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ON MATTERS THAT MATTER

The Pleasures and Perils of Private Company Investing

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An Occasional Essay on Matters that Matter

The Pleasures and Perils of Private Company Investing: Seeking to Invest in Tomorrow's Leading Companies

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As private equity investors in selected environmental markets in the United States and Canada, NewWorld Capital Group publishes occasional essays on matters that matter in our investment strategy. We seek to present an analysis of the forces at work that are shaping investment opportunities and risks in our target markets and in the broader environmental opportunities sector.

The purpose of this memorandum is to explore the case for investing in private companies either through individual investment transactions, co-investments, or participation in separately managed private equity funds. This memorandum is not addressed to the large institutional investor, nor does it address venture capital, real estate, or infrastructure investing. The memorandum assumes that the reader is a person associated with a family office or is a wealthy individual interested in smaller investment transactions at the less efficient end of the private company investing market. Its focus is on investing in private companies that have retired technology risk and business validation risk.

The memorandum points to two central conclusions. The first is the obvious fact that investing in growing companies in growing markets (ideally in companies that are growing faster than the market itself is growing) is substantially preferable to investing in slow growing markets and companies. Private companies, in the main, tend to grow materially faster than public companies (indeed, most slow-growing public companies were once fast-growing private companies). Second, in the authors' view, the ten ways of mitigating downside risk in private company investing (as enumerated in this memorandum), which are not available to public companies, more than offset the advantages of liquidity (selling a stock on disappointing news) that attend to public companies. Therefore, the authors believe that a well-designed private company portfolio should generate superior risk-adjusted returns compared to most public company portfolios.

We first examine the case for private company investing and then review the case questioning such investing, with a concluding effort to take a balanced view of the choice that a family office or wealthy individual investor might make.

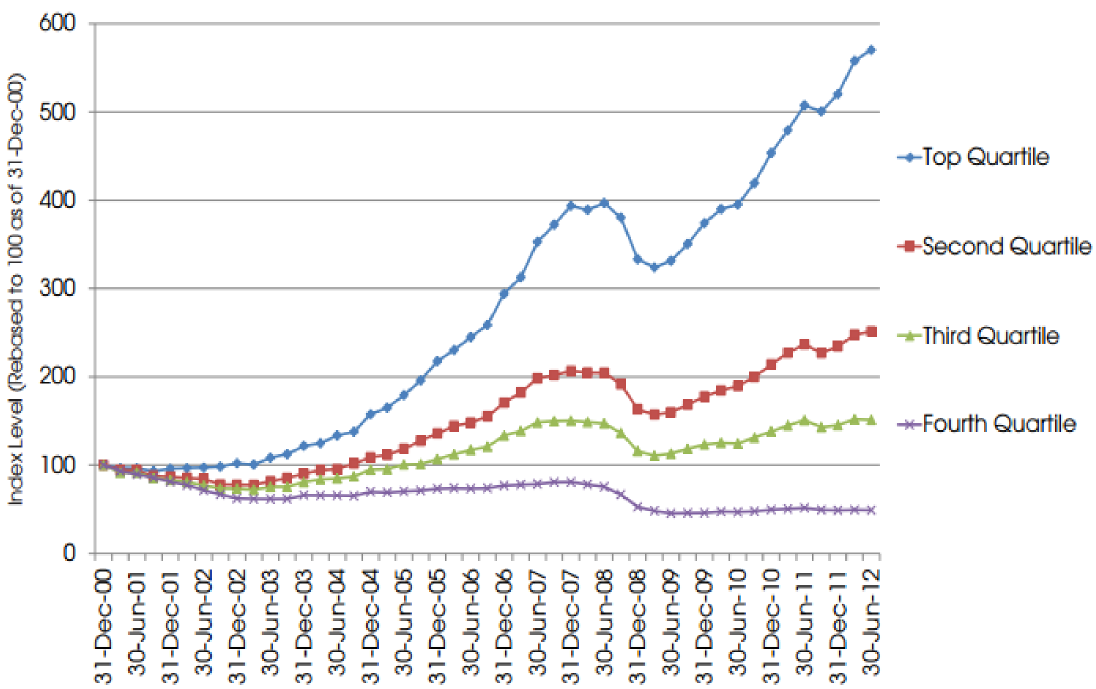
I. The Pleasures of Private Company Investing

A number of favorable trends currently characterize private company investing and are likely to continue for the foreseeable future.

A. Superior Private Company Performance

Conventional wisdom—based on studies of returns through the mid-1990s—has held that median private equity funds underperform public markets. However, more recent data suggests that median private equity returns have well exceeded even levered public indices for more than a decade.[1] As shown in Figure 1 below, even fourth quartile private equity funds have outperformed or been nearly equivalent to average S&P 500 returns since 2000. As argued below, we believe that the reasons for this outperformance go beyond the cyclicality of public equities.

Figure 1. Private Equity Index by Fund Performance Quartiles vs. S&P 500 Returns



Reproduced from Preqin.

The higher performance of private company investing in recent years is particularly true for middle market and lower-middle (MLM) market private equity (PE) investing. When looking at middle market and lower-middle market funds, the trend is even more pronounced. As of yearend 2011, U.S.-based buyout firms with under $400 million AUM had a 17.5% pooled

[1] McKinsey & Co., based on data received from Cambridge Associates (for PE IRRs); Preqin (to construct cash flow matching for the S&P 500); Bloomberg; McKinsey analysis.

average return since 1979, while cumulative returns for larger buyout funds (greater than $5 billion AUM) averaged 6.7%.[2]

Figure 2. Cumulative Returns since 1979 by Investment Size (As of yearend 2011)

	Small Buyout (less than $400M)	Medium Buyout ($400M - $1,000M)	Large Buyout ($1,000M - $5,000M)	Mega Buyout ($5,000M plus)
Cumulative Returns	17.5%	15.0%	9.1%	6.7%

**Venture Economics. Pooled average returns since 1979 for U.S. based buyout funds as of December 31, 2011.*

Reproduced from Kristi Craig, "Making the Case for Family Office Investments in Small Private Equity," Small Business Investor Alliance, June 2012.

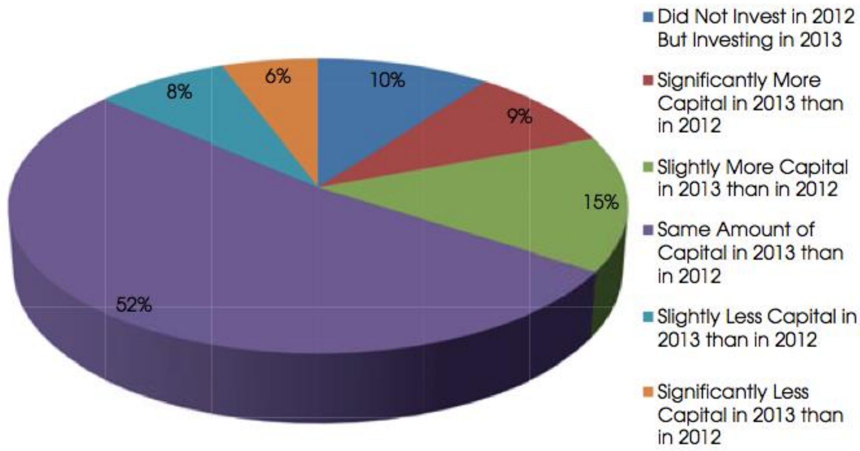
One explanation for this return gap is that younger, growing companies produce significantly higher alpha returns despite some additional beta risk even in the face of recent slow activity in the U.S. economy. Younger, smaller companies continue to be the growth engine of the U.S. economy.

As a consequence of the trend toward superior private equity investment performance, more capital is flowing into private equity funds, and the in-flow rate is forecast to increase sharply in the coming five to ten years. As much as twice the total capital currently committed to private equity is forecast, raising the global total to approximately $4 trillion.[3]

Public pensions alone contributed 30% of total capital invested by private equity funds from 2001 to 2011 and doubled their commitments within that time period.[4] Currently, pension funds are reinvesting in private equity at an increasing rate. Many pension investors are facing the problem of meeting their actuarial payment needs, based on traditional asset allocation returns and, therefore, are being driven to PE more out of desperation than desire.[5] Well-regarded institutional LPs, including some leading endowments, are leading the way, increasing their allocations to "alternatives" in pursuit of enhanced returns for their portfolios vs. the returns that the public markets have been providing.

[2] Kristi Craig, "Making the Case for Family Office Investments in Small Private Equity," Small Business Investor Alliance, June 2012.
[3] Aly Jeddy, Partner in charge of the Firm Private Equity Practice, McKinsey & Co.
[4] Foundations and Endowments comprised 19% of total capital invested during the same period. Based on Preqin, *Preqin 2013 Global Alternatives Report*, 2013.
[5] One major pension fund stated, "We have liabilities to fund, and we don't see too many options out there besides PE and alternatives." Another medium-sized endowment noted, "If we don't invest in PE what the heck will we invest in?" Aly Jeddy, Partner in charge of the Firm Private Equity Practice, McKinsey & Co.

Figure 3. Amount of Capital Investors Plan to Commit to Private Equity Funds in 2013 Compared to 2012



Reproduced from Preqin, *Preqin Investor Outlook: Private Equity, H1 2013,* 2013.

The vast majority of the total capital inflow to private equity is going into the large (mega) private equity funds, principally because large institutional investors have such large amounts of capital to deploy that only the very largest PE firms can absorb these amounts. In addition, many large institutional investors are also working to reduce the number of *their* general partner relationships, which further concentrates their fund commitments into fewer and, thus, larger funds. The net effect is to reduce the relative share of LP commitments going to the middle and smaller end of the private equity market.

Over time, the broad trend toward larger capital inflows into the largest PE funds should increase exit liquidity for middle market companies owned by smaller PE funds, as larger private equity firms reach down in scale to acquire smaller companies as consolidation plays or as add-ons to their large portfolio companies.

Another implication of the over-allocation to mega-buyout funds is seen in the disproportionally smaller amount of funding available for middle and lower-middle market private equity strategies despite the overall increase of LP commitments available to these markets. As of yearend 2012, 51% of private equity investors targeted small to middle-market buyout opportunities,[6] yet companies at this end of the market were still available at attractive multiples (as indicated by their attractive returns, see Figure 2). The prevalence of “good" investment opportunities amid many middle and lower-middle market private equity segments suggests less competitive intensity among investors for specific deals, leading to better buying prices for investors. This reality suggests that the middle and lower-middle investment market is undercapitalized and underinvested. At the same time, these segments contain the most opportunity for alpha performance, since most of the fastest growing investment segments in the economy exist at the lower end of the market.[7]

[6] Preqin Private Equity Investor Interviews, December 2012.
[7] Further sub-segments of the middle and lower-middle market, such as the environmental opportunities sector, remain significantly undercapitalized, with some growing at 7% to 15% CAGR. Based on NewWorld Capital analysis.

The lower end of the private company investment market is larger by number of transactions,[8] although less efficient, due to relative undercapitalization, than the higher end. The relative lack of investors in this end of the market and subsequent undercapitalization is in part due to the difficulty of identifying and evaluating investment opportunities in smaller private companies and lack of skill by many investors in helping such companies grow to maximum value.

Public equity underperformance goes beyond the fundamental cyclicality of the U.S. economy. An important factor is that productivity in many large segments of the U.S. economy is in gradual but persistent decline, thanks to creeping market maturity, reduced levels of innovation, market-specific productivity limits, and aging industrial infrastructure.[9] Many large companies in these mature markets are preferring short-term profits, cash build-up and dividend payout over capital and human talent investment in future products and productivity.[10] American companies continue to lead in many slower growing, mature markets, thanks to industrial efficiency, scale advantages and global brand value but with declining levels of productivity.[11]

Fortunately, the United States continues as an important player in new business formation at the private company end of the market, thanks to a vibrant entrepreneurial community. However, the U.S. is somewhat slow and less successful in taking valid younger companies to full commercial scale, at which point they can compete effectively against large, established players. Beyond advantages of scale and brand of large incumbents, the reasons for this problem include general difficulty in obtaining growth capital for younger companies, together with the defensive advantages of incumbents, including distribution and service channel control. In addition, incumbents often have unrecognized monopoly/oligopoly advantages, subsidy advantages[12], and in some cases even regulatory advantages.[13]

In addition, public markets have proven to be more volatile today than they have been in the past. One reason is fast turnover of equity ownership, with average shareholding periods now under three years and a tendency to sell shares quickly on receipt of bad news. Public markets have the emotional tendency to overreact on both the downside and the upside. The view that long-term investors should ignore short-term market vibrations is clearly correct, yet certain trading strategies can take advantage of pricing volatility, thereby contributing to it.

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[8] In 2012, only 8% of deals done globally were over $1 billion in individual value. These larger deals accounted for 55% of aggregate deal value. The lower and middle market universe (deals less than $1 billion in value) accounted for 92% of all deals completed while comprising only 45% of aggregate deal value. 58% of deals done were less than $100 million in value. Based on Preqin, *Preqin Q4 2012 Private Equity-Backed Buyout Deals and Exits*, January 2013.

[9] U.S. productivity growth must accelerate 30% in order to sustain past GDP growth rates. This is a major challenge in light of the "Three Peaks" confronting the U.S.: Peak Demographics, Peak Debt, and Peak Oil Prices.

[10] Companies paying significant dividends are generally operating in more mature markets and do not have higher value uses for their excess cash.

[11] America was listed as 5th in the Global Innovation Index and 86th in Innovation Efficiency (comparing innovation outputs to inputs) in 2013. Soumitra Dutta and Bruno Lanvin (eds.), *The Global Innovation Index 2013: The Local Dynamics of Innovation*, 2013.

[12] Example: Federal and state subsidies to the hydrocarbon industry are estimated at $15 billion a year, dwarfing subsidies to renewal energy.

[13] Example: The Federal EPA prohibits EnergyStar ratings from including compressionless air conditioners, which are much more energy efficient.

B. The Four Facts of Investing in Mid-Scale and Smaller Private Equity Funds.

In a crowded but somewhat undercapitalized middle and lower-middle investment market, there is conventional guidance offered by the market on top-tier fund selection. We have distilled this guidance into The Four Facts of Investing in Mid-Scale and Smaller Private Equity Funds.

- *Fact #1*: *Younger funds outperform older funds.* (Please note that younger funds are usually also smaller funds and also more focused funds in light of their limited capital.) According to a Preqin press release, dated September 16, 2011, 36% of first-time funds ranked in the top performance quartile, while a further 22% were in the second quartile (58% in the top half). This is attributed, in part, to smaller, younger fund managers being "hungrier" and more entrepreneurial than larger "satisfied" fund managers. These newer firms are typically drawing lower management fees in aggregate, and their historical investments may be unrealized and illiquid, meaning that the investment team is more tied to the success of the fund

- *Fact #2*: *Smaller funds outperform larger funds.* Figure 2 above demonstrates that smaller funds significantly outperform larger buyout funds. This is attributed, in part, to their increased ability to generate and win deal flow (many deals are directly sourced from founder/entrepreneurs and are "unbanked," meaning intermediaries are not running competitive processes and there are, therefore, likely fewer bidders). In addition, the lower end of the market is less efficient, thereby creating more opportunities to invest at lower valuations in more attractive situations. Smaller companies benefit enormously from operational adjustments and professional management teams, and there are more exit opportunities available to smaller companies (to larger investors, strategic buyers, or an IPO, whereas larger investments can typically be exited only through a strategic sale or IPO). FLAG Capital also published data demonstrating diminishing returns with growing fund size, as proven smaller managers raise progressively larger funds and, due in part to style drift, allow their returns to shrink.[14]

- *Fact #3*: *Strategy-driven funds outperform opportunistic funds.* Strategy-driven funds, such as theme investors, can be more disciplined in their investment strategy and define risk tolerances more tightly than is typically true for broad-ranging opportunistic funds. One of the contributors to progressive fund performance declines is strategy or style drift. While little work has been done in private equity, mutual fund data shows that more style-consistent funds significantly outperform less style-consistent funds on a risk-adjusted basis.[15] Previously strategy-driven funds may turn into more opportunistic investment vehicles over time with style drift. To the extent that this style drift deviates from their conceived investment strategy, returns have typically declined.

- *Fact #4*: *Sector funds outperform generalist funds.* Sector funds (environmental, biotechnology, software, etc.) benefit from deep expertise and knowledge of their sector, deal sources, financing sources, regulatory environments, prospective management

[14] FLAG Capital Management, LLC, "Making Sense of the Lower Middle Market," *Insights*, April 2012.
[15] Keith C. Brown, W. V. Harlow, and Hanjiang Zhang, "Staying the Course: The Role of Investment Style Consistency in the Performance of Mutual Funds," April 2009.

candidates, and prospective exit opportunities. Sector specialists understand sector value drivers and how to leverage them, competitive positioning, how CapEx and OpEx should be maintained, the natural rhythm of companies in their target sectors, and how long it should take to achieve company performance improvements, and can, therefore, diligence opportunities more deeply and efficiently. Investors with such sector expertise are inevitably more helpful to a portfolio company than a less involved generalist, and, therefore, more likely to win attractive deals. As the profile of private company investing has transitioned from LBOs to more value creation, sector specialists are necessary to help find and create this value.[16]

C. Private Company Investment Strategies That Work

Within the sphere of "alternatives," certain strategies continue to work well in middle and smaller market investing, and even in selected areas of large market investing. These strategies include:

- *Investing from Trend to Opportunity*. Thematic investing (*e.g.*, resource scarcity-driven opportunities) is a rising asset allocation strategy, as many institutional investors focus more on developing investment theses around larger, structural trends and less on traditional short-term focused benchmarking. Thematic investing focuses on capturing opportunities created by long-term structural trends and by the mid-term cyclicality often associated with such long-term trends.[17] This strategy allows investors to diversify based on underlying drivers of value creation and risk factors specific to each theme and generate alpha by investing in growing sector opportunities (see below "Investing in growing companies in growing markets"). Successful investors using this approach have identified structural trends with material implications, have developed distinctive insights into a trend with sufficient investable opportunities, are committed to objectively researching the sector implications, and understand direct and indirect investment opportunities related to the theme.

- *Investing in growing companies in growing markets* (the power of younger, growing markets). Growing companies in such markets benefit from increased alpha at scale, as there is significant upside for such a company in a growing market. Meanwhile, the market growth also provides downside protection for a company that is growing at a slower-than-anticipated pace. These attractive markets exhibit powerful factors driving growth (the product or service is often vital to its end market) and where competition that might inhibit company growth is relatively underdeveloped, owing, in part, to strong factors driving overall market demand and high levels of product and market innovation. Growing businesses operating in growing markets are generally less risky investments and should produce superior returns.

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[16] For additional information on thematic investing, see Vincent Bérubé, Sacha Ghai, and Jonathan Tétrault, "From Indices to Insights: How thematic investing can deliver superior long-term investment performance," McKinsey & Co., April 2013. (Appendix A.)

[17] Vincent Bérubé, Sacha Ghai, and Jonathan Tétrault, "From Indices to Insights: How thematic investing can deliver superior long-term investment performance," McKinsey & Co., April 2013.

- *Investing in sustainably differentiated products/services that feature "backwards compatibility."* It is essential to invest in businesses that are differentiated in a sustainable way and will retain their distinctive edge as they grow and attract the inevitable competitive response. Business distinctiveness can take many forms beyond an effective patent position or proprietary IP position. Characteristics of sustainably differentiated businesses include a strong first-mover advantage, lower life cycle costs (and hopefully first cost as well) to the end customer, enhanced product features and functionality tangibly experienced by the end customer, an effective corporate culture, and backwards compatibility to ensure a "socket fit" with the downstream value delivery system. Technologies or services that are highly disruptive to end markets or the intermediate distribution system/aftermarket service system risk being too confusing or not accepted, particularly if they sell into old-line distribution channels or stagnant end markets. Businesses with product offerings that are sustainably differentiated but can still bolt onto existing business systems and downstream infrastructure are more likely to drive a market disruption. Businesses that seek to revolutionize resistant business systems, have long customer adoption profiles, or take years to arrive at scale are less likely to be successful, irrespective of the investment holding period.

- *Seeking High Economic Value to the Customer (EVC), often primarily via measurable cost savings.* Understanding true customer needs must be a key part of a diligence process. Sometimes, economic value to the customer comes in measurable cost savings; other times, it comes as increased efficiency and the ability to avoid building new business infrastructure. Other economic value may include disruptively lower lifecycle costs driven by technological advances and/or business system innovation; new features/functions or service experience visible to the end customer; being more "environmental" on multiple dimensions (less energy use, less resource intensive to avoid future price increases and volatility); and backwards compatibility with existing business systems and downstream infrastructure for ease of product purchase, installation, and maintenance.

- *Preferring nearly finished companies in terms of development.* Invest in companies needing help (but not extensive help) as they move across the "Commercialization Gap" to full commercial scale, which often trade at lower multiples in light of the challenges of growth. These are companies with relevant, new, generally innovative products that have found their market (with repeat customer sales at positive gross margins), operating proof of product functionality and reliability, and sustainable competitive differentiation. Such companies are typically "attacking" large, growing customer markets and need additional capital and possibly management support and reference customer access to reach commercial scale. "Commercial scale" is defined as the scale necessary for a company to successfully compete against established players and command capital at reasonable rates to support further growth. Scaling a company is a challenge investors with strong operational expertise can support.

- *Investing in cash flow positive companies with incremental cash flow going to support further company growth.* Cash flow positive companies demonstrate a significant milestone in their development and significantly reduce the scaling risk associated with private company investing. Younger companies typically seek to capture maximum market share as rapidly as possible and are usually valued on their growth record and outlook, so the trick is to get to positive cash flow as quickly as possible and then divert the bulk of incremental cash flow to supporting business growth during the next phase of "S Curve" development. Companies that are marginally cash flowing may be undercapitalized relative to their growth potential and, partly as a consequence, may contain significant opportunities for performance improvement through additional capital investment. It is essential to understand the dynamics of the happy or unhappy customer and, in many cases, to probe the sources of cash flow by key customer in order to avoid customer concentration risk.

- *Following explicit risk mitigation approaches.* Sector specialists are advantaged at understanding risk in their sphere of knowledge since they typically maintain deep sector expertise. Other forms of risk mitigation include investing in growing businesses in rapidly growing markets with relatively low competitive intensity (see above) and avoiding or minimizing the Five Risk Devils: (i) technology risk (does the product work and deliver real customer value and can its manufacturing be scaled?); (ii) capital scale risk (investing in companies with asset-light business models to reduce capital exposure); (iii) regulatory/subsidy risk (investing in companies whose sales are not reliant on policy-driven markets); and (iv) international competitor risk (invest in product markets not prioritized by China and certain other foreign governments), while (v) minimizing business scaling risk (investing in cash flowing companies that can scale without significant investment in manufacturing infrastructure). Other forms of risk mitigation are diversifying the investment portfolio (see below), and identifying possible exits with a strategy to build a scalable platform for the next buyer before making the initial investment decision.

- *Committing to a portfolio risk-balancing approach.* Since diversification is the only "free lunch" in life, private company investors should develop a risk-balanced portfolio. This means a diversification of value drivers, risk factors, company stages and sizes—and ought to include some deals risk-engineered for downside protection. The goal is to balance reward and risk for a high blended alpha return among portfolio companies at a significantly lower beta risk. For example, one diversified, low correlation private equity portfolio strategy might invest roughly 60% of its portfolio funds into greater alpha returns with somewhat more beta risk (growing companies in growing markets, as noted above); another 25% of such portfolio investment might go into downside-protected companies with respectable alpha returns but with very low engineered beta risk; then perhaps the remaining 15% of dollars invested might go into high optionality investments with strong product-market upside but significant business scaling risks ("For the Win").

- *Including some "Horizon 1" companies with outcomes that reduce capital exposure before the next cyclical downturn.* Another pleasure of portfolio diversification and risk mitigation is investing in companies that have relatively quick turnaround times from investment to exit. The traditional private equity holding period is five to seven years, during which time the market historically dips at some point. However, some opportunities offer shorter horizons that can payback initial capital exposure within a few months to a few years, thereby reducing the chance of possibly exiting a majority of the portfolio during a down-cycle. Of course, many family offices are not under pressure to sell their investment assets, but taking some money off the table while letting long-term winners ride may still be an attractive strategy.

- *Buying and consolidating closely related smaller companies and selling the larger aggregate up the "food chain*." This is the process of doing spadework for strategic acquirers or large buyout firms by creating a chassis of related growing businesses that the next owner can plan to scale significantly. The businesses must be closely related, however, and add value to each other in real terms (not just conceptual overhead synergies). Practical ways of adding value include sharing a sales force, having a common distribution and product service strategy, and being able to share manufacturing capacity, management, and other related overhead. (Small conglomerates do not command much exit value.) A closely knit company comprised of pieces purchased at lower multiples should sell for a higher multiple in the aggregate, particularly if the business base is capable of significant expansion without major overhaul or investment.

- *Buying improvable "C" performing companies in attractive markets, improving them, and then selling them later as "B+" companies to a next owner who believes he or she can make the company into an A+ company.* The test here is both to improve sales (suggesting a continuing positive sales trend) and improve margins to demonstrate that total profits will continue to grow in the future. Typically a "C" company became a C company through weak management, so an upgrade in management is essential to having a successful management team to market to the next owner. In addition, C companies have often deferred or not been able to afford needed capital investment, so some additional investment may be necessary to create a more up-to-date scalable platform for the next owner. This process of business improvement should work if management and the investment sponsor are both significantly value-additive to the business.

D. Control Investing

Control investing—or investing with significant influence, including negative control—has its own privileges and responsibilities. This style of investing allows experienced private equity management to influence, direct, and support the portfolio company as needed. The pleasure of influence is that the investing firm can share accountability for the investment outcome alongside company management. In this way, investment returns are a function of value creation by ownership (contrast this to the public markets, in which the investor has no or minimal influence over company decisions). Another feature of control is the ability to replace the CEO and other key members of management, if necessary. Forms of control may range from 100% ownership to shared control with like-minded co-investors to providing growth capital with Board control or strong negative supermajority controls.

A competent private equity investor will work on a consultative basis post-acquisition with the Board of Directors and the company management team to take many or all of the following steps:

- *Refine as necessary the definition of the company's business model, market segmentation, and geographic focus to support growth aspirations and avoid growth barriers.*
- *Fill any management skill gaps*.
- *Initiate a cost reduction program to tighten operations and offset recent cost creep.*
- *Initiate a product value engineering program, balanced against product quality and reliability risks, to ensure full product functionality at target customer cost.*
- *Launch a targeted revenue enhancement program.* Usually this effort involves strengthening sales force effectiveness, but it may also involve product line improvements, tactical pricing changes, and sales and marketing strategy development.
- *Establish a demanding operating budget and set of multiyear performance objectives.* Through its role on the Board, the control investor may require a portfolio company to develop an aggressive budget, a rolling operating forecast, and a continuous improvement plan.
- *Install systems and controls to align incentives for management and promote accountability.* The control investor may insist on strong equity incentives for management, regular operating reviews and Board meetings, tight spending controls, and informative reporting formats (including weekly flash reports).
- *Search for appropriate add-on acquisitions once the organization is stabilized and drive for significant performance improvements to generate additional operating economies and stronger market penetration.*
- *Plan for exit opportunities.* Exiting an investment is classically more challenging than entering an investment and requires careful timing and close management of the process. Most middle-market fund exits will be trade sales to strategic or large financial buyers, although an IPO should be considered if appropriate. For trade sales, an investor should typically conduct an auction, using a competent agent to ensure that the auction is sufficiently broad and the process is tightly managed.

E. Risk Mitigation

Explicit risk mitigation is core to smart investment strategy, yet is often not explicitly addressed or managed through time. When risks are acknowledged and addressed, they become manageable. There are five broad paths to mitigate investment risk, and all five should be deployed in individual investment decisions and in building a balanced investment portfolio:

- *Technology.* Technology risk is prevalent in most industries. In addition to the risk of scientific uncertainty, technology risk may encompass perceived value to customers vs. cost as expressed in gross margins; degree of differentiation, since some disruptive technologies may be difficult to explain, cost too much, or take longer to sell; system integration ability (*e.g.,* color TV in the 1950's could not be supported by the airwaves); product support in the marketplace or underdeveloped channels to market; and the longer-term durability and performance of the technology when deployed broadly.

  Mitigants. Ensure product development, sourcing, deployment, and market acceptance have occurred before investing; require a revenue record and positive EBITDA; test backwards compatibility to existing delivery/service infrastructure.

- *Capital scale.* Capital scale risk is found in the "first cost" of many industries. Often, this risk goes alongside technology risk in that a first-of-a-kind, commercial scale manufacturing plant may have significant technology and capital scale, as well as business scaling, risk. Meanwhile, a more developed company with existing manufacturing facilities will have a better understanding of the cost of scaling (*e.g.,* expanding staff, building out new facilities or new manufacturing lines) and is more likely to be able to scale without significant or unpredicted infrastructure investment.

  Mitigants. Invest in scalable platforms and avoid asset-intensive products or businesses (*e.g.,* utility scale renewable energy production) that require substantial commitments of upfront capital. These opportunities will typically be found upstream or downstream of capital-intensive segments (*e.g.,* distributed solar installation)

- *Regulatory/Subsidy.* Most industries involve some regulatory risk, because nearly all markets are regulated to some extent (from fossil fuels subsidies to wine import tariffs). Regulatory risk encompasses the risk of selling or providing services to a regulated market, the risk of unanticipated regulatory changes, and the risk of unenforced or minimally enforced policy. Differences between federal, state, and local regulations further complicate this risk. Subsidy risk is easier to deal with, as the base case of an investment analysis should never assume a future gain in subsidy and should evaluate historical subsidies on a case-by-case basis.

  Mitigants. Invest in companies that are not reliant on regulated markets to be economic. Investors should evaluate regulatory risks on a case-by-case basis but should not make investments based on anticipated policy or regulatory changes. Investors should incorporate no improvement in current regulations and their levels of enforcement into investment cases. Investors are inherently and unavoidably exposed to the downside risk of regulations and subsidies that are currently in place being undermined.

- *Foreign competitor.* Especially in relation to U.S. manufacturing companies, foreign competitor risk must be taken into account. Chinese companies or other companies in rapidly developing countries (*e.g.,* India, South Korea) often benefit from significant market scale, cost, and government support, which can overwhelm a smaller U.S.- or European-based manufacturer. Chinese companies, for example, benefit from lower manufacturing burdens, lower costs of capital, early mover advantages, government subsidy support, a predictable and consistent policy regime, and determination to win specific markets (*e.g.*, solar panel manufacturing).

Mitigants. Investors should seek business opportunities not likely to be targeted by advantaged foreign competitors. Such businesses may be too small, too nascent, or too far under-the-radar-screen or require substantial in-market knowledge, presence, or opportunity networks to be successfully replicated by foreign competitors. It behooves investors to choose themes and opportunities in which foreign competitors will not have an interest or would be significantly disadvantaged but might represent logical takeout opportunities when the business has been built to scale.

- *Business scaling/executional.* The role of MLM private equity is to be expert in business scaling and, therefore, the expertise of the team often determines the amount of risk associated with scaling challenges. Growing companies face many challenges (incomplete management teams, immature channels to market, uncertain customer adoption rates, challenges of balancing investments in technology with maintaining gross margins, etc.). However, in contrast to technology risk, business scaling is largely controllable with proper guidance and planning, which are the responsibility of company management and active investors. If the investment upside and going-in deal price are sufficiently attractive, the investment team may be more willing to accept a measure of business scaling risk.

  Mitigants. Business scaling risk can be mitigated by thorough due diligence on scaling challenges specific to the target company, controlling the company or having strong negative controls, insisting on a close, consultative relationship with company management, constructing a downside investment case in the event of the company getting stuck as a niche player, and identifying possible exit opportunities on the assumption of limited business improvement success. See Appendix B for a process description of private company diligence.

Capital structure and other deal terms are a second core component of smart private company investment strategies. There are ten major ways to engineer deal terms to minimize risk while protecting the upside of an investment. See Appendix C for further detail.

- *Earnout Structures or "Profit Participations" and Clawbacks*. Earnout structures are often used to bridge differences between the seller's desired price and the investor's proposed price in a transaction. More complex earnout structures allow selling management to earn additional equity if the company hits certain high levels of performance that protect the interests of the new investors. Clawbacks allow investors to reclaim equity or cash if performance targets are not met. Earnouts and clawbacks place more of the purchase risk on the seller and make particular sense when there is significant uncertainty in the near-term financial outlook of the target company. They allow the buyer, in effect, to tie part of the purchase price to future performance of the company.

- *Pay-in-Kind Dividends*. Pay-in-Kind (PIK) dividend structures on preferred stock are commonly used in private equity investments. Such dividends can be negotiated along several dimensions (the interest rate, what might trigger a higher or a lower interest rate, the mix and timing of shares vs. cash paid, simple interest versus compound interest, frequency of compounding, etc.). PIK provisions are usually employed to incrementally increase an investor's ownership share of the company over time, particularly when the cash generated needs to be directed to other priorities in order to enhance the company's value.

- *Liquidation Preference Agreements*. Liquidation preference agreements allow certain investors to have priority over and receive distributions ahead of other investors in the event of a liquidation event or change in control of a portfolio company. Investors may seek liquidation preferences on both invested capital and any accrued PIK dividends upon an exit event. In combination with PIK dividends, this liquidation preference ensures the opportunity to earn at least a modest return on invested capital unless company performance has been so disappointing that the exit does not produce sufficient surplus to fund the return of capital and accrued PIK dividend.

- *Anti-Dilution Agreements or Ratchets*. An anti-dilution provision protects equity investors against possible lower equity valuations in future equity issuances compared to what was originally paid (a "down round"). An anti-dilution measure in the form of a ratchet allows an investor to maintain his or her original ownership in the company in the event that a future round of equity investment is at a lower valuation. More common, however, are provisions with partial or weighted-average ratchets that partially protect the investor in a possible down round. With weighted-average ratchets, the stock is re-priced to a weighted-average of the original and new investors' prices, taking into account the relative scale of the new investment round. A broad-based, weighted-average ratchet accounts for all common stock outstanding on a fully diluted basis, whereas a narrow-based weighted-average ratchet may account only for the preferred stock outstanding.

- *Equity Rollover Agreements*. Investment firms typically consider the importance and strength of a management team in the diligence process. The investor often views the continued commitment of key members of the team as essential to the future success of the company. An equity rollover structure requires key management members to "roll" a significant portion of their current ownership into the new investment, thus aligning incentives for investors and key members of the company's management team.

- *Subordinated Seller Notes*. Subordinated seller notes are often used as a mechanism to bridge a financing gap in the capital structure of a company. These notes are typically subordinated to all other debt on the company, including any mezzanine financing. The payment of the note may be tied to the company's level of "excess" cash flow. In other cases, the seller may be entitled to recovery of the principal plus accrued interest only upon an exit event and only after payout to other debt holders.

- *Separate Legal Entities to Isolate Assets*. In order to avoid claims on company collateral (particularly collateral value created by a new investment), investors may structure investments to go directly into a new, separate subsidiary with full license to operate which would be "clean" without any prior claimants with rights to the collateral value of the assets.

- *Milestone-Based Funds Release Structures*. In certain investments, it may be necessary to insist that the company draw funds over time subject to completion of certain milestones. At the closing, the company could draw up to a certain amount to fund pre-approved uses. Subsequent drawdowns would have to be approved by the company's Board of Directors and subject to a pre-arranged performance plan. Milestone-based funding allows the Board to tie spending to the company's performance and progress. Any amounts committed but unused or undrawn would be available for other uses approved by the company's Board of Directors.

- *Management Incentive Programs*. Management incentive programs are used to align the interests of the investors and the management of the company. Such programs often allocate a portion of the common stock or of the investment gain upon an exit event as option pools or some other form of equity appreciation rights for management. Distribution and allocation of the pool is usually pegged to investment performance at exit.

- *Board of Directors Structures*. Wherever possible, active investors should seek to be control investors, aiming to purchase majority control of a company or to obtain board control through negotiation as part of reaching agreement on a transaction. In other cases where the investor cannot acquire full board control, negative control provisions should give the investor the right to agree with or veto important company management decisions.

In addition, as discussed above, building a diversified investment portfolio and including several Horizon 1 deals in the portfolio are important risk mitigation approaches.

F. Shaping the Corporate Culture

Mid-sized and smaller companies provide an opportunity to shape the corporate culture as a future "winner" when the company is still relatively young and capable of being shaped. This can be done by the company's control owner in concert with senior members of the company management team. A strong corporate culture is seen in broad dedication among employees to the vision and success of the company, a commitment to teamwork, a high level of intrinsic motivation among employees that unlocks creativity and innovation, and a steely willingness to persevere through the company's tough times. In addition, such corporate cultures usually result in a "what's right, not who's right" attitude in the management team that improves the feedback process from customer-facing employees and thus often results in a fast-to-develop product or service line. Getting it right in the beginning is the key.

Experience suggests that it is virtually impossible to change corporate cultures of older, established companies in any meaningful way, so the opportunity to do so in newer companies is an important attraction to investing in these types of companies.

G. Opportunity for Impact Investing

Impact investing, as a developing sphere, has a number of definitions. Generally and appropriately, it means investing after applying rigorous analysis of likely outcomes to both prospective financial performance and to environmental and/or other social benefits. There is no need to trade-off economic returns in the pursuit of societal co-benefits (the co-benefits are, in effect, a "free rider" and are intrinsic components of smart Impact investing).

Impact investing has typically been applied to private company investing in the form of a broad sector screen (*e.g.*, environmental opportunities) or a specific strategy (*e.g.*, waste-to-value strategies to capture economics as a byproduct of waste processing).[18]

The key component of the range of private company investment strategies is the economic return expectation. Many impact investors aim for top-tier economic returns with associated co-benefits of improved environmental well-being. For example, many top-tier-return-seeking investors have invested in the U.S. environmental opportunities sector (excluding social and governance) because macro-economic trends make investments in certain sub-segments of this market highly attractive from an economic returns perspective, and the sector has sufficiently attractive deal flow to make such an investment strategy workable. In this case, the significant inefficiency of resource use in the United States, combined with the relative undersupply of investment capital in this market, provide an opportunity to earn extra-normal returns, while producing measureable benefits to society.

In many cases, strategies that screen companies based on Environmental, Social, and Governance (ESG) metrics[19] tend to perform better as ESG acts as a proxy for companies that manage their resources consciously and efficiently, whose workers are more productive as a result of better management practices, and where company management is more transparent and communicates effectively to the rest of the company.

Though return data for this segment of the private equity market is hard to disaggregate, public company data supports the assertion that ESG portfolio companies perform better than average companies.

[18] By contract, public company Impact Investing typically takes the form of a negative screen, although may also incorporate shareholder activism or ESG criteria during stock selection.
[19] The Sustainability and Accounting Standards Board (SASB) is the leading actor in developing a standardized set of metrics for ESG accounting.

Figure 4. Industry-Balanced Responsible Portfolio vs. S&P 500 Cumulative Returns

Reproduced from Augustin Landier and Vinay B. Nair, *Investing for Change: Profit from Sustainable Investment* (New York: Oxford University Press, 2009).

See Appendix D for additional information on Impact Investing.

II. The Perils of Private Company Investing

In our judgment, the perils associated with private company investing are frequently overstated and are the consequence of overweighting the illiquidity of such investments (vs. public company investing) relative to other reward and risk dimensions.

Many of these perils can be effectively addressed through smart investment strategies (as discussed above) and proper portfolio selection.

A. The Risks of Private Company Investing

Some risks associated with private equity involve the fragility of smaller companies. Companies in the middle and lower-middle market may experience performance challenges, and investors need to be alert, competent, persistent, and willing to do the work to respond to such challenges.[20]

The greatest sin of private equity investors is not acting decisively and quickly when a performance problem is encountered in a portfolio company. It is essential that the private equity team be well equipped to support and, if necessary, intervene in a portfolio company, as it moves across the "Commercialization Gap" to full commercial scale, providing strategic insight and management advice or taking more direct action if needed, such as replacing management in a poorly performing company.

[20] Kristi Craig, "Making the Case for Family Office Investments in Small Private Equity," Small Business Investor Alliance, June 2012.

In particular, special risks associated with smaller company investing include:

- *Volatility.* At the macro-level, most companies run the risk of slowdowns or deep demand cycles in their respective industries. Individual companies and their investors obviously have no ability to control these larger industry dynamics.

  As investors cannot control macro-trends, they should invest in companies in less volatile markets driven by strong growth dynamics. Investors can also choose to invest in themes that are not disadvantaged by market downturns. For example, investing in companies not correlated to hydrocarbon pricing helps mitigate the risk of company cyclicality during periods of hydrocarbon price shocks.

- *Cyclicality.* Companies are sometimes affected by broad business cycles or other economic changes (such as drying up of the debt market). As the economy moves in peaks and valleys, so do some companies. Peaks may be generated by inflationary pressure for companies in certain industries advantaged by inflation. A risk in smaller company investing is that a valley may appear as the investor is getting ready to sell a company.

  Obviously, investors are not able to control larger economic cycles, but they can add value during their holding period such that the investment continues to appreciate during downturns or, at worst, retains value built into the company during the preceding growth period. Investors can invest in companies whose products are applicable across multiple industry segments with different cyclicality dynamics or can enter new less-cyclical market verticals, thus diversifying revenue streams and increasing the company's ability to ride out general economic slowdowns.

- *Executional.* Many growing companies face the challenge of balancing opportunities to service/supply its large, commercial customers with its needs to achieve cash flow and profit margin objectives, as management simultaneously invests in product improvements, channels to market, and customer/distributor relations to reach full commercial scale. These efforts require cash to fund growth. The challenges of growth become more complex as the company grows while also achieving greater customer diversification. In general, company complexity tends to grow more rapidly than company scale through time. If a company is unable to achieve these goals, its financial performance can be materially affected.

  Company management should be mindful of cash needs and refine its operating and capital expenditures to sustainably address executional realities and investor needs, while protecting strong gross margins. Transparent management practices, excellent internal communication, and regular board discussions can alleviate some of this executional risk.

- *Market adoption, especially if the product/service is highly innovative.* Marketing execution to generate market adoption of a product or service usually takes longer than anticipated, especially if the technology is sufficiently disruptive or the buying market involves "old style" buying practices. As discussed on "Technology risk" above, innovative products may be difficult to explain, cost too much, or take longer to sell.

Innovative products and services can be well marketed and achieve sales with appropriate channels to market assuming reasonable backwards compatibility to existing infrastructures. For example, an innovative air conditioner would need to fit into a buildings' existing duct work, essentially "screw in" to existing circuitry, and be able to be sold and serviced by the same system of suppliers that sell regular air conditioners.

- *IP protection.* Competitors may introduce advantaged, competitive products or services that threaten a portfolio company's intellectual property or infringe on a company's patent protections.

  Patents are a helpful aid in providing legal grounding against competition but are seldom sufficient protection against workarounds by aggressive, well-financed competitors. Patents should be as broadly defined as possible and supplemented, if possible, by trade secrets and other non-patented IP. Company management must be prepared to act vigorously in the event of patent infringement and to underwrite a legal defense if necessary. The company should be committed to maintaining a high order of competitive vigilance to supplement its close-to-the-customer orientation. Strong customer relationships developed around best-in-class product and process capability may retain customers in the face of competitive infringements.

- *Capital structure.* Younger companies may hold various liabilities and obligations made on unfavorable terms, as it is often difficult for a smaller company to attract capital for growth. Debt often comes to these companies at a high cost and with onerous covenants and payback terms. Additionally, a company may have preferred shares, options, and warrants outstanding to other investors.

  Depending on the transaction, investors may have an opportunity to clean up the capital structure at time of investment. In instances where this is not possible, the investor should negotiate the most favorable terms achievable with all claimants, perhaps putting in some additional capital to buy more time to service or restructure the existing debt (see Appendix C). In the case of debt obligations and covenants, investors should seek board control, so they can help the company navigate the obligations. Investors should also keep a capital reserve for their companies in the event of any capital structure emergencies.

  Key person. Lower and middle market companies are often reliant on just a few members of senior management to lead the development of the company. While strong management may be indicative of a good investment, lack of successors to key positions can also undermine a company. In such cases, investors are highly dependent on the quality and depth of the broader management team.

  Control investors have the opportunity to modify a management team (adding and subtracting talent) as necessary. Before investing, investor diligence should include a thorough review of the management team and their successor candidates to evaluate any skill gaps and plan accordingly. Investors should be prepared to step in for key management as a temporary CEO, COO, CFO, etc., if necessary, in order to assist in a transition.

- *Illiquidity at exit*. After investing in a company, there is always a risk of being unable to sell at the end of the holding period. This could be due to lack of secondary appetite, misalignment with secondary mandates (*e.g.*, size, price, fit), disappointing company results, or lack of relationship with prospective strategic buyers.

  While the secondary market size was a concern in recessionary years, Q1 2013 data suggests that the larger trend of global exits and aggregate exit value of private equity-backed exits has exceeded pre-recessionary levels. There were approximately 225 exits in Q2 2012 which matches the pre-recessionary peak. In fact, exit liquidity increased in 2010 and 2011 with increasing sales to other private equity funds, trade sales and IPOs.[21] With a growing secondary market, it is the investor's duty to create real economic value during the investment holding period and identify during diligence and subsequently develop relationships with prospective strategic buyers.[22] Knowing who the next owner should be is a key task prior to investing in a company.

- *Capital and management limitations*. Companies lacking sufficient capital may stagnate in growth and incomplete management teams with missing skillsets may contribute to this stagnation. These missing pieces may compound into larger systemic problems, including informal systems, weak controls, poor company culture, and general underperformance.

  Investors should be prepared to provide both the capital the company needs at the time of the investment and additional capital for future growth opportunities or survival while the company develops its revenue streams. Underfunding a company during its most important growth stages is bad policy. Investors should be prepared to fill management skill gaps after funding and assist the company in preparing a 100-day business plan and subsequent annual and multi-year plans to efficiently capitalize on the increased management capacity and capital availability.

- *Other risks*. Younger, growing companies often suffer from other risks that are difficult to predict. Each investment may involve a high degree of business and financial risk and can result in substantial losses. Organizing operations for growth, developing new products and markets and acquiring add-on businesses involve significant change and can lead to sales, manufacturing, and general management problems. Product defects, overlooked competitors, and faulty information provided by company management are also risks to investors.

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[21] In 2012, there were 1,192 exits announced globally, valued at $275.2 billion, representing a slight increase in exit volume compared to 2011, when 1,145 exits were achieved. Based on Preqin Buyout Deals Analyst.
[22] See J.P. Morgan, Eye of the Market: Private Investigations, July 9, 2013. (Appendix E.)

There can be no assurance that an investment in a private company will produce positive returns. However, with extensive and thorough diligence, control provisions, reasonable capital structures, and a commitment to building a diversified portfolio of company investments, investors can largely mitigate the above risks.

B. What to Do About the Risks?

Effective diligence in deciding to invest, superior stewardship during the holding and development period for a company, and effective exit marketing are essential to investment success and can be achieved if company management and the sponsor group insist on high standards, open communication between sponsor and management, and discipline in the process of realizing investment gain.

- *Carrying out thorough diligence before deciding to invest.* Performing diligence on any target company is difficult and is more difficult for privately-held companies without perfect market benchmarks. It is challenging to analyze companies without long operating history (many private companies are relatively young) or to find valid third party comparisons. See Appendix B for a list of recommended steps to take in a diligence effort, and Appendix F for a note on ASC 820 valuations of private companies.

- *Managing and growing the portfolio during the holding/development period. "*Never sell what you bought—change it first" is a good motto. In valuing a business, it is best to assume that the exit multiple will not be higher than the entrance multiple. Therefore, growth in cash flow (and related debt paydown) is essential to building investor value. Investing in improvable companies in growing markets and then actually improving the companies is one strategy that usually brings success.

- *Building a portfolio of assets or investing through one or more PE funds to achieve diversity.* Diversification is the only free lunch in life, and too often bad things happen to good strategies. The only answer to bad luck is to play the pari-mutuel by betting on a portfolio of assets, ideally with different value factors driving growth and diverse risk and cyclicality factors. The intent is to build a haven of non-correlation so that the value of the portfolio of assets does not move much with particular sub-segment or general economic trends or the public markets.

- *Managing the exit to get maximum value.* Most PE firms are better at buying companies than selling companies, both in terms of deciding when to sell and managing the exit sale process for maximum return. Knowing when to sell is challenging, as sponsors often fear leaving significant upside on the table, when they can see the opportunity to paydown more debt and improve returns by holding the company for another year. In general, it is better to sell a bit early, in light of the possibility of an economic downturn occurring within three or four years of an investment. Managing the exit process requires strong discipline to project confidence to the buyer market and ensure a tightly-stepped schedule to promote maximum competition for the asset being sold.

III. Netting Out: Private Company Investing Offers Significant Value

How attractive is private company investing when you weigh the pleasures against the perils?[23] Do the benefits outweigh the risks for a growth-oriented investor with a long investment horizon, such as a well-capitalized family office with the capacity to hold its investment portfolio to maximum value?

On balance, the authors believe that the benefits—not the least of which is adding significant alpha to an investment portfolio—and limited risks of strategy-driven private company investing significantly outweigh the specific risks. Diversified, growth-oriented investors with adequate resources and a long investment horizon should achieve attractive returns though a mixed program of private company investing.

Our net reasoning to favor private company investing is as follows:

- *Private company investing brings the investor in direct contact with valid, younger, growing markets and companies* (since it is post-venture investing), which are typically characterized by more rapid growth and less competitive intensity, together with positive operating leverage and, consequently, should bring higher investment returns. Most public markets, by definition, contain more mature and less innovative companies with greater difficulty in maintaining long-term market differentiation. Most mediocre public companies were once highly successful private companies.

- *Smart investors can gain an understanding of underlying market dynamics, cyclicality and other trends* that influence ultimate investor value before making an investment decision. The key facts that shape likely investment outcomes are discoverable with work, knowledge, and the willingness to draw on appropriate experts. Smart, active investors earn higher returns over the market cycle than passive, high level investors. Hard work usually pays off in higher returns.

- *Assuming appropriate pricing discipline and sufficient capitalization, it should be very difficult overall to lose money in private company investing (unless the investor is taking unconscious technology or regulatory risk).* The downside to this style of investing can be limited, as should be the downside in all private equity investing, assuming that the investment portfolio is growth-oriented, diverse and balanced. Even fourth quartile PE funds in recent years have performed at the level of the S&P, which suggests capital recovery plus at least a coupon return (see Figure 1).

- *Illiquidity is not as big as problem as many investors fear.* Secondary sales, defined as sales of companies from one private equity firm to another, have been rising sharply and now account for approximately 26% of PE firm company exits with the prospect of growing to a significantly higher percentage with continuing recovery of the economy.

[23] Private companies are difficult to value as seen in the ASC 820 valuation procedure. For an analysis of private company valuations under ASC 820, see Appendix F.

(Sales to private non-fund buyers and to strategic acquirers are excluded from this number.) While not a perfect measure of exit activity, the level and recent growth suggest that the private equity industry needs liquidity and that trading among PE firms is one way to create a cash-on-cash record to justify raising a successor fund.

- *Private company portfolio investing allows the investor to engage in some amount of Impact Investing*. Impact Investing is substantially less impactful in the public markets than in the private markets. Not all private company investments should necessarily be Impact Investing, but the incidence of such investing can be higher to the extent that the investor really understands its impact focus, the universe of opportunities available, and the economic outlook for its target investment segments—a byproduct in many cases of taking a sector or a multi-sector approach.

Not all investors should engage in private company investments. A certain level of sophistication is essential on the part of the investor as is the luxury of a sufficiently long investment horizon to ride out whatever performance "bumps" or economic cycles may intrude on short-term performance. In addition, portfolio risk balancing is an essential commitment for a successful program. Outperformance data for private company investing suggest that the investor should consider either building a dedicated investment team or investing in a number of private equity funds focused on the middle and lower middle market, or perhaps do both.

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The authors believe in the existence of the "Virtuous Quadrant" of high economic returns and high "free rider" societal co-benefits from certain investment strategies, particularly strategies focused on inefficient sectors of the U.S. economy. We reject the assumption of a necessary tradeoff in economic returns in order to achieve societal benefits and see potential in the North American middle and lower middle market, based on the theme of resource scarcity, which suggests an opportunity for extra-normal economic returns while achieving significant environmental co-benefits.

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Appendices

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