

Portfolio for the Future[™]

A practitioner's guide to the five essential marks of effective capital allocation

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Preface: Funeral For the Past BY BILL KELLY

W. H. Auden, the British-American poet, paid moving tribute to the departed in his poem *Funeral Blues*. With due respect and a touch of euphemism and paraphrase, he has given us the perfect opening bid for this essay:

It was my North, my South, my East, my West, My working week and my Sunday rest, My noon, my midnight, my talk, my song, I thought that **alpha** would last forever: I was wrong.

CAIA Association was borne 20 years ago out of the need for a higher degree of professionalism and education at a time when the Endowment Model was rapidly democratizing beyond the leafy campuses of eight U.S. Ivy League schools and their forefathers, the Ford Foundation and the Commonfund. The founding principle of this model was broad diversification, centered around a long-term orientation that better matched the long duration of an endowment's liabilities against a wider set of risk/ return exposures. The horizon was opened beyond public equity and debt, and this brought the likes of hedge funds, private equity, real estate, and infrastructure into the diversification mix...and alpha was there for the taking.

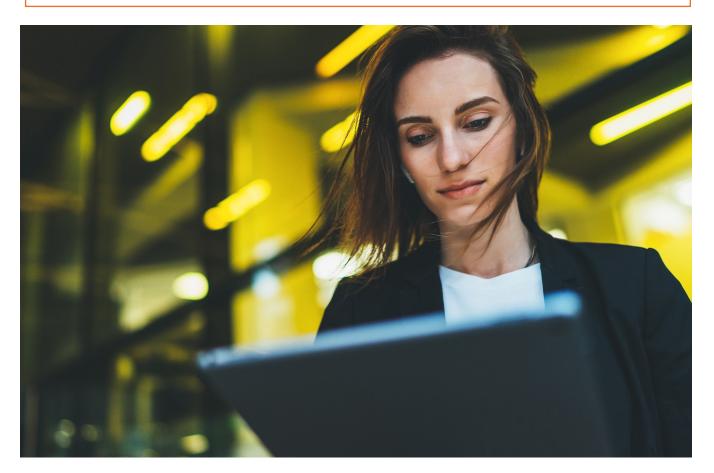
As reported by *The Economist*, there were just two dozen private equity general partners (globally) in the early 1980s, and venture capital—and even the concept of a hedge fund—were very nascent then too. If alpha was your thing, this was your time. Inefficiencies, complexities, and asymmetric information flow are the breeding ground for alpha, and it was a veritable feast for the long-term investor. In fact, it was *All About Alpha*, and CAIA Association even adopted that moniker as the naming convention for our house publication (no one blogged back then!).

The good times rolled, and outsize returns (absolute and risk-adjusted) persisted, and still do to some extent, in the rarified air of the top decile of the respective alternative investment performance universes. That party is not over but has gotten much more complicated. Efficiencies and scale are the hallmarks of beta, and the legendary Jack Bogle built an entire investment discipline around the concept of getting (and taking) what the broad market has to offer. Perhaps alpha is not truly dead within the alts space, but it has certainly moved to an altered state of a new reality.

The global financial crisis now dates back more than a dozen years. The accommodative central bankers brought forward liquidity (and valuations), all the while becoming the modern-day meme of the unattended garden hose. For good measure, they also pinned global rates to near-zero, leaving the return-seeking investor little choice but to jump into the deep end of the risk-on pool of opportunities. This started with public equities, but the iron gates of the clubby world of alternatives have been breached, too. In the latter case, the headlines talk of undifferentiated median returns, exceedingly wide cross-quartile performance dispersion, and mountains of dry powder. The opportunity for alpha is not gone, but the low-hanging fruit has long been harvested, and the path toward higher absolute returns has gotten far more nuanced. **Broad diversification**, inclusive of the **less liquid** investment opportunities, remains alive and well in this new paradigm that we now call Portfolio for the Future[™], but the beneficiaries— ultimately all of us—have spoken too. They want a **fiduciary mindset** and sustainable execution that thinks about the importance of that double bottom line; elusive in the short-term, but more sharply focused through the lens of long-term investment. Beneficiaries will also want and need broad-based access to the private markets, which have become the undisputed leader in capital formation and value creation. These same investors equally want to be more **actively engaged** across ever-broadening beneficiary expectations and outcomes, as the mindset shifts toward socially centered outcomes. The stakes are high as we move from products to solutions that are more values attentive and will need to go well beyond the simple action of weaponizing a proxy vote in the public market arena.

This is all happening amid a decentralized finance backdrop that is barely being held back by turf-protecting institutional edifices and entrenched regulators. When that wall breaks there will be disruption that will produce efficiencies via **operational alpha**. This new paradigm will usher in more transparency and democratized access for all investors, who expect and deserve the ultimate in professionalism and trust.

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Executive Summary BY JOHN L. BOWMAN, CFA

Economic super cycles are far from a new topic. Perhaps the most famous examples are the technically inspired Elliott wave and the technologically grounded Kondratiev wave, named after Soviet economist Nikolai Kondratiev, who was executed for his evangelism of the topic. Despite the general dismissal of long-wave theory by economists and the academy, no one can deny that when the history gods periodically align geopolitical tailwinds and technological breakthroughs, extended periods of economic vitality, wealth creation, and capital market returns can occur. Han Dynasty paper, the British navy, the steam engine, electrification, and more recently the internet are arguably just a few examples.

These transitions should not be likened to market timing opportunities that demand asset allocation tweaks, but rather tectonic shifts of the global economic crust that alter history and reset normalcy. At CAIA Association, we believe we are in the twilight of a four-decade economic super wave. But the next phase will neither be constrained by sovereign borders nor necessarily inspired by one killer app. This new era will have more far-reaching implications, particularly for the asset management profession.

Since their peak in 1981, developed market interest rates have precipitously declined due to unprecedented accommodative monetary policy by the central banks across the G7. Ten-year yields in the U.K. and U.S. averaged ~12% in the 1980s and ~6% in the 1990s. German and Japanese yield cycles were not as pronounced but followed the same pattern. As the global financial crisis (GFC) paralyzed global credit markets and burst the real estate bubble a dozen years ago, the expansionary intervention only accelerated with asset purchases and liquidity injections, sending rates down to near zero and even below in parts of Europe. The "Greenspan put" symbolized a lengthy period of desperation by global policymakers to prop up financial assets and provide near limitless and free access to credit.

This long period of cheap capital and easy money has catalyzed innovation, created countless jobs, and provided a relentless tailwind for capital market returns. In fact, a plain vanilla U.S.-based 60/40 portfolio has compounded at more than 10% since 1980, and the return has been even more attractive in the last decade. CAIA Association data suggests that global investable assets reached \$153 trillion at the end of 2020, with 12%, or \$18 trillion allocated to alternatives. Meeting an 8% actuarial return at a pension, a 7% retirement return expectation for a family, or a 5% real spending rate at an endowment has not been a challenging hurdle. But professionals must ask whether this environment is truly normal or has been an extended holiday that is due to finally sunset.

As we enter 2022, yields are flat to negative around the globe, inflation seems to be awakening from its 40-year hibernation, and global strategists expect the 60/40 portfolio to return a meager 3-4% in the next 10 years. How will tomorrow's investment professional meet the demands of their clients under these conditions? We are here to

declare the rise of a new era, one where fiduciaries will need to work smarter and more creatively to deliver investor outcomes.

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CAIA Association believes the Portfolio for the Future[™] will exhibit five distinct marks, and we've enlisted friends and respected thought leaders to help us explore their implications:

1. Broadly Diversified

Commonfund CEO and CIO Mark Anson, CAIA, argues that responsible portfolio management consists of collating a series of uncorrelated beta and risk premia that offers a combination of income, inflation protection, capital preservation, and principal growth to meet a required return. During recent years the unlikely narrative has been heralded that financial assets, particularly public equities, eternally march upward. The proliferation of new, low-cost products has created complacency and "beta creep." As such, fiduciaries must be more creative in expanding their investment opportunity set. That begins with a return of the foundational principle of diversification across asset classes, geography, sector, and purpose.

2. Less Liquid

The traditional 60/40 public equities and fixed income allocation has provided extraordinarily well in the last decade. But **Andrea Auerbach, Cambridge Associates global head of private investments,** counsels us not to take solace in the recent past. Investment professionals will have to look to differentiated sources of return, notably private capital, to increase the potential of being able to fully meet their obligations with responsible control of risk.

Private capital has become increasingly attractive for earlier stage, new economy, and growth companies. And, because private capital is detached from the short-term machinations of public markets, it liberates investors to take advantage of market dislocations, information asymmetry, and out-of-favor or countercyclical opportunities. Avoiding private capital in a portfolio denies access for clients to an increasingly large portion of the global economy. Of course, private markets are far from a silver bullet given their opacity, high fees, need for patience, and wide risk-return dispersion, and therefore must be carefully considered in light of client liquidity, income needs, and risk tolerance. Extensive due diligence and thoughtful, deliberate manager selection is imperative.

3. Rooted in a Fiduciary Mindset

Investment management is an agency business. Asset managers exist to deliver trust, care, and expertise to clients. **Roger Urwin, Global Head of Content at the Thinking Ahead Institute,** explains how a fiduciary mindset begins with an existential understanding of purpose, alignment, and service to the client. "Systems leaders" are responsible for translating these values into behavioral norms that influence ownership structure, client communication, compensation, fees, talent recruiting, culture, and definition of success (benchmarks). The investment profession—and each client's Portfolio for the Future™—still has work to do on this journey through mitigating conflicts of interest, asymmetric payoffs, incentive dislocations between limited partners (LP) and general partners (GP), and unnecessary financial engineering.

4. Actively Engaged

The age of the universal owner has arrived. Clients are demanding both positive financial and social outcomes from their capital allocation and underlying holdings. No one knows this better than **Anne Simpson, Global Head of Sustainability, Franklin Templeton and former Managing Investment Director of Board Governance & Sustainability, CalPERS.** With a devastating global pandemic, climate consciousness, and the pursuit of clean energy alternatives at a fever pitch, investment professionals are integrating sustainability elements such as carbon footprint, progress on diversity, equity and inclusion (DEI), human-rights records, and labor practices into their security evaluation, risk management, and return expectations. Further, non-financial disclosures, as well as ESG ratings, are becoming more accepted as a regular, integrated part of security analysis. The Portfolio for the Future[™] will be much more insistent and proactive in ensuring that it contributes to a more inclusive and sustainable tomorrow.

5. Dependent on Operational Alpha

The modern investment profession is highly competitive. New sources of comparative advantage are being cultivated among enterprising professionals, writes **Ashby Monk, PhD, Executive Director, Stanford Research Initiative on Long Term Investing.** Firm culture, governance, and technology are much more predictive of sustained performance than previously thought and should be emerging priorities for any leader. The Portfolio for the Future[™] will be driven by firms that innovate and exploit new organizational and operational models to save cost, reduce risk, and pioneer new investment ideas.

The industry needs to be reoriented back toward a north star of sophisticated portfolio construction, one that prioritizes client and beneficiary outcomes and works tirelessly to achieve those outcomes in a long-term, sustainable way. This essential definition of professionalism will usher in a new identity of enlightened self-interest that culminates in a much-improved public warranty. The Portfolio for the Future[™] is CAIA Association's contribution and call to action for that transformation.

The State of Alternative Investments AARON FILBECK, CAIA, CFA, CIPM, FDP

Takeaway: Alts are expected to produce half of industry revenue in a few years, despite representing just 12% of the \$153 trillion global investable market in 2020, fueled by growth across strategies and a blurring of the lines between public and private capital.

When CAIA Association released its last major report, *The Next Decade of Alternative Investments: From Adolescence to Responsible Citizenship*, global public equity markets were in freefall as the COVID-19 global pandemic began its pillage through society. Since then, public equity markets have rebounded to new highs, public fixed income yields temporarily hit new lows, and private capital has continued to grow at an impressive pace.

ALTERNATIVE ASSETS



Exhibit 1: Global Investible Market (USD\$ Trillions) as of December 31, 2020

Source: CAIA Association, Bloomberg, Preqin, FRED, MSCI, HFR, Bank for International Settlements Derivatives Statistics[AF1]

GLOBAL ASSETS

Exhibit 1 displays the global investible market between traditional and alternative assets. As of the end of 2020, institutionally adopted alternative investments represented approximately \$18 trillion in assets under management, or 12% of the \$153 trillion market.

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Record low interest rates and muted forward-looking return expectations have caused asset owners to look for better sources of growth, income, and inflation protection. Fee compression in traditional markets and an evolution of capital formation toward the private corridors have simultaneously caused asset managers to diversify their revenue streams. It is no surprise that alternative investments, currently representing less than 20% of assets under management, are expected to produce half of industry revenue in only a few years.^[1]

A Rising Tide Lifts All Boats...

"

	Annualized Returns			Volatility		Max Drawdown		
	<u>1-Year</u>	<u>5-Year</u>	<u> 10-Year</u>	<u> 15-Year</u>	<u> 10-Year</u>	<u> 15-Year</u>	<u> 10-Year</u>	<u>15-Year</u>
Public Equity - MSCI World Index	18.5%	11.2%	8.7%	6.7%	15.3%	17.6%	-21.4%	-50.7%
Private Equity - Venture Capital	51.2%	20.7%	18.6%	14.4%	10.9%	10.7%	-3.0%	-18.2%
Private Equity - Buyout	20.7%	15.7%	13.7%	13.4%	7.9%	10.9%	-11.0%	-31.1%
Public Debt - Bloomberg Barclays Aggregate Bond	7.3%	4.4%	3.8%	4.5%	3.0%	3.2%	-3.0%	-2.4%
Private Debt - Senior	1.5%	6.7%	8.6%	8.2%	6.0%	8.8%	-10.7%	-24.3%
Private Debt - Mezzanine	7.2%	8.3%	8.7%	8.0%	4.5%	5.3%	-7.9%	-15.1%
Private Debt - Distressed	3.5%	5.6%	7.0%	8.0%	6.9%	11.2%	-11.7%	-34.7%
Hedge Funds - HFRI Fund Weighted Composite	13.0%	6.4%	4.4%	5.0%	7.7%	8.3%	-11.6%	-19.0%
Commodities - Bloomberg Commodity Index	1.1%	2.2%	-5.5%	-2.2%	15.1%	18.8%	-61.3%	-65.9%
Real Estate - Generalist	-3.9%	4.2%	7.2%	3.1%	3.8%	9.9%	-7.9%	-53.1%
Real Estate - Value-Added	1.3%	7.8%	10.1%	5.5%	3.5%	10.8%	-5.0%	-55.4%
Real-Estate - Opportunistic	-2.7%	6.9%	8.5%	6.4%	4.3%	13.3%	-7.5%	-57.8%
Natural Resources	-9.1%	0.8%	0.9%	5.2%	11.4%	11.4%	-34.4%	-25.6%
Infrastructure	4.2%	8.9%	8.2%	7.9%	4.2%	7.8%	-6.0%	-24.0%
Public 60/40 Portfolio	14.1%	8.5%	6.7%	5.8%	9.0%	10.4%	-11.6%	-31.2%
Alternative Assets Portfolio	1 2.7%	9.3%	8.9%	8 .1%	5.9%	7.8%	-9.3 %	-24.4%
60% Alternative Assets Portfolio, 40% Public 60/40 Portfolio	13.3%	9.0%	8.0%	7.2%	6.9 %	8.5%	-10.2%	-27.0%

As of December 31, 2020

Data is quarterly, annualized returns are computed using arithmetic mean. Data for Private Equity, Private Debt, Real Estate, Natural Resources, and Infrastructure are computed using pooled time-weighted return statistics for funds with vintage years 2000 through 2016. *Alternative Assets Portfolio is represented by an equally-weighted portfolio of Private Equity, Private Debt, Hedge Funds, and Real Assets (Real Estate, Natural Resources, and Infrastructure).

Exhibit 2: Annualized Asset Class Performance, Risk, and Drawdowns

Source: Bloomberg, Burgiss, CAIA Association

The 2010s seem like a lost decade for investors in long-term diversified portfolios, when all you've needed is public equity and fixed income beta. Exhibit 2 displays the time-weighted returns, standard deviations, and maximum drawdowns as of December 31, 2020, using quarterly returns. Up until the global pandemic, the drawdowns of global public equity and fixed income markets were minimal. It really wasn't until the equity market drawdown during early 2020 that investors rediscovered the benefits of diversification for the first time in many years.

...But the Waters Are Choppy

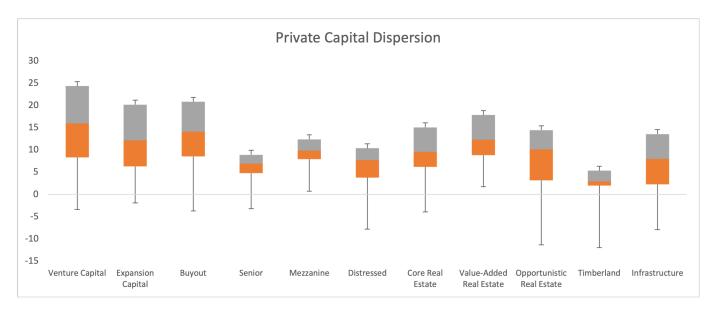


Exhibit 3: 10-Year Private Capital Fund Performance Dispersion

This box and whisker chart shows the performance differences amongst managers. From top to bottom, the chart identifies top 5%, top quartile, median, bottom quartile, and bottom 5%.

Source: CAIA Association, Burgiss. IRR data as of December 31, 2020

Unfortunately, aggregated private capital fund performance data remains misleading and doesn't provide a look into what an average investor might experience with a top, bottom, or average performing fund manager, as shown in Exhibit 3. The skill required to select good managers is just as, if not more, important as having access to them in the first place. While the underlying risk exposures may be familiar to a public market participant (growth, income, and inflation protection), illiquidity and manager risk will drive much of the outcome.

Private Capital: Formation, Innovation, and Value Creation

The role of private equity in a company's growth trajectory has evolved over time, starting with the funding model in the early stages. In 2010, the median venture-backed portfolio company could expect a single funding round before exiting as a public company through an initial public offering (IPO). That same median company could expect three funding rounds a decade later, supported by even larger commitments.^[2]

Private funding no longer just operates as a springboard for value creation; it's become a viable permanent strategy. In fact, for many years, the majority of venture-backed companies have opted to stay private through a strategic sale or merger, rather than venture into the public markets, as shown in Exhibit 4.

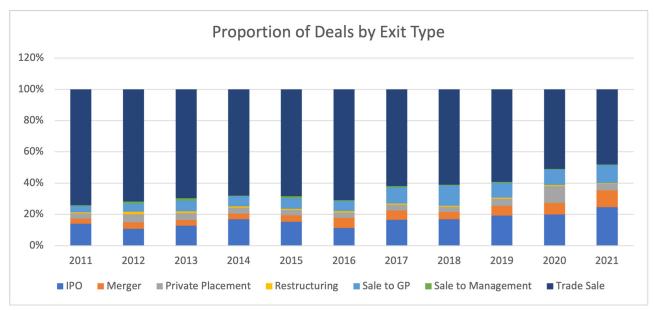
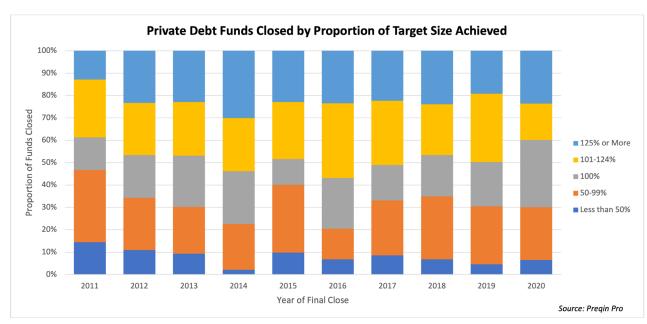


Exhibit 4: Proportion of Deals by Exit Type

Source: Preqin

Portfolio companies have altered their preferences by favoring private markets to public, and public market investors have tried to access private equity in any way possible. In 2020, 276 special purpose acquisition companies (SPACs), corporations tasked explicitly with investing in privately owned companies, went public through initial public offerings (IPOs). For reference, that number equals the total number of SPAC IPOs from 2011-2019 combined.^[3] SPACs, like private equity funds, provide opportunities for outperformance but still deliver a wide dispersion of outcomes, especially when comparing those that are operator- vs. investor-led.



Private Credit: Thirsty for Income on a No-Liquids Diet

Exhibit 5: Private Debt Funds Closed by Proportion of Target Size Achieved *Source: Preqin* In 2020, private credit funds reached the \$1 trillion milestone in assets under management, a twenty-fold increase over the previous two decades. An asset class that once served as an opportunistic, aggressive, or speculative satellite for diversified investors has now become a core piece of a sophisticated asset allocation. As assets have poured into these funds, the composition of strategies has evolved, with massive fundraising efforts in Direct Lending strategies. In fact, direct lending now represents more than half of fundraising in 2021.^[4]

Such strong demand for income, public or private, has caused many issuers to relax their covenants, something we highlighted in *The Next Decade*. In 2021, over 90% of loan issuance was considered covenant-lite, a new record. For comparison, a little over 20% of loans issued in 2007 were considered covenant-lite.^[5] While the risk of default translates to more volatile pricing in public credit, it doesn't always translate to private credit funds. At first glance, an uninformed investor might think that private credit has historically experienced drawdowns like those of investment grade corporates, when the underlying credit risk of these loans is far greater.

Real Assets: Location, Inflation, and Transportation

Despite all the disruptions caused by the global pandemic, real estate value continued to grow in aggregate. According to MSCI, the total value of real estate held for investment (equity and debt) reached a new milestone of \$10.5 trillion in 2020.^[6] However, we believe real estate must overcome three cyclical and secular trends:

- 1. A rotation away from brick-and-mortar retail toward industrial and logistics due to e-commerce trends
- 2. The reimagination of office space, as more companies offer remote work options for employees
- 3. A renewed focus on sustainability, as new and existing properties weigh physical and transition climate risks.

In 2016, Oxford Economics estimated global infrastructure investment needs to be approximately \$94 trillion by 2040,^[7] driven both by needs to update existing and aged infrastructure projects and to invest in new, more sustainable ones. For most governments worldwide, infrastructure needs far outweigh the resources available through taxation and other fiscal policy,^[8] suggesting a renewed call for private capital to fill the gap.

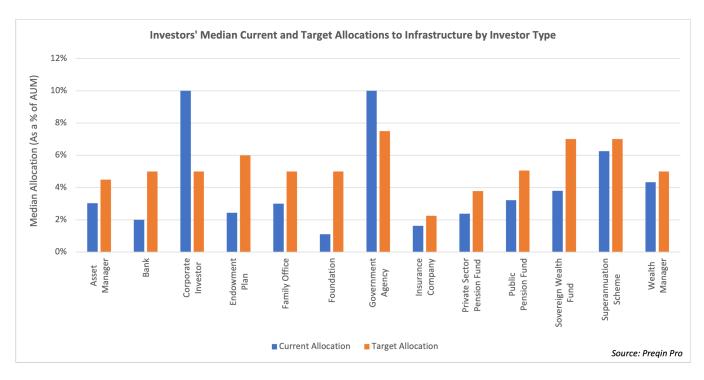


Exhibit 6: Investors' Median Current and Target Allocations to Infrastructure *Source: Preqin*

Exhibit 6 shows that, for the most part, asset owners are underallocated to infrastructure. However, many have a desire to increase their allocations, driven by the need for better diversification, inflation protection, and reliable income streams. Some of the largest investors, such as sovereign wealth funds, government agencies, and public pensions, have the most ambitious target allocations. We expect these target allocations to increase over time as inflation remains elevated and fixed income is no longer able to deliver current income.

Hedge Funds: The Data Is in the Details

The requisite skill to generate alpha has always been a difficult task for most investment professionals. As both information availability and competition within public markets have increased, hedge fund managers continue to find ways to differentiate themselves. In *The Next Decade*, we claimed that hedge funds would need to prove their worth by providing downside protection during a difficult market environment. Fast-forward to March 2020, and the average hedge fund finally provided the downside protection they promised for years.

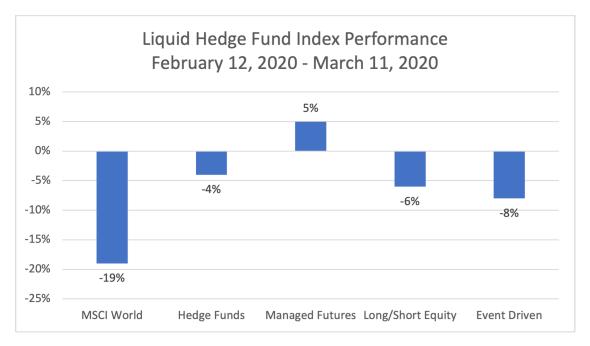


Exhibit 7: Hedge Fund Performance During COVID-19 Drawdown

Source: Bloomberg, CAIA Association

Note: Hedge fund performance is measured using the Credit Suisse Liquid Hedge Fund Indexes. Performance is from February 12 – March 11, 2020

Still, the competition remains fierce, and hedge fund managers have made other attempts to differentiate themselves in a competitive market. The size of the global datasphere has exploded, to the point where more than 50 zetabytes^[9] is available for consumption. The wide availability of financial information and structured data means that managers have had to become creative to generate differentiated insights. According to AIMA, 67% of hedge fund managers are either users or currently trialing alternative data sources.^[10] According to Preqin, nearly one-quarter of hedge fund managers utilize some form of artificial intelligence, relative to 1% in 2010, in their investment process.^[11]

A Spotlight on Liquidity: Blurring the Lines, Ignoring the Vehicles

General partners (GPs) across any of the strategies previously mentioned are pushing against the artificial boundaries of public and private markets, no longer constraining themselves by investment vehicle. The announcement of the Sequoia Fund^[12] in 2021 shows that venture capital managers are willing to break the cycle of only holding portfolio companies until they go public, extending the VC-fund life cycle into perpetuity. On the other end of the life cycle, hedge fund managers participated in 753 private deals, worth an aggregate \$96 billion, in 2020—both measures of which represent new records.

Liquidity is no longer considered a benefit or drawback, but merely a feature. The blurring of private and public capital is an important trend that we believe will continue for years to come. ^[1]Global Asset Management 2020: Protect, Adapt, and Innovate. Boston Consulting Group. Found at https://www.bcg.com/publications/2020/global-asset-management-protect-adapt-innovate

^[2] "Going Private: Hedge Funds and the Convergence of Private and Public Equity Investments." September 2021. Goldman Sachs

^[3]Pitchbook Analyst Note: SPAC Market Update Q1 2021

^[4]JPMorgan Guide to Alternatives Q3 2021

^[5]S&P LCD

^[6]Real Estate Market Size Report 20/21. MSCI. https://www.msci.com/research/2021-market-size-report

^[7]Global Infrastructure Outlook. Oxford Economics. https://www.oxfordeconomics.com/recent-releases/Global-Infrastructure-Outlook

^[8] Aleksandar Andonov, Roman Kräussl, Joshua Rauh, Institutional Investors and Infrastructure Investing, The Review of Financial Studies, Volume 34, Issue 8, August 2021, Pages 3880 - 3934, https://doi.org/10.1093/rfs/hhab048

^[9]AIMA and IDC. Estimated figures.

^[10] "Casting the Net – How Hedge Funds are Using Alternative Data." AIMA. 2020.

[11] 2020 Pregin Global Hedge Fund Report

^[12]The Sequoia Fund: Patient Capital for Building Enduring Companies. Found at https://medium.com/sequoia-capital/the-sequoia-fund-patient-capital-for-building-enduring-companies-9ed7bcd6c7da

Introduction to the Five Marks BY ARIEL FROMER BABCOCK, CFA

If there is one thing investors have learned in the post-global financial crisis era it's that resilience is an asset that drives long-term value creation. Whether confronted with rapid technological change, climate change, geopolitical and monetary policy changes, or global health pandemic-spawned societal changes, the investors that have consistently prevailed more often than not have invested in making both their portfolios—and their organizations—more resilient. That resilience allows for the space to focus on the long-term. Organizations that are not worried about fundamental survival can respond to crises and change more nimbly, taking advantage of emerging risks and opportunities that deliver better outcomes for clients and beneficiaries as a result.

What do resilient investors look like? They share at least five key characteristics:

- More diversified resilient long-term portfolios
- More heavily invested in private markets (and consequently less liquid)
- Rooted in a fiduciary mindset
- Take an active approach to engagement with their assets
- Focused on generating operational alpha by using big data to support functions like risk management and operations

The benefits of diversification are well documented, but how we define diversification is evolving. With the advent of indexed investing, everyone can own the market portfolio—diversification is cheap, and even free in some cases. Long-term investors define diversification differently, looking across asset classes and paying close attention to the interactions of investments in different parts of the portfolio.

The top-down whole portfolio approach to diversification is even more important as portfolios become less liquid. Increasing allocations to private assets—private equity and venture capital, but also things like real estate, infrastructure, and timberlands—give long-term portfolios access to new sources of return. And those returns from private assets—alternatives—come with holding periods that are often better aligned with long-term investment objectives.

At its core, that alignment is a result of a relentless focus on the purpose of the capital and a desire to deliver client-centered outcomes in a transparent way. This is the new face of responsible investing. Investors today face expectations that go well beyond traditional notions of fiduciary duty or asset stewardship. Understanding and fulfilling these responsibilities has considerable impact on the success of both the strategy and the organization. Fundamentally evolving expectations mean *how* returns are earned is just as important as *what* returns are earned.

Active engagement with portfolio assets is a primary tool for exercising these evolving responsibilities. Investors increasingly realize that their responsible behavior extends to the companies and assets in their portfolios. Done well, engagement communi-

cates investor expectations to those portfolio companies and encourages growth initiatives that align with long-term value creation. That engagement is not limited to assets in the public portfolio. In the absence of easy exit, private investors are using engagement and stewardship tools to generate value with their private holdings, too.

Finally, forward-looking investors have realized that there is alpha to be generated by not only remaking their portfolios for the future, but also remaking themselves. Turning data analytics tools inward and adapting processes to identify operational risks makes investment organizations more resilient. Similarly, reviewing their own organizations' performance on the same non-financial metrics investors have been pushing companies to disclose reveals opportunities to improve organizational culture and diversity in ways that attract and retain talent, and bring performance benefits.

These marks may not be particularly surprising on an individual basis. But they are also not accidents: They have been honed and invested in on a continuous basis to develop organizational focus. Taken together, the combination produces an emerging picture of the truly resilient long-term portfolio—and investment organization—for the future.

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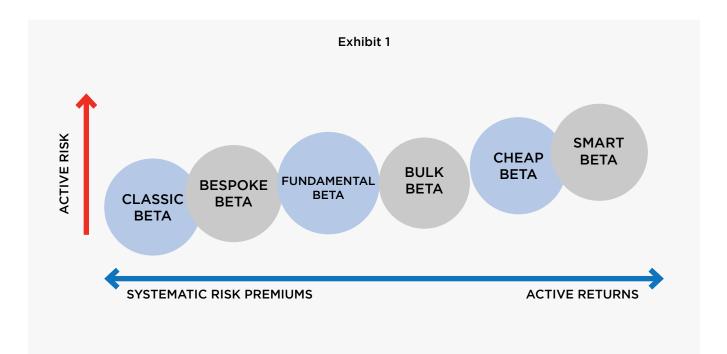


Broadly Diversified BY MARK ANSON, CFA, CAIA, CPA, CGMA, JD

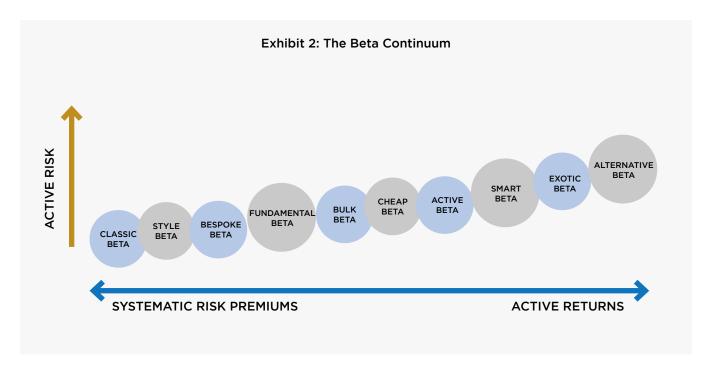
Takeaway: As a passive approach to capturing equity risk premiums, beta was once clearly delineated from alpha. The continued expansion of the Beta Continuum has turned that distinction on its head, increasing the potential for beta to deliver diversification.

Like the famous *Saturday Night Live* skit featuring Christopher Walken demanding "More Cowbell" for Blue Oyster Cult's classic hit, "Don't Fear the Reaper," today's investors are demanding "More Beta."

Several years ago, I listed what I called the "Beta Continuum"—a diagram that showed how classic beta of the Capital Asset Pricing Model had expanded to include such categories as "bespoke beta" and "cheap beta."^[1] Exhibit 1 captures this continuum.



Fast-forward a decade and the Beta Continuum has expanded even more to include such beta bits as "smart beta" and "exotic beta." Put succinctly, the beta universe is no longer a simple passive approach to capturing equity risk premiums. Investors have demanded other investment vehicles to expand beyond passive risk premium capture. Exhibit 2 shows the expanded continuum for today's market with its increased potential for diversification.



More beta has been captured by the explosive growth of the exchange-traded fund (ETF) market as shown in Exhibit 3. The ETF market, with beta in all of its colorful forms, now exceeds the most serious of alpha hunters, hedge funds.^[2] In particular, the acceleration in ETF growth has come from the latter part of the Beta Continuum—those products that are Smart, or Exotic, or Alternative. In this section, I'll show how some of these new forms of beta push out—or don't—the diversification boundaries.

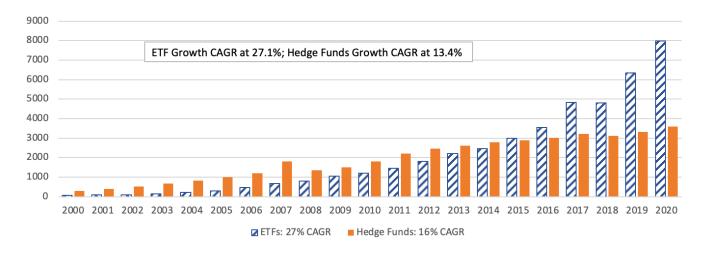


Exhibit 3: Alpha vs. Beta Separation: Hedge Funds vs. ETFs in \$billions

Starting with bespoke beta, as the ETF market has expanded, asset managers have sliced and diced the equity markets into finer and finer beta pieces. Effectively, these bespoke betas allow investors to fine-tune their portfolios by placing a passive "bet" on an industry, sector, or country.

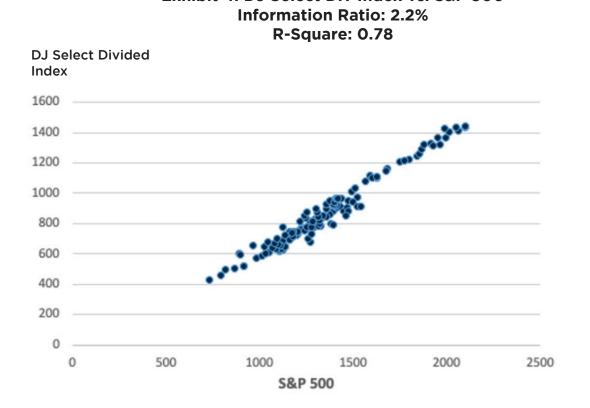
Consider the iShares MSCI ETF for the Indian equity market. If an investor wishes to expand his or her equity portfolio to include selective emerging markets, then ETFs are a simple tool to increase portfolio diversification. But the R-squared of the MXIN is only 85% and there is a significant tracking error of 2.4%, almost reaching the active risk-taking of active managers. Simply put, there is a lot of dispersion of the Indian ETF around the Indian Equity market—more than might be expected for a passive product.

The reason is that the ETF trades on an exchange in the United States while it is attempting to track an equity market in another country. In any given calendar year, there are up to 15 trading days when the Indian equity market is open and U.S. stock exchanges are closed, and vice versa. As a result, this diversification comes with the price of a higher tracking error.

Another way the Beta Continuum has been expanded is to include fundamental factors as a way to build additional diversification benefits. These "fundamental betas" still follow a passive design, but rather than focus on market capitalization, the ETF is designed along an economic factor like corporate revenues, book value, or dividends.^[3]

Consider Exhibit 4. This shows the design of the Dow Jones U.S. Select Dividend index compared to the S&P 500. The Dow Jones U.S. Select Dividend Index aims to represent the U.S.'s leading stocks by dividend yield. Exhibit 4 shows that this index tracks the S&P 500 stock index reasonably well but with a positive Information Ratio. In theory, it's a potentially better stock index design.

Exhibit 4: DJ Select Div Index vs. S&P 500



However, Exhibit 5 shows how the Select Dividend ETF compares to the S&P 500. Unfortunately, in practice, the ETF shows a negative information ratio compared to the S&P 500. Putting performance aside for a moment, both the Select Dividend index and ETF offer additional diversification benefits from the S&P 500—both have R-squared measures with the S&P 500 of around 0.78. Adding fundamental metrics like cash flows, revenues, and dividends—even in a passive fashion—can help to expand the diversification frontier for both institutional and retail investors.

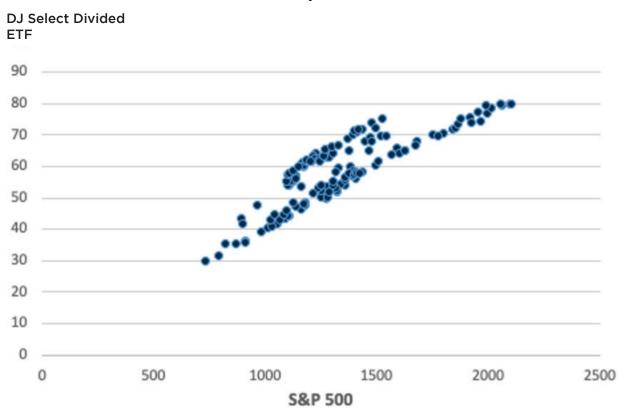


Exhibit 5: DJ Select Div Index vs. S&P 500 Information Ratio: -2.2% R-Square: 0.77

Exhibit 6 shows yet another form of beta diversification: cheap beta. This demonstrates how hedge funds (those crafty alpha hunters) have crept into the beta space. Consider Convertible Bond Arbitrage—long a dominant strategy in the hedge fund world. When you consider a convertible bond, it really is just a basket of several different beta risks:

- Interest rate exposure: It's a bond.
- Stock market risk: The bond is convertible into equity.
- Volatility risk: The bond contains a call option on equity.
- Credit spreads: Convertible bonds are typically issued by below investment grade companies.
- Liquidity: Convertible bonds are traded over the counter and are less liquid.

Therefore, past prices may influence the current price—the absence of a random walk.

	Alpha	S&P 500	VIX	Duration	Credit Spreads	Liquidity Premium	R-Square
Value	0.002	0.31	0.01	0.22	-0.15	0.27	0.62
T Statistic	0.65	10.52	1.1	2.24	-0.9	4.38	

Exhibit 6: Cheap Beta embedded in Convertible Arbitrage: 2011-2020

Exhibit 6 shows a regression equation of all of these beta bits against the Hedge Fund Research, Inc. Convertible Arbitrage Index for the last decade. First, note that once all of the beta bits are accounted for, the alpha drops to zero. Effectively, convertible arb hedge fund managers added no value through security selection. Instead, they generated their returns from "buying" and "selling" the beta bits contained within the convertible bond.

Exhibit 6 shows that hedge fund managers sliced and diced up the convertible bond into its beta pieces and kept those beta bits that were cheap, effectively "buying beta," while hedging out, or "selling," those beta pieces that were expensive. Over the last decade, convertible arb managers kept stock market and duration beta in their portfolios—a good bet given declining interest rate and surging stock market values—while selling/hedging out volatility and credit exposure. Lastly, note that a good portion of the convertible arb returns came from the capture of a liquidity premium.

As a last example of beta diversification, we turn in the other direction. Instead of hedge fund managers crowding into the beta space, we review beta managers jumping into the hedge fund space.

Exhibit 7 shows the development of what is sometimes called smart/exotic/alternative beta.^[4] These are ETF products that try to capture some element of active management; in Exhibit 7, merger arbitrage. First consider that merger arbitrage is the antithesis of beta risk. Mergers represent company-specific risk or idiosyncratic risk, the exact opposite of market or beta risk. Mergers can be cash, stock, hostile, friendly, auctioned, negotiated, cross border, etc.—but each is individual to the company.

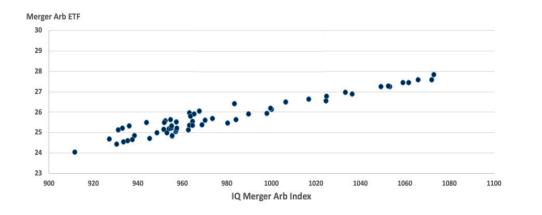


Exhibit 7: Merger Arb ETF Information Ratio: -071 R-Square: 0.85 Nonetheless, Exhibit 7 shows the IQ Merger Arbitrage ETF, which is designed to match the IQ Merger Arbitrage Index. Even though mergers and acquisitions are company specific, they occur with sufficient frequency, and their periodicity makes mergers seem "beta-like" because the merger premium can be captured in an efficient rulesbased ETF. Is it alpha? Beta? Something in between? Regardless, it is a way to expand the Beta Continuum and the diversification frontier for investors.

Where Does the Beta Continuum Expand from Here?

The new continuum stretches to include digital/crypto/blockchain beta. Over the past decade, since the release of the Bitcoin white paper by Satoshi Nakamoto, there has been a surge in cryptocurrencies, nonfungible tokens (NFTs), blockchain technologies, and decentralized autonomous organizations (DAOs).^[5]

The influx of investor interest into cryptocurrencies has recently resulted in a publicly listed and traded product tied to Bitcoin. On October 19, 2021, the first exchange-traded fund linked to Bitcoin (ticker symbol: BITO) became effective.^[6] This ETF does not invest in Bitcoin directly. Instead, it invests in Bitcoin futures contracts listed on the Chicago Mercantile Exchange.^[7]

Bitcoin certainly expands the Beta Continuum and the diversification frontier for investors. However, it is a notoriously volatile investment. Exhibit 8 shows the annual volatility for the Bloomberg Galaxy Crypto Index—an index of the largest cryptocurrencies, including Bitcoin. This index, which is a blend of five cryptocurrencies, has an annualized volatility of 100%.^[8] At this level of risk, Bitcoin fails to work within any mean/ variance structure that is typically associated with the allocation of an institutional portfolio across beta markets.

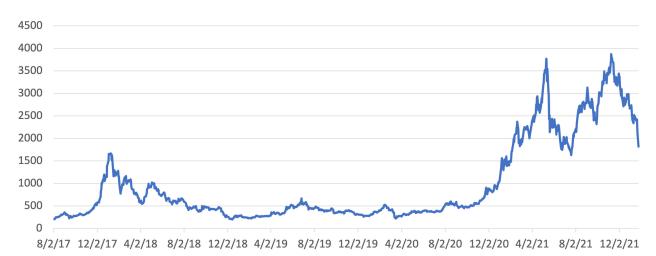


Exhibit 8: Daily BGCI: Annual Volatility, 100%

Two additional forms of digital investing are nonfungible tokens (NFTs) and decentralized autonomous organizations (DAOs). Unlike Bitcoin, NFTs are not fungible/exchangeable for other tokens. Each is unique. Essentially, an NFT is a digital format built on a blockchain platform that converts a unique physical asset into a digital asset. Typically, most NFTs are built around unique, collectible items such as art, music, or even a cartoon.^[9]

DAOs are related to NFTs. They are another way for investors to pool their capital in order to collectively make an investment in an asset—again, potentially art, music, cartoons, or even real estate. Similar to an NFT, a DAO is a group of investors brought together in the digital world through a blockchain platform with a shared bank account. To obtain voting power or membership in a DAO, an investor typically buys governance tokens issued by the DAO. These tokens are unique cryptocurrencies that are used in place of equity stakes or partnership interests that most investors generally associate with investor pools of capital.

While they expand the diversification frontier by allowing for the conversion of a physical asset into a digital one, NFTs and DAOs really do not belong on the Beta Continuum. They are not a form of beta because each NFT or DAO token is unique and nontransferable. They instead represent idiosyncratic risk rather than a systematic form of market beta.

A better representation of market beta in the crypto world is the development of blockchain ETFs. These are exchange-traded funds that represent ownership interests in companies that develop blockchain technology or support the blockchain universe like Coinbase, a publicly traded company that is the largest electronic exchange for the trading of cryptocurrencies.

Exhibit 9 shows the three leading blockchain ETFs: Amplify Transformational Data Sharing ETF (BLOK), Siren Nasdaq NexGen Economy ETF (BLCN), and First Trust Indxx Innovative Transaction & Process ETF (LEGR). All three ETFs began trading in January 2018 and represent the closest form to systematic market risk in the crypto/ digital world. In fact, if we consider blockchain to be a new industry or sector within the broader economy, then these ETFs might be thought of as a new form of bespoke beta from Exhibit 2.



Exhibit 9: Block Chain ETFs

Conclusion

In a simpler time, alpha and beta were two sides of the same coin. What wasn't beta was alpha, and vice versa. Not so anymore. As outlined in this chapter, the Beta Continuum now extends from classic beta at one end all the way to passive hedge fund products on the other. The lines between alpha and beta are blurred with, for example, hedge fund managers creeping into the beta space and beta producers expanding into the active risk space.

For investors and allocators, the key is that the opportunities for diversification have never been greater. So back to our foundational question: Is it alpha or is it beta? Perhaps the answer is that beta, once a generally agreed-upon construct, now is a function of the eye of the beholder. Nonetheless, the benefits to the portfolio construction process are real.

^[1] See Anson, M. 2008. "The Beta Continuum." The Journal of Portfolio Management, Winter, pp. 53-64.

^[2] See Leibowitz, M. 2005. "Alpha Hunters and Beta Grazers." Financial Analysts Journal, 61 (5); pp. 32-39.

^[3] See Arnott, R., Jason Hsu, and P. Moore. 2005. "Fundamental Indexation," Financial Analysts Journal, vol. 61, pp. 83-89.

^[4] We fully recognize that Smart, Exotic and Alternative Betas are all oxymorons. See Anson, M. 2015. "Beta as an Oxymoron." The Journal of Portfolio Management, Winter, pp. 1-2.

^[5] See Nakamoto, Satoshi, "Bitcoin: A Peer to Peer Electronic Cash System," white paper at www.bitcoin.org; released on metzdowd.com, October 31, 2009. As a side note, potentially, Satoshi might have a sense of humor—releasing her/his/their white paper on Halloween.

^[6] This is a significant milestone in that the United States Securities and Exchange Commission reviewed, commented, and accepted the application for the Bitcoin ETF. The SEC never "approves" of any registration statement or investment product. Instead, after all of the agency's questions have been answered satisfactorily, the SEC will declare a registration statement "effective."

^[7] See "Bitcoin Strategy ETF," ProShares Summary Prospectus, October 18, 2021.

[8] The current weights are: Bitcoin, 40%; Ethereum, 40%; Litecoin, 9.44%; Bitcoin Cash, 7.80%; and EOS, 7.76%.

^[9] See, Taylor Locke, "What are DAOs? Here's what to know about the next big trend in crypto," Next Gen Investing, October 25, 2021; and Rakesh Sharma, "Non-Fungible Token Definition," whitepaper, December 14, 2021.

Less Liquid by andrea auerbach

Takeaway: Investors must look beyond the 60/40 portfolio for differentiated returns. Given the ever-expanding diversity of private capital strategies, they are well worth the challenge of illiquidity, immense return dispersion, and the need for patience.

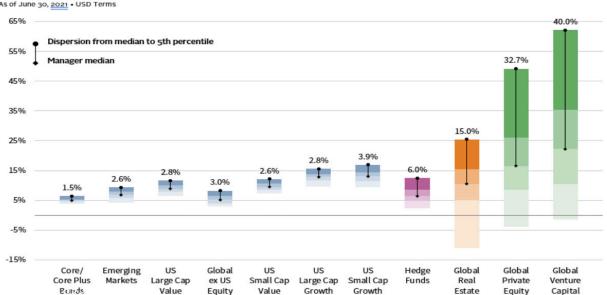
Will the Portfolio for the Future[™] include greater allocations to institutional private market strategies? The answer is most definitely yes, as they offer investors exposure to otherwise inaccessible areas of economies, truly active management strategies, and opportunities to earn differentiated and competitive returns.

As I write this, the 10-year Cambridge Associates benchmark return for U.S. private equity is 16.7% and the U.S. venture capital return is 18.7%, both of which compare favorably to the 14.8% return for the S&P 500 and the 10.7% return for the MSCI World.^[1]

The dispersion around the pooled returns in the private markets is immense compared to what public markets offer, as is so clearly illustrated in Exhibit 1.

So, beyond the 10-year pooled return cited, there is substantial potential for additional return. The only hitch? You need to stay invested until all the underlying portfolio positions are sold, which could take 15 years. Having patience and managing illiquidity are key attributes of longstanding successful private markets investors.

Exhibit 1



COMPARING MANAGER RETURN DISPERSION ACROSS ASSET CLASSES

Source: Cambridge Associates, LLC.

We can't delve into a discussion of the institutional private capital market, however, without providing some public capital markets perspective. Public capital markets are broad, deep, and liquid-the U.S. equity capital market is the largest in the world at roughly \$41 trillion, by way of example, with indices that were formed in the 1950s. Public equity is usually the largest allocation in an investor's portfolio, but let's take a closer look: Within that allocation, there can be fairly significant overlap among positions held by public equity managers, resulting in a handful of companies driving the bulk of performance-FAANGs, anyone?-which can make it difficult for public equity managers to differentiate their returns.

Further, across countries and regions, the types of companies that can be publicly traded vary, most of which lean toward the largest businesses or sectors, which could lead to entire swaths of an economy being not yet "tall enough to go on the ride." As active public equity investors find it difficult to earn a differentiated return for the cost of access, it's no surprise that the drumbeat of capital marching toward cheaper passive strategies, including index investing and exchange-traded funds, is getting louder and more pronounced.

Let's turn our attention to the institutional private equity market, which is relatively young (about 40 years young) and small, as compared to public equity markets. At an estimated \$6.5 trillion globally and \$1.4 trillion in the U.S., it's the biggest it has ever been but still a speck compared to the public equity market. By way of illustration, the entire U.S. private equity market fit comfortably within the size of Apple's \$2.9 trillion equity market capitalization at the time of this writing.



Additionally, there isn't the overlapping position phenomena of the public markets because, for the most part, private equity managers are acquiring meaningful minority or majority equity stakes in private companies with room for few, if any, additional managers to invest at the same time. Further, private managers are able to invest capital in any tier of the economy and/or any sector(s); by incorporating private investments into their portfolios, institutional investors can embed exposure to greater portions of economies in a way that is simply not possible via the public markets. By definition, private investments are illiguid: In order for private capital returns to express themselves fully, private equity and venture capital investments are held, on average, for at least 7 years.

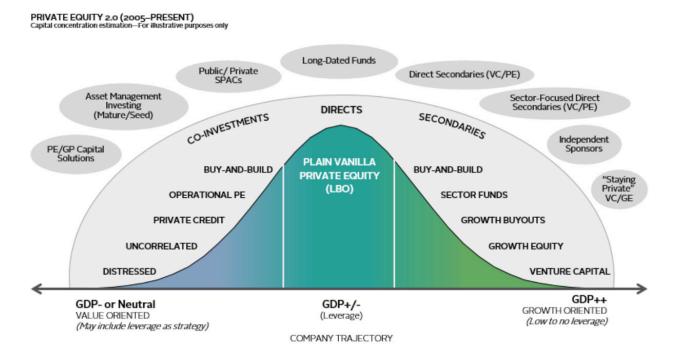
Finally, the return expectation of private equity has not wavered since I first set foot in this arena in 1991: invariably, managers seek variations of a 2x multiple on capital invested and a 20%+ internal rate of return (IRR). But how managers pursue that return has iterated over time, as private investment strategies adapt to a maturing marketplace while maintaining that return expectation at a much higher cost of access than the public markets.

Managers have evolved, refining their strategies toward a sector or sectors; sourcing approaches, specific security types, or ownership structures; pursuing post investment value-add playbooks, etc.—or combinations of all of the above, and all in the service of delivering a differentiated return as capital continues to flow into the space. As shown in the next graphic, those thinking the entire private equity arena is composed of leveraged buyouts are woefully mistaken, in my view, given the observable and ever-expanding diversity of investable options (Exhibit 2).

-66

By incorporating private investments into their portfolios, institutional investors can embed exposure to greater portions of economies in a way that is simply not possible via the public markets.

Exhibit 2



Source: Cambridge Associates, LLC.

If I'm being honest, our industry is not particularly imaginative in terms of naming conventions. The most common return driver can label the entire space. In the first era, known for its namesake strategy, the leveraged buyout, the return driver was typically the application of a lot of leverage. All else being equal, adding leverage to the balance sheet and paying it down over several years does build equity value. That source of returns, also known as "financial engineering," has long been commoditized and is no longer a differentiator. In fact, less leverage is almost more de rigueur for the current era, as you will read in a moment.

The second wave of private equity brought an emphasis on profitability, which remains a focus for today's sponsors. This era was largely announced by the use of the now ubiquitous "100-day plan," developed at the outset of an investment. The goal was, and is, to improve operations to meet competitive standards by applying known techniques investors could underwrite with a high degree of confidence. In this case, all else being equal, increasing profitability directly increases equity value. This era is far from over. Sponsors continue to experiment with types of operating capabilities in an effort to programmatically deliver operating improvements. It also takes time, usually far more than the 100 days, for this level of active management to deliver results, but the results can be impactful to returns. The current era is more about growth—growth equity, growth buyouts, etc.—and it can be organic or inorganic; revenue just has to grow, preferably consistently, and by a lot. A portfolio company exhibiting better revenue growth characteristics than its peers is good; if it's in a sector growing faster than other sectors, it's even better. These kinds of companies cannot be burdened with leverage as they need to reinvest any profit back into the growth drivers for the company. According to our analysis using our operating metric database, the median revenue growth rate for successfully exited companies has been at least 10% per annum. Nearly half of private equity–owned companies in our database exhibiting 20% or better revenue growth delivered at least a 3x realized multiple on the invested capital—top quartile territory. Demonstrating evidence of sustained growth also takes time and effort; so again, to access this return source, investors require a tolerance for illiquidity.

The ability to quietly work on all of the value drivers (profitability and growth) in private has its appeal. Being private allows companies to keep their financial information out of the public eye and away from competitors; pursue multi-month, -quarter, or -year improvement efforts; and avoid public quarterly scrutiny of their growing pains.

A look at the data shows companies are increasingly staying private for longer, or completely. While it has always been true that in order to have investment exposure to all sectors and tiers of an economy, investors needed to allocate to private investment strategies, it is increasingly (and surprisingly) true given the dynamics in today's U.S. public markets. With the public markets trending more and more toward passive investing, as we discussed earlier, the private markets have increasingly more to offer investors. And those with the ability to accept the requisite illiquidity can reap the benefits for their programs.

So back to that hitch—staying patient and managing illiquidity. Monitoring and managing illiquidity is an important component to success. However, investors must be sure to run scenarios, know what portion of their portfolio they can truly set aside to invest privately, and ladder in exposures by evenly committing capital each year. Public market investors often think in terms of dollar-cost averaging. Likewise, in private investing, exposures should be built over time.

To paraphrase the Chinese proverb on when to plant a tree, given the time it takes to benefit from all that a grown tree can provide, let me conclude by saying that the best time to have started an allocation to the institutional private investment market was 20 years ago. The second-best time is now. Private market investors understand the length of time it takes for returns to be realized and it is obviously worth the wait.



Rooted in a Fiduciary Mindset BY ROGER URWIN

Takeaway: When it comes to a fiduciary mindset, investment organizations often suffer from a "saying-doing" gap. Firms can put clients first by developing trust as part of asset gathering, soliciting clear client feedback, and aligning purpose to client needs.

Let's start by defining being "rooted in a fiduciary mindset."

Strictly speaking, an organization can't have a mindset, but it can have a living culture one that is formed by purpose-based values and beliefs and evidenced by consistent behaviors, which shape how it makes sense of the world and its position in the world. Culture is a powerful latent force that heavily influences how all its leaders think, feel, and behave in any given situation, and it contributes to an "organizational mindset."

So when an organization puts the client first in its thinking, feeling, and behaviors, because that is central to its culture, it is said to have a *rooted* fiduciary mindset.

As someone who studies culture among investment firms, a couple of examples come to mind: In Wellington Management, their people frequently cite the "client-firm-self" principle. That is the order of priority in their culture and mindset. Clients come first. That is not to ignore the firm and yourself, but to emphasize that in any situation it is a client-first focus that drives actions. In BlackRock's stated principles we hear, "The fiduciary mindset is the bedrock of our identity. It reflects our **integrity** and the **unbiased advice** we give our clients." In other words, the fiduciary mindset is an expression of the firm's purpose.

These two examples demonstrate the concept of fiduciary duty and its core principle that those who manage other people's money are bound by the obligation to put the interests of clients first when acting. But while fiduciary principles are simple to express, they are complex to deliver in practice.

There are of course differences between stated values and the norms of behavior that happen in the real world where things are so complex. And there is no disrespect intended to either of the organizations mentioned in pointing out that stated values do not settle complex issues.



Cultural values are the ideals that employees strive to fulfill (the "saying"), while cultural norms of behavior (the "doing") reflect whether employees "walk the talk" by living out these values. Very often in the investment industry there is a "saying-doing" gap.

At every organization, there must be a deliberate balancing of different interests: Clients, firm, workforce, self, shareholder, and wider stakeholders all vie for attention. This calls for a holistic view of these factors. There is considerable complexity and ambiguity in optimizing among interests, so trade-offs are inevitably involved. My experience is that investment organizations do not always deal with these trade-offs honestly or account for them accurately. How much firms actually put client interests first is a critical test of mission, culture, and professionalism.

Defining Professionalism Is Hard

Many characteristics of professionalism lie on a spectrum and are situational, but the common thread is that its components reflect competency and values. Sometimes this is by reference to explicit measures or rules, but more often it is by reference to principles that help direct actions in hard-to-define situations. The exact interpretation of these factors are not black and white, meaning there are increasingly differing views of success as the industry evolves.

Investment is an agency business with massive commercial pressures, so we should not be surprised by our industry's shortcomings and blemishes. I would cite three major issues where industry failings are reasonably widespread:

- Weaknesses in the value proposition where the value created does not match the fees charged
- Misalignments in the values of asset management firms with their clients
- Communications that fall short in accuracy and honesty

Skeptics generalize these failings by describing a combination of overpromising and under-delivering, and mete out particular criticism for the alternatives industry because its costs and fees remain stubbornly high and opaque, and because it often comes across as too self-absorbed.

Tangible Enablers to the Fiduciary Mindset

What are the ways that organizations can change this picture and ensure professionalism and the fiduciary mindset?

The first route is through the investment in, and development of, trust as part of the asset-gathering process. There is a way to do this and a way not to do this. The obvious way is to *always* be presenting your credentials and seeking to gather assets. This is overclaiming, and cannot improve trust because the net result diminishes the money-weighted returns of clients through alpha diseconomies of scale and haphazard timing.

But organizations can do it a different way by being prepared to give back assets when there are no opportunities and calling clients at *particular times* by pounding the table for more assets when there are opportunities. Now that is a recipe for better outcomes and improved trust!

The second route lies in the search for clear feedback from clients. There are challenges to getting clients' attention—their bandwidth in a world of *crazy busy* is often narrow. Still, firms with ingenuity can get this to happen with a disciplined cycle of surveys and informal discussion.

A central focus for this feedback lies in trying to gauge the nature of client trust as it ideally deepens over time. Success is where trust allows the returns to compound and create sustainable growth in value.

The third route concerns *purpose*, a word with a big future. A fiduciary mindset begins with an existential understanding of purpose and its alignment to the client. Such a mindset is so much more than a business model with some soft stuff thrown in. Culture, stakeholder mapping, incentives, fee ethos, talent philosophy, and diversity principles are all critical in the creation of such an identity.

And it is an identity that can only emerge with leaders who understand the whole ecosystem to which they belong. So-called "systems leaders" are strong leaders who are masters at catalyzing constructive explorations of difficult issues and recontextualising solutions not as short-term fixes, but as long-term solutions co-created to improve the well-being of the system of which they are a part. In short, practicing *systems leadership* creates the ideal conditions for sustainable value creation to emerge.

The Role of Sustainability

Success concerns how the clients perceive their experiences with an asset manager in the long-term. The alpha is part of this experience, but creating sustainable longterm value is altogether more precious. And there are other considerations including non-financial factors. What environmental and social factors is the portfolio exposed to? What assets can have no place in the portfolio on ethical grounds? Are there any social or environmental impacts that are targeted? The growing importance of these ancillary questions is hard to understate.

Climate has moved rapidly up the list of considerations, and increasing sums are devoted to a net-zero emission ambition aligned to the Paris Agreement.

While investment organizations continue to put financial interests first as part of the fiduciary mindset, the investment organization of tomorrow must have the skill to build three-dimensional portfolios that generate return, manage risk, and deliver impact. This calls for a deeper level of skill and competency than ever before. The direct result is that the future long-term pool of capital will need to be managed differently in the coming years from how it's been done in the past.

And it will require that very different style of *systems leadership* that recognizes the myriad of hard and soft factors influencing the investment opportunity set and properly prioritizes the long-term without ignoring short-term exigencies.

Toward a New Professionalism

These new principles involve applying a stronger version of professionalism and a stronger moral code than the ones I grew up with in the industry. How do we judge this new professionalism? Through the lenses of competencies and values.

These competencies include comprehensive investment content skills and practice, strong engagement with client context, and agility around change.

Explicit values are also needed around these competencies: a focus on outcomes and experiences over relevant time horizons, fair fees and rewards, and substantially transparent, accurate, and authentic communications.

And there are more tacit aspects of these values: deep trust, good empathy, strong relationships reflecting realistic expectations, purpose-driven practice, and a high regard for public responsibility.

Finally, there must be a complete rejection of the bad habits where asset managers can go astray. The investment profession must stay on its guard to manage conflicts of interest, asymmetric payoffs, overclaiming, and greenwashing—all the obvious temptations.

There is, of course, increasingly strong regulatory machinery being put in place, with more sure to follow, to help investment organizations stay on the right path. But the strongest protections concern enlightened self-interest through a great culture. The strongest protections concern enlightened self-interest through a great culture.

The Smart Way Through

In conclusion, I draw attention to the *Stupidity Paradox*, a well-researched book by business professors Alvesson and Spicer. Its narrative is of organizations encouraging their people into an unthinking and complacent "stupidity" through a combination of misplaced faith in the wrong sort of leadership (not more progressive systems leadership versions), an addiction to shallow branding, inauthentic communications, thoughtless attachment to conventional rules, and overly upbeat cultures. The problems the researchers point out are that these factors seem to work positively in the short-term and only fall short in the longer-term. This picture definitely computes among investment firms, where there is too much trite recital of values and too few fully engaged minds, hearts, and wills.

It is really good to have clear values, but the proof of the pudding is in the doing, with the cultural norms of competency, empathy, and reliability delivering the action. To test this, leaders can ask themselves three questions.

- 1. Is there well-managed capacity and capability to support the achievement of client expectations?
- 2. Is there an embedded process and attitude to listen to clients and obtain their regular feedback?
- *3. Is there significant attention and sophistication given to understanding and managing client risks?*

If leaders in investment organizations can't authentically say that these elements are present, then they need to wonder how much of the *stupidity paradox* they are engaging in.

Conversely, if these elements are in place, then leaders are well on the road to being rooted in a fiduciary mindset, and delivering to clients the experience they deserve.

Actively Engaged BY ANNE SIMPSON

Takeaway: The scale of capital flowing into sustainable investments, the broadening of support for shareholder activism, and the growing demand for rigorous standards to combat greenwashing are all evidence of a new "visible hand" in financial markets.

Investors have become a powerful force driving the sustainability revolution. One sign is the flood of money into strategies marketed under the environmental, social, and governance moniker ESG. Another is the rising tide of votes at companies by investors who recognize that long-term value creation requires effective management of not only financial, but also human and physical capital.

This new investment paradigm is essential to meeting long-term liabilities, such as pensions, whilst keeping within the limits of what science outlines as our planetary boundaries^[1] and rising societal expectations.^[2] Ensuring the sustainability of risk adjusted returns is a daunting task in a complex and dynamic global market. In so doing, actively engaged investors are becoming the "visible hand" of stewardship in financial markets^[3]

Actively engaged investors are becoming the "visible hand" of stewardship in financial markets.

The sheer size and scale of finance deployed into sustainable investment strategies marks a profound shift in capital markets. This reflects a deeper understanding of how environmental and social issues impact risk and return. According to the U.S. Social Investment Forum more than \$16 trillion^[4] or nearly one-third of professionally managed funds, are now invested under the banner of ESG. Globally, the commitment to sustainable investment continues to rise.

The intersection of global crises has, if anything, accelerated the pace of change in finance. In the last quarter of 2020 alone, as the world reeled from the impact of the pandemic, climate catastrophes, and rising calls for a reckoning with racial justice and inequality, investors committed \$152 billion in new capital^[5] to ESG funds.

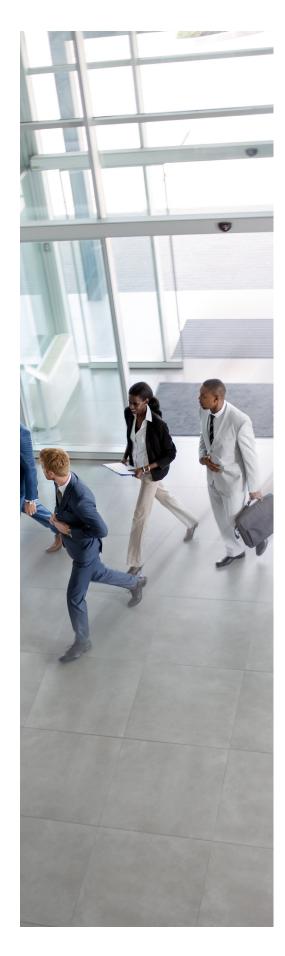
Capital deployment has come alongside a broad-based and powerful surge of active engagement. World headlines were made when shareholders voted out board members at U.S. oil giant Exxon to bring in new directors with energy and climate expertise. ¹⁶¹ This in turn was made possible by earlier shareholder success in actively engaging the company to win the right to vote against directors, known as "majority voting." The default provision across many U.S. states, including Delaware, is that investors simply "withhold" their votes (which means they do not count).

Asset managers with public listings have also been actively engaged by their investors. Shareholders at BlackRock agreed to withdraw their proposal from the ballot when the world's largest asset manager, BlackRock, agreed to conduct a racial equity audit.

There are also examples of the impact at scale which investors can have through active engagement. Bloomberg New Energy Finance calculated that the Climate Action 100+ initiative, with its \$65 trillion signatory base, won net-zero commitments at focus companies equivalent to the annual emissions of China,^[7] or around 25% of global greenhouse gas emissions.

These examples caught the headlines, but they are indicative of a broader shift to active engagement across financial markets. The 2021 season for company annual general meetings saw investors putting forward proposals on issues that included climate risk reporting,[8] water use, pesticides, persistent chemicals such as endocrine disrupters. plastics pollution and the impact on marine life, worker health and safety, racial equity, the gender gap in pay, political lobbying, and food additives, including the impact of sugar on public health. The list of issues being brought forward by investors echoes many themes in the business community's own concerns, as reflected in the World Economic Forum's annual risk survey and public policy agenda, such as the Sustainable Development Goals.^[9]

We have also seen the first examples of companies supporting such investor proposals—at BP, Shell, and General Electric, who swung management's weight behind the call by investors for new reporting on strategies for the transition to a low-carbon economy. A new mood of partnership is also reflected in the rising number of shareholder proposals that are agreed and withdrawn, rather than going to the vote.



The broadening support for active engagement is reflected in the rising support of mainstream shareholders. The average votes on climate change proposals in 2021 rose to 51%, and on diversity, equity, and inclusion proposals, reached 43%. In turn, investor approval on executive pay continued its four-year decline with "no" votes in double figures. An astonishing 17 companies in the S&P 500 actually lost the vote on their proposals for executive pay.^[10]

Investors such as CalPERS began to turn their attention to votes on board members, holding chairs of nominating committees accountable for a lack of progress on diversity. Similarly, compensation committee chairs were held to account on poor alignment on executive pay, showing how the governance agenda moves swiftly from request to require if companies do not respond positively.

In turn, the world's largest asset managers are responding to client demand^[11] and compelling economic logic by voting in support of a wide range of sustainability issues. For example, BlackRock, Vanguard, and State Street cast clients' proxy votes in support of reporting on deforestation in the supply chain at Procter & Gamble, plus racial and gender pay gap reporting at Oracle.

Actively engaged investors are also working internationally and cross-border. French investment firm Amundi working with Trinity College, Cambridge, in the U.K., filed a proposal at American company McDonald's calling for the fast-food giant to account for the environmental and public health costs of antibiotic use in its meat supply chain. BNP Paribas put forward a proposal at Chevron calling for political lobbying to be aligned with the goals of the Paris Agreement, winning majority support from their fellow shareholders.

Insurance giants Aviva and LGIM have put companies internationally on notice that lack of progress on sustainability will trigger votes against board members. Another driver of active engagement is asset owner mandates for investment management contracts. These increasingly include requirements for engagement and voting, which has in turn spurred a new service in the financial markets for those investors needing to outsource the function.^[12]

The emergence of a "visible hand" in financial markets was prefaced by the launch of the Principles of Responsible Investment (PRI) by the United Nations in 2006, with an initial signatory^[13] base of modest size, which has since grown to include investors responsible for \$90 trillion globally.

The commitment to be actively engaged with companies, investment managers, and policy makers to foster sustainability is set out in the Principles, which each member commits to:

- Incorporate ESG issues into investment analysis and decision-making processes
- Be active owners and incorporate ESG issues into our ownership policies and practices
- Seek appropriate disclosure on ESG issues by the entities in which we invest
- Promote acceptance and implementation of the Principles within the investment industry
- Work together to enhance our effectiveness in implementing the Principles
- Report on our activities and progress toward implementing the Principles ^[14]

These represent formidable ambition to redefine the investment industry's fiduciary duty to manage risk and return. PRI has argued that the fiduciary duties of prudence, loyalty, and care require an understanding of sustainability factors that impact risk and return. These are coming to prominence through shifts in capital market ownership, the inexorable demands of planetary boundaries, and rising societal expectations worldwide.^[15]

The shift in capital market ownership since the 1980s has put institutional investors into a dominant position on the share register of listed companies, and as allocators of capital in private markets. At the start of the 20th century, individuals owned close to 100% of the common stock in U.S. companies. By 2006, institutions' institutional investors controlled 70% of shares.^[16]

"The transition, from a large number of small individual investors to a small number of large asset aggregators with acquired shareholder rights, makes it possible for individual investors to exert influence collectively. This brings a private ordering force to bear, which is intersecting with the national and global policy measures that are speeding change." ^[17]

The concern with systemic issues has been heightened by the growth in index strategies that provide investors with a cost-effective way to harvest market returns, setting the stage for active engagement strategies, where trading shares has limited use.

A further consideration are the liabilities that come with institutional asset management, which set demanding financial targets for returns. The dominant institutions providing capital and exercising active engagement strategies are working on behalf of pension funds, insurance companies, and sovereign wealth funds, which have financial liabilities, which in turn have social purpose. For example, at CalPERS, 60 cents on every dollar paid to the 2 million members of the pension fund come from investment returns. To achieve this, the system in 2021 adopted a 6.8% discount rate, which in turn requires an unrelenting focus on risk-adjusted returns, with an intergenerational perspective against a backdrop of market volatility and declining returns.

This core purpose of the financial system also explains why the term ESG is somewhat awkward for investors, who can note that the letter "F"—for finance-is missing from the acronym. An economic grounding in the three forms of capital (financial, human, physical) integrates the purpose of investment into the sustainable investment model and allows us to acknowledge that meeting financial goals to ensure retirement security, health care, and education themselves provide a service to society.



As Financial Times columnist John Plender wryly notes, capitalism has its "paradoxes and pitfalls," but the system has generated tremendous wealth, although the inherent volatility in market cycles, inability to distribute, and conflicting demands require attention.^[18] For universal owners who cannot diversify systemic risks, the stage is set for them to address them directly through engaging with regulators, with companies, and with their intermediaries, such as investment managers. With a sense of the urgency and complexity of many issues, with the formidable responsibility of ensuring returns to pay for essential social goods such as retirement security, investors are also aware that much of the information they need is lacking.

The ESG goldrush has posed the fear of ESG greenwash,^[19] which is reinforcing another aspect of active engagement by investors: a demand for regulators to ensure reporting and assurance against rigorous standards to clear the "aggregate confusion" that prevails.^[20]

"Financial markets cannot respond efficiently to the risks and opportunities ahead without the information and alignment of incentives which drive both capital allocation and stewardship. There is an urgent need to close the gap in order that the inflection point for change does not become a tipping point into climate catastrophe."^[21]

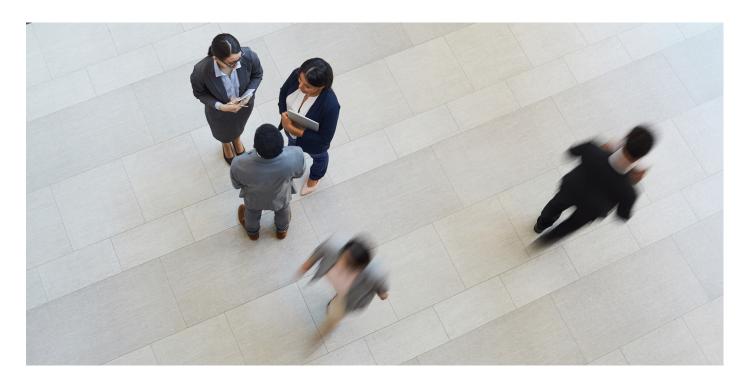
That work is long overdue, but new progress at both the SEC, International Financial Reporting Standards Board, and European Union shows that investors are having their voice heard by regulators. Investors are not only focusing on public markets, but are also following the investment case for sustainability reporting into their private market holdings.^[22] This highlights the demand for standards, but the sheer size, scale, and long-term nature of the liabilities of asset owners has brought compelling economic logic to active engagement as an essential element.^[23] That active engagement is evident with companies directly, or via investment managers, in both public and private markets, across asset classes.

Fiduciary duty entails as asset owners and managers understand their size and scale has made them universal owners reliant on the sustainability of the market to deliver risk adjusted returns over time.^[24] They are taking care of the goose, which lays the golden egg. "Long-term asset owners and managers, whilst seeking risked adjusted returns and efficiently allocating financial capital to the highest value economic activities, have the essential and formidable role of ensuring the sustainability of return."^[25]

Adam Smith provided a metaphor for the workings of the market, which is still cited by proponents and regulators, who see an invisible hand at work, ensuring the optimal outcome for all sides from the pursuit of individual goals.^[26] However, the father of modern economics also gave us an elegant insight into why active engagement by investors would be needed to avoid the "negligence and profusion" that would arise in the management of "other people's money."

"The directors of...companies....being the managers rather of other people's money rather than of their own, it cannot be well expected that they should watch over it with the same anxious vigilance with which (they) watch over their own. Negligence and profusion, therefore, must always prevail..."^[27]

The common interest between savers, investors, companies, and wider society lies in ensuring that shared prosperity is sustainable. In that, active engagement has earned its place in the Portfolio for the Future™.



^[1] These include Co2 concentration, rate of biodiversity loss, nitrogen draw, phosphorus runoff, ozone concentration, ocean acidification, freshwater and land use for crops, chemical pollution, including endocrine disruptors, plastics, heavy metals (Rockstrom et al "A Safe Operating Space for Humanity" Nature 461, 472 2009)

^[2] A powerful example is set out in the Sustainable Development Goals agreed to by 196 governments in 2015, which have specific targets for all countries on poverty, work, gender, health, access to clean water, oceans, land, and reduction of inequalities. http://sdgs.un.org

^[3] Adam Smith, father of modern economics, considered that "The rich....led by an invisible hand....without intending it, without knowing it, advance the interest of the society" (The Theory of Moral Sentiments, 1759) and later in the better known and quoted "An Inquiry Into the Nature and Causes of Wealth of Nations" 1776 as "It is not from benevolence of the butcher, the brewer or the baker that we expect our dinner, but from their regard to their own interest".

[4] U.S. Social Investment Forum www.ussif.org

^[5] Data cited at www.morningstar.com

^[6] https://reenergizeexxon.com Engine 1

[7] Bloomberg New Energy Finance estimate of approximately 25% global emissions

^[8] An example of the economics that are driving investor activism can be found in the IPCC estimates that keeping global warming in check would cost 3 - 11% of global GDP by 2100 and inaction would cost at least double that amount. (Demitri Zenghalis, London School of Economics, October 7, 2014, How much will it cost to cut greenhouse gas emissions?)

^[9] World Economic Forum 2022 business opinion on global risks adds social cohesion erosion, livelihood crisis, infectious diseases, and mental health deterioration to the previous year's litany of concern (Global Risks Perception Survey 2021-22)

^[10] www.morningstar.com

^[11] A potent example of asset owners driving demand is at the world's largest pension fund, Japan's Government Pension Investment Fund, when it's then chief, Hiro Mizuno, required new fees structures and mandates to foster long-term sustainability. See Harvard Business School, "Should a Pension Fund Try To Change the World? Inside GPIF's embrace of ESG" 2020

^[12] See Federated Hermes as an example, which was incubated at a BT telecom pension system and later spun out.

^[13] CalPERS was one of the founding signatories

^[14] Principles for Responsible Investment www.pri.org

^[15] Fiduciary Duty in the 21st Century, Principles of Responsible Investment, January 2016

^[16] Blume & Klein, 2008 Trends in Institutional Stock Ownership and Some Implications

^[17] Yu (Ben) Meng, Are We at the Inflection Point of Climate Investing? Journal of Investment Management, Vol 19 No 4 2021

^[18] Capitalism: Money, Morals and Markets, John Plender, Biteback Publications 2016

^[19] SEC ESG Risk Alert, 9th April 2021

^[20] Berg, F, et al Aggregate Confusion: The Divergence of ESG Ratings, Massachusetts Institute of Technology 2020

^[21] Are We at the Inflection Point of Climate Investing? Yu (Ben) Meng, Journal of Investment Management, Vol 19 No 4 2021

^[22] Examples include the CalPERS-Carlyle Private Equity ESG Data Convergence project and Novata ESG for Private Markets

^[23] Should a Pension Fund Try to Change the World? Inside the Government Pension Investment Fund's embrace of ESG, Henderson et al, Harvard Business School, 2020

^[24] The Rise of Fiduciary Capitalism, J P Hawley and A T Williams, University of Pennsylvania Press, 2000

[25] The Financial Ecosystem: The Role of Finance in Achieving Sustainability, Bose, Guo, Simpson, Palgrave MacMillan 2019

[26] Ben Bernanke, when Chairman of the Federal Reserve saw regulation as the "invisible hand' April 11, 2007 for example [27] Adam Smith, An Inquiry into the Nature and Causes of The Wealth of Nations, 1776

Dependent on Operational Alpha ву Азнву н. в. молк

Takeaway: All investors combine capital, people, process, and information to exploit their comparative advantages in financial markets. The world's best investors smartly combine categorical and cultivated advantages to deliver long-term performance.

Institutional investors all seek to exploit their comparative advantages in financial markets to generate high investment returns. These advantages are often codified in investment beliefs or described as organizational values that guide the decision-making of boards, management, and staff. The identification and use of comparative advantages have been at the head of successful investment models, such as the endowment model, Canadian model, or the newer collaborative model. These "models" are attempts to use a series of organizational and operational advantages to deliver outperformance. But where do investors source these advantages? And how can they be properly utilized and resourced?

This brief section seeks to explain how to develop new investment models and implement existing models more effectively—thereby delivering organizational alpha and operational alpha, respectively.

Find Your "Edge"

Prior research that I completed with Gordon Clark at Stanford University¹¹ suggests that investors' advantages come in two distinct ways related to original design considerations (structured) and intentional resourcing decisions (cultivated).

Structural advantages refer to those that arise from a fund's origin or sponsor. When a sponsor sets up a foundation, endowment, or pension, it makes a series of important decisions that affect the fund seemingly forever. It establishes the organization (e.g., governance structure) and sets an investment goal (e.g., time horizon, asset classes), while providing guidelines on permissible and impermissible activities.

The sponsor also provides an identity (e.g., Yale, Singapore), which imparts a valuable network of relationships (e.g., university alumni, sovereign citizens). All of these are inherited resources or constraints that will (or should) have implications for investment strategies and performance. For example, a defined benefit pension fund has distant liabilities, which means its investments can target long-duration investment opportunities with illiquidity. Endowments have privileged access to alumni and can mine opportunities therein. Foundations can draw on the collective intelligence and network from its grantees to source and assess opportunities.

Inherited resources can be quite different even within fund categories. For example, one pension plan sponsor might establish a commercially savvy board, which allows the pension to resource investment activities correctly. The other may choose a representative board, which ensures the fund has political legitimacy but may mean relying on external managers due to a lack of sophistication. In all cases, structural advantages can be seen as the investors' DNA.

Conversely, *cultivated advantages* emerge over time based on the deployment of an investor's limited resources and the intelligent investment of those resources behind certain structural advantages. For example, a pension with good governance may establish strong internal investment capabilities to reduce fee leakage. An endowment with a tight alumni network may seek to exploit informational advantages to identify managers; a large sovereign fund may pursue large deals (infrastructure); and a small family office may pursue strategies that are hard to scale (micro venture capital). We have seen some funds anchor new general partners and become known as world-class fund seeders. Others have been willing to invest heavily in data and analytics, thereby adding alpha through augmented decision-making. Still others have used designed delegation frameworks that give investment teams a speed advantage over other similar funds.

True investment outperformance among allocators tends to come from an investor correctly identifying its structural advantages, and then allocating resources to cultivate them further in unique ways. A cultivated advantage, then, is when an investor intelligently deploys its "governance budget."

In sum, investors that consider their strategic advantages—i.e., their inherited resources and constraints—are building organizations and operations that can outperform when they cultivate their long-term strategies.

What Do Investors Actually Do?

To crystallize how structural and cultivated advantages can be applied, it is useful to revisit the production function of every investor. Because with this production function, we will start to be able to understand how these advantages can be utilized.

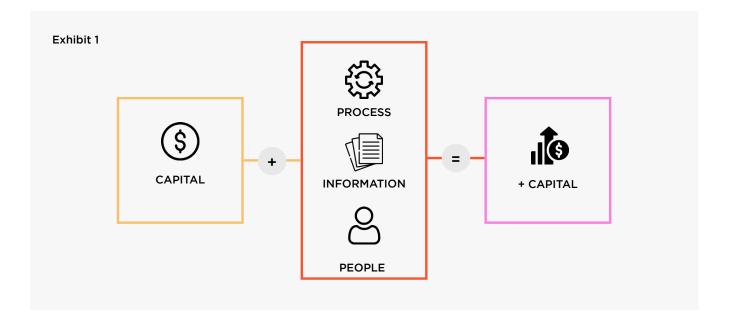
All investors have the same production function. They use four key production inputs to generate investment returns: capital, people, process, and information (Exhibit 1). These inputs will inevitably be the place where an investor's advantages actually materialize, which means it is incredibly important to understand how they are combined to deliver performance:

Capital: The nature of a fund's capital stock represents a critical factor when setting an investment strategy. A small investor has different opportunities than a large one. Also, the liabilities applied to the capital, which are often representative of how the capital was raised by the investor, will shape the strategies that are available. An investor with no explicit liabilities, such as a sovereign fund, can invest differently from investors that face imminent liabilities, such as an insurance company.

People: Investment performance is highly dependent on investment professionals, but the way investors access talented people can be very different. The Canadian and Dutch pensions, for example, develop direct investment talent internally. Endowments often pick external managers, which in turn make the investments. American pension funds, especially those that are small, will use consulting firms to help in selecting external managers. The governance and location of a plan will greatly affect the approach to people and whether they are developed internally, externally, or in a hybrid model.

Process: The organizational mechanisms by which an investment decision is made and implemented are, quite obviously, key to the production of investment returns. These can include investment committee structures, delegation frameworks, risk budgeting, ESG integration, systems of accountability, benchmarking, or even compensation policies. These are often complex, multilayered, and subject to multi-stakeholder oversight.

Information: The investment management industry is fundamentally in the business of information processing. Whereas market information is typically collected and disseminated by intermediaries, the quality and quantity of internal information management and dissemination is the lifeblood of any investment organization's investment performance. The more granular and reliable the information, the more opportunities available to an investor.



These four production inputs are universal. But they are not isolated from each other, as smart people can create smart processes which, in turn, can improve the reliability of information. Similarly, processes such as risk budgets require reliable information and responsive people to be effective. But the combination of these inputs will ultimately come to represent the investment model, which has strong implications for investment operations.

Now, imagine an investor wants to improve the inputs or how they are combined. Or imagine their capital stock has been growing rapidly, which means it needs to change its approach to markets and its model. How does it do this? Gordon Clark and I studied how 20 investors sought to change or augment their inputs and how they were combined. ^[2] We found that all organizations used the same three levers to try and improve these inputs, which we termed "environmental enablers." They include governance, culture, and technology (Exhibit 2):



Governance: a form of meta-process management for organizations. It represents the formal and informal processes whereby an organization manages itself in relation to its goals and objectives. Boards set and oversee the delegation of roles and responsibilities (process). They can change the rules associated with the investment strategy (capital). They receive and respond to signals (information). They set compensation and incentive policies (people). In general, boards represent the resources and management capacity of their organizations, cultivating capabilities in relation to goals and objectives. For example, boards typically approve the building and maintenance of information systems and risk management systems that communicate pertinent information to the board and related decision-makers. Boards can also experiment with arm's length governance structures to bring more capital behind a strategy or change the constraints and encumbrances binding the organization to existing systems of management.

Culture: the beliefs, assumptions, values, and modes of operating that give investment organizations their distinctive and even unique characteristics. Often, the culture of an organization is to be found in its norms and conventions, not just its governance. For example, a culture of knowledge sharing can improve the flow of information and build trust between boards and staff. A culture of risk-taking and accountability can empower professionals to take on new investment opportunities, while linking their initiatives to the overarching purpose of the organization. And a "member first" culture

can ensure that the time horizon over which investments are framed and implemented is consistent with members' interests. Finally, culture is also a form of effective communication, helping to create consistent interpretations of information and data.

Technology: a generative asset that expands capability frontiers and can enhance efficiency. It is the medium through which organizations transfer and communicate critical information to decision-makers, such as the board, committees, or investment professionals. These systems can serve to empower professionals and streamline investment processes, including risk management. Whereas data and information systems are typically counted as costs to any organization, information systems can reinforce an organization's comparative advantages, build or reinforce the legitimacy of an investment team and its board, and thereby distinguish a long-term investor from other competing organizations.

Whereas one of these enablers is often treated as inherited (good governance), investors often seek to improve *all* these environmental enablers: Board members often receive training; culture is always being reinforced and improved; and technology is one of the biggest areas of focus among investors today.

The logic is simple: By improving environmental enablers, an investor can improve the organization's investment inputs. With this simple framework, we can begin to explain how investors capture organizational alpha and how this relates to operational alpha.

In Search of Organizational and Operational Alpha

The world's best investors smartly combine categorical and cultivated advantages to deliver meaningful, longterm performance. And these advantages are manifest in their enablers and the quality and combination of their investment inputs. In my experience, there is no single way of combining these inputs, because all investors are fundamentally different. The approach of the New Zealand Super Fund, Canada Pension Plan, or Princeton endowment will all be very different, which is to be expected given the different sponsors and thus inherited structures. Whatever the approach, what seems to link all successful By improving environmental enablers, an investor can improve the organization's investment inputs. With this simple framework, we can begin to explain how investors capture organizational alpha and how this relates to operational alpha.

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investors is that they intentionally build upon their structural advantages through the cultivation of new capabilities. To help clarify what I mean, consider two mini-cases:

The legendary Yale model represents a unique combination of categorical and cultivated advantages, which manifest in environmental enablers delivering a unique combination of investment inputs. David Swensen was most famous for building deep partnerships with highly specialized fund managers. This approach was reliant on a long-term horizon, which allowed him to take highly illiquid and risky positions without fear of short-term capital needs. It was also reliant on Yale itself: He invested in Yale alumni, recruited Yale students to work at the endowment, leveraged the university's mission to build a strong culture, used Yale's facilities (especially the golf course) for strategic purposes, and fully capitalized on the broader Yale platform in all ways. Thanks to sound governance (resources from the board and capabilities on the board), Swensen was able to pursue a creative combination of inputs that leveraged Yale's ecosystem. The strategy that we have come to think of as the "Yale model" was an expression of the fund's categorical and cultivated advantages, manifested through a unique combination of investment inputs.

Another example of an asset owner using their categorical and cultivated advantages effectively is Temasek, the sovereign development fund for Singapore. This fund was born as a development fund with a mission to create jobs and bolster the sovereign nation. This structural limitation shrunk its investable universe to those companies and opportunities that helped to develop Singapore. But Temasek adroitly leveraged its position at the crossroads of Asian commercial activity and trade. It used Temasek's strong governance and mission-driven culture to develop innovative ways of combining its inputs, focusing on platform companies and direct investments. It used its high-performance culture, innovation mandate, and patriotic mission to deliver world-beating returns. The constraint and focus on Singapore meant this fund was obligated to think creativelyand indeed differently-and that differentiation has



paid dividends over time. The since-inception annualized return is 14%, a point better than David Swensen's lifetime performance.

Both Yale and Temasek used their categorical and cultivated advantages to combine their inputs in novel ways. And, as a result, they have become models unto themselves. Temasek is copied by countries around the world, and the endowment model is pursued by countless institutional investors. But do these other funds really have the structural advantages to cultivate these capabilities? If they do, then they will deliver operational alpha.

Operational alpha refers to the efficient and effective implementation of a chosen investment model. It is another way of saying that an investor has a fit-for-purpose organization—the inputs an investor uses are of a higher level of quality than peers, which means delivering outperformance relative to those peers. As this implies, operational alpha means efficiency in the cultivation and combination of inputs, while organizational alpha often implies creativity in the cultivation and combination of inputs. But even here, operational alpha requires a capacity for innovation, as it means changing the inputs to improve. Hiring better people may mean using governance to change compensation. Improving process may mean changing culture to be more transparent. Better information may require significant investments in technology.

In other words, operational alpha may not be as difficult as launching a new investment model, but it still requires good governance, strong culture, and modern technology.

Concluding Thoughts

New models of investment are still emerging. CalSTRS famously launched the collaborative model, which seeks to collect inputs from other investors to augment their collective quality. I'd argue that APG, the Dutch pension investment company, is now pursuing the technologized model, investing heavily in information processing through modern technology. These are attempts at organizational alpha, and I hope they succeed. But just as these funds show new models, it will be the job of other investors to consider which models "fit" their organizations. And when they choose, they will hope to operate them in a way that delivers alpha.

^[1,2] Clark, Gordon L. and Monk, Ashby, Assessing Long-Term Investor Performance: Principles, Policies and Metrics (January 24, 2019). Available at SSRN: https://ssrn.com/abstract=3321963 or http://dx.doi.org/10.2139/ssrn.3321963.

Final Thoughts BY JOHN L. BOWMAN, CFA

As our impressive roster of contributors has aptly illustrated, the five marks of the Portfolio for the Future[™]—broadly diversified, less liquid, rooted in a fiduciary mindset, actively engaged, and dependent on operational alpha—are the defining features of all-weather portfolios that meet the challenges of the global economy and capital markets. We must all rise to the occasion.

In the coming decades, meeting investment outcomes and fulfilling our fiduciary responsibility will be a much taller order than it has been in recent years. The Portfolio for the Future[™] will demand that investment professionals become more enterprising and work harder than ever to construct diversified and creative portfolios anchored to client goals. This will require summoning professional poise and counter-cyclical courage and focusing, more than anything else, on the long-term goals of our clients while avoiding paralysis and the seduction of short-termism.

As Roger Urwin so elegantly states in his essay, "A fiduciary mindset begins with developing an existential understanding of purpose and its alignment to the client."

As we close, it's worth reflecting on four key themes that are woven throughout the marks that define the Portfolio for the Future[™], ones that have also echoed throughout CAIA's research and conversations with investment professionals. These trends are worth watching and will challenge our industry. And they may ultimately graduate into full-fledged "marks" themselves, sitting alongside our current five and contributing to a further reshaping of the ever-evolving investing landscape.

#1: The Rise of Lifecycle Equity Investing

While the iconic merchant bank is over 100 years old, modern private equity is commonly believed to have been born in the early 1960s, when a combination of breakthroughs occurred: the funding of Fairchild Semiconductor, the creation of the limited partnership (LP) fund, and the founding of Greylock Partners.

For more than 70 years, the industry that claims to create enterprise value through innovation and operating model improvements has largely remained unchanged. Firms purchase private businesses, recapitalize balance sheets, reinforce leadership, and accelerate growth as the organization is polished for eventual sale. The assumption underlying this process is that the strategic event represents the exit for the private equity or venture capital (VC) firm and proceeds can either be returned to LPs or reinvested in the next fund. The overarching operating principle is that private and public equity managers swim in separate lanes. As Andrea Auerbach points out, however, private markets have increasingly more to offer investors as the public markets trend toward passive products. Enterprising firms such as TCV Partners challenged this odd bifurcation more than two decades ago with the realization that no one knows the management, business models, and revenue drivers better than the private investors that have grown with them over the years. Why has this arbitrary separation in fund strategy and asset allocation endured, even as companies are staying private for longer?

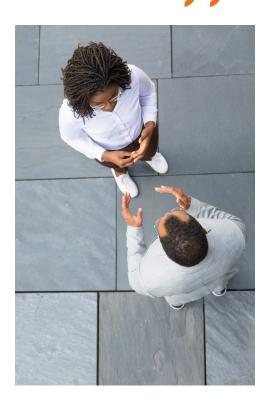
More recently, structural innovation has begun to occur throughout the profession, creating ever more blurred lines between private and public markets—what the industry calls lifecycle equity investing. Most notably, the grandaddy VC firm of them all, Sequoia Capital, has created a super-fund of sorts that allows LPs seamless exposure to great companies as they progress from early- to growthto late-stage private firms and then to publicly traded entities. In contrast, Wellington Management Company, the archetypical Boston fundamental public equity shop, has launched a successful series of private equity funds.

Regardless of the direction of travel, as firms build out their lifecycle investing capabilities, the trend will have revolutionary effects on general partnership (GP) identity, manager due diligence, and asset allocation methodologies.

#2: Taking the "Alternative" Out of Alternatives

CAIA Association was founded 20 years ago on the premise that capital allocators need broad exposure across the full risk premia spectrum to achieve long-term investment outcomes. The CAIA Program aims to equip investment professionals to integrate traditional asset classes with "alternative" asset classes, typically defined as hedge funds, private capital, real assets, and natural resources.

However, truly thinking like an allocator is not about jamming a small allocation of private capital or an idiosyncratic macro strategy on top of a traditional 60/40 allocation in order to add a pinch of octane. Nor is it about lumping a private credit strategy, a low-income housing fund, and life-sciences venture capital exposure into a sliver of the portfolio labeled "alternative." Truly thinking like an allocator is not about jamming a small allocation of private capital or an idiosyncratic macro strategy on top of a traditional 60/40 allocation in order to add a pinch of octane.



In perhaps the greatest of ironies, CAIA believes that the industry would do well to take the "alternative" out of alternative investments. Allocator is not a job title, it's a mental framework.

To think like an allocator is to acknowledge that a healthy portfolio consists of different risk factors that take on distinct roles to help achieve the overall objective. Academia, most professional certifications, and the institutional consulting apparatus all vigorously reinforce asset class specialization. In truth, the allocator cockpit requires us to separate portions of the portfolio designed for growth, yield, cash flow, inflation protection, and capital preservation. And increasingly, as Anne Simpson points out, that cockpit is fitted with new switches for dialing up active engagement, especially so among the dominant institutions—pension funds, insurance companies, and sovereign wealth funds—that are on an ever more urgent quest for risk-adjusted returns that satisfy their liabilities.

A sophisticated fiduciary shouldn't be concerned about "traditional" and "alternative" labels but rather should focus on building a portfolio of beta exposures using all the alternatives available. That includes mining the "Beta Continuum," as described by Mark Anson, for new sources of diversification that can complement a variety of active allocations such as private and public credit and infrastructure that deliver income; private and public equity that provide risk-on capital appreciation; commodities and real estate that offer inflation protection; and absolute return strategies and government bonds that can preserve capital in drawdowns. The investment profession's maturation away from an asset-class philosophy to one that orchestrates a total portfolio approach across all alternatives centered on meeting specific outcomes is a foundational pillar of the Portfolio for the Future[™].

#3: Liquidity Is a Feature, Not a Benefit

The liquidity of an asset is neither good nor bad—it merely reflects the ease of converting the asset or security into cash. One of the first principles of asset management is balancing the tradeoff between liquidity on the one hand and return premium, complexity, asymmetry of information, and lack of disclosure uniformity on the other. Prescribing the appropriate amount of liquidity should be purely a function of an investor's time horizon, sophistication, and risk tolerance. But in the case of the multi-generation or perpetual horizons of pensions, sovereign wealth funds, and endowments—and even the multi-decade timelines of most retirement goals—we often have a misguided obsession with liquidity.

Institutional pools of capital certainly need to meet the varying current liabilities of laborers, citizens, and students. Individuals and families should remain very conservative as they near and enter the decumulation stage. But most investment offices charged with fiduciary responsibility to meet long-term investor outcomes are right to take advantage of the illiquidity premiums and inefficiencies of private equity, private debt, real estate, infrastructure, and natural resources. Alpha, after all, is simply undiscovered beta.



The preoccupation with liquidity has led us to convert highly complex, leverage-unconstrained, eccentric strategies into regulated, retail vehicles. Whether it's liquid alternatives, the recent SPAC craze, or various other attempts at stuffing private capital into 1940 Act funds or UCITs wrappers, the result is always the same: When the asset is stripped of the elements that differentiate it from the public, short-term, highly regulated markets, much of the polish is sanded off. As Andrea Auerbach reminds us, private capital forces us to be patient—and sometimes this illiquidity saves us from our worst selves.

Liquidity is an important consideration for a portfolio and a potential feature of a strategy. But we must drop the dogmatic view that liquidity is itself a necessary benefit.



#4: Emergence of the New 40

A new chorus of phrases is entering our vernacular in this historically low-rate environment—most notably, "fixed-income replacement" and the "new 40." Putting aside the sales pitch bluster, this is a real conundrum for investors and consequently most policy portfolios are targeting the lowest levels of fixed-income exposure in decades. Black-Rock CEO Larry Fink recently decried the end of the 60/40 model and the rise of the 50/30/20 portfolio (with the new 20 consisting of alternatives). At CAIA, we believe that these asset-class segments can be unhelpful, but the sentiment is accurate. Any diversified portfolio will have a different "drag" depending on where in the economic cycle you may find yourself. But will allocators be able to stomach near-0% yields or justify fees from their public fixed allocation?

The biggest beneficiaries of this trend are private debt and direct lending. These loans shifted into high gear as the economy emerged from the global financial crisis and banks largely abandoned lending to small- and medium-size businesses due to new capital restrictions and stricter covenants. What began as a small appendage to the private equity industry has turned into a highly attractive \$1 trillion-plus industry.

Infrastructure, another asset class benefiting from secular trends such as U.S. legislation, a flurry of African projects, and massive Chinese Belt and Road capital, may also become a mainstay in the "predictable cash flow" portions of portfolios.

Perhaps most interestingly, new institutional on-ramps and structures in special-situation finance such as music and movie royalties, deeply distressed recapitalization, legal cases, and cryptocurrency lending will all compete for relevance as allocators hunt for stability.

New models of investment are constantly emerging, as Ashby Monk points out. Navigating the "new 40," as is true of allocating across the entire portfolio, requires investment organizations to correctly identify their structural advantages—and intentionally cultivate them in novel ways.

Looking ahead, what is clear is that asset allocation models will be fundamentally altered, and the Portfolio for the Future[™] will continue to evolve as investors and allocators work to achieve outcomes for their clients.

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The CAIA Association is a global professional body dedicated to creating greater alignment, transparency, and knowledge for all investors, with a specific emphasis on alternative investments. A Member-driven organization representing professionals in more than 100 countries, CAIA Association advocates for the highest ethical standards.

Our Vision

Global capital allocation is the engine for delivering pension benefits and individual retirement goals as well as preserving university, foundation and sovereign savings. Efficiently distributing both financial and human capital across the investment industry catalyzes innovation, cultivates societal wealth, and raises the integrity and quality of human flourishing. That virtuous purpose is incumbent on a properly functioning capital market system where training is robust, ethical conduct is consistent and enforced, and incentives of all parties are aligned. It is also dependent on a long-term, diversified approach to allocating that patient capital.

Since 2002, CAIA Association has sought to serve investors by educating industry stakeholders on the most current knowledge and best practices across the ever-changing landscape of alternative investments. Through credentialing of investment professionals, advocating with regulators and senior leaders, and developing world class thought leadership, CAIA aims to raise the standards of the industry. As a member organization, we are joined by CAIA Charterholders in 100 countries on a mission to collectively foster a true profession that serves the public good.

Our Mission

CAIA Association seeks to improve investment and societal outcomes of capital allocation through professional education, transparency, and thought leadership across all investor alternatives in our industry.





CAIA Association is headquartered in Amherst, Massachusetts, USA, and has regional office locations in Hong Kong and Geneva.

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