APOLLO

How alternatives can address your 60/40 portfolio blues

By Matt O'Mara
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July 2022

Individual investors have long been told that a diversified portfolio of public equities and bonds is the key to a successful retirement plan. While that held true for a long time—especially in the past 14 years when expansionary monetary policy compressed the cost of capital and bolstered publicly traded risky assets—the mantra is now being challenged, as a number of secular shifts, including the end of the US monetary printing press that started in 2008, have the potential to render this public-oriented strategy less effective and possibly more risky.

Let's first provide some background: In response to the 2008 Global Financial Crisis (GFC), the US Federal Reserve embarked on a long monetary-expansion cycle, slashing interest rates to zero and kicking off several rounds of quantitative easing (QE), whereby the central bank committed to buying specific amounts of publicly traded financial assets (i.e., corporate bonds, municipal bonds, among others).

KEY TAKEAWAYS

- A long-held mantra—that a diversified portfolio of public equities and bonds is the key to a successful retirement plan—is now being challenged by secular shifts taking place in financial markets today, including the end of the monetary printing press that started in 2008.
- A declining number of publicly traded companies, increased concentration of risk, rising correlations, stiff competition, and scarcity of opportunities for excess returns have all coalesced to diminish the opportunity set for investors in public markets.
- What's an investor to do? As private markets continue to grow, we believe that investors should rethink their strategic asset allocation frameworks to add or increase the use of alternatives in their portfolios to curb volatility and seek to enhance potential risk-adjusted returns.
- We define "alternatives" as simply an alternative to publicly traded stocks and bonds that seeks excess returns per unit of risk at every point along the risk-reward spectrum, from investment-grade credit to equity.
- Seen through that prism, we believe that it becomes clear that investors can explore the risk spectrum in private markets similarly to public markets. A key differentiating element is liquidity. We believe that investors who can forgo some level of liquidity stand to benefit from the opportunity in alternatives.

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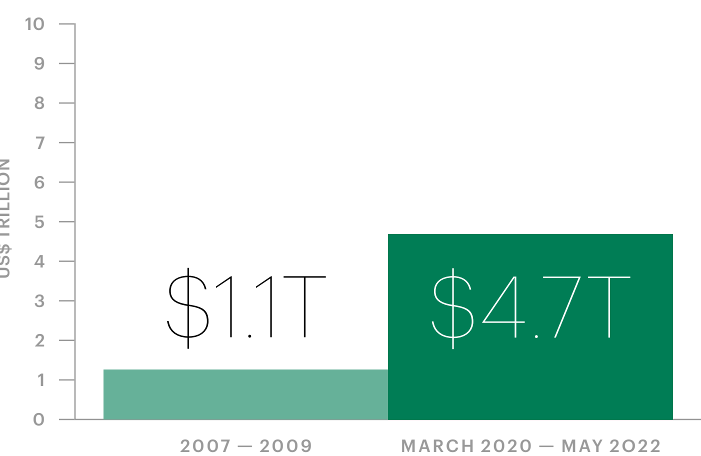
Starting at roughly $850 billion in late 2007, the Fed's balance sheet grew by $1.1 trillion to $1.95 trillion by mid 2009 because of QE. But the expansion did not end there, as the Fed kept monetary policy loose through early 2020, when the Covid-19 pandemic started. Faced with a steep drop in economic activity caused by the spread of the virus and subsequent lockdown policies, the Fed activated an even more aggressive QE program. From March 2020 to mid-May 2022, the Fed's balance sheet ballooned by a whopping $4.7 trillion. All in, the Fed's balance sheet has grown by $8.1 trillion since 2008 (**Exhibit 1**), roughly a third of the US Gross Domestic Product (GDP).

The Fed's balance sheet has grown by $8.1 trillion since the 2008 Global Financial Crisis, roughly a third of the US Gross Domestic Product.

Exhibit 1: The Fed's balance sheet has soared since the 2008 Global Financial Crisis

EXPANSION OF THE FED'S BALANCE SHEET SINCE 2008

FED'S BALANCE SHEET EXPANSION: GFC VS COVID STIMULUS



Source: Federal Reserve as of May 2022.

As the sharp expansion of the monetary base—combined with heavy fiscal stimulus during the pandemic, including checks sent directly to individuals—worked its way through the system, the economy quickly recovered from the initial shock of Covid-19, foreshadowing the end of a long period of loose monetary conditions.

In fact, aggregate demand surged in the aftermath of the pandemic, led by a sharp rebound in consumer spending. The demand increase was lopsided, however, as consumption patterns shifted heavily towards durable goods while the services sector remained subdued (as a result of stay-at-home policies aimed at containing the spread of the virus). This imbalance triggered supply-chain issues, challenging transport lines and the availability of many goods. Additionally, Russia's invasion of Ukraine in February sparked an extra supply shock, sending energy prices soaring. As a result, US inflation skyrocketed, hitting a four-decade-high annualized rate of 8.5% in March 2022, a watershed moment in a 14-year-long cycle of easy money.[1]

1. US Bureau of Labor Statistics; Federal Reserve Bank of St. Louis' FRED economic database.

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To combat soaring prices, the Fed reversed policy, embarking on a rate-hiking cycle, ending QE, and beginning to unwind its massive balance sheet. The start of the tightening cycle in March 2022 prompted a dramatic revaluation of asset prices in public markets, resulting in widespread market-value destruction. For example, the total market capitalization of the companies in the S&P 500 index dropped to $34 trillion in June 2022 from $42 trillion at the start of the year, a 19% correction. The move was even more pronounced in the technology sector: Market cap of companies in the NASDAQ Composite plummeted to $19 trillion from $27 trillion, a head-spinning 30% drop.[2] A subset of growth-oriented companies with particularly high multiples has seen an even more drastic market-cap erosion during the correction (**Exhibit 2**).

Exhibit 2: Public companies have experienced widespread market-value destruction as monetary conditions tighten

SELECTED STOCK PERFORMANCES OFF 52-WEEK HIGHS

Company	%	Company	%	Company	%	Company	%	Company	%
Carvana Co.	-94%	Twilio Inc.	-80%	Restoration Hardware	-71%	Okta Inc.	-67%	Tandem Diabetes	-62%
Upstart	-92%	Lyft Inc.	-79%	Vertiv	-71%	Nutanix Inc.	-67%	Burlington Stores	-62%
Wayfair Inc.	-86%	Wix.com Ltd.	-79%	Moderna Inc.	-71%	Shift4Payment	-67%	Match Group Inc.	-62%
Ginkgo Bioworks	-85%	Pinterest Inc.	-78%	Applovin Co	-70%	Pegasystems Inc.	-66%	New Relic Inc.	-61%
RingCentral Inc.	-83%	PayPal	-77%	Lucid Group	-70%	NovoCure Ltd.	-66%	Trex Co. Inc.	-61%
Roku Inc.	-83%	10X Genomics	-77%	SentinelOne	-70%	Snowflake Inc.	-66%	Chargepoint	-61%
Unity Software	-82%	Roblox Corp	-77%	Boston Beer Co.	-70%	HubSpot Inc.	-65%	Atlassian Corp.	-61%
DraftKings	-82%	Etsy Inc.	-76%	Guardant Health	-70%	Plug Power Inc.	-64%	nCino Inc.	-61%
Docusign Inc.	-82%	Confluent Inc.	-75%	Spotify	-69%	Elastic NV	-64%	Uber	-61%
Toast Inc.	-81%	Netflix Inc.	-75%	Palantir Technologies	-69%	Ceridian HCM	-64%	Zscaler Inc.	-60%
Novavax Inc.	-81%	DoorDash Inc.	-75%	Exact Sciences	-69%	Smart Sheet Inc.	-63%	Yeti Holdings	-60%
Opendoor	-81%	Zillow	-74%	Freshpet Inc.	-68%	Trade Desk Inc.	-63%	Generac Holdings	-60%
Cloudflare Inc.	-80%	UIPath Inc.	-74%	Caesars Entertainment	-68%	Victoria's Secret	-63%	Rocket Cos. Inc.	-60%
Teladoc Health	-80%	Zoom Video	-73%	Align Technology	-68%	Avalara Inc.	-63%	EPAM Systems	-59%
Coupa Software	-80%	Natera Inc.	-72%	Doximity Inc.	-68%	Norwegian Cruise Lines	-63%	ScottsMiracle-Gro	-59%

wayfair -86%

-77%

NETFLIX -75%

zoom -73%

RH -71%

Spotify -69%

Source: Bloomberg. Data shown in chart reflects Russell 1000 Growth Index constituents with the weakest subsequent performance off 52-week highs as of June 30, 2022. Company names and logos are the property of their respective holders.

2. As of June 30, 2022.

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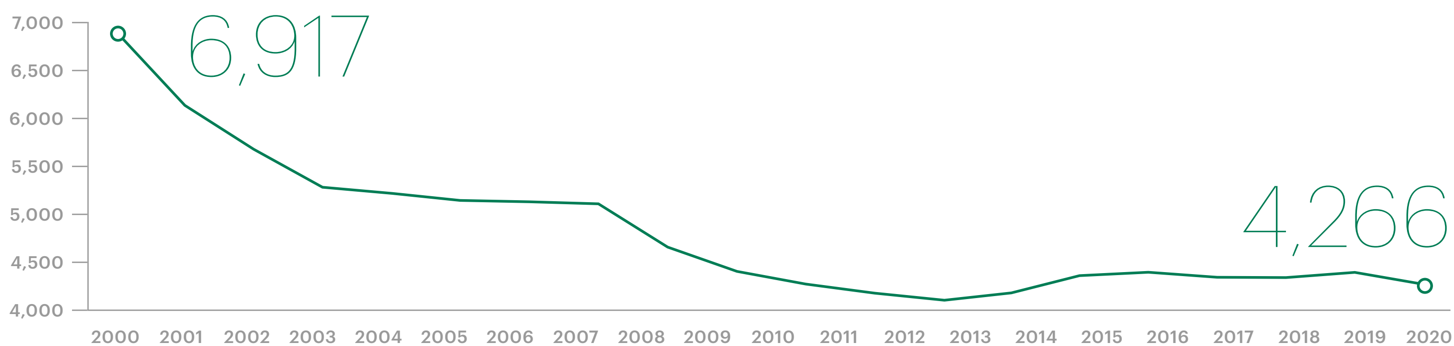
Fiscal and monetary policies aside, a separate set of secular changes has coalesced to create more challenges for individual investors, who tend to be highly exposed to public markets (individuals have a 6% average exposure to alternative investments, compared to 18% for the average pension plan, and 28% for the average endowment[3]). These secular shifts include:

A decline in the number of companies going public: The number of publicly traded companies in the US has declined by close to 40% since 2000 to a little over 4,200 (**Exhibit 3**), driven primarily by changing dynamics in key sectors (such as banking and technology) and a decreasing number of initial public offerings (IPOs). Concurrently, the number of private companies—especially those with 500-plus employees—has steadily increased, as private markets make up a larger portion of the US economy (**Exhibit 4**).

Exhibit 3: The opportunity set for investors in public markets has declined...

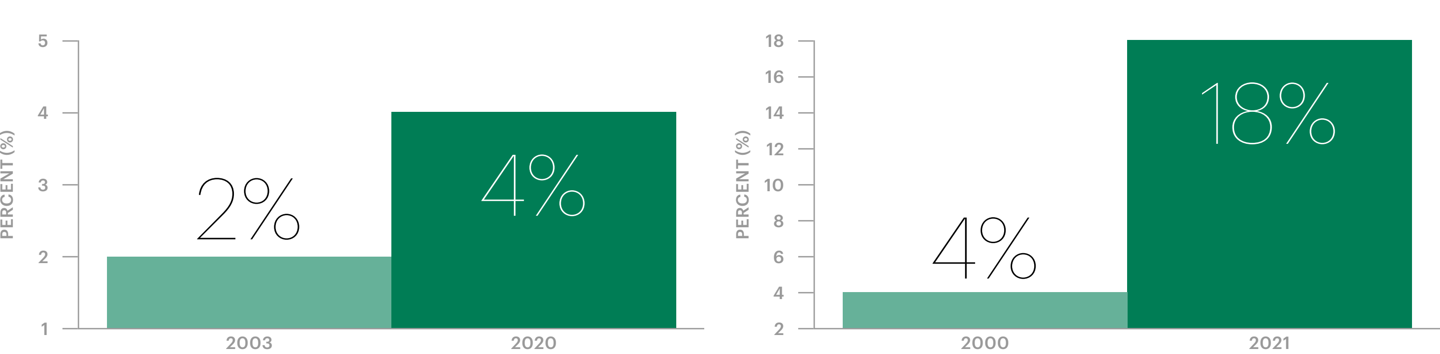


Sources: World Bank, World Federation of Exchanges, Apollo Chief Economist; as of December 31, 2019.

Exhibit 4: ...while private markets have increased their share of the economy

PRIVATE EQUITY AS % OF TOTAL EQUITY MARKETS

PRIVATE CREDIT AS % OF TOTAL CREDIT MARKETS



Sources: Preqin, Bloomberg, Apollo Chief Economist; private equity data as of December 31, 2020; private credit data as of September 30, 2021.

3. Marquette Associates Asset Allocation Study, as of March 21, 2021.

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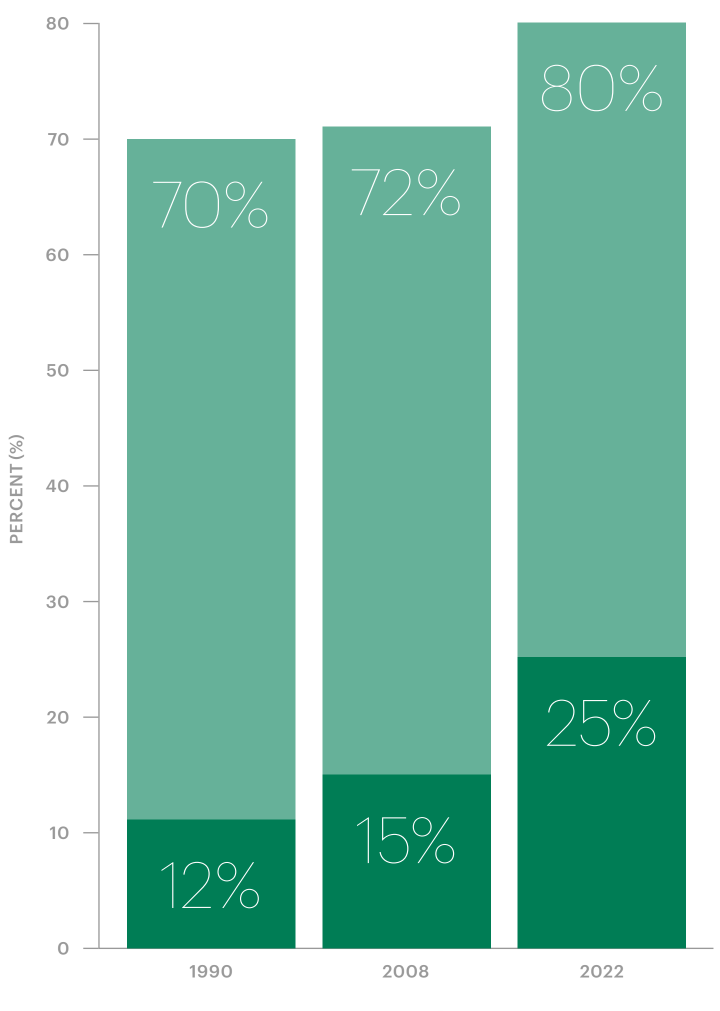
A surge in concentration risk in public equity beta: As public equity markets valuations rose during the period of sharp monetary expansion and the number of companies declined, the concentration of the public markets' capitalization increased. As shown in **Exhibit 5**, by mid-2022, the companies in the S&P 500 index accounted for 80% of the US equities markets, while the top 5 made up a quarter of the index, compared to 12% roughly two decades ago.

Scarcity of excess returns in public markets and the rise of passive investing: Fewer companies and higher concentration have combined to reduce the opportunity for investors to harvest excess returns in the public markets. In fact, a staggering 94% of active equity managers have underperformed the S&P 500 benchmark on a 20-year basis, a trend that has sparked a massive flight of capital from active into passive vehicles (**Exhibit 6**).

Exhibit 5: Public equity market cap has become increasingly concentrated in the past two decades

COMPANIES IN THE S&P 500 AS A % OF TOTAL US EQUITIES MARKET

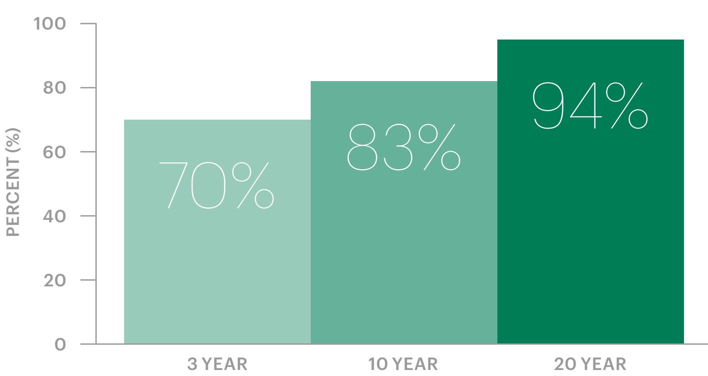


Sources: Bloomberg, Apollo Chief Economist; as of June 30, 2022. Company names and logos are the property of their respective holders.

Exhibit 6: Public equities have become beta

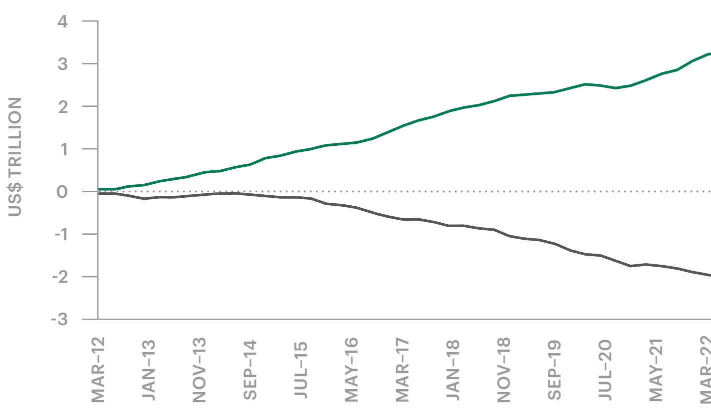
EQUITY MARKET UNDERPERFORMANCE

% of managers underperforming the S&P 500 Index



Source: Forbes, November 19, 2021. For discussion purposes only.

CUMULATIVE FUND FLOWS SINCE 2012



Sources: Bloomberg, Apollo Chief Economist; as of June 30, 2022. For discussion purposes only.

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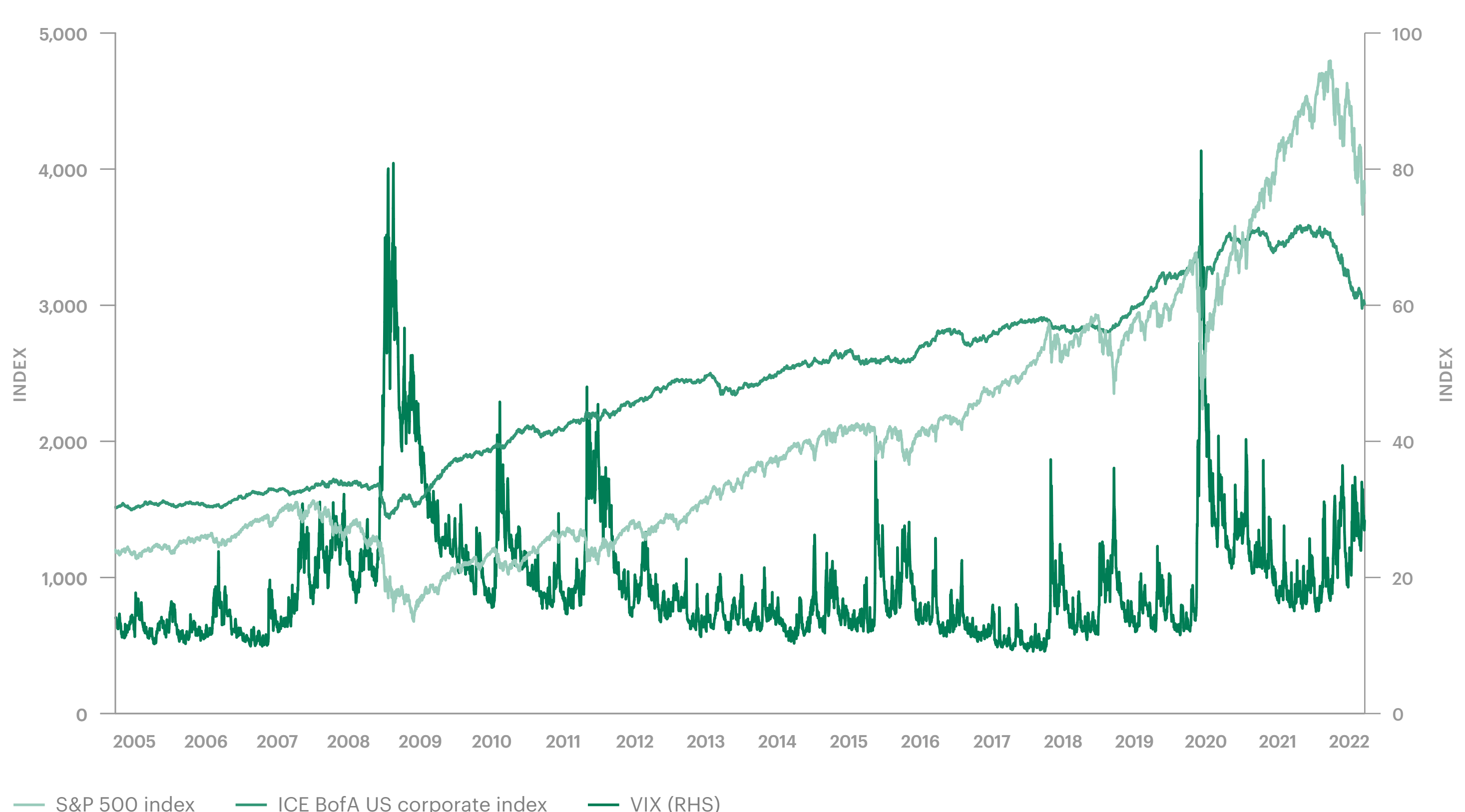
In fact, the popularization of passive investing—delivered through index and exchange-traded funds (ETFs)—has worked as a giant reinforcing mechanism to these secular trends: The more "indexed" the public markets become, the more "crowded" the trade becomes, as more and more people invest in similar assets. ETFs can be shorted as well, a trait that has widened the tool kit for investors—including algorithmic traders—and, in many ways, helped to fuel volatility.

As a result of these secular changes, the correlation between public stocks and bonds has been on the rise (**Exhibit 7**), weakening the ability of traditional portfolios (i.e., 60% equity/40% bonds) to deliver the diversification benefits they once did. In other words, the expected downside protection of a 60/40 framework—meant to smooth the ride for those investors in times of rising volatility—simply hasn't taken place in a post money printing-press world where inflation is higher than normal.

Exhibit 7: A traditional 60/40 portfolio no longer provides the diversification it once did



Source: Bloomberg, as of June 2022. For discussion purposes only. The information provided herein is based on the views and opinions of Apollo Analysts. As such, the analysis is based on certain assumptions which are subject to change without notice.

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This increased volatility can have pernicious effects on portfolios, resulting in lower overall terminal values and diminished potential spending power in retirement. **Exhibit 8** illustrates the negative power of this so-called "volatility drag."[4] The hypothetical example shows two portfolios (A and B) with an initial value of $5.0 million each. Portfolio A had a fixed annual rate of return during a 10-year period (i.e., no volatility). Portfolio B, however, experienced much more volatile returns, alternating between highly positive years to periods of sharp drawdown. When taking the simple average of annual returns, both portfolios A and B had similar average returns of 6.5%. Portfolio A—with stable values and zero volatility—earned a compounded return of 6.5% while the greater volatility of portfolio B led to a compounded annual return of 5.8%. The end impact of that volatility is palpable: Portfolio A ended the 10-year period with a terminal value of $9.38 million while Portfolio B lagged at $8.80 million, a substantial 6.2% difference.

Exhibit 8: "Volatility drag" can have substantially negative impacts on portfolios' terminal value

	RETURNS		INVESTED CAPITAL	
	Portfolio A	Portfolio B	Portfolio A	Portfolio B
Year 0			$5,000,000	$5,000,000
Year 1	6.5%	-5.0%	$5,325,000	$4,750,000
Year 2	6.5%	18.0%	$5,671,125	$5,605,000
Year 3	6.5%	-15.0%	$6,039,748	$4,764,250
Year 4	6.5%	-1.0%	$6,432,332	$4,716,608
Year 5	6.5%	9.8%	$6,850,433	$5,178,835
Year 6	6.5%	14.0%	$7,295,711	$5,903,872
Year 7	6.5%	-1.0%	$7,769,933	$5,844,833
Year 8	6.5%	28.0%	$8,274,978	$7,481,387
Year 9	6.5%	7.0%	$8,812,852	$8,005,084
Year 10	6.5%	10.0%	**$9,385,687**	**$8,805,592**

	Portfolio A	Portfolio B
Geometric Mean Returns	**6.5%**	**5.8%**
Arithmetic Mean Returns	**6.5%**	**6.5%**
Volatility	**0.0%**	**12.4%**

Source: Apollo Chief Economist. For illustrative purposes only. No representation is being made by the inclusion of any illustrative portfolio composition presented herein. The information provided herein is based on the views and opinions of Apollo Analysts. As such, the analysis is based on certain assumptions which are subject to change without notice.

4. "Volatility drag" is traditionally defined as the difference between arithmetic and geometric (or compound) mean returns. For example: Imagine one invests $100 for two years, experiencing a 100% return in year one and a 50% loss in year two. If so, the arithmetic mean return for this investor is 25% [(100% + (-50%)) / 2]. The geometric mean return, however, is zero since the terminal value of the investment is the same as the original investment (no compounding of wealth). Mathematically, geometric returns are always less than or equal to arithmetic returns. That puts portfolio volatility (standard deviation) at odds with compound returns. In other words, the higher the volatility, the higher the hurdle for an investor to compound wealth.

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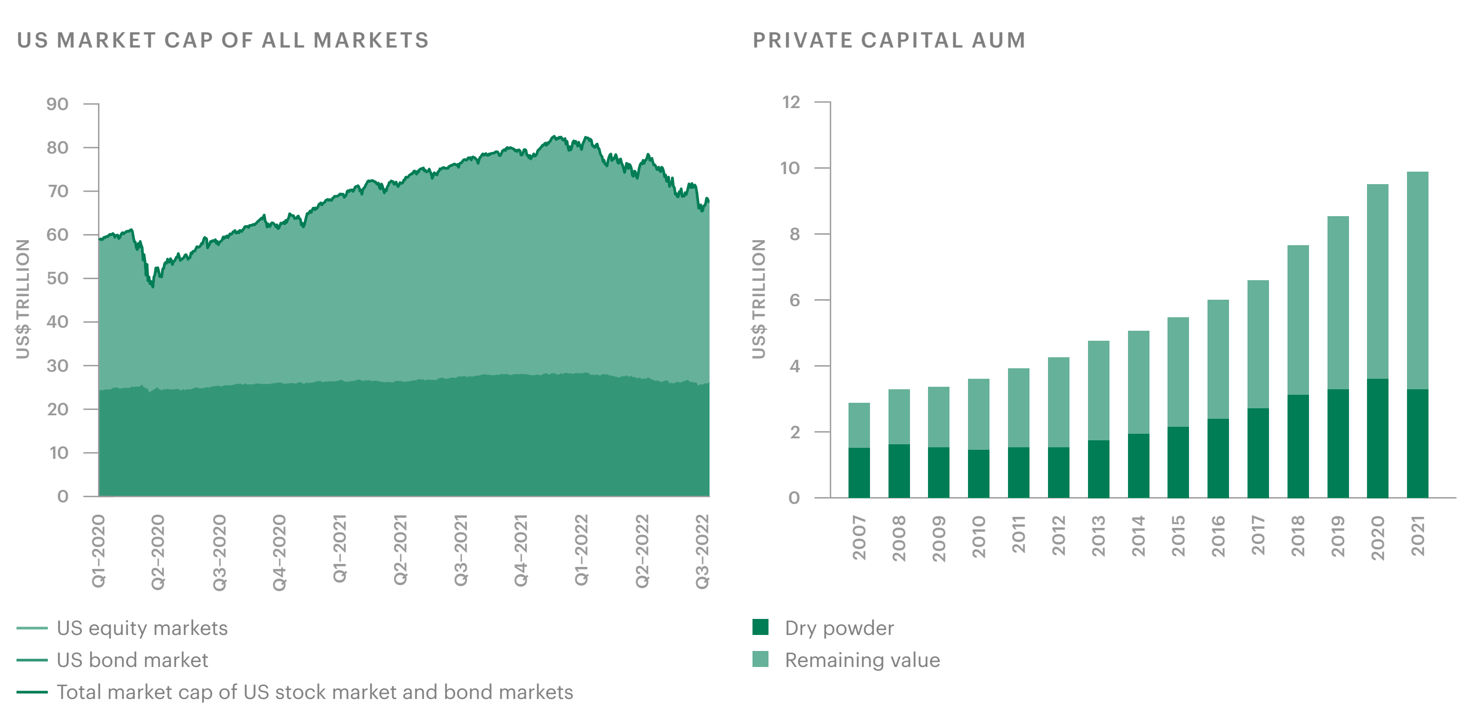
Besides rising volatility and correlations, investors must also contend with another important factor when comparing public and private markets: competition. The larger the market, the more liquid, and, consequently, the more competitive. The more competition, the harder it is to find potential excess returns. As shown in **Exhibit 9**, the total market capitalization of US public traded equities and bonds amounts to $68 trillion,[5] compared to roughly $10 trillion in global private capital assets under management,[6] perceived as a suitable proxy for the investable universe. That makes US public markets alone 6.8x bigger than global private markets. Consequently, traded daily volumes in public markets are much higher, inciting more competition and reducing the potential for finding alpha.

Exhibit 9: Private markets' smaller size translates into less competition for investors seeking excess returns



Sources: Bloomberg, Apollo Chief Economist. Bloomberg US Aggregate Bond Index (public bonds) and Bloomberg WCAUUS (public equities); data as of June 30, 2022; Pitchbook (private capital; depicts global private capital assets under management), data as of December 31, 2021.

How can investors address these issues?

We believe that investors must rethink their strategic asset allocation frameworks to add or increase the use of alternatives in their portfolios.

A recent J.P. Morgan analysis shows that, in the past three decades, an allocation of 60% public equities and 40% public bonds has had annualized returns of 9.04% with annualized volatility at 9.33%. Incremental additions of alternatives to this baseline 60/40 allocation, however, can dramatically change that picture, delivering potentially better returns while also dampening volatility (**Exhibit 10**).

While this trend has been true for a while—as evidenced by the increasing allocation to alternatives by large institutional investors, such as pension plans and endowments—alternative investments, for the most part, had been inaccessible for a large share of individual investors.

5. Bloomberg, data as of June 30, 2022.
6. Pitchbook. Depicts global private capital assets under management. Data as of December 31, 2021.

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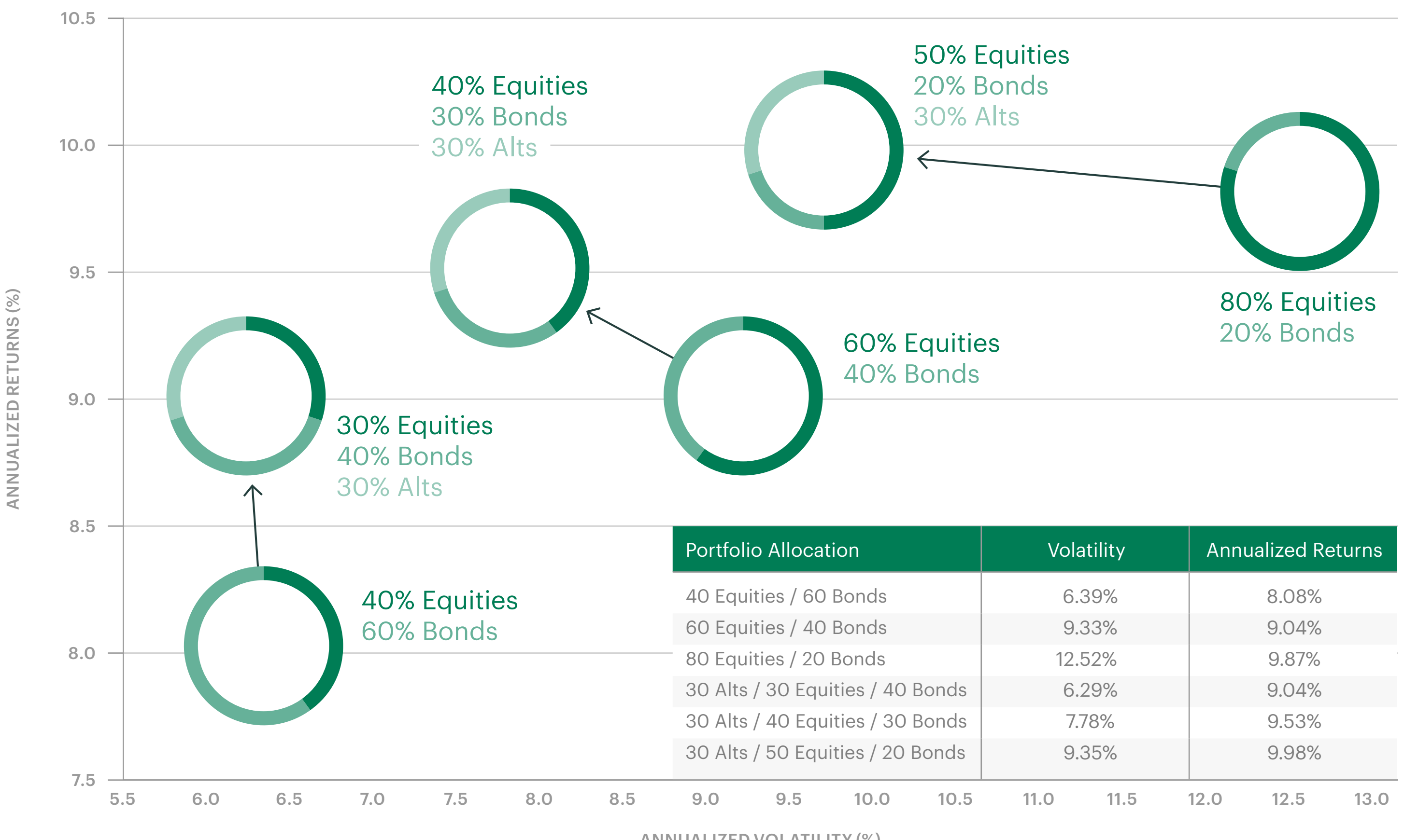
Fortunately, the regulatory framework put in place post the 2008 GFC[7] enabled a seismic change in the financial system, whereby access to capital went from a bank-led to an investor-led framework. For example, banks today account for only 10% of credit creation in the United States (**Exhibit 11**). Investment opportunities that were once the exclusive domain of institutions and banks are, for the first time, now becoming available to individual investors on a widespread basis.

This "democratization of finance" has now allowed individual investors to access and participate in the growth opportunity created in alternatives, both in the equity and credit spaces.

Exhibit 10: Adding alternatives to a public equity-bond portfolio can enhance potential risk-adjusted returns

ALTERNATIVES AND PORTFOLIO RISK/RETURN

Annualized volatility and returns, 1989 – September 2021



Portfolio Allocation	Volatility	Annualized Returns
40 Equities / 60 Bonds	6.39%	8.08%
60 Equities / 40 Bonds	9.33%	9.04%
80 Equities / 20 Bonds	12.52%	9.87%
30 Alts / 30 Equities / 40 Bonds	6.29%	9.04%
30 Alts / 40 Equities / 30 Bonds	7.78%	9.53%
30 Alts / 50 Equities / 20 Bonds	9.35%	9.98%

Source: Bloomberg, Burgiss, HRFI, NCREIF, Standard & Poor's, FactSet, J.P. Morgan Asset Management. Alts include hedge funds, real estate, and private equity, with each receiving an equal weight. Portfolios are rebalanced at the start of the year. Data is based on availability as of February 28, 2022. For illustrative purposes only. No representation is being made by the inclusion of any illustrative portfolio composition presented herein. **Past performance is not necessarily indicative of future results.**

7. Introduced in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (commonly known as Dodd-Frank) reshaped the financial regulatory framework in the US after the GFC. The Act defines itself as an instrument "to promote the financial stability of the United States by improving accountability and transparency in the financial system, to end ''too big to fail,'' to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes." Among many other changes, the legislation created the Financial Stability Oversight Council and the Office of Financial Research, which seek to identify threats to the financial stability. It also gave the Fed new powers to regulate systemically important institutions. Additionally, it introduced a new provision, known as the Volcker Rule, preventing depository banks from proprietary trading in certain kinds of speculative investments. As a whole, the legislation is widely perceived to have improved capitalization—through higher reserve requirements—and reduced leverage in the US banking system.

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Exhibit 11: Regulatory changes post 2008 GFC allowed access to capital in the US to move from a bank-led to an investor-led framework

BANK LOANS AS A % OF US NON-FINANCIAL CORPORATE DEBT

Source: Federal Reserve, as of March 31, 2022.

While alternatives have historically helped to enhance risk-adjusted returns in portfolios (as shown previously in **Exhibit 10**), we understand that adding exposure to the asset class can be easier said than done because alternatives add complexity to portfolios, creating hesitancy on the part of investors.

Those concerns often include: Lack of manager alignment, illiquidity, J-Curve, capital calls, layered fees, and complex reporting.[8] Additionally, we believe that the alternatives exposure itself must be diversified, meaning investors need to consider concentration and vintage risks. In short, although investors, for the most part, have increased access to alternatives, they are oftentimes ill-equipped to manage a diversified portfolio of alternatives and tend to perceive such investments as riskier than public markets.

> We define "alternatives" as an alternative to publicly traded stocks and bonds that seeks excess returns per unit of risk at every point along the risk-reward spectrum, from investment-grade credit to equity.

What might investors consider when addressing those issues?

We believe that it starts with defining what alternatives are. We define "alternatives" as simply an alternative to publicly traded stocks and bonds that seeks excess returns per unit of risk at every point along the risk-reward spectrum, from investment-grade credit to equity.

When seen through that prism, we believe it becomes clear that investors can explore the risk spectrum in private markets in a similar way to that in public markets. A principal differentiating element is liquidity. We believe that those investors who can afford to forgo some level of liquidity can benefit from the opportunity in private markets as a source of potential excess returns as well as a mitigant to overall portfolio volatility.

Further, we believe in a fundamental investment tenet: Purchase price matters! In our view, the price at which an asset is acquired is a key determinant of future success and should be an essential component of any decision-making process.

We firmly believe in both our definition of alternatives and our investment philosophy. That's why we align our interests with those of our investors, deploying capital alongside them across our platform.

8. See "Glossary of Terms" at the end of this paper for definitions.

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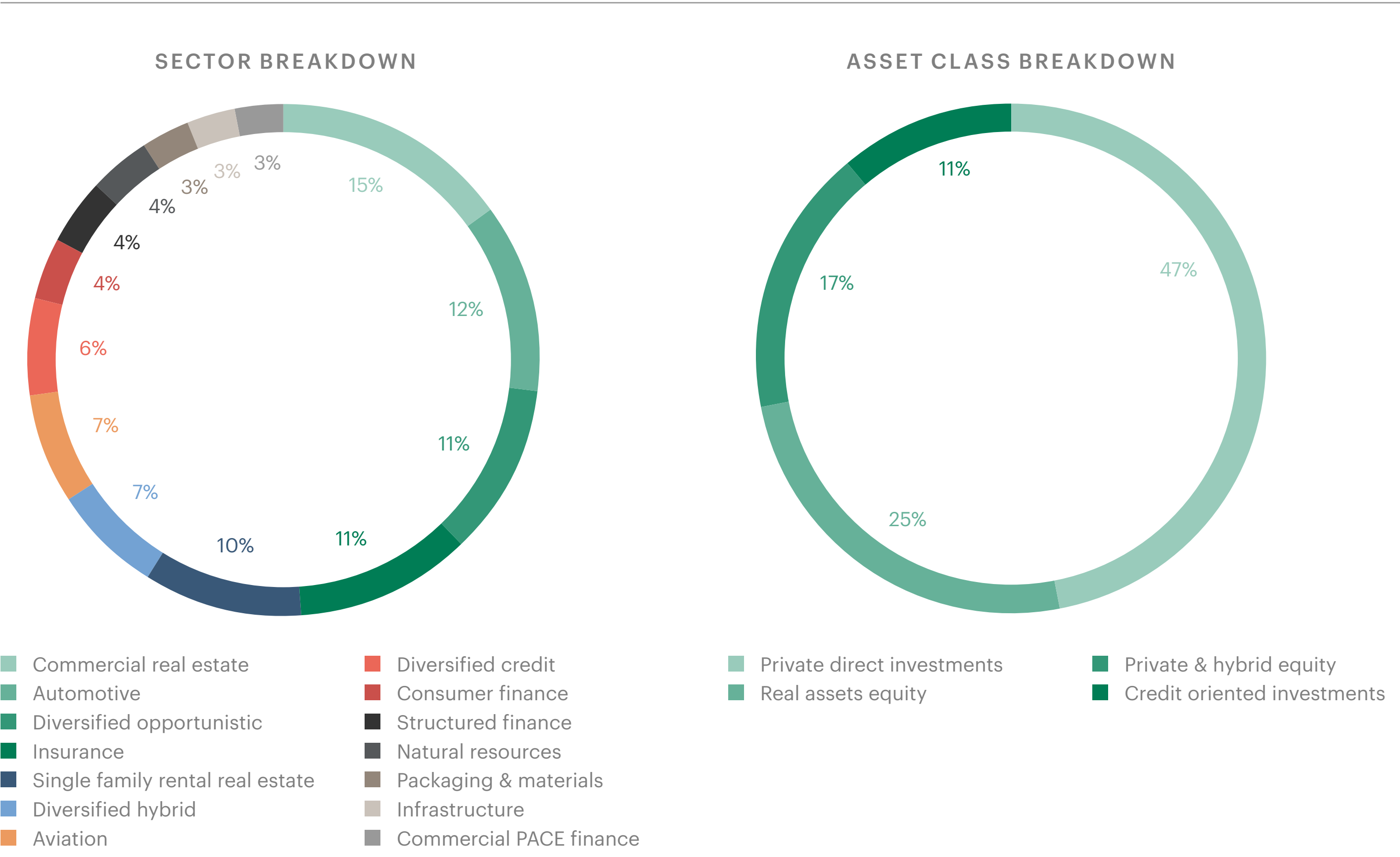
Additionally, when building holistic portfolios, we believe that investors should ensure that exposure to alternatives is as diversified as their investments in public markets, including private equity, direct private lending, hybrid equity, real assets equity, credit, as well as accessing co-investment opportunities. We believe that investors should also consider diversification across sectors and industries, from infrastructure to financial services, natural resources, aviation, commercial and residential real estate, automotive, among others (**Exhibit 12**).

Addressable market size and growth potential are other important elements for investors to bear in mind when considering investing in alternatives. For example, the traditional private equity industry had roughly $3 trillion in assets under management as of March 2022 while private credit has close to $1 trillion.[9] Meanwhile, special situations—what we, at Apollo, refer to as "hybrid"—is a more nascent asset class, smaller in size at close to $200 billion of assets under management. When one looks at the dry-powder (or money waiting to be deployed) available in the industry, we see roughly $830 billion in the private equity space and about $350 billion in private credit compared to just $52 billion in special situations.[10] As companies and sponsors are increasingly seeking more flexible capital at scale in lieu of traditional common equity or debt capital—especially during periods of market distress—we see growing demand outpacing supply for these hybrid structured equity/debt solutions, suggesting strong growth potential for that segment of the market.

Exhibit 12: A diversified portfolio of alternatives—deployed as a separate sleeve or as a core equity replacement—can help enhance potential risk-adjusted returns



Source: Apollo Analysts. For illustrative purposes only. No representation is being made by the inclusion of any illustrative portfolio composition presented herein.

9. Preqin; assets under management data as of March 1, 2022; dry-powder data as of June 30, 2021.
10. Ibid.

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With that in mind, we believe that such a balanced, foundational exposure to alternatives can, in our view, be deployed as the core component of an alternatives sleeve of a portfolio—which can over time be supplemented by niche exposures (i.e., venture, impact, among others)—or alongside public beta as a core equity replacement.

Further, we believe that investors should differentiate between asset allocation and manager selection when adding alternatives to a portfolio, for two main reasons: 1) dispersion of returns is not uniform in the alternative space, with some asset classes, such as private equity, exhibiting higher levels of dispersion, while others, such as private credit, a little less so; and 2) the size and scale of the asset manager matter a lot for a variety of reasons, from ability to source and seize opportunities to providing liquidity to governance factors. In short, picking the right partner is key.

The end of the unprecedented monetary expansion experienced in the past 14 years has fundamentally changed how individuals should invest for retirement. We believe that the scarcity of excess returns in public markets will continue to pressure investors to look for alternative sources of potential alpha. Concurrently, we believe that the "democratization of finance" has prompted investors to reevaluate their traditional allocations, opening a window of opportunity for them to participate in—and benefit from—the long-term trends developing in the alternatives space.

Glossary of Terms

Alpha: Describes the returns of an investment generated by a manager's active efforts, which simultaneously describes an investment or strategy's ability to outperform the market's benchmark return. For example, an alpha of 3% means that an investment's return over a period of time was 3% better than the market in that same period. Alpha essentially measures the value that an active portfolio manager adds or detracts from the return of a strategy or fund.

Beta: Measures the volatility and risk of a portfolio or security compared to the market. Beta measures a security's sensitivity to a market's movements. If Beta is more than 1, the security's price moves up or down more than the market moves up or down. Beta also refers to how much of a portfolio's returns are generated by market factors (rather than by active management by a fund manager).

Capital Call: A capital call is request for funds issued to limited partners when the general partner has identified a new investment, and it requires the committed capital of the limited partner to finance it.

Committed Capital: Committed capital of a fund is the collection of all individual investments made by the limited partners. Committed capital indicates the maximum amount that a fund can call from limited partners.

Dry Powder: Dry powder, or capital overhang, is the amount of capital raised by private equity that hasn't been invested. Private equity funds typically ensure that all capital overhang is used over time, otherwise investors pay fees on capital that the fund manager never put to work.

General Partner: The general partner is the investor who manages an alternatives fund structured as a partnership. The general partner assumes liability for the debts of the business.

Holding Period: The holding period is the amount of time that it takes for the original investment to exit. Differences in holding periods determine an investment's tax treatment.

Illiquidity Premium: An illiquidity premium is the additional return that's received from an illiquid asset. This additional return compensates for the risk of allocating capital to an asset that cannot be easily sold or exchanged.

J-Curve: The J-Curve is the predicted return curve for a private equity fund. The J-curve predicts that private equity funds deliver negative returns for their first few years and positive returns as the portfolio matures.

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Limited Partner: A limited partner (LP) is a part-owner or investor in a US limited partnership, which is the most common structure for private equity funds. The limited partner does not manage the business on a day-to-day basis like the general partner does, and the liability accrued to them is less than the amount the limited partner has invested in the company.

Management Fee: A management fee is the amount of money that the fund must pay the general partner for their work running the operations of the fund on a day-to-day basis.

Market Capitalization: Market capitalization, or "market cap," is the value of a publicly traded company. It's calculated by multiplying the company's stock price by the number of its outstanding shares.

Vintage Year: The vintage year of a fund is defined by the first year that significant investment capital is delivered to a project or company.

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