INVESTMENT PERSPECTIVES

Capital Dynamics

TRULY INVESTED.

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PRIVATE EQUITY CO-INVESTMENTS: POST-CRISIS PERFORMANCE

SUMMARY

Academic research[1] suggests that private equity co-investments can be pro-cyclical. In the light of the negative economic impact of COVID-19 and the possibility of an improved economic situation following mass vaccination, Capital Dynamics evaluates how co-investments perform over economic cycles and whether this purported pro-cyclicality means that the next few years should be a good period in which to increase exposure to private equity co-investment funds. The research described below tests this hypothesis.

Capital Dynamics' empirical research concludes that co-investments often display lower dispersion from the median return compared to that of other private equity investments. The dataset available to our firm shows that co-investment returns exceeded those of buyouts generally across almost all quartiles during the last two major economic cycles. Incorporating Capital Dynamics' intelligent portfolio construction[2] further reduces the dispersion[3]. This co-investment outperformance versus other private equity investments was greatest in post-crisis periods. Most importantly, the research shows that post-crisis co-investments have outperformed post-crisis buyouts in terms of their lower, median and upper quartile gross IRRs. This suggests that co-investments should benefit disproportionately from market pro-cyclicality during and after crises. Our firm's research supports the hypothesis that increasing exposure to private equity co-investment funds in anticipation of a post-COVID recovery should prove attractive.

INTRODUCTION

Private equity co-investments are opportunities to invest alongside private equity sponsors (otherwise known as general partners ("GPs")) directly in a company being acquired by that sponsor. Co-investments are typically passive with the sponsor managing the investment on behalf of the co-investors. Co-investments have become particularly popular in recent years as institutional investors have sought to increase their allocations to private equity, albeit with a focus on a number of favored sponsors. Making co-investments alongside these favored sponsors can achieve this objective and returns can be attractive, not least because sponsors do not typically charge annual fees or carried interest on co-investments.

This paper examines Capital Dynamics' empirical research of the performance of private equity co-investments over recent economic cycles, comparing the performance of co-investments to the performance of private equity buyout transactions more generally over those same economic cycles. In 2015 Cambridge Associates estimated that co-investments accounted for 5% of private equity activity[4]. Today, that number is probably closer to 15%[5] and growing.

1 Fang, Lily, Ivashina, Victoria and Lerner, Josh, The disintermediation of financial markets: Direct investing in private equity (2015).

2 Intelligent portfolio construction is the active management of mid-market co-investment funds diversified by private equity sponsor, vintage, region and sector; see Co-investments: Intelligent portfolio construction over market cycles, Oliver Schumann and David Smith, Capital Dynamics (June 2019)

3 Private Equity Co-investment Funds – A Comparison of Risks and Returns, Andrew Beaton and Patrick McCauley, Capital Dynamics, (February 2020).

4 Making Waves: The Cresting Co-Investment Opportunity, Andrea Auerbach et al, Cambridge Associates (2015).

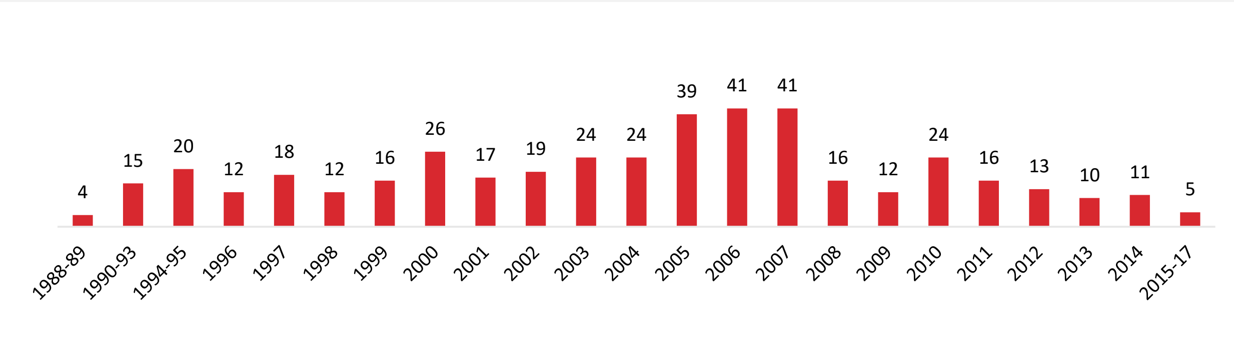
5 Capital Dynamics' estimate.

DATASET

In order to undertake this research, Capital Dynamics constructed a dataset of 435 wholly realized co-investment buyout transactions made between 1988 and 2017. This period includes the recession that followed the dotcom bubble of 1998 to 2000 and the great financial crisis ("GFC"). The information was supplied to Capital Dynamics by private equity sponsors when Capital Dynamics was undertaking primary fund due diligence on those sponsors and included data from GPs where the firm did not ultimately proceed to make a fund commitment.

Whilst earlier academic research[6,7], has included unrealized and venture co-investments, Capital Dynamics' analysis was confined to wholly realized buyout transactions, including those written off. The data cover co-investments in transactions led by 35 discrete sponsors in Europe (53% of deals), the US (44%) and Asia (3%). Of the 435 transactions, 91 (21%) were concluded in 2009 or later, after the GFC, as shown in **Figure 1** below.

FIGURE 1: REALIZED CO-INVESTMENT BUYOUT TRANSACTIONS BY INVESTMENT YEAR (COUNT)



Comparative data for buyout transactions were taken from Cambridge Associates' Investment Level Benchmarks, as of March 31, 2020.

6 Braun, Reiner, Jenkinson, Tim and Schemmerl, Christoph, Adverse Selection and the Performance of Private Equity Co-investments (2016).

7 Fang, Lily, Ivashina, Victoria and Lerner, Josh, The disintermediation of financial markets: Direct investing in private equity (2015).

OVERALL PERFORMANCE OF THE DATASET

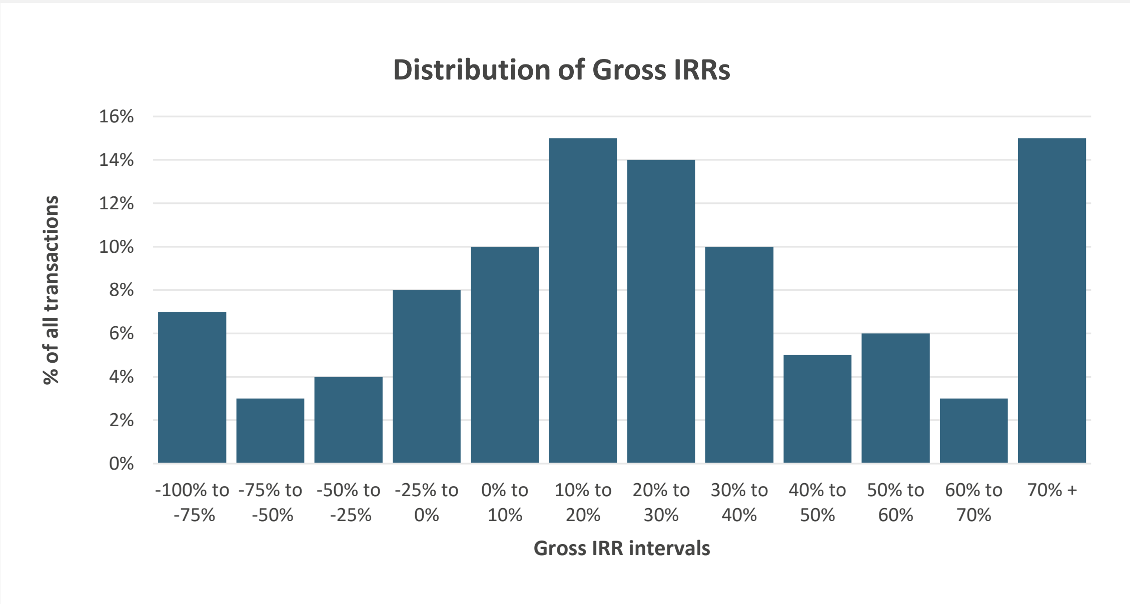
Not unexpectedly, the performance of the transactions in the dataset varied significantly. Over 80% of co-investments (18% of the sample) returned a gross multiple of invested capital ("MoIC") of over four while approximately 22% returned less than cost. The mean MoIC was 2.9 while the mean internal rate of return ("IRR") was 26%, each stated gross. Interestingly, the performance is positively skewed with the mean returns outperforming the median in terms of both MoIC and IRR, similarly-stated. The positive skew to the right of the median is profound with the top 15% of the sample generating a gross IRR of 70% or more, implying that intelligent portfolio construction and broad access to deal flow are vital. These findings are consistent with those of other researchers such as Braun, Jenkinson and Schemmerl, cited above.

A summary of the performance of the dataset and the distribution of returns is shown in **Figure 2** and **Figure 3** below.

FIGURE 2: SUMMARY OF PERFORMANCE OF TRANSACTIONS IN THE SAMPLE

	Mean	Top 25%	Median	Bottom 25%	% below cost
Gross IRR	26.35%	47.76%	21.82%	3.31%	22%
Gross MoIC	2.92x	3.49x	2.32x	1.25x	22%

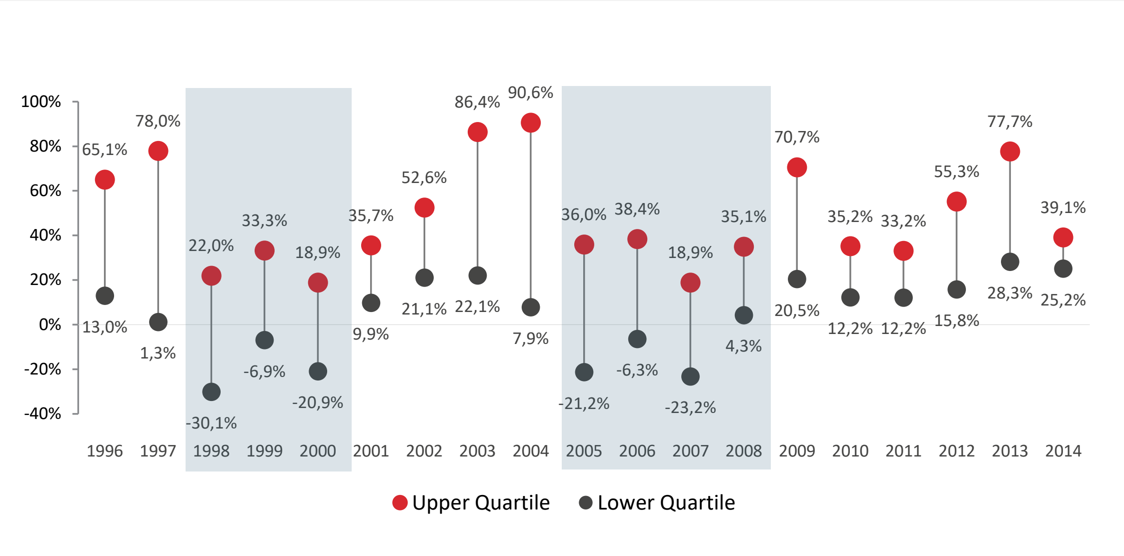
FIGURE 3: HISTOGRAM OF RETURNS OF TRANSACTIONS IN THE SAMPLE (GROSS IRR)



CO-INVESTMENT PERFORMANCE OVER THE CYCLES

Analysing the returns over the period, the sample showed that co-investment performance is cyclical (but not necessarily pro-cyclical). Co-investments made at cyclical peaks (1998-2000 and 2005-2008, each shaded in **Figure 4** below) underperformed compared to the mean returns over the entire period while post-crisis co-investments (2001-2004 and 2009-2013) outperformed, with even lower quartiles showing positive returns.

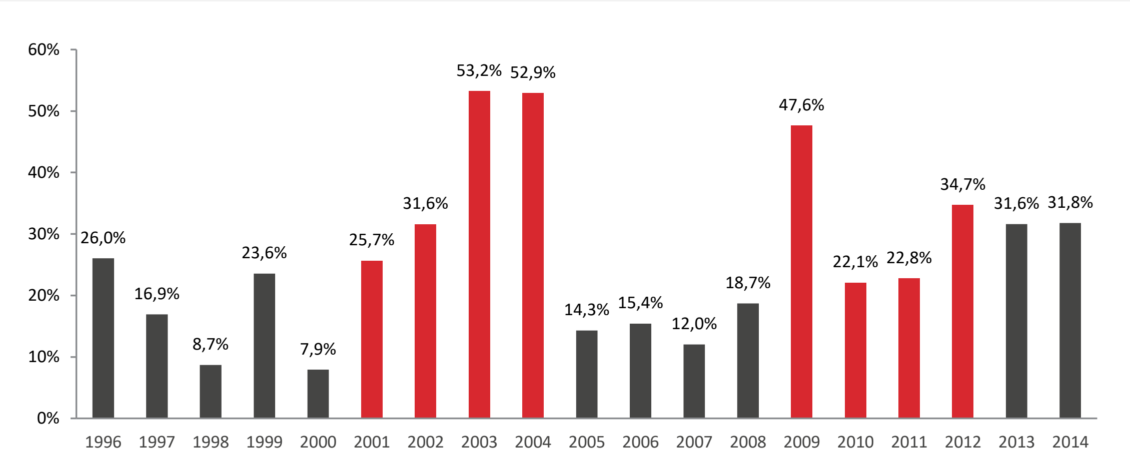
FIGURE 4: GROSS IRR DISPERSION BY INVESTMENT YEAR



The vertical lines show the inter-quartile range year-by-year, measured in terms of gross IRR. It is clear that during the periods of ebullient economic activity, during the dotcom bubble and prior to the GFC (the shaded regions in **Figure 4** above), returns were generally poor. However, there was a material improvement in returns after each such period. Of note is the lower quartile performance of co-investments in the sample, indicating that investments made in these post-crisis periods, unsurprisingly, have a significantly lower chance of being loss-making. In summary, co-investment performance is certainly cyclical, as would be expected.

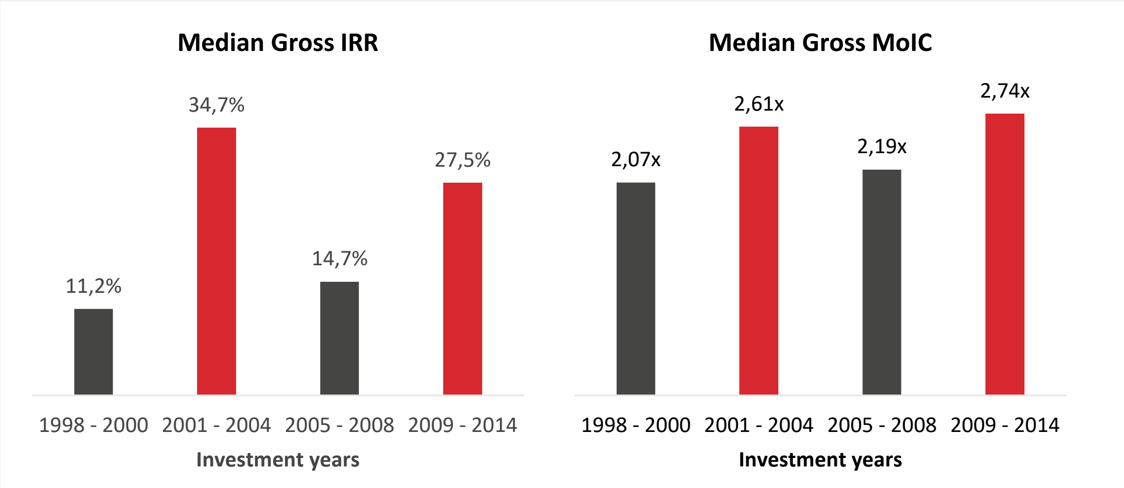
The median returns for each year shown in **Figure 5** below illustrate this post-crisis peformance trend much more starkly with particularly strong performance in the years following economic downturns (shown in red in **Figure 5** below) as growth resumed. The data show that gross median performance was above 20% IRR for the four years following the onset of the GFC and, similarly, above 25% in the four years following the bursting of the dotcom bubble.

FIGURE 5: GROSS MEDIAN CO-INVESTMENT RETURNS BY INVESTMENT YEAR (IRR)



In summary, co-investments (their returns expressed in terms of IRR and MoIC, each stated gross) made during periods following economic crises perform significantly better as **Figure 6** below confirms. The impact on gross IRR would appear to be greater than on MoIC, almost certainly due to the longer holding periods for pre-crisis investments. The difference between the pre- and post-crisis periods in MoIC terms in both cases is almost identical at 0.55. This implies that a co-investment made after a crisis should return 50% more of the invested capital, and over a shorter period, than would a similar co-investment made before the crisis.

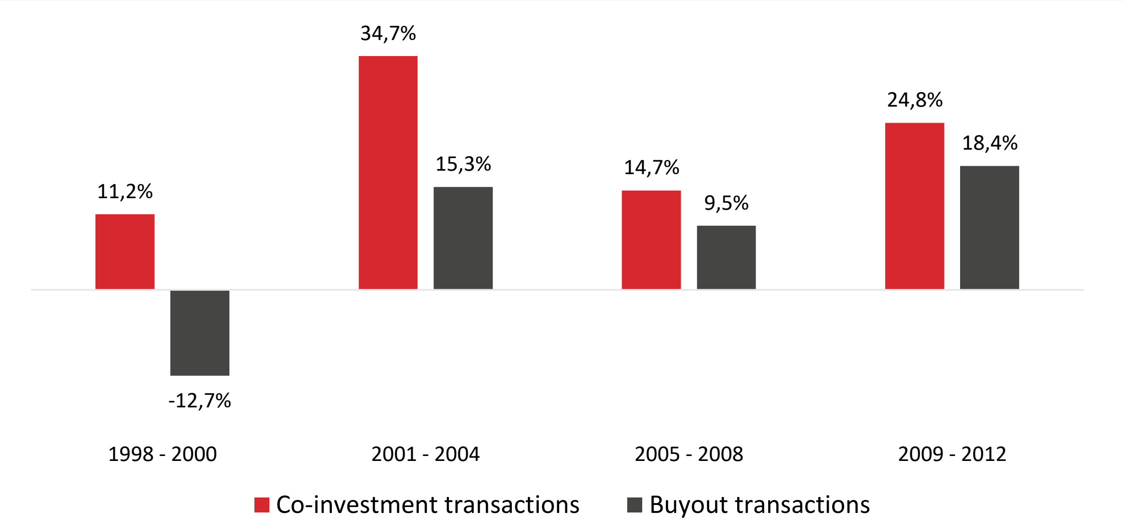
FIGURE 6: MEDIAN GROSS RETURNS ON CO-INVESTMENTS BY INVESTMENT CYCLE



COMPARATIVE CO-INVESTMENT RETURNS OVER CYCLES

To test for pro-cyclicality (i.e., whether co-investments are more cyclical than private equity buyout investments generally), Capital Dynamics compared the dataset against median gross IRRs for the same periods from Cambridge Associates' Investment Level Benchmarks, as of March 31, 2020. The comparison shows that the co-investments outperformed all buyout transactions, including all those not offered for co-investment, for all periods captured by the dataset, with particular outperformance in the post-crisis periods. The data presented in **Figure 7** below show that post-crisis co-investments outperformed post-crisis buyouts generally, by almost 20% following the bursting of the dotcom bubble, and by over 6% in the years following the onset of the GFC. These data also show co-investment outperformance in the pre-crisis periods, albeit less stark in the period before the onset of the GFC. This suggests that co-investments may only be pro-cyclical in those post-crisis periods rather than over the whole economic cycle more generally.

FIGURE 7: COMPARATIVE MEDIAN RETURNS ON CO-INVESTMENTS VERSUS BUYOUT TRANSACTIONS GENERALLY



Note: Buyout transactions are US Private Equity deals from Cambridge Associates' Investment Level Benchmarks, as of March 31, 2020. A weighted average across investment years was used to determine market benchmark quartile returns. Past or projected performance is not an indication of future results. Returns for 2013-2014 from US Private Equity deals from Cambridge Associates' Investment Level Benchmarks were not used due to the greater likelihood of such deals being unrealised and thus not fully comparable with realised co-investment deal returns.

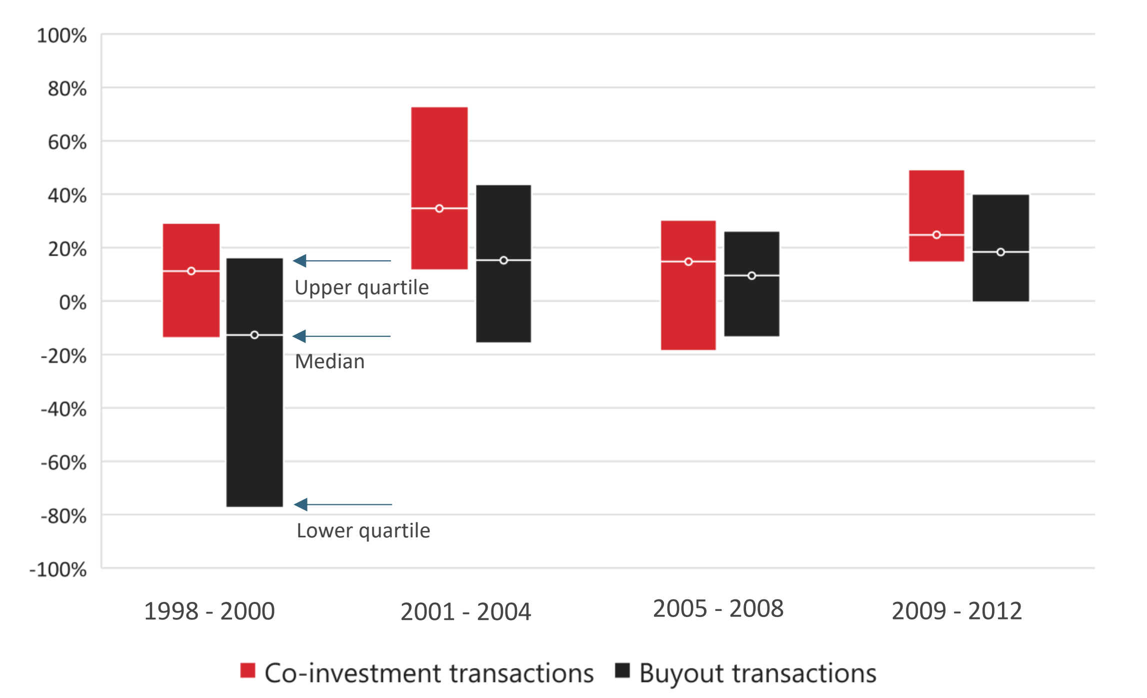
This result is perhaps somewhat surprising given that earlier academic work[8] would appear to suggest that "like-for-like comparison between co-investments and other deals [not offered for co-investment] found no evidence of selection bias, either positive or negative".

8 Braun, Reiner, Jenkinson, Tim and Schemmerl, Christoph, Adverse Selection and the Performance of Private Equity Co-investments (2016).

However, this research did conclude that portfolios of co-investments could achieve better returns due to lower costs – "...we show that relatively small [simulated] portfolios of 10 buy-out [co-investment] deals on average outperform [conventional] fund returns net of fees and costs."

Further analysis is needed to understand the relative performance of the dataset compared to Cambridge Associates' data. There may be some selection bias as Capital Dynamics generally undertakes due diligence on higher-performing managers. However, any such bias should certainly not invalidate this study's conclusions but may exaggerate the difference in relative performance.

FIGURE 8: GROSS IRR DISPERSION (%) PRE- AND POST-DOTCOM BUBBLE AND GFC



Strikingly, the dataset showed that top-quartile co-investments outperformed their peer group of top quartile buyout investments, often significantly. In fact, a comparison of the dispersion of returns pre- and post-dotcom bubble and GFC (**Figure 8** above refers) shows that co-investment returns often showed lower dispersion, indicating that co-investments are less prone to cyclicality compared to buyout investments more generally, and post higher gross returns across all quartiles for almost all periods. This result supports earlier research by Capital Dynamics which concludes that portfolios of co-investments demonstrate superior risk-return characteristics than those of buyout portfolios more generally.

CONCLUSION

Co-investment remains a small, yet growing sub-set of the private equity asset class with only an estimated 15% of buyout transactions being offered for co-investment. However, Capital Dynamics' research concludes that co-investments often have a lower dispersion from the median compared to that of other private equity investments. Incorporating Capital Dynamics' intelligent portfolio construction reduces the dispersion further still. The dataset available to Capital Dynamics shows that co-investment returns exceeded those of buyouts generally (the latter from Cambridge Associates' private equity investment benchmark data) across almost all quartiles during the last two major economic cycles. Furthermore, this outperformance over that of other private equity investments was greatest in the post-crisis periods. Most importantly, the research shows that post-crisis co-investments have out-performed post-crisis buyouts in terms of their lower, median and upper quartile gross IRRs. This suggests that while co-investments display lower pro-cyclicality in downturns, investors should benefit disproportionately from market pro-cyclicality during and after crises. The research supports the hypothesis that increasing exposure to private equity co-investment funds in anticipation of a post-COVID recovery should prove attractive.

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ABOUT CAPITAL DYNAMICS

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In 2020, Capital Dynamics was awarded the highest rating (A+) from the Principles for Responsible Investment for (i) Strategy & Corporate Governance, (ii) private equity strategy and (iii) clean energy infrastructure strategy. For more information, please visit: www.capdyn.com

1 As of December 31, 2020.

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