



PRIVATE MARKETS INSIGHTS: CO-INVESTMENT SERIES

CO-INVESTING 101: BENEFITS AND RISKS

There is significant interest in co-investing, but not everyone has the skills and resources required to successfully execute a co-investment program. Investors in recent years have been drawn to co-investing for its potential to generate outperformance at reduced costs, as well as the opportunity it brings to be more actively involved in managing their portfolios. As more investors consider establishing programs, or adding to their existing allocations, it is critical that they fully understand both the dynamics of co-investing and the range of competencies required to be successful. Throughout this series, HarbourVest's global co-investment team—which has invested over \$6 billion of co-investment capital since 1989—will share its collective insights and experiences to help make you a more successful co-investor. Part I of the series focuses on the basics, including a look at the benefits and risks inherent in co-investing.

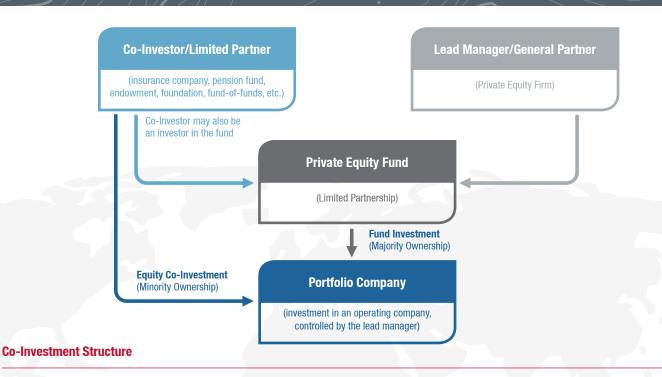
Private equity has experienced spectacular growth over the past three decades as institutional investors have been drawn to the asset class by its consistent ability to outperform public market benchmarks.

As the industry has grown, it has expanded rapidly in terms of strategic offerings, regional and industry coverage, and stages of investment. Growing investor demand for private investment opportunities has also compelled the industry to develop new ways for investors to access these transactions, and to become more engaged in the actual deal process.

HarbourVest's global investment team has invested more than \$6 billion of co-investment capital since 1989.

Historically, the most common way to participate in private investing has been through commingled funds, or "blind pools" of capital structured as limited partnerships. The investors in these funds—known as limited partners (LPs)—delegate investment decision-making authority to the general partner (GP), or lead manager. In return for making investments into portfolio companies and managing these investments throughout their life, the GP is paid a management fee and receives carried interest, or a percentage of the profits that are generated by its investments. The funds themselves typically have life spans of 10 or more years.





While commingled funds remain the dominant vehicle for accessing private markets, more GPs are offering co-investment opportunities to their LPs. In a single company co-investment, an LP invests in a private or public operating company alongside, and typically at the invitation of, a GP. The lead manager is generally responsible for managing the portfolio company and may offer co-investment opportunities for a number of reasons—including to bridge a funding gap or to bring additional skills and resources to an investment.

While the potential for higher returns and more direct involvement has generated significant interest in coinvesting, investors need to understand the risks that come with co-investing as well.

WHY CO-INVEST?

Many investors are familiar with the headline benefits that co-investing can offer. Strong performance track record. Lower fees. The chance to be more involved in the day-to-day management of their portfolios. Let's take a deeper dive into the different ways co-investing can enhance your private markets portfolio.

ADDED CONTROL OVER CAPITAL
DEPLOYMENT PACING. Commingled funds
will always be an attractive method by which investors

can gain exposure to private markets. However, unlike committing to a commingled fund—where the lead manager has full discretion on when, where, and with whom to make investments—co-investing provides the flexibility to further customize your investment strategy. For instance, an investor can use co-investments to efficiently deploy capital to deals in a specific region, industry, or manager that they wish to target, allowing it to better take advantage of short-term trends and tailwinds, as well as match its investment pacing to its cash flow needs.

OUTPERFORMANCE POTENTIAL.

Gaining access to top-tier GPs and a large number of opportunities can be a major performance driver, and when you select well the potential for outperformance grows. Co-investing also provides a less expensive fee structure compared to traditional private equity funds. Recent research shows that while average gross returns for co-investments are similar to gross returns for GP-led funds, co-investment returns are meaningfully higher on a net basis. The following chart compares the performance of a co-investment fund to a traditional PE fund.

¹ Reiner Braun, Tim Jenkinson, and Christoph Schemmerl, "Adverse Selection and the Performance of Private Equity Co-Investments," November 2016.



Co-Investment Fund vs. Traditional PE Fund

Example: \$1.0 billion fund, invests \$200 million per year evenly over 5 years, generates a gross portfolio return of 2.25x

Co-Investment Fund

Fee: 1% of invested capital*

Carry: 10% up to 2x, then 20% with no catch up

Traditional Fund

Fee: 2% of committed capital

Carry: 20%

Return \$215 million more cash to LPs representing 53% less fees and carry paid than a traditional fund structure



*Invested capital includes any investments funded through a financing facility. In the event that cumulative capital committed to investments, including reinvested capital, ever exceeds total committed capital, then the management fee will be based on the lower committed capital number.

Shown for illustrative purposes only. Not intended to project performance. Assumes 100% of committed capital invested and 2.25x gross portfolio return in both scenarios. Management fees are paid through portfolio proceeds beginning in Year 5. Both scenarios have an identical schedule of gross distributions. IRRs are calculated based on annual cash flows, assuming capital called in mid-year and NAV as of year-end. IRRs reflect assumption of 18.4% NAV increase in Years 2 through 10. Does not reflect organizational costs and other fund level operating expenses. No cash balance is modeled, i.e., all fund excess cash is distributed to LPs. The carried interest accrues to the general partner's account as it is generated and is paid to the general partner in Years 9 and 10. Co-investment fund fees and carried interest are based on HarbourtVest Co-Investment IV Fund terms.



STRONGER RELATIONSHIPS WITH

TOP-TIER GPs. Because co-investing requires a hands-on approach, investors get the chance to work closely with top GPs to foster deeper relationships and gain a better understanding of their investment strategies and processes. For the co-investor, building these relationships is essential for gaining access to future deal flow and for building their own investment skills.

ACCESS TO PRE-QUALIFIED DEALS.

The opportunities made available to co-investors are typically pre-screened by the lead manager, who performs extensive due diligence and vetting to ensure that the highest quality deals are selected. As a result, the opportunities that a co-investor is offered tend to be high-quality transactions.







While the benefits of co-investing can be substantial, long-term success requires a thorough understanding of the potential risks. Co-investment deals are generally complex, require extensive resources, involve multiple steps—from deal sourcing to post-investment monitoring—and often need to be completed in a short period of time. Knowing the caution flags to look for, and responding accordingly, is essential. Potential risks may include:

RESOURCE-INTENSIVE PROCESS.

Executing a co-investment strategy requires significant resources to create a large pipeline of opportunities; evaluate both the lead manager offering the opportunity as well as the company in which they may invest; and to close and monitor the investments as they mature. For smaller investors with limited resources and due diligence experience, this can be a significant challenge. Many co-investors address skill-set voids by working with third-party advisors or outsourcing their programs entirely to an external co-investment manager.

POTENTIAL ADVERSE SELECTION

BIAS. One common concern centers on whether the GP has a bias in allocating its own capital to the most attractive deals, while making the less appealing transactions available to co-investors. A recent study analyzing a large sample of buyout and venture capital co-investments found no evidence of adverse selection, concluding that average gross returns for co-investments

were similar to gross returns for funds.² Since enhancing relationships with LPs is one of the reasons GPs offer coinvestment, they are consequently deterred from offering what may be perceived as less attractive opportunities. While it is impossible for GPs to predict the future, their relationships with LPs—and therefore the success of their next fundraise—may be negatively impacted by offering co-investment in what ultimately turns out to be a poor-performing investment.

HIGHER INVESTMENT

CONCENTRATION. While investing through a fund-of-funds provides investors with exposure to hundreds of underlying companies, co-investing involves investing directly into a single company. LPs can counter this concentration risk by building a diverse portfolio of co-investments to supplement their broader private equity commitments.

DEAL EXECUTION. While the lead manager will have performed a thorough assessment of contingencies that might prevent a deal from closing, there will always be unforeseen events that can cause a transaction to fail—including a change in the operating performance or the appearance of another bidder. Co-investors thus run the risk of dedicating resources to a transaction that is ultimately not completed, sometimes incurring broken deal expenses.

Part II in our co-investment series will discuss the separate aspects of executing a co-investment.

GP/LP RELATIONSHIP DYNAMICS. As discussed in the merits section, co-investments can be an attractive way to cement a positive GP/LP relationship. However, poor execution of a co-investment, particularly any action that may jeopardize a lead manager's ability to complete a transaction, can be one of the quickest ways to sour an otherwise good relationship. Examples of poor execution include an inefficient diligence process, communicating interest in a deal then passing on the opportunity, and adding complexity or risk to the closing or management processes.

² Reiner Braun, Tim Jenkinson, and Christoph Schemmerl, "Adverse Selection and the Performance of Private Equity Co-Investments," November 2016.





KEY TAKEAWAYS

Given the attractive features discussed earlier, it is understandable why many institutions are pursuing co-investing. The performance has been strong and investment opportunities are growing in number. That said, investors who begin co-investing without having the requisite knowledge of what it takes to be successful are likely to be disappointed with their results. Developing a full understanding and appreciation for the rewards and risks of co-investing is an essential first step.

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PRIVATE MARKETS INSIGHTS: CO-INVESTMENT SERIES

THE MECHANICS OF CO-INVESTING

This is the second paper in our series on co-investing, which investors have been drawn to for its potential to generate outperformance at reduced costs, as well as the opportunity it brings to be more actively engaged in managing their portfolios. Part I highlighted the key benefits and risks of co-investing, and Part II picks up where we left off by examining the different stages of a deal, and the highly specialized skills required to successfully navigate each phase. Throughout the series, HarbourVest's global co-investment team which has invested more than \$6 billion of co-investment capital since 1989—will share its collective insights and experiences to help make you a more informed co-investor.

Co-investing is attracting attention from more investors for a number of reasons, most notably the potential it offers to generate attractive returns by providing access to private equity deals at reduced costs. Lower fees alone, however, do not result in outperformance; the investments themselves drive performance with lower fees serving as an enhancer. Accordingly, the challenge for an aspiring co-investor is finding, and ultimately selecting, the best deals possible.

While there is no magic formula that guarantees success, it is critical for you to understand the key aspects involved in each step of the co-investment process.

As a starting point, let's focus on the four foundational components that comprise any co-investment transaction: 1) sourcing, 2) evaluating, 3) closing, and 4) monitoring and exiting. Each stage (*Chart 1*) is distinct from the others and demands specialized knowledge and skills for successful, timely execution.

Importantly, the co-investor's level of engagement and participation will vary depending on the type of deal they are offered, as well as their own specific approach to the process. Generally, active co-investors participate across all four of these stages, provided that they have the necessary skills and expertise to navigate each. For passive co-investors, involvement is typically limited to the closing phase.



DEAL TIMELINE

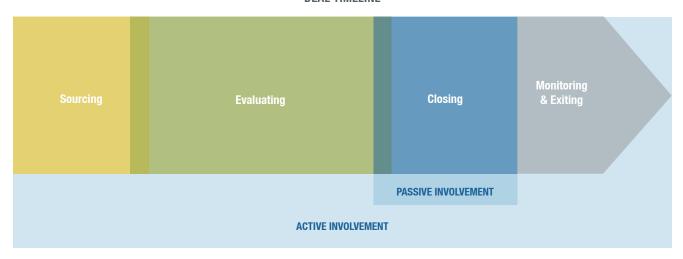


Chart 1: Transaction Stages

STEP ONE: SOURCING

Sourcing transactions is one of the most important aspects in executing a co-investment strategy. A robust sourcing engine allows a co-investor to evaluate and choose from a wide variety of transactions. It also allows for increased selectivity and patience, and provides confidence to pass on transactions that may not meet all of your criteria.

Further, a wider deal flow funnel can provide enhanced diversification within your own co-investment portfolio, which in turn can help mitigate the effects of underperforming investments, improve the likely range of returns, and decrease exposure to exogenous risks.

Sourcing requires a wide range of relationships across the private equity landscape, particularly with top-tier general partners (GPs), who serve as lead managers. These relationships must be cultivated and maintained in order to generate a wide pipeline of deals that can create the basis for selectively investing in the best opportunities.

The most common way to access co-investment deal flow is through your own GP relationships. Being a

limited partner (LP) in a GP's fund is a key factor in securing deal flow. Another alternative is to position yourself as a preferred source of capital who can bring specific value to a deal process. Either way, it is important to note that a GP may have many LPs who are interested in co-investing, and opportunities may not be as plentiful when demand is high.

With this in mind, it's important to look for ways to initiate and grow relationships beyond your core GP network. The less common and sometimes most lucrative way to access co-investments is to proactively source opportunities outside of these core GP relationships. Proactive sourcing typically involves holding meetings, attending conferences and industry events, developing domain expertise, tracking specific companies as potential investment opportunities and, where possible, introducing GPs to these companies.

Finally, it is important to differentiate yourself as a co-investor, particularly as the competition for co-investment capital increases. Building expertise, either via an internal team or by working with an experienced third party, can provide a valuable edge when securing a co-investment opportunity.



As mentioned earlier, co-investors can further differentiate themselves with their understanding of private equity, relevant investment and diligence experience, industry relationships, and specific sector expertise. Importantly, proving to a GP that you're able to effectively and efficiently process co-investment opportunities will make them more comfortable sharing future deal flow with you. While there is no guarantee that these efforts or factors will result in an increased level of shared deal flow, they will help keep you top of mind when opportunities arise.



STEP TWO: EVALUATING

After sourcing, the next step is to evaluate the opportunities available. Here, the level of diligence performed is entirely up to the co-investor: Some may choose to co-invest passively, trusting the lead manager and approving all co-investments that are offered to them, while others may re-underwrite (or even help to co-underwrite) the transaction, adding another level of diligence to the process. For this work, co-investors generally lean on experienced investment professionals—either in-house or attached to a third party—to analyze each deal and provide insights and recommendations.

An important distinction between fund diligence and co-investing is that while part of a deal's evaluation process involves performing diligence on the GP leading the deal, investors also need to vet the investment itself, and should be able to evaluate the company's:

- > Products and services
- > Markets in which it operates
- > Competitive positioning
- > Management team
- > Past and projected financial performance
- > Exit opportunities
- > Expected returns

Studying these metrics often requires an extensive review of the GP's diligence materials; calls with management teams and consultants; independent modeling of return scenarios; reference calls with customers, suppliers, investors, and other GPs and contacts; an in-depth knowledge and understanding of the relevant market

conditions and dynamics; and an analysis of how the investment fits within the broader portfolio and its current and future construction.

Additionally, it is helpful to build financial models that incorporate comparable company data and return sensitivities in order to create a detailed breakdown of the sources of return for an investment. It is also important to understand the business model, the credibility of operating projections, and the validity of the investment thesis. And lastly, one must evaluate the specific terms of a deal, paying particular attention to structures that limit risk yet offer the potential for sizable returns.

In terms of performing diligence on the lead manager, it is important to assess their overall track record, track record in their target sector, and the track record of the individual partner(s) of the GP who are responsible for the applicable deal. The investment thesis of the particular transaction should also be consistent with the GP's expertise.

This analysis, in addition to the diligence performed by the GP, should provide you with a thorough understanding of the merits and risks of a particular company, executive team, and deal structure, which will in turn allow for sound investment decision-making.

Investors will also want to have a flexible, efficient evaluation process in place, including an approval mechanism that can facilitate rapid decision-making. Deals often take place under very compressed timelines, sometimes as short as one week from initial review to verbal commitment. Thus, speed and reliability are paramount in the eyes of the offering GP.



Anti-dilution provisionsLiquidation preferenceDividends and warrantsValuation waterfall	Negotiate Terms	Review Tax Structure	 Evaluate tax structure and potential risks Negotiate tax filing obligations with lead GP and company, as required
Assess alignment of interests among investors Review: R0FR/pre-emptive rights, drag/tag rights, and key governance provisions Determine role on board of directors	Determine Corporate Governance	Review Legal Documents	 Engage counsel from relevant jurisdiction Speed is crucial to gain desired allocation

Chart 2: Closing Time

STEP THREE: CLOSING

The closing process begins after the evaluation has been completed and a decision has been made to move forward on the opportunity. The key elements involved in this stage are: 1) negotiating terms, 2) reviewing the tax structure, 3) determining corporate governance, and 4) reviewing the relevant legal documents (*Chart 2*). Each of these components demands a specific level of expertise, including having a capable staff of attorneys and tax advisors on hand to perform the necessary functions.

Having an in-house legal team can help to expedite investment execution and ensure a swift closing process. This team can also assist in negotiating and securing minority rights and protections, particularly to ensure that you participate at the same terms as the GP and thus maintain alignment of interests between all participants.

As a company is preparing to be sold, co-investors are required to understand the terms of the transaction and how it may affect their returns.





STEP FOUR: MONITORING AND EXITING

Upon closing an investment, the focus turns to monitoring it through to an ultimate exit. A co-investor's level of involvement during this stage will be dictated by the governance and terms that were established at the onset of the process.

In minority positions where there is no involvement in governance, responsibilities may be limited to:

- > Reviewing quarterly board presentations and financial statements
- > Performing quarterly valuations
- > Responding to shareholder consents
- > Completing appropriate tax filings
- Anticipating future capital needs for follow-on investments

Conversely, investors in active governance roles may be required to attend board meetings and serve on committees, an undertaking that involves a significant amount of time and expertise. On the plus side, this level of involvement can help guide management strategy, value creation initiatives, and exit options.

While all stakeholders obviously hope the investment performs well, the reality is that there will be instances when things do not go according to plan. Additional diligence and approvals may be required in order to help fund necessary capital injections through follow-on investments. In such instances, a co-investor may add value by making introductions to potential sources of equity or debt capital. Such investments may also require closer monitoring and more frequent interactions with management and the lead GP. Follow-on capital may also be necessary to support M&A activity or to help further develop the investment strategy. In such cases, co-investors must be willing and ready to both evaluate and fund this additional capital need.

Finally, as a company is preparing to be sold, co-investors are required to understand the terms of the transaction and how it may affect their returns. This includes having a clear understanding of the structure, any escrow liabilities, the tax effect on returns, and the timing of any potential proceeds. Armed with this information, you will be able to make a better hold/sell decision. In some cases, co-investors may be in a position to add value by working with senior management to establish an optimal strategy for shareholder liquidity. This may include assistance with initial public offering discussions, outright sale discussions, and/or recapitalization plans. If an exit does move forward, the co-investor needs to have the necessary back-office infrastructure in place to accept wire transfers and process the accounting and tax implications of the exit.

Part III in our co-investment series will focus on the three models investors typically deploy to access opportunities.





COMMON CO-INVESTING MISPERCEPTIONS

For more than 25 years, our global co-investment team has worked with clients of all types to execute their programs. Here are the five most common misperceptions we've observed.

 I have experience selecting and investing in GP-led funds, so co-investment should be fairly easy.

Actually, the two disciplines are very different and require unique skill sets. Co-investing is more complex than investing directly into a GP-led fund. One example: Evaluating a deal involves performing diligence on both the offering GP and the target investment company.

I don't have the technical skills to do this on my own, but I can purchase the required capabilities on the market.

True in some instances, but strong due diligence skills alone will not ensure success. Investors need to have real-world investing experience in order to recognize market cycles and effectively evaluate deals.

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3. Lots of GPs are offering deals, so access and putting my capital to work shouldn't be an issue.

While many GPs are offering deals, the key to longterm success is consistently showing top managers that you have the skills and experience necessary to be a reliable, efficient co-investment partner. Also, access could tighten in periods where demand is high and co-investment capital is limited.

4. With commingled funds, my capital is locked up for 10 years or more—it will be shorter with co-investment deals.

The time horizons on different deals may vary, but co-investing itself is a long-term strategy. Investors need patient, committed capital in order to construct diverse portfolios and build relationships with GPs.

5. Lower fees are the biggest draw to me and should drive my decision to implement a program.

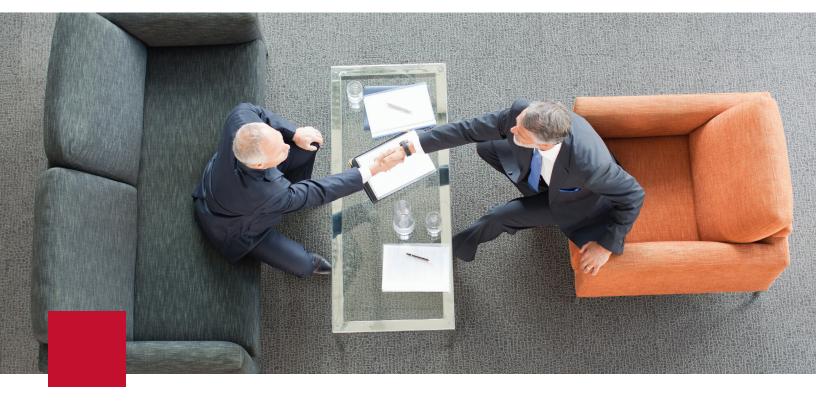
The ability to access a large number of co-investment opportunities alongside top-tier managers is the most important driver of returns. Only after this should you focus on the incremental benefit of lower fees and higher net returns.

KEY TAKEAWAYS

Co-investing is an efficient way to access the world's best private market opportunities, and can help expand and diversify existing private equity programs. That said, successful management requires the ability to evaluate, execute, and monitor co-investment opportunities—and these activities must be complemented with extensive back-office support.

Understanding the requirements within each stage of a deal is a key step toward determining your co-investment readiness, as well as your desired level of involvement.





PRIVATE MARKETS INSIGHTS: CO-INVESTMENT SERIES

ACCESSING CO-INVESTMENT DEALS

This is the third and final paper in our series on co-investing, which investors are gravitating to for its potential to generate outperformance at reduced costs. Part I highlighted the key benefits and risks of co-investing, and Part II examined the different stages involved—and skill sets required—in managing a co-investment program. In Part III, our global co-investment team, which has invested more than \$6 billion of co-investment capital since 1989, shares its collective insights to help investors identify and implement a co-investment strategy that best suits their specific needs and objectives.

One of the most challenging aspects of co-investing is deciding how you will approach and gain access to the market. Being a successful co-investor is predicated on the relationships that you develop with general partners (GPs), as well as your ability to perform due diligence and execute on the deal flow generated by these relationships. As you formulate your co-investment strategy, it is critical to clearly understand your strengths and weaknesses. This will help you determine the best strategy for accessing deals and will put you in a better position to realize the benefits of co-investing.

In order to become a successful co-investor, it is important to develop a long-term strategy and to identify your strengths and weaknesses to determine the best approach.



FOUR COMMON DEAL TYPES

While co-investment deals can take many forms, four common transactions dominate the marketplace today, each of which has its own distinct set of resource and timing requirements that will help define your overall level of engagement.

CO-UNDERWRITE/CO-SPONSOR. With these opportunities, the GP, or lead manager, tends to work exclusively with a single co-investor, potentially sharing diligence responsibilities and execution risk. As these deals occur before a GP has completed the due diligence process, a co-investor pursuing this type of transaction must have the experience and skills to work independently of the GP to evaluate a transaction. For co-investors, this provides an opportunity to invest a sizable amount of capital into a unique transaction and to establish oneself as a strategic, reliable partner to the GP. Accordingly, a co-investor in this segment of the market must have access to large amounts of capital and an experienced, dedicated investment team.

****SMALL AND MEDIUM BUYOUT "EXCLUSIVE" DEALS.** You may also come across opportunities where a GP needs an experienced, active partner to help close a funding gap in a transaction, but doesn't necessarily need counderwriting or co-sponsor help. These deals, which

often focus on small and medium buyouts, require the ability to execute quickly and efficiently, take on execution risks, sign equity commitment letters, and share in diligence expenses and broken-deal costs, all of which are risks that many parties are unable to assume. These are unique opportunities for co-investors who can gain access to them. GPs typically seek only a few partners to join their buying group to secure a transaction, and these partners are often known investors with whom the GP has collaborated on prior co-investment transactions.

GROWTH EQUITY INVESTMENTS. GPs investing in a company for the first time, or who need a new investor to lead a round of financing, may offer growth equity co-investment opportunities. Compared to traditional buyout deals, these opportunities require co-investors to have more advanced skill sets in order to price and negotiate terms, potentially lead or co-lead complex due diligence processes, and play an active role in monitoring the investment—including holding a seat on the company's board of directors. Given the challenges of analyzing earlier-stage companies, competition for this type of co-investment is limited. As a result, this part of the market can provide compelling investment opportunities with different risk/return characteristics compared to traditional buyout investments. However, as growth companies are generally smaller than buyout transactions, growth equity check sizes tend to be smaller than those for buyout investment opportunities -even though similar resources are required to execute each type of deal.

SYNDICATED "GROUP"

transaction types above, syndicated buyout deals are generally less resource-intensive. Here, a GP typically invites 10 or more limited partners (LPs) to participate in a completed transaction, often at the end of a competitive process. Because the GP has usually concluded its due diligence by this point, investors looking for co-investment exposure but lacking in active deal evaluation resources often find this to be their most viable access option. This part of the co-investment market has received the largest amount of interest and activity recently, attracting a sizable number of new entrants.



ACCESS MODELS

While there are a number of transaction types that exist in today's market, not all co-investors have the resources necessary to execute across the spectrum. In order to become a successful co-investor, it is important to develop a long-term strategy and to identify your strengths and weaknesses to determine the best approach.

LPs today generally access co-investment deals through three primary models: in-house, outsourced, or a hybrid version of the two. While these models differ significantly (see Chart 1), each enables an investor to access co-investment opportunities.

IN-HOUSE. Larger LPs with deep resources who aspire to become more-active private equity investors may choose this approach because it calls for more engagement across the entire deal cycle. The full inhouse model requires a large upfront investment in team and resources, but over a long period of time can be less expensive than other approaches when including performance-based carried interest paid to a third party. Co-investors opting for this approach will need to hire and manage a dedicated team that can focus on the various investment, legal, tax, accounting, and

treasury aspects of the transactions. This model also requires extensive operational and infrastructure support, including the ability to conduct diligence and monitor investments outside of local geographies. In aggregate, establishing a program with these resources requires a long-term investment and makes financial sense for only a small number of institutions that are committed to building a large-scale co-investment program.

CASE STUDY: Large Canadian Public Pension Plan

In building its in-house co-investment program, this institution developed a team of nearly 100 individuals dedicated to the due diligence and execution of private investments, which account for 19% of the plan's total net asset value.¹ The plan also has a large portfolio management team focused on value creation planning, value lever acceleration, talent management, board effectiveness, and the sharing of best practices across the direct investment portfolio. In essence, the institution operates similarly to a GP. Over time, it has established a team and committed the resources necessary to execute its co-investment strategy over the long term.

¹ As of December 31, 2016

Chart 1: Comparing the Co-Investment Models

MODEL	PROS	CONS		
In-house	Full control	Significant upfront investment		
	Potential to strengthen/add to GP relationships	Steep learning curve		
	Less expensive over long term	Challenges in adding staff, back-office resources		
		Requires long-term commitment and scale (\$1billion+)		
Outsourced	FUND	FUND		
	One-stop solution	More expensive		
	No execution risk	No discretion		
	No scale needed	GP risk		
	SMA	SMA		
	Customized, flexible	Give up some discretionary control (e.g., investment approvals)		
	Dedicated account team	Requires medium scale (\$100 million+)		
	Leverage co-investment experience and access			
Hybrid	Access to deeper level of expertise, resources	Requires seamless process with co-investment provider		
	Can achieve GP relationship benefits	Requires medium to large-scale (\$100 million+)		



OUTSOURCED. Because the vast majority of institutions lack the resources and skill sets required to co-invest, many choose to fully outsource their co-investment program to a third-party manager. In this sense, the outsourced model represents an "assetlight" approach to co-investment, with the investor outsourcing all activities and control to an external provider. The external provider, in turn, should have a sufficiently resourced global investment team and back-office structure, as well as an established track record of sourcing, executing, monitoring, and exiting investments on behalf of its LPs.

Investors who choose the outsourcing model typically access co-investment deals through commingled funds or separately managed accounts (SMAs). With a commingled fund, investors get a one-stop solution, including a diverse portfolio and a dedicated investment team, but they relinquish control on pricing, timing, and flexibility. Conversely, SMAs allow for a deeper level of customization and operational support, but here, too, the investor often cedes investment decision-making authority to the external manager.

CASE STUDY: Large US Public Pension Plan

This US public pension plan manages investments for retirement plans, state insurance funds, and other trusts, and has 16% of its total assets allocated to private equity.2 Since 2005, the plan has committed more than \$1 billion to an outsourced co-investment provider through an SMA-like structure. Through this approach, the provider sources, executes, and monitors co-investments on behalf of the pension plan, and essentially operates as an extension of the plan's investment team in which the plan pays fees to the provider but avoids having to make significant investments in staff or back-office capabilities. The external provider typically meets with the institution twice a year to take a deep dive into its portfolio, and holds monthly calls to provide deal flow updates and exchange information on GPs.

² As of December 31, 2016

Chart 2: In-House vs. Fund Approach

Example: \$1 billion fund, invests \$200 million per year evenly over 5 years, generates a gross portfolio return of 2.25x

The chart at right provides a comparison on how an in-house co-investment program would affect performance relative to investing in a commingled fund focused on co-investments. As shown, the upfront costs of establishing an in-house program result in a deeper J-curve, but can provide a higher total return as the program matures.

Co-Investment Fund

Fee: 1% of invested capital in years 1 through 5, declining by 20% each year thereafter Carry: 10% up to 2x, then 20% with no catch up Total Fees: \$52 million (avg. annual fee 0.52%)

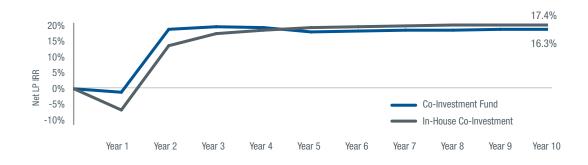
Total Carry: \$150 million Year 10 LP TV/TC: 2.05x

In-House Co-Investment

Staffing Costs: \$20.8 million Monitoring Costs: \$6.8 million

Unreimbursed Deal Expenses and SG&A: \$20 million Total Costs: \$47.9 million (avg. annual fee 0.48%)

Year 10 LP TV/TC: 2.15x



Shown for illustrative purposes only. Not intended to project performance. Assumes 100% of committed capital invested and 2.0x gross portfolio return in all scenarios. Called capital is assumed to be equal to invested capital plus management fees. Management fees are paid through portfolio proceeds beginning in Year 5. All scenarios have an identical schedule of gross distributions. IRRs are calculated based on annual cash flows, except the Year 1 IRR which assumes capital called in mid year and NAV as of year-end. IRRs reflect assumption of 16% NAV increase in Years 2 through 10. No cash balance is modeled, i.e. all fund excess cash is distributed to LPs. The carried interest accrues to the general partner's account as it is generated and is paid to the general partner in Years 9 and 10. Unreimbursed deal expenses are assumed to be 2% of invested capital. SG&A is assumed to be approximately 1.5% of staffing costs based on estimates from Harbour/Vest's recent SG&A expenses associated with opening and maintaining new office space.



HYBRID. As you might suspect, this approach combines elements of the in-house and outsourced models. Co-investors who deploy a hybrid strategy leverage some internal resources but also look to an external partner for help in executing deal flow and gaining exposure to additional opportunities through fund commitments. In our experience, hybrid co-investment clients generally start out with a small internal team dedicated to co-investing and then expand capacity by hiring an outside provider to meet specific investment or service needs.

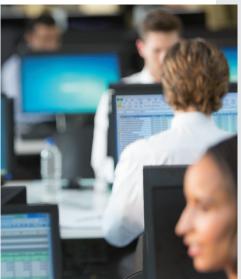
Another hybrid model utilized by some of the larger, more experienced LPs today is to build in-house teams to focus on the larger deals and to outsource the smaller and/or resource-intensive deals to a third party. This allows the in-house team to deploy more capital with fixed resources. The benefits of this particular hybrid approach include growth of in-house experience, focused sourcing efforts with core GPs, and potentially increased deal flow on smaller transactions given the external provider's reputation and relationship network.

In terms of performance, the hybrid model would generate some combination of the two lines in Chart 2.

CASE STUDY: US Insurance Provider

This organization has a small but experienced private equity team consisting of six investment professionals who are dedicated to the asset class. These individuals do not have sufficient time to spend evaluating, executing, and monitoring a large pipeline of co-investment deals, as the smaller commitment amounts prohibit them from effectively managing their institutions' collective allocation to private equity. Instead, they continue to source co-investment opportunities from their GPs and rely on an outsourced provider to service that deal flow, build portfolios, and monitor investments. This institution has also made a commitment to an external provider's commingled fund, which helps enhance the overall diversity of its co-investment program. This exposure can help lower private equity costs while also providing an opportunity to create a diverse portfolio with compelling risk/return characteristics and specific exposure to certain industries or geographies beyond those attained by investing in a private equity fund. The institution is also able to maintain a level of involvement that suits its needs, and can outsource anything above and beyond its scope to the external provider.











KEY TAKEAWAYS

HarbourVest has been helping clients co-invest for more than a quarter-century, and this experience has shown us there is no one-size-fits-all solution for success. As we've shared in this paper, the three common access strategies today—in-house, outsourced, and hybrid—each offer viable means for all LPs to participate in this growing and attractive market. Careful consideration of what makes the most sense for your organization's needs and objectives is critical in deciding which path to take.

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