower-mid-market tier.[1] Second, investors should distinguish between managers that have historically produced returns mainly by improving *operating* results, and those that have done so largely through cheap leverage. Finally, while PE fund returns are far less dispersed than those of venture capital (VC) funds (which have typically been driven by a tiny group of star performers), manager selection remains a critical consideration (Exhibit 1). (Access is also a concern, although less so than for VC given the larger size of the buyout industry.) In short, the PE industry faces a number of significant headwinds, and investors considering locking their money up for the better part of a decade should set a high bar for doing so.

Take Two Aspirin…

According to *Private Equity Analyst* data, U.S. PE funds raised a total of $876 billion from 2004 to 2009. Cambridge Associates estimates approximately 40% of this amount had been called as of September 30, 2009, leaving a $445

[1] While definitions of "large," "mid-market," and "lower-mid-market" funds are subjective, we loosely characterize them as funds that participate in deals with sizes of $1 billion and up, $250 million to $1 billion, and less than $250 million, respectively.

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billion overhang, net of estimated fees (Exhibit 2). Roughly half of this overhang belongs to funds with $5 billion or more in commitments, while over one-third resides in funds with between $1 billion and $5 billion (Exhibit 3). As would be expected, the overhang is also concentrated in the most recent vintages—more than 75% is from funds raised from 2007 to 2009 (on average, 2007 vintage year funds are only about 25% called, 2008 funds 15% called, and 2009 funds less than 5% called). For comparison, during the five years leading into the 1991 industry downturn, PE funds raised a grand total of $20.0 billion, although it is worth noting this represented record fund raising at the time.

We performed some very basic calculations to get a sense of how significantly this overhang will influence the market going forward. In short, unless one believes the market will soon return to 2005–08 investment levels—which were off the charts historically, thanks almost entirely to the global credit bubble—certain existing funds and their investors will be saddled with the overhang for quite some time. For example, if we assume investment activity returns to 2000–04 levels (hardly a draconian assumption), and that the average equity contribution for deals is 50% (again, not extreme), it could take funds larger than $5 billion upwards of 15 years to invest existing commitments (Exhibit 4). Using the same assumptions, funds between $1 billion and $5 billion would take about eight years to invest committed capital, while funds of less than $1 billion would require roughly six years.[2]

While it is also possible (and arguably likely) more funds will shrink existing fund sizes, this has yet to become a significant trend. On the other hand, we do expect to see a good deal of "style drift" from larger funds in coming years—managers have already deployed capital into areas such as distressed debt, public equities, and minority private investments—and investors should be wary of such drift, particularly when managers lack proven skill and/or sufficient resources.

However, the prospect of a continued credit squeeze might not be all bad for PE funds. For example, in such an environment, it is conceivable that well-capitalized funds could provide capital to credit-starved businesses unable to get financing elsewhere. While there is no way to quantify the impact this would have on fund returns, it does suggest one way the PE model—which, like all asset classes, does not exist in a vacuum—could better adapt to the current environment.

The bottom line is that new money coming into the asset class appears to have an advantage over existing funds. However, the flip side to the aforementioned overhang is that this money is, of course, available to purchase assets at current prices. For existing funds, this will likely result in a "tale of two funds," where a manager invests a portion of the fund on an accelerated basis during the height of the market, and the rest (over a longer period of time) during the market trough, resulting in bifurcated results characteristic of each period.

Does Size Really Matter?

Another concern for investors is that while the majority of top-performing funds have historically been smaller funds, average fund sizes have moved relentlessly higher in recent years. The rolling five-year average median fund size increased from $170 million in 1990 to $775 million in 2008, while the largest funds raised in a given year increased from 13 times the size of the median fund in 1990 to 19

[2] While the vast majority of large deals are disclosed, data on smaller deals are less comprehensive. To account for this discrepancy, we have combined disclosed deals with anecdotal data to better estimate the size of these markets.

times in 2008. This is significant for the obvious reason that the larger the fund size, the more difficult it is to produce solid returns (defined as returning 1.5 times or more to investors).

Still, data in this area are not quite as clear-cut as in VC (where virtually all top performers have been smaller funds). For example, while it is true that most strong performers have historically been smaller funds—of seasoned funds (at least five years old) that have returned 1.5 times or more, three-quarters were less than $550 million—this is at least partly due to the fact that smaller funds have been more numerous. From 1986 to 2004, funds less than $550 million accounted for 62% of funds raised (by number of funds), compared to 21% for funds over $1 billion. However, the "hit rate" (i.e., those that have returned 1.5 times) has also been far higher for small funds—55% for funds less than $550 million, compared to 27% for funds over $1 billion. Meanwhile, since 2004, nearly 60% of funds raised have been more than $550 million, and 40% more than $1 billion, and the jury is still out on the ultimate performance of these cohorts.

Put simply, this shift raises troubling questions for the industry. While there are clearly efficiencies of scale that can be realized by large funds, the sharply changed landscape—i.e., less available leverage and far fewer exit options for larger transactions—means such funds, which have historically been less likely to return 1.5 times or more to investors than smaller funds, are swimming against an even stronger tide than usual. In other words, we were concerned about the recent fund-raising trend prior to the 2008 credit crisis, and events since then have only intensified this worry. Still, it is worth noting that hand-wringing over fund sizes is nothing new—similar concerns were voiced twice before, including in the late 1980s through the early 1990s downturn, when some of the largest funds actually posted some of the best returns.

As noted, we are relatively more positive on mid-market funds, particularly those in the "lower-mid-market" tier, as the overhang is far less significant here, and the transaction pace has not fallen off as dramatically as in other areas. Further, we are not as concerned as some about the possibility of larger funds drifting into this area, given the high number of mid-market companies required to fill such funds. Large funds—some of which have reduced staff during the downturn—simply do not have the resources to monitor a portfolio with twice the number of companies originally envisioned; indeed, any manager that attempted such a strategy would soon become overwhelmed. (Existing limited partners should, of course, monitor managers closely to guard against such a situation.) The flip side is that certain managers that have cut fund sizes—in some cases by 10% to 15%—may now be able to return to transaction sizes/market areas where they are more experienced, although for certain funds (i.e., those significantly larger than prior funds), current reductions may not be sufficient to get them there.

The bottom line is that the overhang for mid-market funds is far less extreme than for large funds, exit markets remain quite a bit more accessible, and the possibility of drift from larger funds is, in our opinion, less likely than most believe. Thus, investors with existing commitments to such funds should be open to making new commitments within the context of their program, while those looking to start a program should begin their search here.

About Those Exits...

Perhaps the most concerning data for PE funds (and prospective investors) are those related to exit markets. Consider that while fund sizes and commitments dipped in the 2000–04 period, exit activity actually *increased* substantially, with the

exception of 2002 (Exhibit 5). From 1995 to 1999, the average annual dollar value of PE-backed merger & acquisition (M&A) offerings was $14.2 billion, versus $37.0 billion for 2000–04, and $93.8 billion for 2005–08. (Initial public offering [IPO] numbers for the three periods were $2.4 billion, $7.9 billion, and $14.1 billion, respectively.) Thus, investors must consider the non-negligible possibility that activity in exit markets could remain well below 2000–04 levels for some time. While such an eventuality would intensify the problems discussed above, the majority of PE portfolio firms are legitimate going concerns (unlike in VC, where many companies are deep in the red), and there is thus less potential for forced sales at fire-sale prices. Perhaps a more pertinent concern is that funds may achieve return targets on a multiple basis (e.g., returning 1.5 times capital to investors), but on a longer timeframe, thus driving down their internal rate of return. On the positive side, buyouts as a percentage of total M&A are now well below their long-term average of about 6%, and we expect this number to revert to the mean at some point.

Recent indications are not particularly encouraging, as exit activity has collapsed in the wake of the financial crisis. The 2009 dollar value of PE-backed M&A and IPOs was $25.9 billion and $7.7 billion, respectively—the lowest cumulative number since 2002, despite the historic rally in equity and credit markets and a strong revival in risk appetite. Such data only increase our concern that large buyout funds face a far more daunting road than mid-market funds.

What About Energy?

While returns for funds in different sectors have generally been comparable over time, one area sparkles like a new penny—energy, where a whopping 73% of funds (of those at least five years old) have returned 1.5 times or better, and more than 40% have hit 2 times. Also notable is the rarity of bad performance, with only three funds (out of 41) returning less than 1 times. However, in the immortal words of Lee Corso, "Not so fast, my friend!" While the energy sector has certainly been a stellar performer in the past, much of this has been due to capital constraints; the recent explosion of fund raising will almost surely depress returns in the future.

Consider that more than 80% of the 1.5 times or better funds in the energy sector have been smaller than $400 million, and half were less than $300 million. Further, from 1988 to 1998, average annual fund raising was $400 million, while fund sizes averaged less than $200 million. In the past four years, fund raising has averaged roughly *$15 billion a year*, and fund sizes have averaged more than $1.5 billion. Put another way, the amount of capital raised in the past four years has been nearly three times the amount raised in the previous 17 years. (Yes, you read that right.) Even allowing for the fact that oil is now $80 a barrel (as opposed to $20 to $30 a barrel in the 1990s), the amount of capital raised over the past few years still dwarfs what was raised in the past. In short, it seems a stretch to argue that the opportunity set today is 15 to 20 times larger than it was a decade ago.

Conclusion

In a very real sense, the story of PE is similar to that of VC.[3] Put simply, PE is an asset class that initially benefited from scarcity of capital (in the late 1980s and early 1990s, as well as after the tech bubble burst), which led to strong returns for two reasons. First, only the strongest managers were able to raise funds, and second,

[3] Please see our October 2009 Market Commentary *U.S. Venture Capital: Good, Bad … or Ugly?*

those managers were then able to cherry pick the best deals. (This is of course oversimplified, but it paints a consistent picture.) Other investors, seeing "early adopters" reaping the benefits of these investments, poured money into the asset class, thus removing one of the key factors in its early success. *However*, the market was able to absorb the dramatic increase in funds (and fund sizes) due to the mid-2000s credit bubble, which not only allowed PE firms to offload investments at a breakneck clip, but also fueled new acquisitions through the easy availability of cheap credit. While there were scattered criticisms of this state of affairs (most notably of large funds selling sizable portfolio companies to other large funds), a significant number of investors—many new to the asset class—allocated large sums to PE in the first decade of this century, laying the groundwork for the long, painful workout discussed above.

We should make clear that we are in no way seeking to denigrate PE managers that have done well; indeed, in most cases, solid returns have been the result of skill and good decisions (albeit aided by cheap and easy credit). What we are pointing out is that even the best investors will see returns suffer when they are forced to compete with an influx of capital to their asset class (absent, of course, a concurrent increase in investment opportunities). As in the energy sector, we find it difficult to believe the opportunity set today is four or five times larger than it was a decade ago—if anything, expectations should be scaled back due to the extreme uncertainty regarding the economy and exit markets.

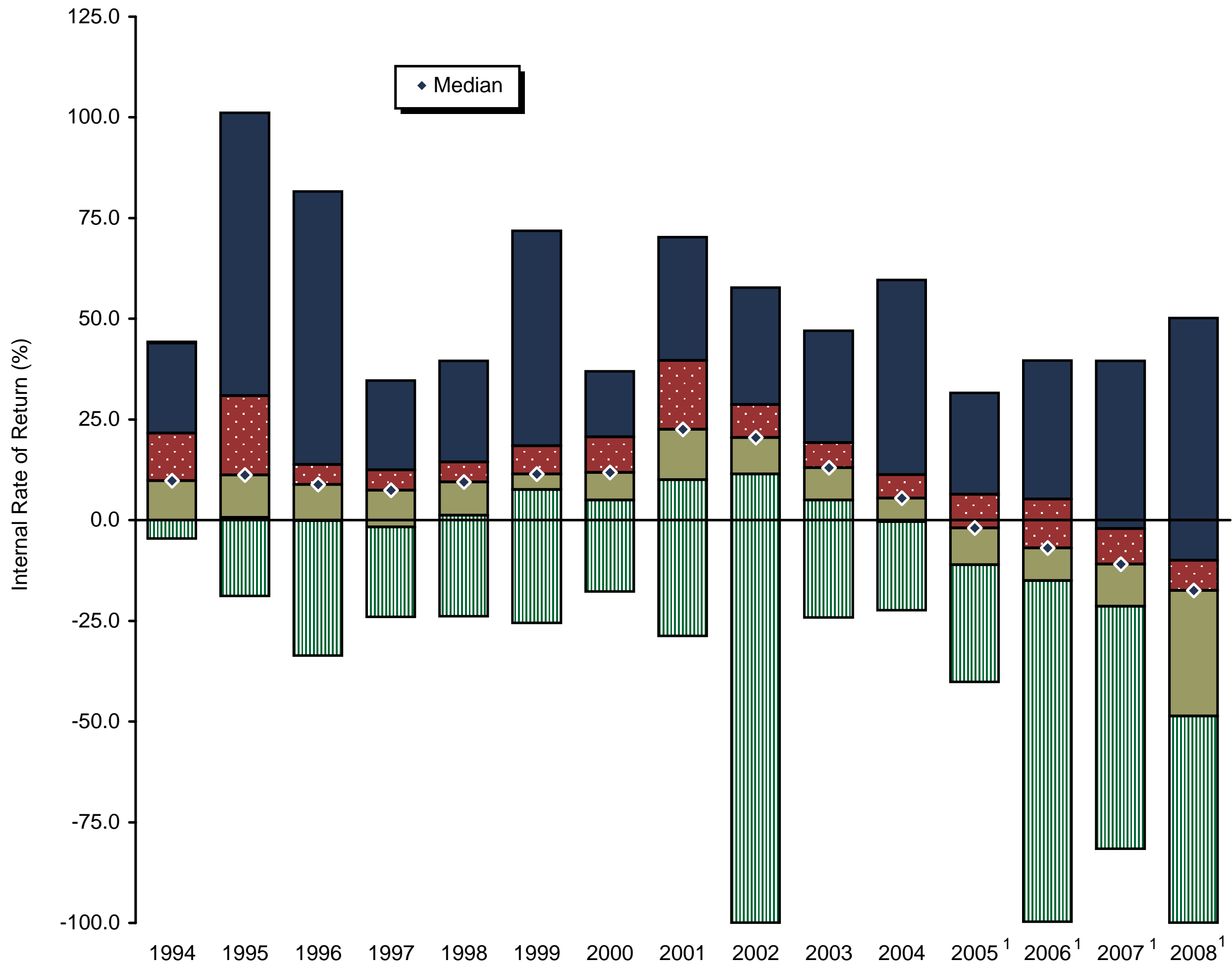
That said, this is the third "death knell" for PE in the past 20 years; observers were similarly bleak on prospects for PE funds in the early 1990s and early 2000s downturns. The question, of course, is whether the 2008 version is simply another wave in the ongoing ebb and flow of credit (and we should thus expect another upturn within the next ten years or so), or represents a more substantive downturn that heralds a fundamental change in the global economy (i.e., is the credit crisis cyclical or structural?). For those that believe the former, 2010 vintage funds may well make sense, as a renewed credit cycle within the next decade would likely provide solid exit opportunities for investments made today, particularly given current prices. For those that believe the latter, investments in PE funds should be made sparingly, if at all, as it is hard to make an argument for locking up one's money for several years if the world is indeed undergoing a protracted deleveraging process that will restrain credit for the foreseeable future.

That discussion aside, the lion's share of the industry's problems (as noted) resides in the large buyout space, where the overhang is high and exit opportunities scarce. Things look a sight better in the mid-market—in part due to the fact that most large investors are simply unable to access this space due to smaller fund sizes—and we expect skilled managers in this space to continue posting solid returns in the years ahead. ■

Exhibit 1

Net Internal Rates of Return to Private Equity Limited Partners

Vintage Years 1994–2008 • As of September 30, 2009



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005[1]	2006[1]	2007[1]	2008[1]
High	44.0	101.1	81.6	34.6	39.6	71.8	37.0	70.3	57.8	47.1	59.6	31.6	39.6	39.6	50.2
Upper Quartile	21.6	30.9	13.8	12.5	14.4	18.4	20.7	39.6	28.7	19.2	11.3	6.4	5.2	-2.1	-10.0
Median	9.8	11.2	8.8	7.4	9.5	11.4	11.9	22.5	20.5	13.0	5.5	-1.9	-6.9	-10.9	-17.5
Lower Quartile	0.3	0.6	-0.2	-1.7	1.2	7.6	5.0	10.0	11.5	5.0	-0.3	-11.1	-15.0	-21.4	-48.7
Low	-4.6	-18.9	-33.7	-24.1	-23.9	-25.6	-17.8	-28.8	-100.0	-24.3	-22.5	-40.2	-99.7	-81.7	-100.0
Number of Funds	22	33	37	47	49	53	67	23	32	27	61	74	64	63	35

Source: Cambridge Associates LLC Non-Marketable Alternative Assets Database.
Note: These internal rates of return have been compiled from 687 U.S. leveraged buyout, subordinated debt, and special situation funds with inceptions from 1994 through 2008 and are net of management fees, expenses, and carried interest.
[1] Most of these funds are too young to have produced meaningful returns. Analysis and comparison of partnership returns to these benchmark statistics may be irrelevant.
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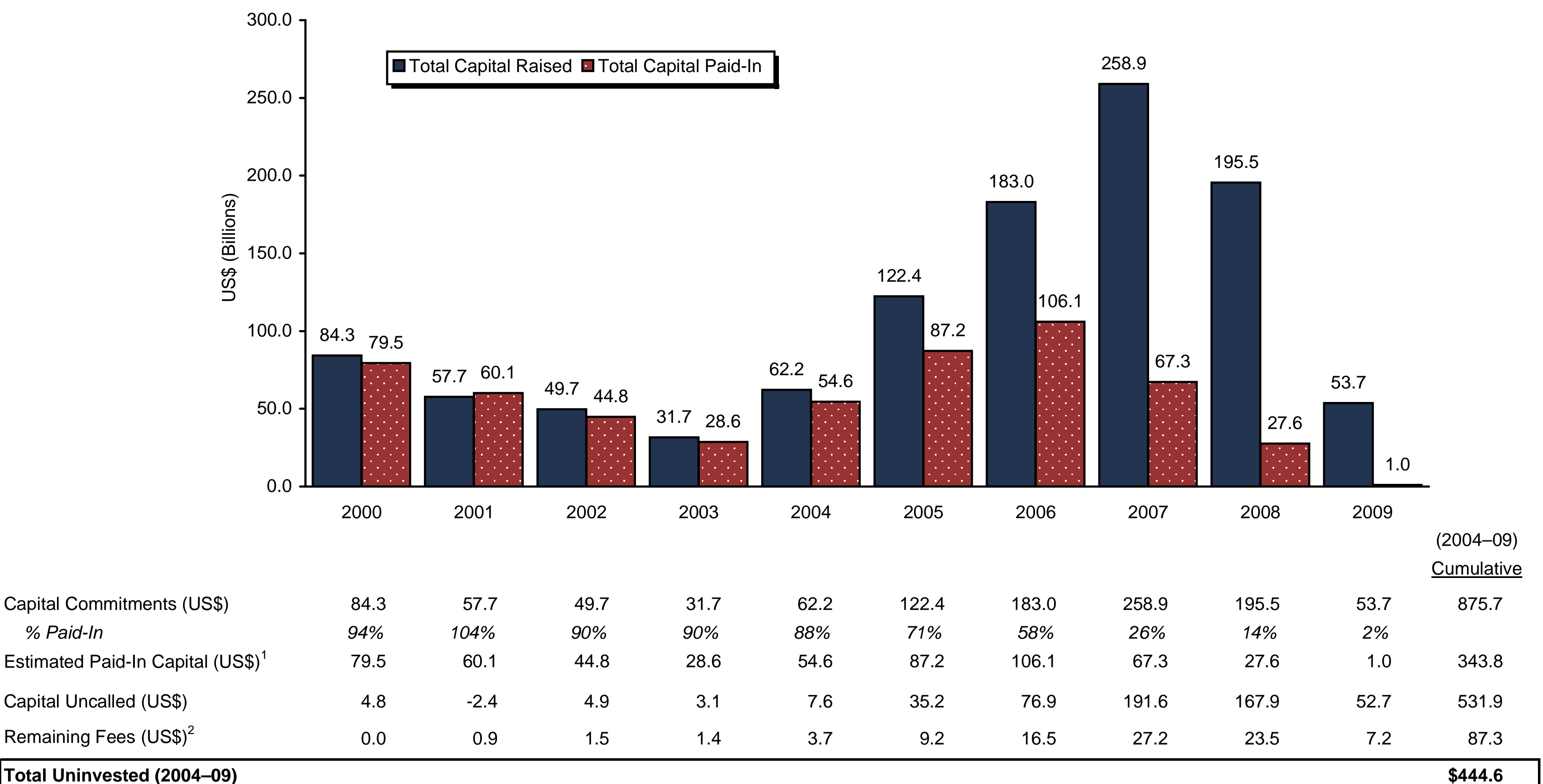
Exhibit 2

U.S. Private Equity Estimated Capital Overhang

As of September 30, 2009



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	(2004–09) Cumulative
Capital Commitments (US$)	84.3	57.7	49.7	31.7	62.2	122.4	183.0	258.9	195.5	53.7	875.7
% Paid-In	*94%*	*104%*	*90%*	*90%*	*88%*	*71%*	*58%*	*26%*	*14%*	*2%*	
Estimated Paid-In Capital (US$)[1]	79.5	60.1	44.8	28.6	54.6	87.2	106.1	67.3	27.6	1.0	343.8
Capital Uncalled (US$)	4.8	-2.4	4.9	3.1	7.6	35.2	76.9	191.6	167.9	52.7	531.9
Remaining Fees (US$)[2]	0.0	0.9	1.5	1.4	3.7	9.2	16.5	27.2	23.5	7.2	87.3
Total Uninvested (2004–09)											**$444.6**

Sources: Cambridge Associates LLC Non-Marketable Alternative Assets Database and Dow Jones & Company, Inc.

Notes: Estimated paid-in capital data are based on limited partner cumulative costs only, and are as of September 30, 2009. Capital commitments data are as of December 2009.

[1] Estimate based on the percent paid-in by funds tracked by Cambridge Associates LLC in each vintage year.

[2] Assumes a 1.5% management fee based on committed capital over ten years and assumes no recycling (re-investment) of capital.

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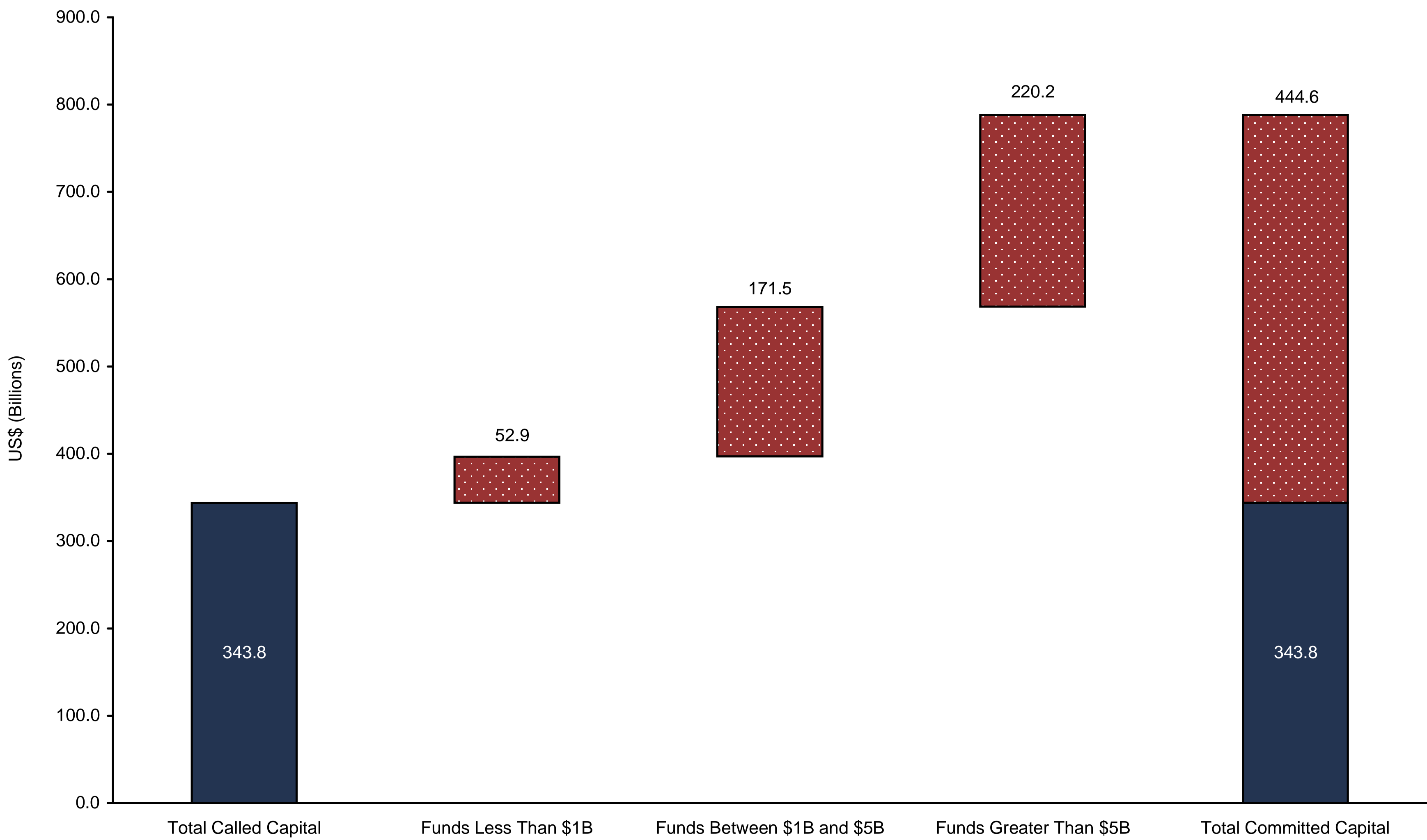
Exhibit 3

U.S. Private Equity Overhang

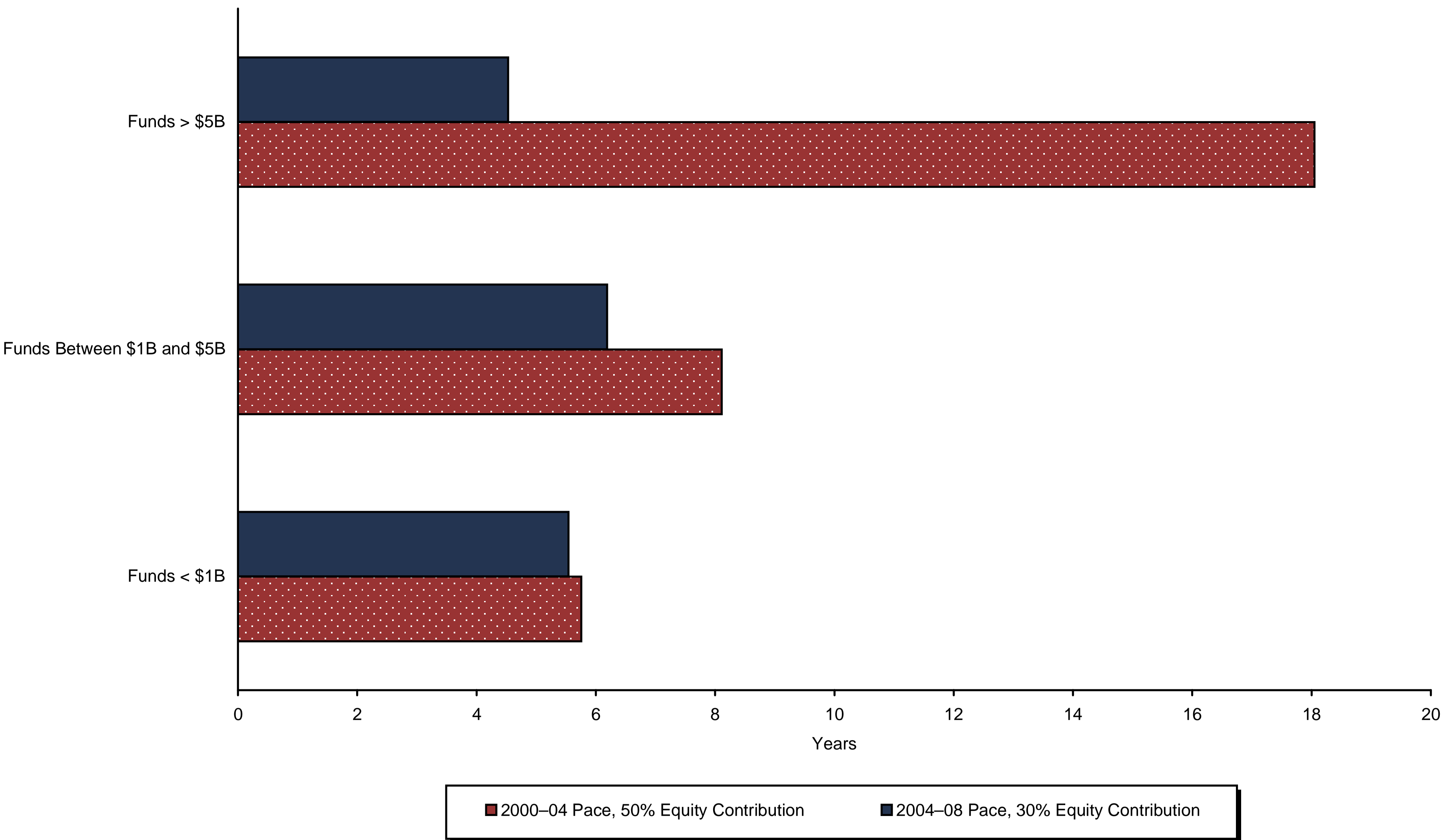
2004–09



Sources: Cambridge Associates LLC Non-Marketable Alternative Assets Database and Dow Jones & Company, Inc.

Exhibit 4

Hypothetical Number of Years to Invest Existing Commitments of Private Equity Firms

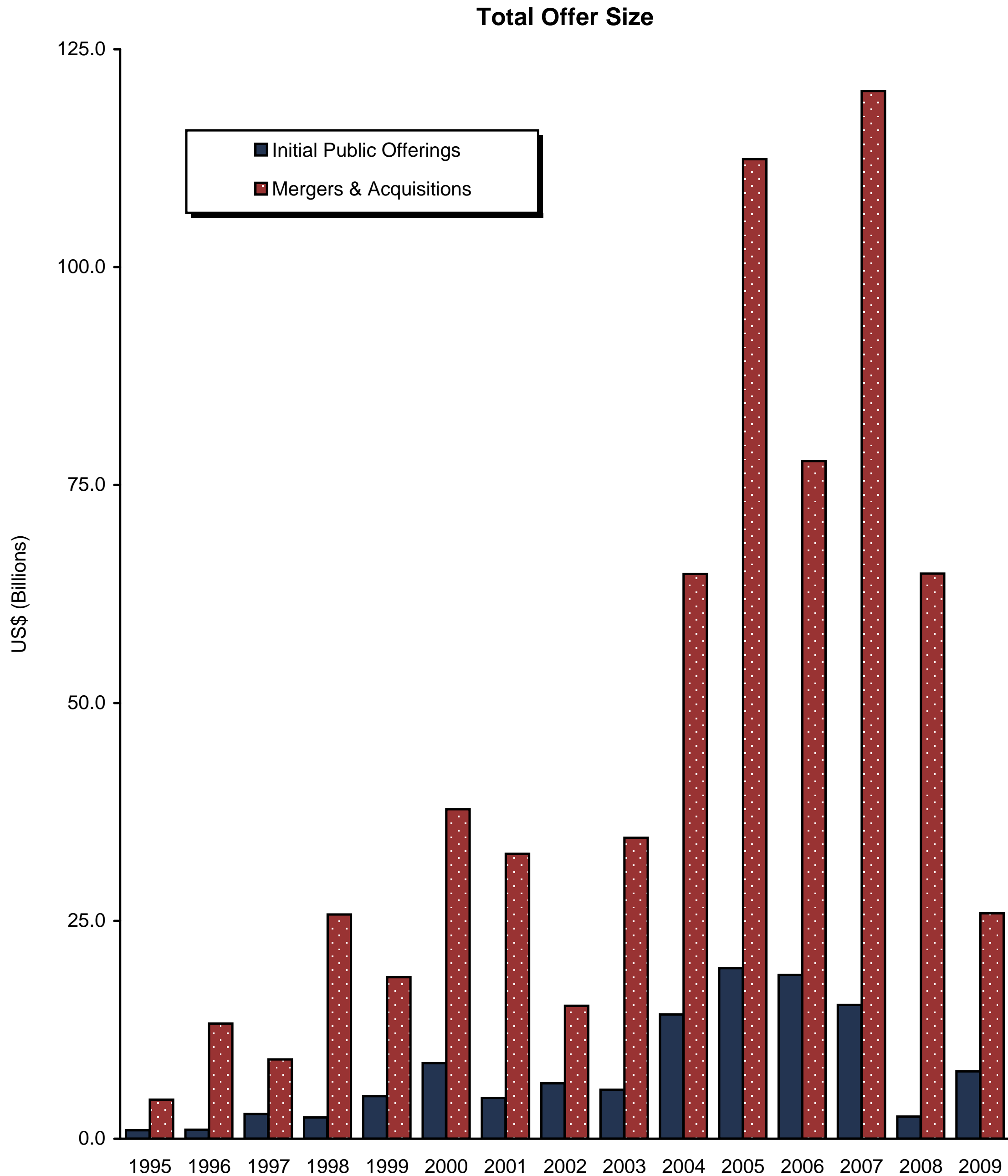


Sources: Cambridge Associates LLC Non-Marketable Alternative Assets Database, Dealogic, and Dow Jones & Company, Inc.

Exhibit 5

Dollar Value of Private Equity–Backed Initial Public Offerings and Mergers & Acquisitions

January 1, 1995 – December 31, 2009



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Private Equity–Backed Initial Public Offerings	1.0	1.0	2.9	2.4	4.9	8.7	4.7	6.4	5.6	14.2	19.6	18.8	15.3	2.5	7.7
Mergers & Acquisitions of PE–Backed Companies	4.5	13.2	9.1	25.7	18.5	37.8	32.7	15.3	34.5	64.8	112.4	77.8	120.2	64.9	25.9

Source: Dealogic.