

2022 Investment Review

Yesterday is History



2022 Board of Pensions Balanced Investment Portfolio results

The Board of Pensions Balanced Investment Portfolio returned a negative 11.6% in 2022. Despite a tumultuous year, the portfolio outperformed its benchmark index; the portfolio remains well-structured and the Defined Benefit Pension Plan well-funded.

Annualized Performance as of 12/31/2022	20 Years	15 Years	10 Years	5 Years	3 Years	2 Years	1 Year
Balanced Investment Portfolio	7.7%	5.9	7.3	5.3	4.7	0.5	-11.6
Long-Term Investment Return Assumption	6.0%	6.0	6.0	6.0	6.0	6.0	6.0
65% ACWI, 30% BC U.S. Universal, 5% 90-Day T-bill	6.9%	4.7	6.1	4.1	2.5	-2.7	-15.4

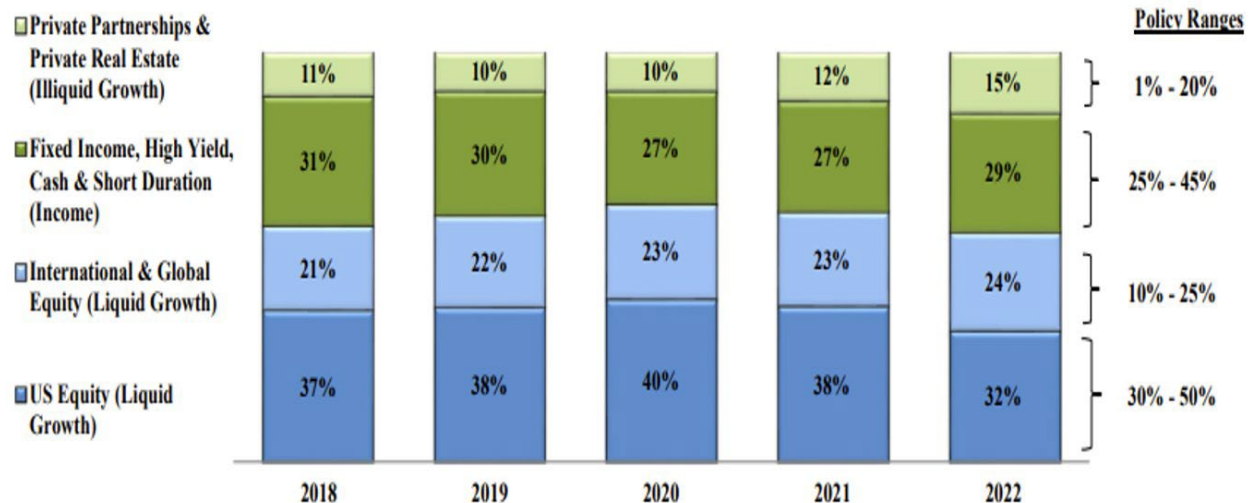
Executive Vice President Donald A. Walker III, CIO, prepared the 2022 Investment Review, with data compilation by Lydia Yost and asset class sections contributed by Ahmad Ali (Private Equity), Michael Kwiatkowski (Fixed Income), Peter T. Maher (Public Equity), and Matthew H. Nurkin (Real Estate).

Portfolio allocation and structure

The Investments team structures the Balanced Investment Portfolio within the asset allocation ranges approved by both the Investment Committee of the Board of Directors and the full Board of Directors. These ranges are set to help the portfolio earn sufficient returns to pay benefits and apportionments, minimize risk, and provide ample liquidity.

The graphic below shows the Balanced Investment Portfolio allocations over the last five years. The Illiquid Growth (Alternatives) component of the portfolio grew over the last several years due to a focus on both new private real estate and targeted private equity investments, which are expected to add to returns and better diversify the portfolio.

Balanced Investment Portfolio Asset Allocation



Source: BNY Mellon

2022 year-end portfolio statistics include the following:

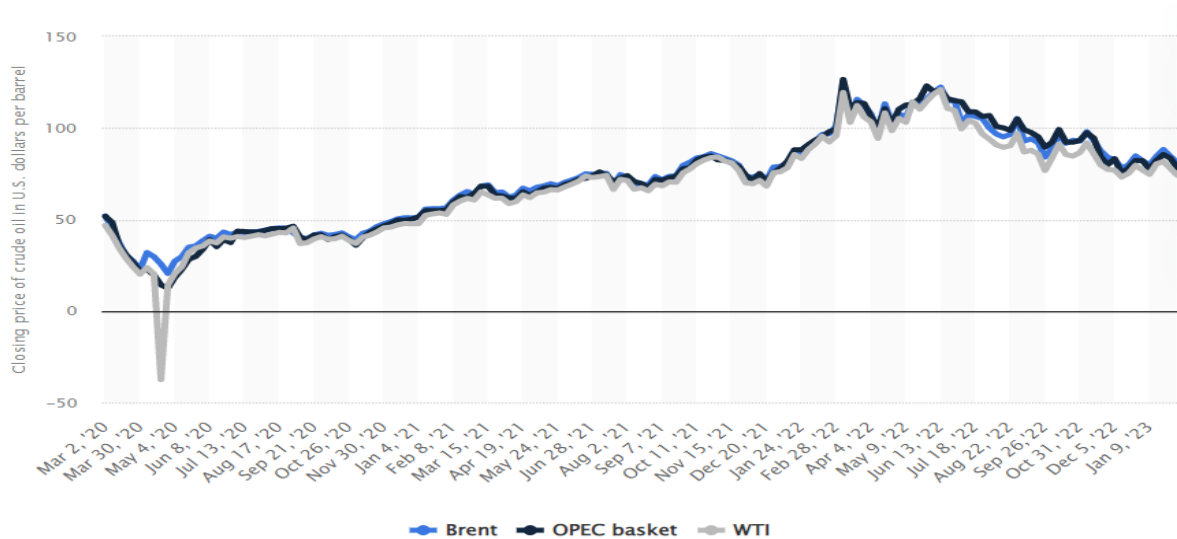
- \$10.4 billion in Balanced Investment Portfolio assets under management
- Portfolio return of -11.6% was 380 basis points (+3.8%) better than the -15.4% of the performance benchmark
- 21 equity strategies: U.S., international (non-U.S.), and global
 - 11 of 21 strategies beat the Liquid Growth (Public Equity) benchmark MSCI All Country World Index (ACWI)
 - U.S. strategies generally performed well relative to benchmarks
 - International strategies suffered, in part due to the war in Ukraine and its disruptive impact on the European economies
- 10 fixed-income strategies, including cash management
 - 6 of 10 strategies beat the Fixed Income benchmark Bloomberg U.S. Universal Index
 - All except one core fixed-income manager beat their strategy-specific benchmarks
- 88 active alternatives funds across private equity, private credit, and real estate
 - Despite write-downs in value within some technology-related funds, the Alternatives portfolio continues to perform well for the Balanced Investment Portfolio

- Screened portfolio based on the values represented by the [2023 General Assembly Divestment/Proscription List](#))

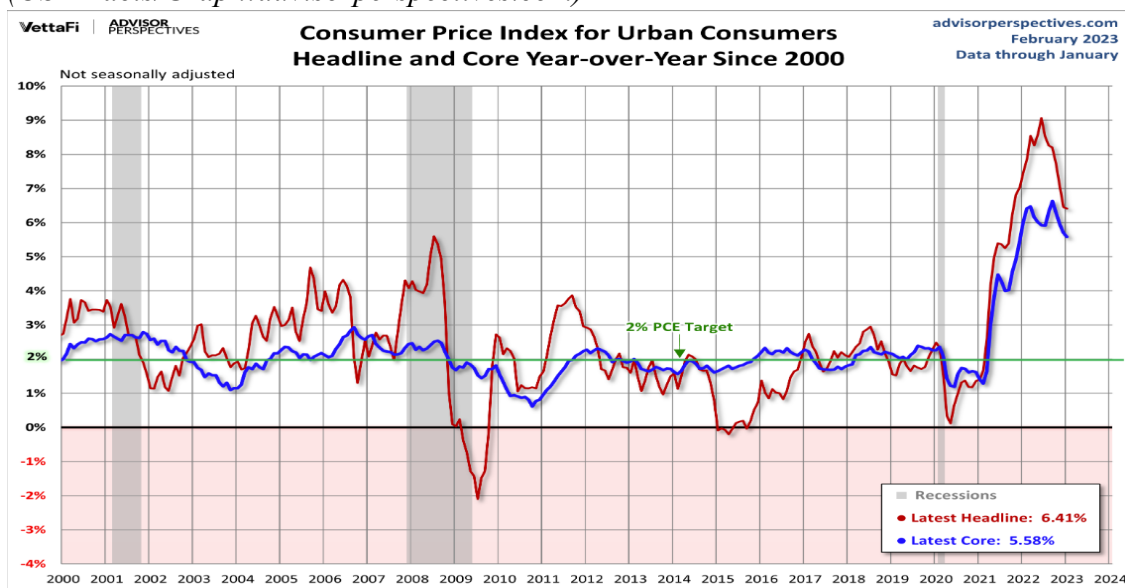
Yesterday is history

Looking back on the year that was, we have been struck by the historic nature of economic events. It seemed like every day was a new *record* something — and not in a good way. Equities roiled, bonds churned and were not a diversifier; even GSK, the maker of TUMS, fell almost 22%. (*References below in italics.*)

- Oil prices hit a record \$113.77 in June (*USA Facts/Graph: Statista*)

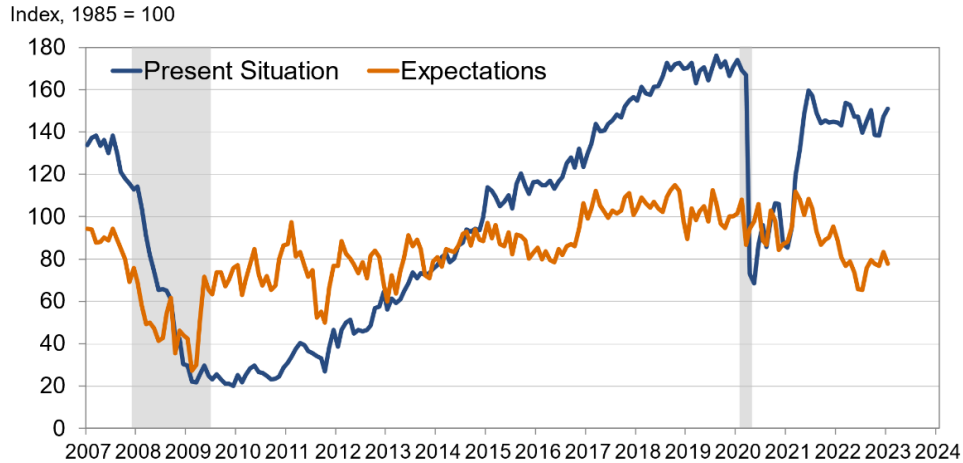


- Inflation increased 9% year over year (U.S. CPI-U) as measured June 2022/June 2021 — the highest year-over-year increase in 40 years (*USA Facts/graph:advisorperspectives.com*)



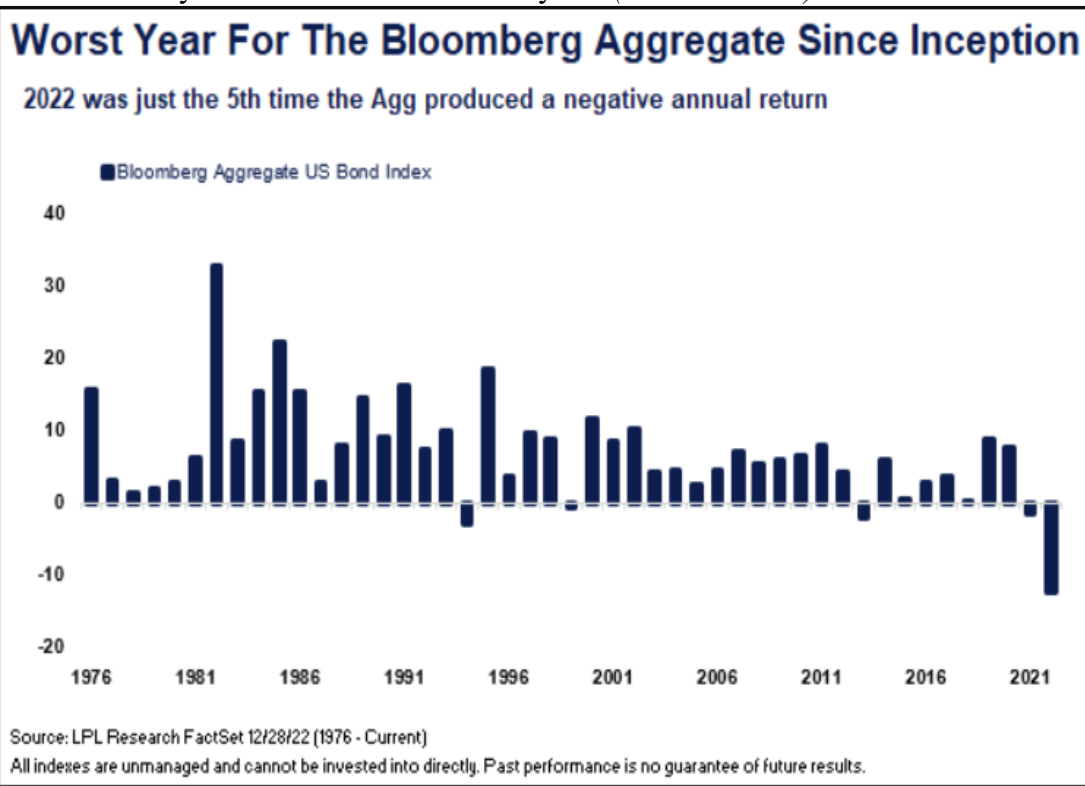
- After rebounding in 2021, U.S. consumer confidence dipped in 2022 (*The Conference Board*)

Present Situation and Expectations Index



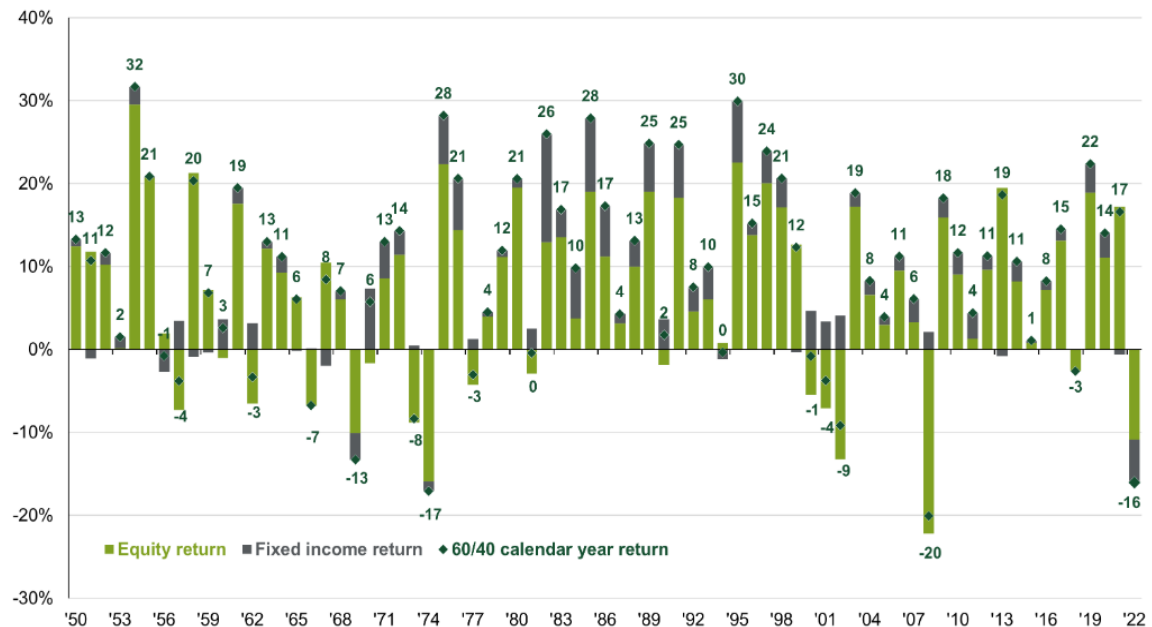
*Shaded areas represent periods of recession.
Sources: The Conference Board; NBER
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- 2022 – Worst year for bonds in almost 40 years (*LPL Research*)



- Second-worst year since 1976 for portfolios composed of 60% stocks/40% bonds (return of -18.1%) (*JP Morgan Asset Management*)

Total returns, 1950 – present



Source: FactSet, Standard & Poor's, Robert Shiller, Yale University, Bloomberg, Ibbotson/Strategas, J.P. Morgan Asset Management.

The 60/40 portfolio is 60% invested in S&P 500 Total Return Index and 40% invested in Bloomberg U.S. Aggregate Total Return Index. S&P 500 returns from 1950 – 1970 are estimated using the Shiller S&P Composite. U.S. fixed income total returns from 1950 – 1975 are estimated using data from Strategas/Ibbotson. The portfolio is rebalanced annually. Guide to the Markets – U.S. Data are as of December 31, 2022.

While the phrase *it could have been worse* may be true for 2022, it is cold comfort to investors. My grandfather used to say, “if you’re not looking ahead, you’re falling behind.” I don’t know where he got that, but it’s true in investing. Yesterday is history — let’s attend to the now and plan for the future.

Now, we look ahead

Our looking glass is a bit clouded in 2023, but that implies some spots of clarity:

1. Exogenous shocks could cause significant downside cases to emerge (e.g., emerging market debt crisis caused by strong dollar and higher rates, oil market upset).
2. The Federal Reserve is committed to fighting inflation, so expect rates to rise as positive economic data supports continued tightening of financial conditions — and expect at least a mild recession by late 2023 or early 2024.
3. Real estate will be an area of interest and potential opportunities as financial structures get renegotiated in this post-COVID-19 and higher interest rate environment.
4. Trade disruptions could cause inflation to rise in certain sectors.

Positive surprises in employment and inflation are likely to keep the Fed increasing interest rates, at least intermittently, throughout 2023. We think the U.S., and much of the global economy, is nearing the final stages of reopening post-COVID-19, but the shift will remain lumpy. Part of that shift could see wage pressures build in certain sectors, which then would keep inflation higher than investors currently expect.

Any significant, or prolonged, dip in inflation, employment, and consumer confidence could lead the Fed to pause, but not reduce, rates prior to 2024. The Fed has committed to bringing inflation under control, eventually. This suggests history will repeat itself insofar as rising rates stifle economic growth to the point of causing a recession. We are backing off our call for a deeper, prolonged recession and think that it will be short when it does occur.

Areas of concern we see:

- **Office real estate.** We think few businesses have clarity on post-COVID-19 space needs.
- **Geopolitics.** The likelihood of policy mistakes seems higher and the impact similarly so.
- **Corporate earnings.** We are already seeing some weakness; preemptive layoffs could mitigate a bigger margin and earnings impact.
- **Liquidity tightening as Fed raises rates.** But cash on hand is an earning asset again.

There are rays of sunshine:

- **Fed still hiking rates.** But many bonds now pay a yield worth owning.
- **Dislocation leads to opportunity.** Real estate and debt markets will have something for us in 2023/2024.
- **Value equity has been out of favor for more than a decade.** You should have some in your portfolio.

For more details on areas of interest, be sure to review the following asset class writings by my colleagues.

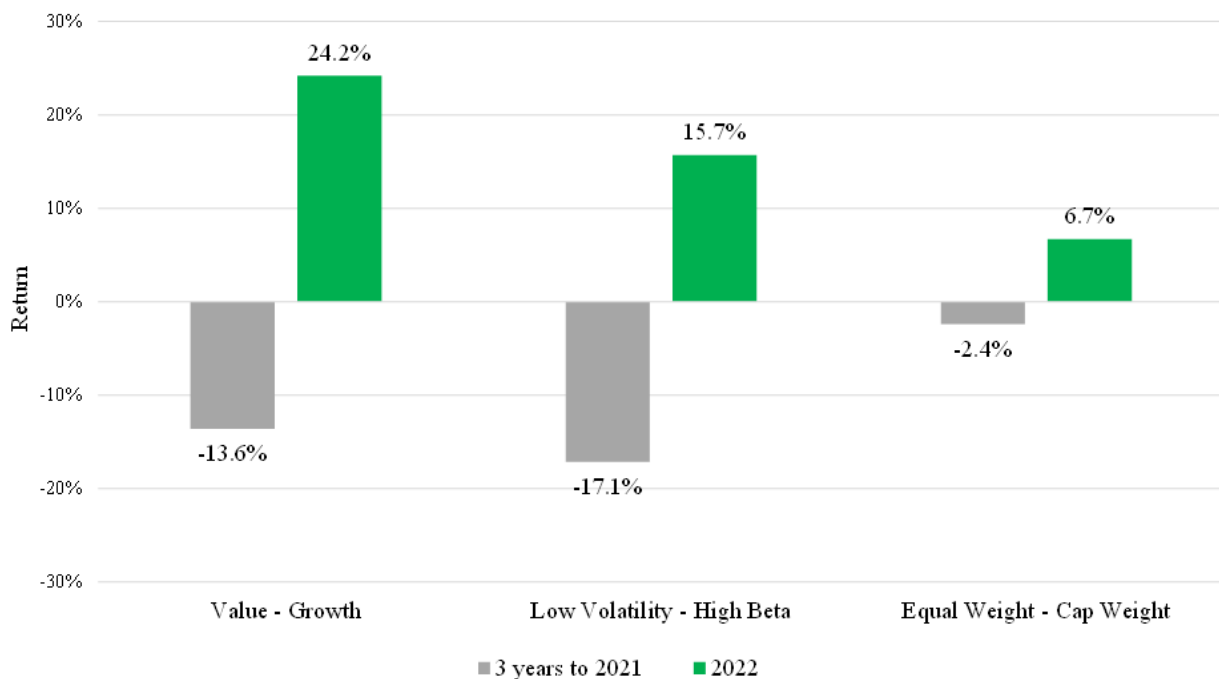
With our best wishes for a happy and healthy 2023,



Equities – Year in review

Global equity markets delivered a year of negative returns for investors in 2022. War in Ukraine, inflation spikes, and the unwinding of risk-taking excesses in growth and speculative stocks with lofty valuations combined to pull market averages lower over the course of the year. U.S. stocks lost primacy among global equities as developed market indices outside of the U.S.

outperformed them in 2022. Losses in information technology, consumer discretionary, and communication services stocks contributed most to the poor performance of U.S. equity indices. Interest rate increases over the year impacted the discount rates investors apply to the valuation of financial assets. Consequently, the underlying factors driving equity performance reversed course in 2022, as can be seen in the chart below.



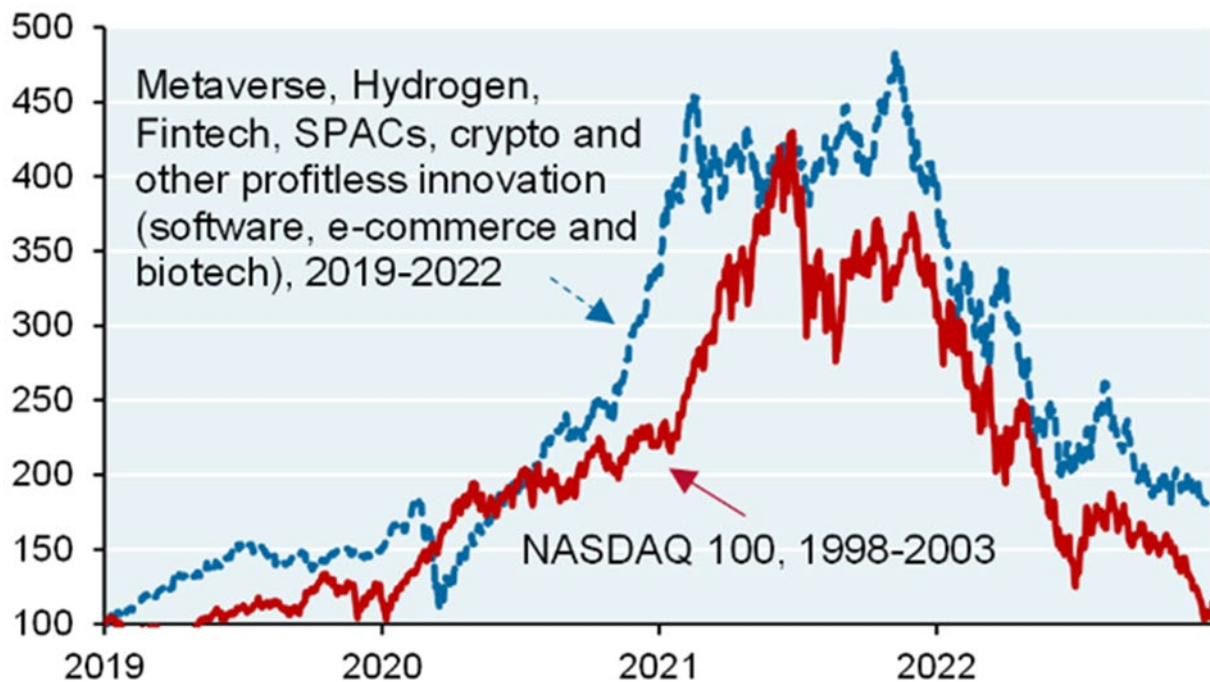
Source: S&P Dow Jones Indices

The chart above displays the annualized difference, or spread of returns, among the constituents of the S&P 500 index across three performance drivers: value, risk, and company size. In 2022, value stocks outperformed growth stocks by over 24% in one of the most exceptional years for the style. Stocks with a muted amount of price fluctuation, a measure of relative risk, outperformed more volatile, higher beta stocks by almost 16% in 2022. And stocks with smaller market capitalizations outperformed the stocks of larger companies over the year. The performance of these drivers in 2022 was in stark contrast to returns from the 2019-2021 period, where larger cap, riskier and more expensive stocks delivered better performance.

In 2022, investors brutally derated the shares of speculative and money-losing thematic investments in areas such as information technology, cryptocurrency, and biotechnology. The S&P Cryptocurrency Broad Digital Market index plunged by almost 70%, and the ARK Innovation fund, managed by the celebrated investor Cathie Wood, sank by 67% in 2022. These stomach-churning performances evoked an eerie parallel to the unraveling of the worst excesses

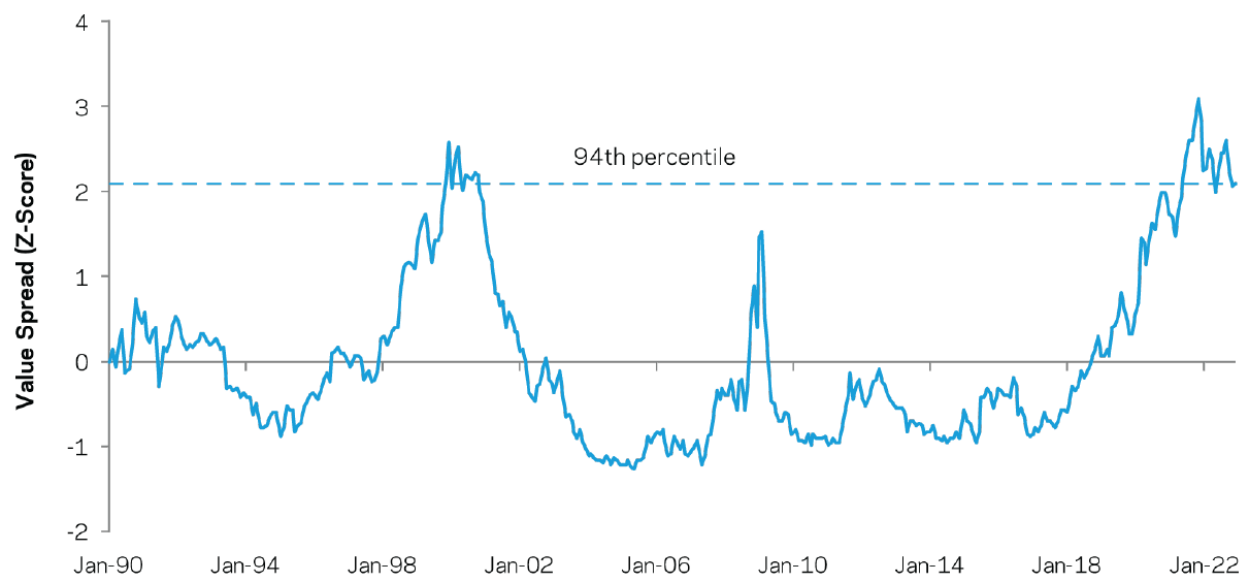
of the dot-com bubble in the late 1990s, as highlighted by Michael Cembalest at J.P. Morgan in the chart below.

The red line tracks the performance of the Nasdaq-100, an index of mostly information and biotechnology companies that are leaders in their respective areas. The blue line represents the performance of an eclectic mix of speculative investments, from cryptocurrencies to software and fintech. The two lines share a disconcerting similarity, in which the graphic appears to suggest that “profitless innovation” may have further to fall.



Source: J.P. Morgan Asset Management

Last year in our 2021 review of equities we shared a blog post from Cliff Asness, Managing and Founding Principal of the investment firm AQR. The piece highlights the historically wide disparity between expensive and cheap stocks across global markets. On January 4, 2023, Cliff updated readers on the prospects of value as an investment style in a post titled [The Bubble Has Not Popped](#), consisting once again of a single chart, shown below.



Source: AQR. Data as of 12/31/22

The chart displays what is known as the value spread, or the gap in valuation between the most expensive stocks relative to the cheapest stocks globally. As a rule, while expensive stocks are always more expensive than cheap stocks, investors are interested in the size of the current valuation gap relative to the long-term relationship between expensive and cheap stocks. As 2021 ended, the spread between expensive and cheap stocks hit its widest level in over 30 years, surpassing the peak level recorded in the dot-com era.

The chart illustrates that despite falling valuations and equity market losses throughout 2022, the valuation relationship between expensive and cheap stocks has not changed to a meaningful degree. The value spread has most certainly narrowed, yet it remains at an extremely elevated level. At year-end, the divergence in valuations between expensive and cheap stocks was as wide as it has been in only 6% of history. The slight reversion of spreads in 2022 is cold comfort for investors who have sustained outsized losses on speculative investments. Value-oriented strategies should continue to experience a favorable investment environment.

As shown in the table below, Board of Pensions public equity components delivered negative returns in 2022.

	2022	----- Annualized Returns -----					
		20yr	15yr	10yr	7yr	5yr	3yr
Board of Pensions U.S. Equity	-17.6	10.7	9.2	12.8	11.7	9.3	8.5
Board of Pensions International Equity	-17.6	7.5	2.7	4.7	5.0	1.0	-0.5
Board of Pensions Global Equity	-22.7	--	--	--	--	5.5	5.3
Board of Pensions Total Equity	-17.8	9.4	6.9	9.8	9.1	6.1	5.0

Source: BNY Mellon

Investment allocations in the U.S. equity component of the Balanced Investment Portfolio, which include active and passively managed strategies, combined to produce results that outpaced the benchmark index. Active equity managers operated in a more favorable environment as the largest capitalization stocks that have driven index performance over recent history

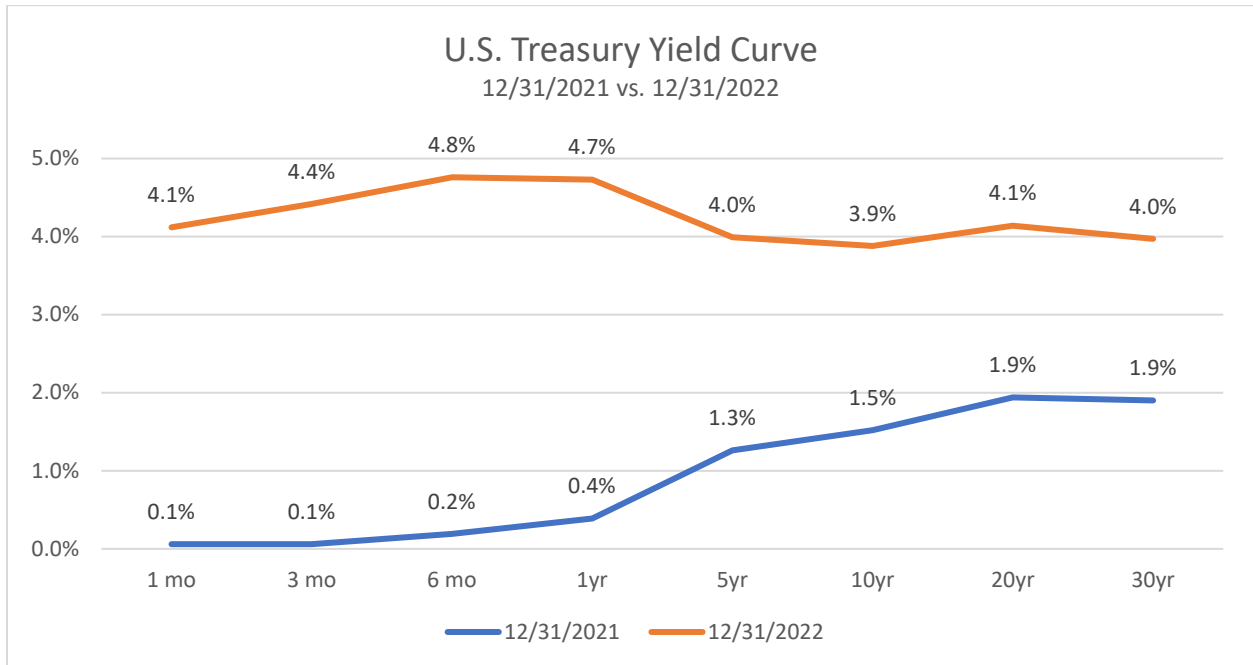
underperformed in 2022. The relative outperformance of the U.S. equity component was supported by results from large capitalization allocations. Board of Pensions investments in U.S. large cap stocks significantly outperformed benchmarks in 2022 and made positive contributions to performance results. In 2021, value stocks handily outperformed their growth stock counterparts, and the Balanced Investment Portfolio benefited from its allocations to value strategies in 2022.

In the international and global equity components of the Balanced Investment Portfolio, manager performance fell short of benchmark indices in 2022. In a reversal of performance from 2021, emerging, developed, and global markets managers collectively underperformed their benchmark indices. The year did not get off to a positive start as the Russian invasion of Ukraine in February surprised many market participants, including active managers in the Balanced Investment Portfolio's international component. However, the performance impact of holdings in Russia was negligible across the portfolio, as managers held smaller positions compared to the benchmark. The portfolio's allocations to growth strategies were the source of the largest negative contributions to performance in developed and emerging markets. Value strategies fared better in 2022, as Balanced Investment Portfolio managers benefited from the resurgence of the value style in 2022. After an extended period of outperformance for growth stocks, the stylistic cycle of equity returns appears to be turning in favor of value.

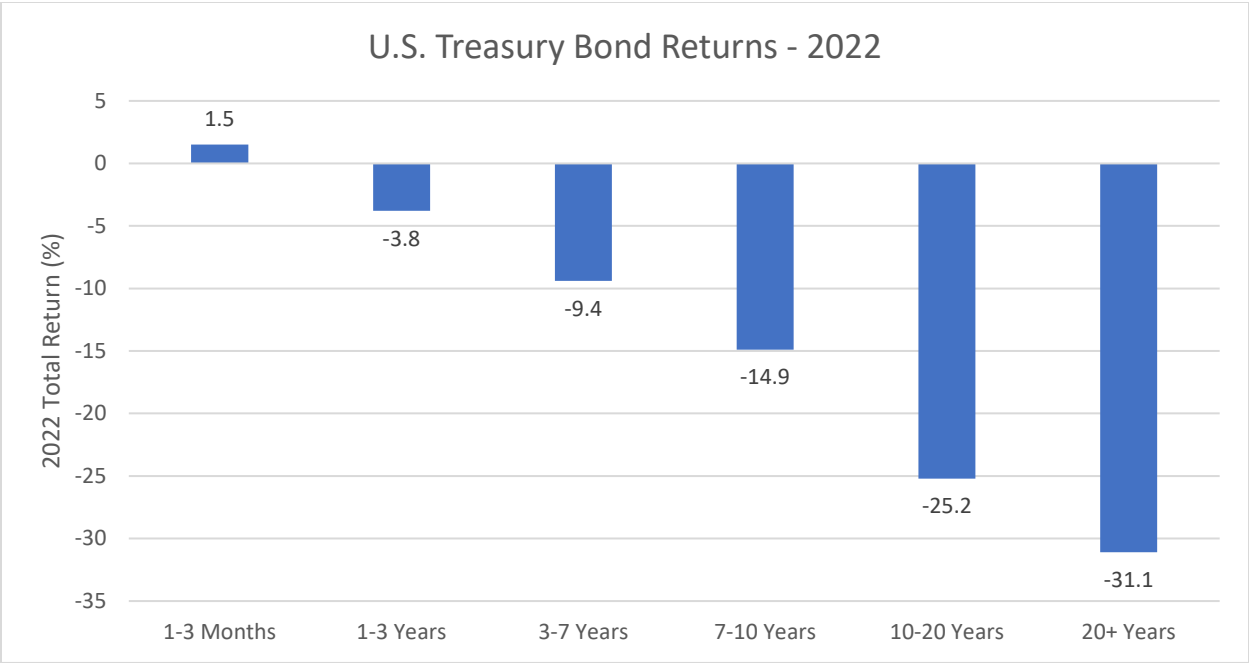
Peter T. Maher, CFA
Managing Director and Vice President

Fixed income – Year in review

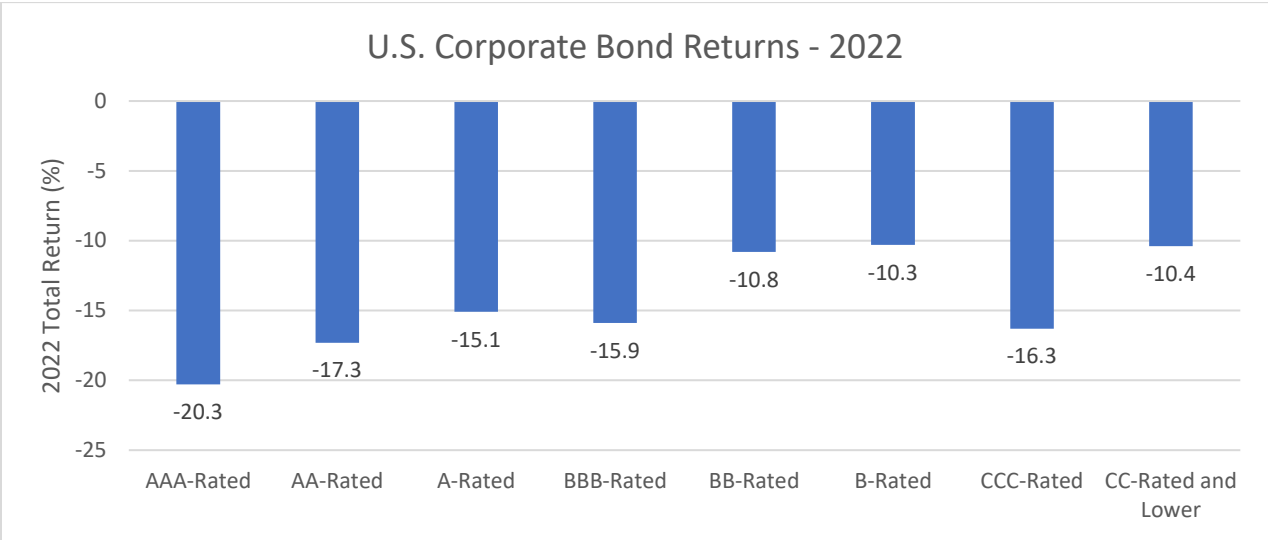
Fixed income in 2022 can best be described as nowhere to hide. 2022 was one of the worst years for fixed income of the past 40 years, with virtually every sub-asset class posting negative returns, many in negative double-digit territory. The primary driver of the negative returns was the increase in interest rates. As shown below, short-term rates increased 400 basis points, with smaller increases across the entire curve.



U.S. Treasuries are most sensitive to changes in inflation expectations. As a result, the combination of both Federal Open Market Committee changes in short-term interest rates, which signal an ongoing attempt to fight inflation, and the market's rising inflation expectations translated directly into lower Treasury prices. Only short-term Treasuries (1-3 month T-bills) posted a positive return of 1.5% for 2022, due to the reinvestment in ever higher yields and no principal markdowns. Treasury bonds with maturities of 20 years or longer performed the worst, posting losses of more than 30% for 2022.



Longer duration bonds, which have the highest sensitivity to interest rate changes, were impacted the most by the Federal Reserve’s decisions to raise interest rates. Investment grade corporate bonds performed worse than their below investment grade counterparts due to their greater sensitivity to interest rate changes. All credit rating categories in the U.S. corporate bond market posted double-digit losses for 2022, as shown in the graph below.



Emerging market bonds suffered losses in 2022, as did Treasury Inflation-Protected Securities (TIPS). The emerging market sovereign bond benchmark, the JP Morgan Emerging Market Bond Global Diversified Index (EMBIG Div) returned -17.8% for 2022. The losses were due primarily to U.S. interest rate increases. The sovereign bonds in this benchmark are denominated in U.S. dollars and thus are exposed to U.S. interest rate risk.

The TIPS benchmark, Bloomberg Barclays U.S. Treasury Inflation Notes 5+ Year, also posted a double-digit loss, of -18.8%, for 2022, despite record high inflation. This benchmark has a duration of over 10 years, giving the bonds greater sensitivity to interest rates, which outweighed the positive gains from the inflation adjustment characteristics of the bonds.

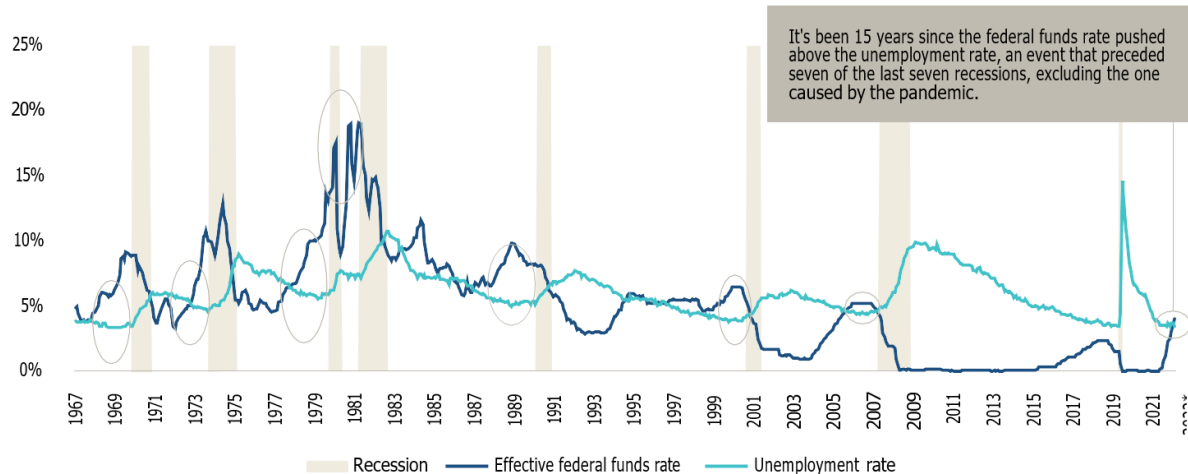
Overall, 2022 was one of the worst years on record for the fixed income market. On the brighter side, future return potential in fixed income markets is much improved, as starting yields are the highest they have been since prior to the financial crisis in 2008. U.S. company balance sheets are well fortified relative to the last major recession, in 2008; corporate bond maturities are well balanced, improving the ability to refinance most bonds, if needed, when they come due.

Michael Kwiatkowski
Associate Director

Private equity – Year in review

2022 was a disruptive year for private equity (PE). An almost 15-year period of near-zero interest rates and multiple expansion was shattered by the fastest tightening rate cycle in 40-plus years. Private equity borrowing rates at the end of 2022 were twice the levels they were at the beginning of 2022, and are now well into the double digits. The leveraged buyout (LBO) has a decidedly smaller and more expensive leverage *L* component, and private equity firms are now challenged to retain PE's perennial claim to the top spot in asset class performance, given the disruption to their cost of capital and forward macroeconomic cycle.

Federal funds rate and unemployment rate



Source: FRED | Geography: US
*As of December 1, 2022

By August 2022, deal activity finally succumbed to higher interest rates and lower multiples put in place by public investors and policymakers months earlier. U.S. PE dealmaking declined 19.5% for the entire year but remains well above the pace that preceded the stimulus-driven years of 2020 and 2021.

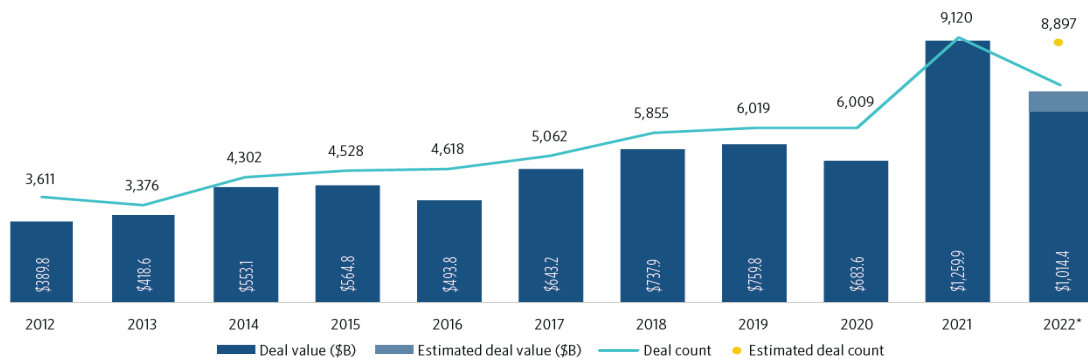
It is a downshift nonetheless, and private equity managers have had to adjust. In buyouts, deals got smaller, making them more digestible and easier to finance. Many came in the form of add-ons, which can deliver outsized revenue synergies to boot, and that practice intensified as it became apparent that the leverage finance markets were not going to be accommodative to large transactions with either pricing or size.

Private equity deal activity

In Q4 2022, total U.S. PE deal count and deal value declined by 23.4% and 41.8%, respectively, from the peak recorded one year earlier. These totals reflect all PE deal types, including buyouts, growth equity investments, and add-ons. If you assume that transaction activity will stabilize from this point forward, this translates to a quarterly pace of approximately \$200 billion — or \$800 billion annually. That is still 16.0% above pre-COVID-19 levels for the three years ended

2019.

PE deal activity



Source: PitchBook | Geography: US
*As of December 31, 2022

On the other end of the deal scales, robust activity continued in big take-privates, enabling mega-funds — funds with \$5 billion-plus — to deploy dry powder more efficiently, both in speed and price. The 24.9% swoon in the S&P 500 through early October allowed PE firms to buy up public companies at discounts on their recent high-water marks while deal multiples for private companies remained unaffected and did not experience similar declines to their publicly traded counterparts.

The 79 PE-led take-privates announced in 2022 were acquired at an average discount of 8.5% to the 52-week high of the target company’s shares and averaged \$3.7 billion in deal size. Unsurprisingly, this strategy has become highly popular among PE firms, leading to the strongest two-year run for take-privates in 15 years, with over \$422.1 billion in deal value and 173 deals.

In terms of leverage finance, 2022 witnessed a channel shift. Traditional bank lending to the LBO market shut down completely in 2022, but a new crop of private lenders and private capital stood ready to partially replace it. When the traditional bank market collapsed as a funding source to finance large LBOs, private equity turned to the industry’s private debt funds and nontraded business development companies (BDCs) as a financing source.

Exit markets

Exit activity in 2022 was markedly different from the activity levels experienced over the three preceding years. Exit activity declined throughout 2022 and ended below pre-COVID-19 levels. After a wide-open exit window in 2021, which saw four years’ worth of public listings push through in a single year, new IPO listings have all but disappeared and M&A exits have halved. The dollar value of exits usually covers the amount of new funds raised from investors and new platform investments. However, that failed to happen in 2022 for the first time in 14 years.

Inclusive of add-ons, the mismatch between selling and buying widened to more than half a trillion dollars. This could be masked in a two-year span when public listings generated more than \$400 billion in exit value, as occurred in 2020 to 2021. Fundraising for secondaries has been buoyant over the past decade. These funds provide a liquidity option to limited partners, and even general partners, in the form of continuation vehicles, which are capitalized by secondary funds. However, at \$147.6 billion in cumulative secondary fund dry powder, the secondary fund industry will not close the net exit gap, and not all secondary funds are dedicated to the continuation fund market.

The knock-on effect that this increasingly lean distribution stream will have on future fundraising remains to be seen, but for the time being, fundraising activity has remained surprisingly robust in the face of stiff denominator effect challenges.

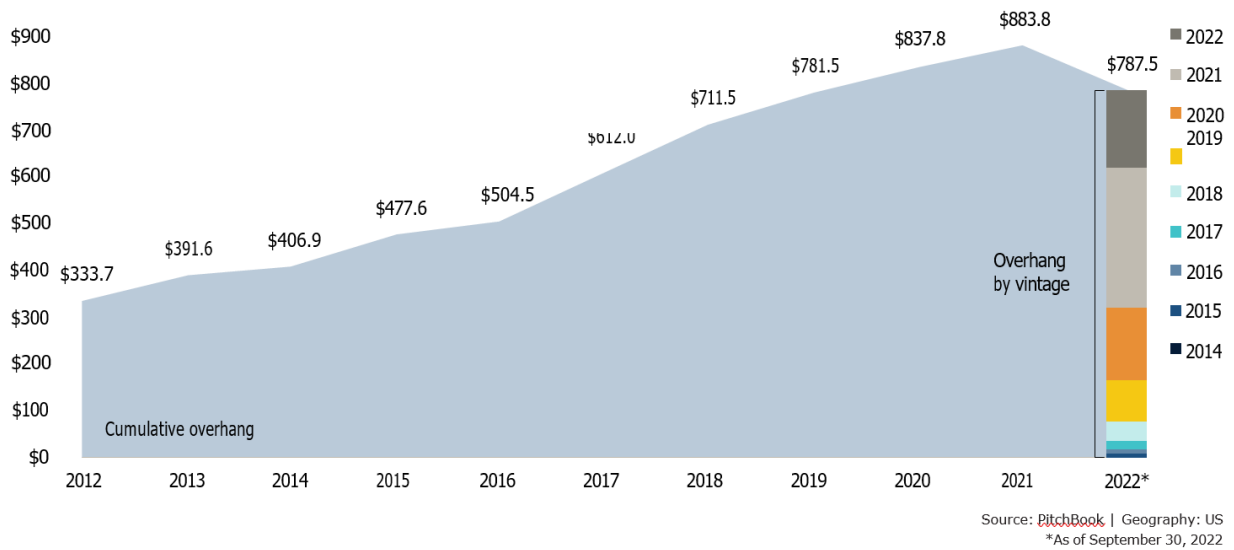
Fundraising

Private equity fundraising activity in 2022 remained consistent with 2021 levels. The big question for the industry is — will that change in 2023? Thus far, investors who benefited from the numerator effect pre-2022 are wagering that private equity will weather the storm. Some of the industry's best returns are generated from recession-vintage funds. However, private equity has a much larger existing portfolio heading into this recession (if it materializes in either the United States and/or Europe) than prior ones, and LBO-related debt ratios have been higher for longer than in prior cycles. While it's unlikely, a severe downturn (or severe recession) and earnings contraction would place a significant strain on private equity-backed companies' ability to service higher levels of debt expense.

Dry powder

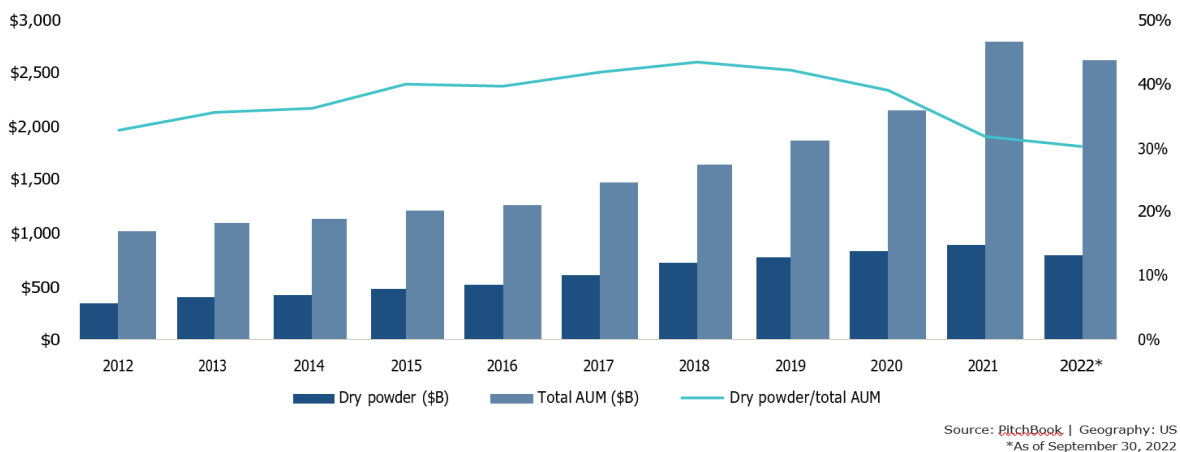
A majority of the world's \$1.26 trillion in PE dry powder, or \$787.5 billion, is held in U.S.-domiciled funds, and all of it can be used for a combination of U.S. and cross-border deals, as most of that capital is in the largest funds, which have geographic flexibility. How that capital gets deployed is a function of the appetite for cross-border investing. Dry powder shrank by 10.9% in 2022, the first down year since 2008, owing to record deployment in late 2021.

PE dry powder (\$B) by vintage



The private equity industry amount of dry powder stands at 30.2% of its assets under management (AUM), a new record low. That compares to 43.3% as recently as 2018. There is some expected replenishment but given the rise in investors’ private equity holdings as a percentage of their total portfolios due to falling public securities prices (denominator effect) in 2023, the fundraising outlook is uncertain. The replenishment questions argue for moderation in private equity fund deployment and fund pacing going into 2023 and beyond.

PE dry powder relative to total AUM



Ahmad Ali
Managing Director and Vice President

Year in review — Alternatives – real estate

Fundamentals improved across the majority of property sectors as the pandemic recovery continued in 2022. However, macroeconomic uncertainty and capital market dislocation combined to create significant headwinds for the industry. In particular, the rapid rise in interest rates and the tightening of traditional lender covenants created challenges for investors, the majority of whom own assets financed with dramatically lower priced debt than is currently available.

Following several years of historically low interest rates, the speed and magnitude of the increases during 2022 were unlike anything the industry has experienced in recent history, forcing investors to underwrite new transactions based on considerably less favorable financing terms. Additionally, the spectre of a potential recession and ongoing uncertainty regarding additional interest rate increases made property valuations much more challenging.

All investments involve educated risk, but investing into uncertainty is notoriously difficult. These dynamics exacerbated the spread between buyer and seller expectations. As a result, 2022 transaction volume contracted 20% to 30% from 2021 levels, and pricing visibility was limited for most of the year. The latter half of 2022 became an exercise in price discovery in the absence of successful transactions, and various reports suggested overall property values fell 10% to 15% year over year.

During the pandemic, one of the industry's more interesting debates concerned the fate of the office sector. Investors considered how companies would balance the advantages of in-person operations with potential occupancy cost savings and workers' demands for locational flexibility. Three years into the COVID-19 pandemic, the dynamics of remote work have yet to play out due to longer lease durations, and the sector continues to struggle. Various sources suggest that less than half of the workers in most major markets actually go into the office on any given day, and recent rental and occupancy decreases have been dramatic, most significantly in urban centers. Average office lease renewals and extensions in 2022 were 29% smaller than those in 2019, and construction starts were off 40% from 2019 levels. Additionally, late 2022 saw increasing instances of sophisticated owners defaulting on office assets in major gateway markets, including Los Angeles, San Francisco, and New York City.

Notably, Class A office assets performed markedly better than the broader sector, as tenants continued to seek smaller, high-quality spaces to entice employees back to the office and largely abandoned older commodity office space. As a result, a recent PwC analysis estimates, more than 20% of current U.S. office stock may eventually need to be repurposed.

Despite heightened development volumes and inflationary pressures, the industrial and logistics sector continued to be one of the industry's strongest performers during 2022. Valuations for the industrial and logistics sector were up 6% year over year, and vacancy remained at a near-record low 4% as of year-end 2022 (50 basis points lower than year-end 2021).

The sector was arguably the industry's most resilient during the pandemic, driven by the overwhelming shift to online shopping and delivery. However, while e-commerce shot up from 13% of overall retail sales to a peak of more than 20% during lockdown, in the initial stages of the pandemic, market participants believe online sales may have peaked in 2022. This share has waned since the economy reopened, but at 18%, online shopping remains high compared to pre-

pandemic levels, and demand for high-quality, well-located logistics facilities continues to run well ahead of market supply. Despite heavy recent development volume, 65% of industrial and logistics space developed in 2022 was leased prior to completion, as compared to historical averages closer to 40%.

The housing market — both for sale and rental — began decelerating during 2022. For sale, home prices likely peaked midyear, after appreciation slowed due to rising mortgage rates that drove the difference between average monthly mortgage payments and monthly rental payments to an all-time high. Chronic undersupply and rising interest rates combined to reduce the number of households that could afford a median-priced home by 16.5 million during 2022. As affordability dropped to its lowest level in three decades in 2022, homebuyers left on the sidelines helped drive up rents instead.

Multifamily fundamentals remained durable, with rents up 25% over pre-pandemic levels, but recent trends suggest that the dramatic rent growth the sector experienced in recent years peaked in early 2022. While the past two years have produced record-breaking performance, and rent growth remained considerably higher than historical averages, performance metrics across the majority of markets have begun to normalize and valuations fell by approximately 4.6% in 2022. However, the growing number of households priced out of the for-sale market has translated to demand for rental housing that far exceeds supply, which will likely balance the sector's moderating rental growth for the foreseeable future.

While industry experts anticipate hospitality will take years to fully recover, the sector made significant strides in 2022. Across the sector, revenue per available room (RevPAR) recovered in 2022 to levels that surpassed those of 2019. Work-related travel, which typically comprises the largest source of hotel revenue, moderately increased during 2022 and continues to show improvement. However, industry statistics indicate that the rebound has been primarily driven by pent-up demand for leisure travel coming out of the pandemic.

The retail sector improved after falling sharply during the depths of the pandemic due to the rise of e-commerce and limited in-person shopping, with 2022 gains primarily focused around a specific subset. Leasing activity was driven by smaller spaces, with the most significant rent growth occurring in neighborhood centers anchored by grocery and necessity-based retailers. According to CoStar, vacancy rates for neighborhood retail centers fell to approximately 6.5%, which compares favorably to 2019 levels. In contrast, the mall sector continued to post vacancy levels well above pre-pandemic metrics.

Institutional allocations to specialty property types (life sciences, medical office, self-storage, single-family rentals, etc.) continued to increase during 2022, as investors acknowledged the relative resilience of various nontraditional sectors and sought to balance reduced exposure to conventional property sectors that were challenged during the pandemic.

Publicly traded real estate (REITs) experienced a punishing 2022. The ripple effects of accelerated inflation, the Federal Reserve's aggressive rate hikes, and slower economic growth weighed on the broader equity market, including the REIT sector. Every property sector posted negative returns during 2022, with the Nareit All-Equity Index falling more than 24% during the past year.

Overall, despite relatively favorable property-level fundamentals, the industry was hampered in 2022 by the effects of inflation, macroeconomic uncertainty, and dramatic interest rate increases. While it will take some time for a greater amount of market stability to return, the combination of significant volume of pending debt expirations and challenging capital market conditions may create the industry's next distress cycle. Regardless, the run-out of these dynamics will undoubtedly present interesting investment opportunities in 2023 and beyond for prudent investors with longer-term investment horizons.

For additional context on what 2023 might bring, read PwC's [Emerging Trends in Real Estate 2023](#).

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