

# PRIVATE EQUITY INTERNATIONAL

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# Fund allocations: Debunking the myths

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## 1. Introduction

The mechanics of private equity portfolio management have been detailed in many studies<sup>1</sup> including those which study allocating across vintages, sectors, sizing and programme stage. However, when examining the core issue of whether we should commit to a particular fund, there are equal numbers of arguments and counter-arguments. Not surprisingly, most are deeply rooted in the school of thought the investor has come from. As alpha seekers, private equity investors are always troubled with accepting offerings or market norms at face value. This paper analyses historical fund performance to ascertain whether empirical evidence supports four of the more commonly identified norms (or biases). The Preqin database has been used as it is robust and more readily available for readers who may wish to conduct their own analyses. Private equity industry datasets do have their shortcomings due to a number of issues including lack of depth, information lag, selection and self-reporting biases, so, the analysis should be viewed as a general indicator. This is much the same as the instinctive response a private equity investor will typically make when balancing a general partner's (GP) historical performance to make an allocation decision. Further, since decisions are not always rational, this paper offers two generic caveats: (a) investors may be biased due to their construct (for example, larger investors need funds of a certain size to absorb their tickets whereas specialists have a smaller

pool to chose from); and (b) investments may be made for strategic or non-core reasons (for example, to drive co-investments, competitive pressures and regional mandates).

Most investments are supported by datasets that investors can leverage when conducting analysis and on which they base their decisions. Even in this somewhat controlled world, the models or assumptions may be flawed and could yield large variances between actual and expected performance. However, given the liquidity profile, an investor may have pre-termination exit options. Private equity takes this a step further by asking investors to commit to a blind pool, with little or nascent liquidity options. Essentially, an investor is asked to base its decisions purely on historical GP performance<sup>2</sup> and thereafter balance that with an instinctive or 'gut-feeling' response. Unfortunately, between items such as the legal fine print, exclusions, sector or size definitions, a GP has ample freedom to evolve the risk-reward profile of the pitched investment pool; the only governor with any teeth is the threat of no re-ups to the GP's subsequent efforts. In the interim, the GP is free to roll the dice and see if it can handle a given (and possibly evolved) opportunity set. In collecting datasets for the post-2007 period, it would be interesting to profile the types of investments made by GPs across their fund vintages, market and credit cycles. Style drift and GP justification can be expected. Given the uncertainty, private

<sup>1</sup> Malhotra, Satyan (2009), Private equity as part of your portfolio, *Private Equity Mathematics*. PEI Media.

<sup>2</sup> A distinction is drawn from hedge fund investors as they generally take more positions and offer exit options for both their investments and investors.

equity fund evaluation is primarily based on relationships, which are generally forged over many years of limited partners (LP) having experienced the GP's existing fund or a previous fund or venture. Therefore, as in the traditional world of evaluating an investment dataset, here the evaluation is of the GP. This realisation is not lost on the GP community: slowly the larger ones are becoming *de facto* oldco investment banks with multi-product offerings. Investors, especially the larger ones, are simply not paid to take unknown or undue risks. In allowing this movement towards asset gathering, LPs may have traded in performance for perceived headline risk.

## 2. First-time funds: compensating for their perceived higher risk profile

There is a lot of uncertainty associated with first-time funds. Some concerns may be alleviated by the team lift-outs from marquee GPs, but generally, check-box investors tend to shy away from first-time funds. Many reasons can be cited, but the general norm is that it may be wiser to wait for the subsequent vintage fund. Among other considerations, this would give the GP/fund time to prove its thesis, illustrate team dynamics and build consensus on risk-return profiles. As investors, this raises many questions: what if the investor is missing out on a great alpha opportunity? Surely this is the stage that the GP/fund has the most to prove before it becomes more complacent? Are investors compensated to assume the perceived incremental risks of first-time funds?

To evaluate this, this paper cites empirical performance data provided by Preqin. A total of 444 funds<sup>3</sup> were assessed within the US buyout category as it attracts the largest number of participants within the private equity investment class. As a general note, this paper evaluates Preqin's entire quartile-performance dataset that includes vintages from the 1980s to as recent as 2008. Only 8.3 percent of the dataset is made up of 2008-vintage funds (in comparison, only 9.4 percent of funds are from 2007) that are seasoned enough for comparisons to be meaningful and

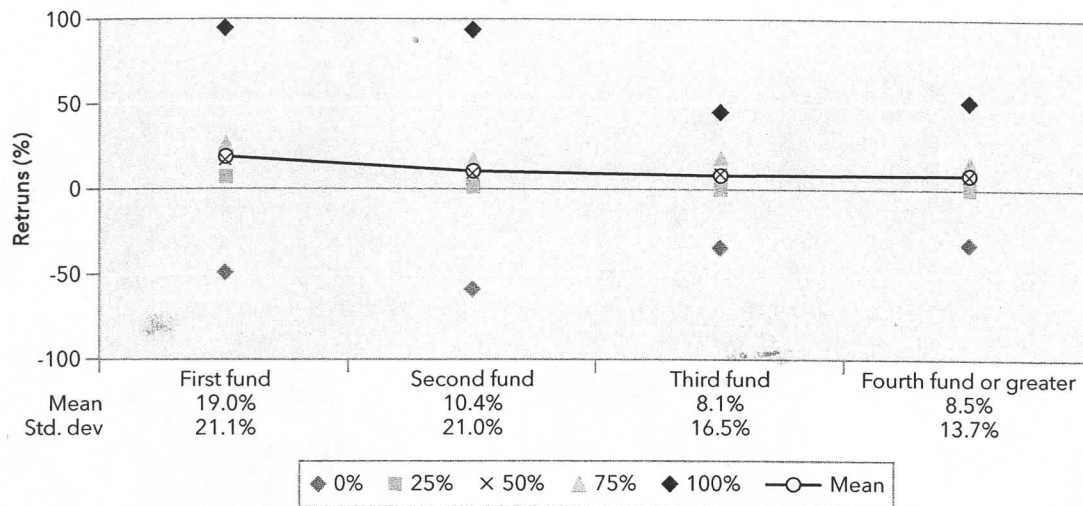
quartiles to matter as FAS 157 (now known as ASC Topic 820) has increased the dispersion of returns for funds that are only partially realised (keeping in mind that quartile is determined relative to vintage, so newer funds are all disadvantaged in the same fashion). Further, since the data spans three decades the underlying investors, participants, competitive landscape, strategies, as well as the opportunity set, have evolved. It may be advantageous to conduct subset analysis to further explore the general themes. For example, in the late 1990s the number of funds and the amount of money being raised increased dramatically making the market more competitive and possibly more efficient.

When looking at the total Preqin dataset, as illustrated in Figure 1, the mean expected return from first-time funds is higher and tends to reduce over time as GPs become seasoned. The over-performance of first-time funds may be partly due to their higher risk appetite and quest for alpha to generate LP interest for subsequent funds. Similarly, as GPs become more seasoned, their risk appetite seems to decrease and they potentially gravitate towards the lower end of the risk-reward spectrum. The risk appetite and profile is presumably influenced by the LP constituents.

We can expect the larger, later-vintage funds to have more institutional investors making up their primary LP base. These institutional LPs may not be looking for outsized return and want more controlled risk profiles. It should be noted that a lot of institutional investors have separate programmes and capital supporting emerging managers and first-time funds. In an extreme case, assume that during an investment committee fund evaluation there are two funds that have both returned 2x historically. However, one fund has a lot of zeros and outsized returns, while the other has consistently delivered 2x across all deals. Most checklist investors will gravitate towards the latter fund as, during re-up, it is much harder to justify a capital loss to an investment committee. The consistency bias greatly influences the more seasoned GPs as it establishes a

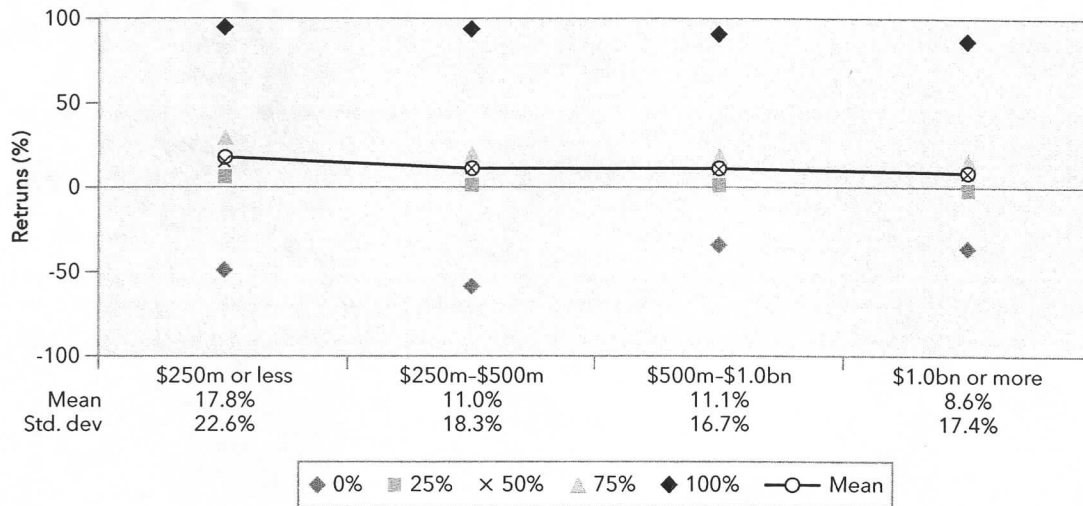
<sup>3</sup> As of April 18, 2011, the Preqin universe of 1,096 US buyout funds contained 451 funds that had performance data through September 30, 2010. The universe was further narrowed to remove seven special-purpose funds as well as one outlier.

Figure 1: Quartile returns by fund vintage



Source: Caspian Private Equity, utilising its proprietary analysis, based on data provided by Preqin for fund vintages from 1980 to 2008.

Figure 2: Quartile returns by fund size



Source: Caspian Private Equity, utilising its proprietary analysis, based on data provided by Preqin for fund vintages from 1980 to 2008.

much higher risk premium for certain trades. Additionally, we have seen that during exits some GPs may choose to leave money on the table as long as they can book their target return. Once the larger GP is established, there are many micro-level events that can influence the fund-level performance, but the key consideration seems to be motivation on maintaining long-term franchise feasibility. In effect, GPs seem to

become more conscious of the risk component of their trades than purely the return. This could be because the next fund size is also at risk, where it is not unusual for subsequent offerings of successful funds to be larger than the predecessor. Does that impact performance? As illustrated in Figure 2, in evaluating the total Preqin dataset, the mean expected return seems to reduce as fund size increases.

Empirically, this behaviour is also evident when you look at the return dispersion, where more seasoned funds have tighter return dispersions and standard deviations. The earlier-vintage funds have a much higher return dispersion and thus present investors with a higher probability of picking extreme winners or losers. Therefore, not surprisingly, from a risk perspective, the survival bias leads pools of higher-numbered fund offerings to have lower standard deviations and returns. However, from an investor's return perspective, by focusing exclusively on seasoned GPs not only is an LP accepting a lower expected mean return but, more importantly, it is sacrificing the opportunity to capture the potential significant over-performance. As highlighted in Figure 1, the less seasoned top-quartile performers outperform the more seasoned top-quartile performers by over 25 percent in absolute terms. The earlier-vintage funds may not have the LP pressures of delivering consistent, targeted returns. Not surprisingly, their LP constituents are expected to be non-check-box investors that are comfortable trading the alpha over the index road, like high-net-worth individuals and family offices.

### 3. Performance of buyout funds claiming to have a single-sector focus versus a multiple-sector focus

From a purely asset-gathering perspective, potential fund size is usually expected to be highly correlated with the opportunity set, especially when defined as capital deployment. Where a fund's size will generally be contingent on the number of investments and average ticket size (for example, 15 investments of \$100 million each would imply a \$1.5 billion fund size versus a \$150 million fund size if the ticket size was reduced to \$10 million; other factors assumed to be constant). For example, the US mid-market may provide the largest general opportunity set to US funds, but the fund sizes are much smaller than the mega funds, given the constraints in capital deployment. Similarly, the ability of energy funds, through specialists, to absorb much larger tickets allows them to raise large funds. Therefore, it is

not surprising that generalist fund managers find it much easier than most specialists to attract more assets. Generalist GPs can make the argument that having more degrees of freedom allows them to effectively deploy capital within the investment period across any market or credit cycle. However, at the time of capital deployment, investment teams in generalist funds may compete for the dry powder, where the decisions may be influenced by non-core fundamentals. Conversely, within specialist firms, GPs may be so married to their thesis that they could become blindsided. So, which thesis is better? Most traditional finance professionals would call for portfolio diversification to balance the risk-return profile. It is debatable whether this is needed at the individual fund level or should be at the LP portfolio level. For the purposes of this paper, it is interesting to consider whether specialist funds generate enough return to compensate for their lack of fund-level diversification and potentially higher correlation to industry-specific dynamics.

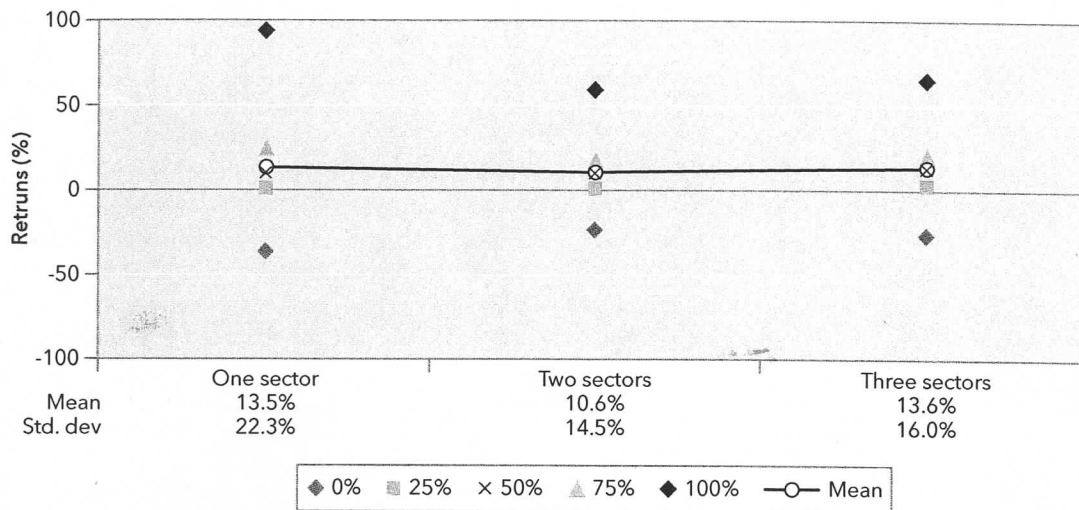
To assess this, this study examined the historical return profile and sector focus of over 450 US buyout funds<sup>4</sup> in the Preqin database. The performance data was delineated by sector focus, as defined by the Global Industry Classification Standard developed by Morgan Stanley Capital International and Standard & Poor's. The evaluation was limited to funds that claimed focus on three or fewer sectors, as beyond that the results were tapered. As a general note, this does not include evaluating individual sector or industry performance.<sup>5</sup> The approach here is to look at the return profile of the buyout category in conjunction with the GP self-categorisation of sector focus. It is assumed that if a GP has self-categorised as a single-sector-focused fund then this is its investment strategy. Since Preqin does not decompose allocations across sectors, this paper assumes them to be *pari passu* and uniform. It should also be pointed out that not all sectors are equal in terms of the opportunity set.

As illustrated in Figure 3, the mean expected return from GPs focused on a single sector is on

<sup>4</sup> As of April 18, 2011, the Preqin universe of 1,096 US Buy-out funds contained 451 funds that had performance data through September 30, 2010.

<sup>5</sup> See Malhotra, Satyan. (2009), Private equity as part of your portfolio, *Private Equity Mathematics*, PEI Media.

Figure 3: Quartile returns by fund sector focus



Source: Caspian Private Equity, utilising its proprietary analysis, based on data provided by Preqin for fund vintages from 1980 to 2008.

a par with the GPs focused on multiple sectors. However, from a risk perspective, the return dispersion and standard deviation associated with the returns generated by GPs claiming to focus on lesser sectors is higher. This may not be surprising, given that diversification across industries should generally lead to an overall lower risk profile and the lower dispersion of return generally results in lower expected return. However, the significant over-performance of the top-quartile single-sector-focused funds versus the top-tier multiple-sector-focused funds is especially noteworthy. The return of the top-quartile fund focusing on a single sector is over 25 percent in absolute terms higher than the top-tier fund claiming focus on multiple sectors.

Funds focused on a single sector are usually spin-outs from generalist GPs, investment bankers focused on a particular industry or industry executives; they potentially bring a deeper level of expertise and relationships to a transaction. Generalist funds that focus on multiple sectors are increasingly partnering with specialists especially on financial and energy deals. In financial deals, generalist GPs can argue that it is being driven by regulation but, overall, the need to partner with specialists is more pronounced during any financial crisis. As an investor of capital, a generalist partnering

(beyond the club deals for managing auction prices or capital needs) with a specialist raises an interesting question about whether it is wise to commit to a generalist that in turn commits to another specialist. As a fiduciary, any GP has to find the right opportunity and potentially augment its internal skill-set where necessary, but what happens at the time of return attribution? For these transactions, should the GP be compensated as a fund of funds investor? GPs will obviously argue that as custodians of capital they have to deliver the best results and investors should focus on returns or that they drive value by potentially exerting pricing clout on the capital structure. Overall investors and gatekeepers may also find it easier to have the GP channel funds to specialist opportunities than have allocations to dedicated specialists. One issue is clear though, seasoned investors should have an allocation for and be able to enhance returns and reduce risk by coupling different sector specialists to create a quasi-generalist. Although this is much more time-consuming and difficult, the results maybe rewarding.

#### 4. The wisdom associated with continuous re-ups

Given the logistics of managing multiple relationships, most investors tend to limit the number of

GP relationships they have. Consequently, it is difficult for a GP to receive an initial allocation but once it has that allocation, the barriers for others are considerably higher. Furthermore, if the initial allocations are 'in the money' then the re-up justification is a lot easier. However, as we know, being 'in the money' is not the same as 'superior' performance. Private equity practitioners can debate what it means to be 'top-tier' or 'best-in-class' or 'superior'; and how the relative sample pools are constructed. However, any GP is generally only held to these standards during the initial due diligence and recommendation phase; thereafter, the GP has to be within the peer-pool metrics to seek re-ups. Very few Investors continually reassess their allocations against all available alternatives every time they make an allocation as continually nurturing and establishing multiple new relationships is immensely time-consuming. This quest to control the number of relationships is supported by an assumption that top-tier private equity partnerships replicate their success in subsequent funds and thus continue to be top-tier performers over time. Usually, this hall pass is given for at least a few vintages. Separation is always harder than courting, however sometimes it can be highly punitive. For example, given its internal (firm) issues and the less-than-stellar performance of its three preceding funds, Accel IX, managed by Accel Partners, lost support of some of its key LPs. Unfortunately for the LP investment committee members, Accel IX, as we now know, is positioned to be one of the best VC funds ever, given its early-stage investment in Facebook. Considering the checkbox metrics, even with its high roman numeral, Accel IX was more like a newer fund.

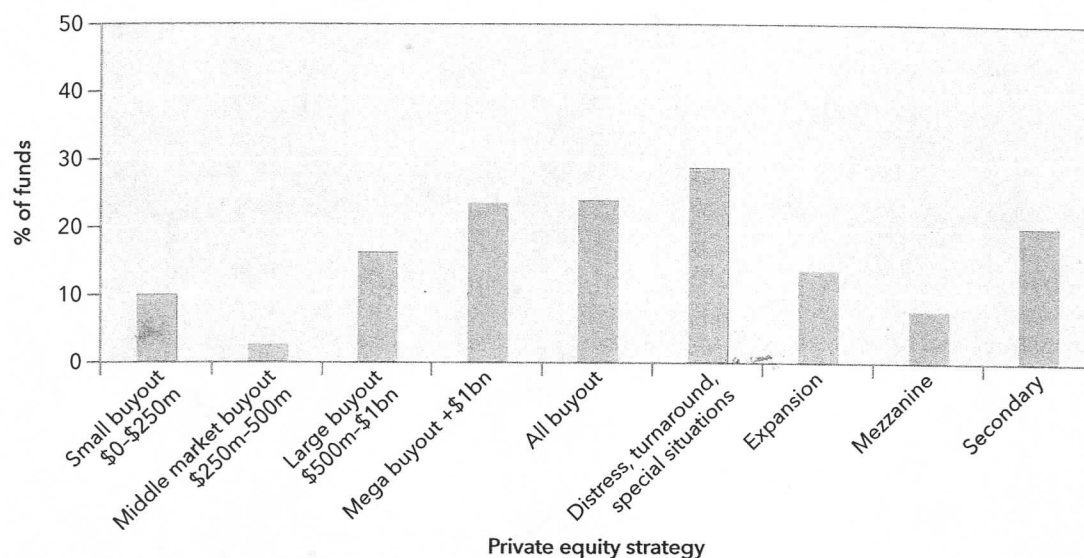
Steven Kaplan and Antoinette Schoar wrote a comprehensive study<sup>6</sup> evaluating the persistence of returns based on VentureExpert database collected from Venture Economics. Given that study, it is likely that this paper's analysis and results will be controversial. It should be pointed out that the analysis herein analysed the funds contained in the Preqin dataset. The dataset has an historical return profile of over 4,000 US private equity funds, of which 931 funds were

defined to be top-quartile at some point; top quartiles are calculated and defined by Preqin. There are many ways to conduct this analysis: this paper considers the GPs whose subsequent vintages were categorised as top-quartile to be repeat top-quartile funds. For example, a GP whose first fund was top-quartile, its second was not but its third was, would not be considered a repeat top-quartile performer. Alternatively, if the first fund was not in the top-quartile category but the second and the third were then for the third fund the GP would be considered to be a top-quartile repeat performer. It should also be pointed out that included in this study is the entire reported fund universe rather than culling the dataset for funds that have missing vintages and market evolution.

As illustrated in Figure 4, using the Preqin dataset and aforementioned approach, it is evident that repeat top-quartile fund performance cannot be taken for granted. Funds focused on secondary and distressed opportunities showed a higher probability of being repeat top-quartile performers. This is presumably because there is a smaller universe of funds (66 secondary and 145 distressed/turnaround funds identified) and opportunities. Buyout funds offer a most robust universe of 1,096 funds and a larger opportunity set. With reference to the Preqin database, buyout funds, as a category, have around a 20 percent chance of being counted as repeat top-quartile performers. In decomposing the dataset by fund size, then the higher fund sizes have a higher chance of being counted as repeat top-quartile performers, albeit the number is still around 20 percent. Again, it should be pointed out that the results are derived from a self-reporting database that has many biases. There is a tendency to believe that GPs would like to extol superior performance in public databases. Referring to Figure 4 in combination with the analysis presented in Figure 1, with higher mean return expectations and dispersion, we can expect lower repeat top-quartile performers in the smaller fund sizes and consequently their repeatability in lower-size-fund buckets is reduced. Note that this assumes that

<sup>6</sup> Kaplan, Steven and Schoar, Antoinette, Private Equity Performance: Returns, Persistence and Capital Flows, University of Chicago Graduate School of Business, MIT Sloan School of Management.

Figure 4: Repeat first-quartile performance



Source: Caspian Private Equity, utilising its proprietary analysis, based on data provided by Preqin for fund vintages from 1980 to 2008.

the survivorship bias migrates more successful funds across fund sizes. As shown in Figures 1 and 2, continuous re-ups may actually lead to return erosion over time. It is possible to interpret the results to highlight that a particular GP's likelihood to be a repeat performer may not be low, but given the increasing universe of GPs the pool of GPs as repeat top-tier performers evolves. More granular subset analysis can be done to see if there is a subset of repeat performers that is consistent across more vintages and so on. This goes back to the initial tenet that private equity manager allocation is a continual process and active diligence should be preferred over blind re-ups.

## 5. Co-investments: improving performance and reducing risk

Co-investments are driven by a host of reasons, ranging from smaller-fund GPs' needs to complete a deal to larger-fund GPs syndicating on an underwritten transaction for possible strategic reasons. Irrespective, their increased popularity, as evident as a separate line item in their pitch books, has started to present an interesting negotiation item for pacifying some of the

lower-costs rallying-cry of the LP community. However, lowering costs and increasing returns may not be on the same spectrum. LPs must consider many issues: are the co-investments accretive to return? Are they staffed appropriately to source and execute the appropriate deals? Do they have governance structures to consider adverse selection?

Depending on their level of participation in co-investment programmes, LPs can be delineated<sup>7</sup> into takers and seekers. Takers are co-investors that automatically allocate to every (or most) co-investment opportunities passed down by GPs. They are not structured to source deals, independently underwrite deals or provide incremental value to the company or GP. Seekers are co-investors that can actively source and screen co-investments in a manner designed to produce alpha. They are structured to not only source the best deals, but also to potentially provide incremental value to the transaction in terms of capital, strategic information and market access. Since a seeker is a quasi-GP function in itself, this analysis focuses the discussion on takers. Given their construct, it is very difficult for takers to be in the driver's seat of a transaction since they are

<sup>7</sup> Snow, David, (2010), A separate piece, *Private Equity International*.



Table 1: Co-investment offerings of three recent vintages of large funds

Pool	No. of deals	Mean ROI	No. of co-investments	Mean ROI	%Par+
A	12	1.72x	6	1.37x	100%
B	10	1.01x	6	1.03x	50%
C	31	1.61x	7	1.19x	57%

Source: Caspian Private Equity, utilising its proprietary analysis, based on data provided by Preqin for fund vintages from 1980 to 2008.

essentially takers of marginal excess capacity. So, how does participating in some co-investments offered by some GPs impact performance?

As illustrated in Table 1, this paper looked at the co-investment offerings of three recent vintages of large funds, since they tend to offer the maximum excess capacity. As a general note: (a) since LPs cannot participate in all co-investments in the market, doing a market-wide analysis to assess LP co-investment performance would be meaningless so the sample size was limited to only three funds since they provided a co-investment deal flow of 19 investment opportunities over a three-year period and most takers will be tapped out if they invested in all (or most deals); (b) not all opportunities are shown to all investors so only those opportunities that were generally syndicated across the LP community have been included here; and (c) the values are transitional in nature especially with the adoption of ASC Topic 820. The principles applied in the analysis can be expanded to include more or fewer GPs or deals depending on the uniqueness of the LP co-investment programme. However, given the author's and CPE's experience, the end result will be quite similar with most passive co-investment programmes introducing volatility and risk of capital loss.

From a pure ROI perspective, and assuming the simple dartboard theory, where a \$1 allocation is made across all deals, it would seem that although co-investments do not produce significant alpha they may add some value especially when fees and expenses are included. So the question is just whether cheaper is better. Assuming the larger funds to be a quasi-private equity index, then as shown in the data in Table

1, the co-investments are mimicking the index. Without diversification, LPs are simply increasing their exposure to potentially their largest positions in the portfolio as by definition, the large- and mega-size deals tend to the largest takers of capital. On a deal-by-deal basis, they are potentially introducing a lot more volatility and/or uncertainty to the portfolio. Some of the lure of lower fees may be dissipating, given that some large GPs have started introducing fees and promote. Further, the GPs are still charging and not sharing any transaction costs.

From a risk perspective, on a deal-by-deal basis, there is significant volatility and risk of loss. For pools B and C in Table 1, only about 50 percent of the deals are above par. It should be noted that these are transitional values, where in conducting the same analysis using an earlier 2009 cut-off date, only 17 percent of the deals of a pool were above par. As expected, by participating in co-investments, the LPs greatly accentuate their wins and losses. This implies that if there is less than 100 percent participation and adverse selection, the co-investments could significantly underperform the primary fund. Another interesting point is that while some GPs were more prolific in doing deals, they all offered similar number of deals. The variance between the most and least prolific investors and excess-capacity providers is more than three times. This means that unless the LP has deep pockets and relationship for 100 percent participation, there is significant potential for adverse selection. Given the construct, the more prolific the GP is, the higher the selection burden on the takers. Conversely, for well-structured LPs this is also an area of value-add. We have seen that deal selection and sizing are each key to producing alpha, so more

prolific GPs provide a larger set of opportunities. However, in engaging with the GP in a more proactive way, the LPs move towards becoming seekers, where structured, non-biased co-investment programmes have a high probability of success. However, running these programmes is not inexpensive, as well-qualified resources are required to support the seeker talent. In the end, the cost savings associated with running an effective in-house programme have to be balanced against the fees paid to the GP. Many firms outsource the co-investment programmes to reduce costs or support strategic objectives. Unless the programme is run on a non-biased, performance basis akin to a GP itself, it is difficult to assess the motivation for driving alpha.

## 6. Conclusion

The empirical evidence provides interesting insights and seems to adhere to the generally accepted portfolio construction and management risk-reward principles. It supports the view that active portfolio management and construction can significantly improve the risk-return profile. As mentioned at the onset, private equity investors know that capital deployment is as much an art as it is a science. Where, it would not be wise for the allocation decisions to be purely quantitative, it would be equally unwise for them to be entirely based on a relationship. The answer to the best way to select a fund seems to be that one size does not fit all and beauty is in the eye of the beholder. ❖

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