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Capital Perspectives

Monthly investment analysis and insights from Wilmington Trust Investment Advisors

ON THE RECORD

The Best Offense Is a Good Defense

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Tony Roth
Chief Investment Officer

The fastest pace of monetary policy tightening in almost 50 years has finally exposed cracks in the foundation of the financial economy—cracks yet to be detected in the "real" economy. The failure of three banks in the month of March was the result of multiple factors, including poor liquidity management, concentrated business risk, and a clear failure of the regulatory safeguards to do their job. However, the spark that lit the flame was the rapid increase in interest rates over the last 12 months. While we are encouraged by the improvement in the banking situation—given no additional bank failures and some ebbing of deposit flight—the bank stress, along with a tighter credit environment in its aftermath, points to a weaker economy. We are positioning portfolios defensively, expecting a mild recession at the end of 2023 or early 2024, with risks skewed to the downside for equities.

The fallout from bank stress: financial conditions

Panic has receded and an industrywide banking liquidity crisis appears to have been averted, thanks to expeditious action taken by the government. First, the FDIC stepped in to backstop all deposits at Silicon Valley Bank and Signature Bank; and second, the Fed rolled out generous liquidity facility aimed at ensuring banks' access to cash, based on the full par value of the securities held on their balance sheets. While the ramifications for the industry and the broader economy will take some time to come into focus, we expect them to be decidedly bearish on the economic outlook. Risk of deposit flight will remain an overhang and serve to rein in bank lending. At the same time, regulatory scrutiny of small and midsize banks will increase. Bank customers pulling deposits in search of either absolute safety or

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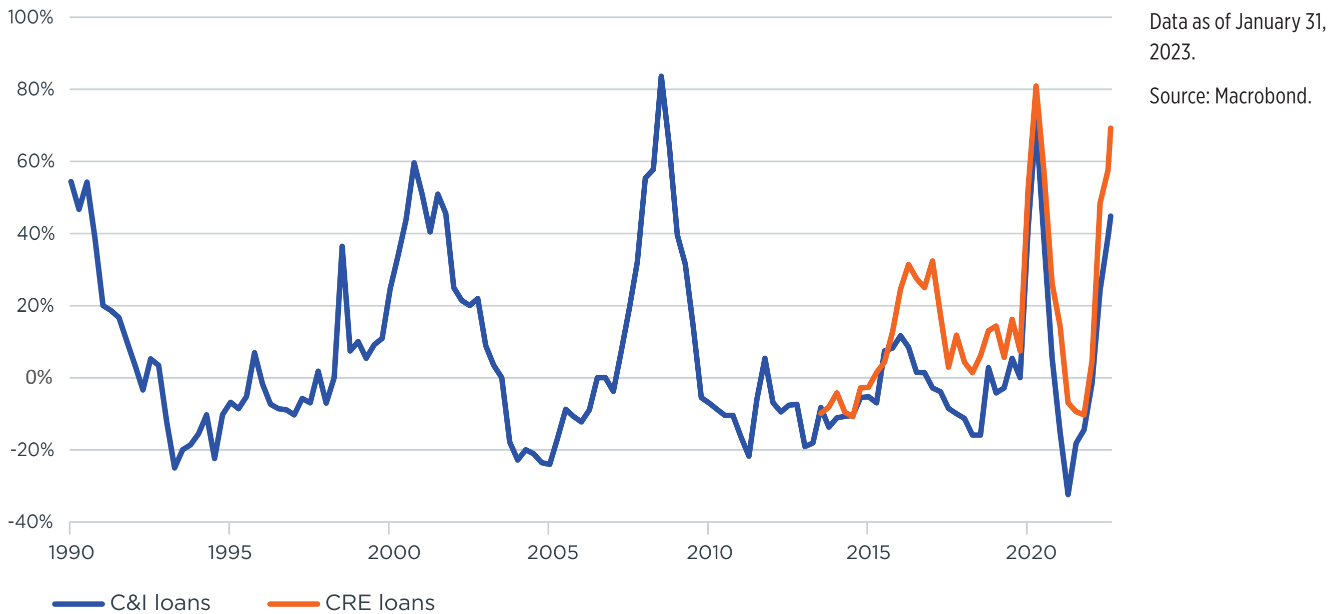
Figure 1

Tightening of financial conditions was under way even before recent bank stress

Senior Loan Officer Opinion Survey indicating percent of respondents reporting tightening lending standards for commercial & industrial (C&I) and commercial real estate (CRE) loans



Data as of January 31, 2023.

Source: Macrobond.

Bank customers pulling deposits in search of either absolute safety or marginally higher rates has sent total money market fund assets to a new all-time high of more than $5 trillion.

marginally higher rates has sent total money market fund assets to a new all-time high of more than $5 trillion. This contraction of the bank capital base will force many to either raise deposit rates, curb lending, or both. For banks, this means compressed margins. For the economy, it means tighter financial conditions.

Aggregate financial conditions will play a key role in the economic picture as we move away from these bank failures. The fed funds rate is but a single element in the mosaic of how overall monetary conditions affect corporate and consumer borrowing rates, lending conditions, and access to liquidity. In our view, more restrictive lending standards as a result of the current stress on banks serves to tighten financial conditions considerably further than previously accomplished by fed funds rate increases and quantitative tightening alone.

One of the most telling pieces of evidence that points to the degree of tightening in financial conditions is the Senior Loan Officer Opinion Survey. Even before the stress in the regional banking sector, banks were reporting stricter lending standards consistent with previous recessions (Figure 1). Based on the current data, we now expect a total pullback in lending that could reduce overall GDP growth by 0.25% to 0.5% in 2023. This reduction would mostly stem from weaker capital expenditures, as we don't expect that bank stress will directly impact consumer credit.

The greatest contributor to tightening financial conditions will stem from reduced lending at small and midsize banks, given their sensitivity to the latest stresses. Small banks are quite important to the overall economy. Roughly 40% of total lending in the U.S. is generated by small banks (Figure 2). Within that, the real estate

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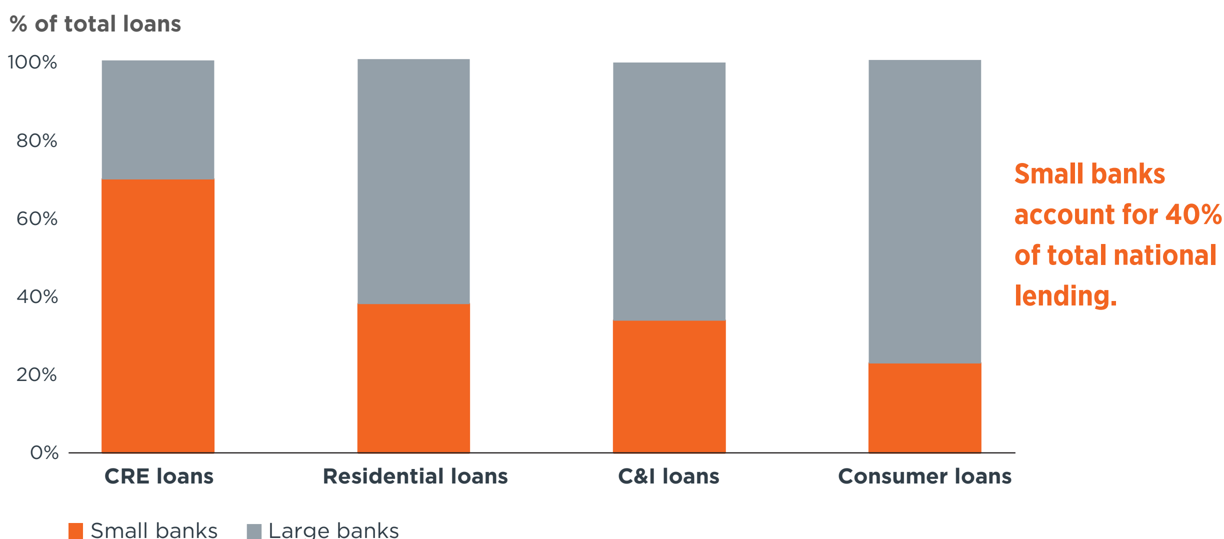
Figure 2

Small but mighty

Small versus large bank lending (% of total loans in the U.S.)



Data as of March 15, 2023

Large banks are defined as the top 25 domestically chartered commercial banks ranked by asset size; those outside the top 25 are considered small banks.

Source: Federal Reserve H.8 report, WTIA.

With the dust settling on the bank failures, the Fed finds itself in the difficult spot of balancing financial stability and liquidity needs against inflation risks.

sector—both commercial and residential—has an outsized dependence on small banks. Office occupancy rates are still just 50% of prepandemic levels, raising concern about spillover risks to a part of the economy still reeling from COVID-19.

Between a rock and a hard place

With the dust settling on the bank failures, the Fed finds itself in the difficult spot of balancing financial stability and liquidity needs against inflation risks. The Fed made the decision to hike rates by 25 basis points, or bps, (0.25%) at their last meeting (to a range of 4.75%–5.0%), but the future is now quite uncertain. Encouragingly, inflation is declining. In fact, the M2 measure of money supply continues to contract at the fastest rate since at least the 1960s,[1] a constructive leading indicator for overall inflation. Wage growth is slowing, and data from Indeed.com show job openings finally dropping (these data represent a higher frequency indicator than the Bureau of Labor Statistics' Job Openings and Labor Turnover Survey). But the disinflation trend—in other words, the slowing of price increases—is gradual. Wage growth remains well above average, with labor market tightness close to record levels. The economy is far from the Fed's 2% inflation target, a level in our view that may not be reached even looking out over the next 12 months (Figure 3).

Investors are currently pricing approximately 50–75bps of rate cuts beginning as soon as mid year (based on fed funds futures), a development that has given support to the equity market. Rate cuts of this magnitude and imminence are conceivable but, in our view, quite unlikely. In order for such an outlook to

[1] As of February 28, 2023. Source: Federal Reserve.

Continued

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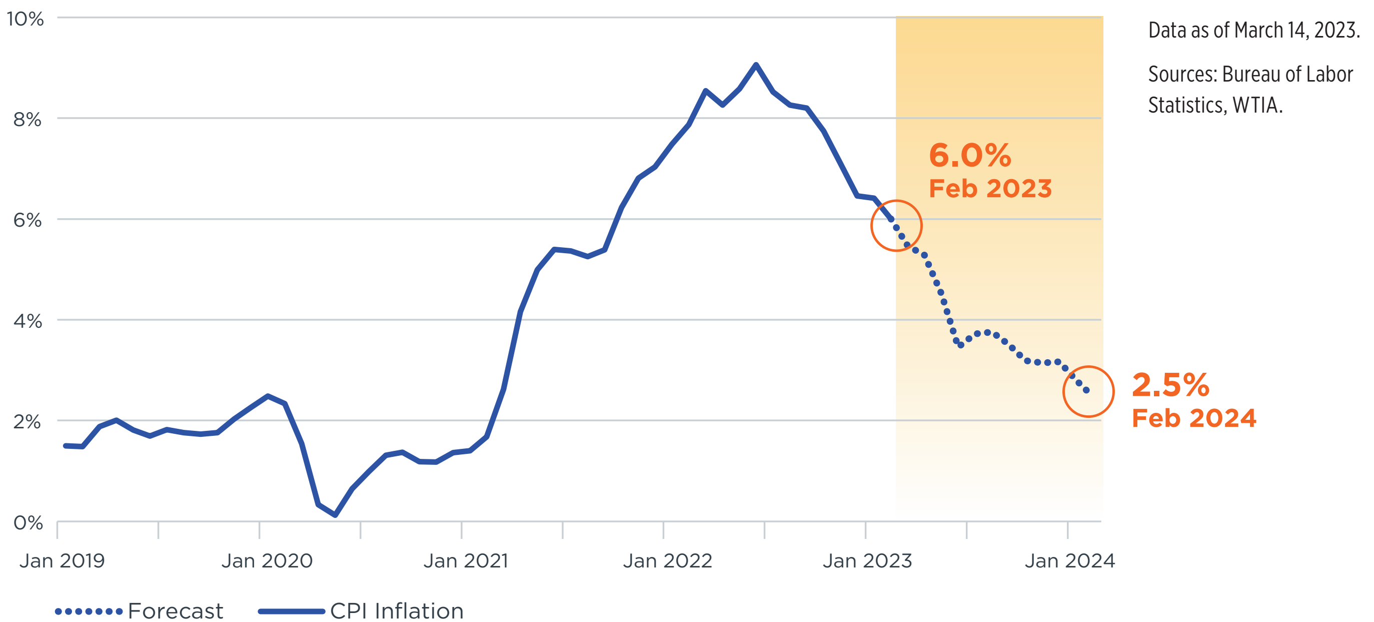
Figure 3

Inflation projected to decelerate to 2.5% by next year

Consumer Price Index (CPI) inflation (% change, year over year)



Data as of March 14, 2023.

Sources: Bureau of Labor Statistics, WTIA.

materialize, we would need to see either a dramatic acceleration in disinflation or an extended bout of financial stress, neither of which looks probable. As the markets come to recognize this outlook along with a sequentially weaking economy, we expect equities to move lower.

Remaining defensive

Because we see equities as mispricing the above risks, as well as continuing earnings deterioration, we maintain our defensive positioning in client portfolios (Figure 4). Our underweight to equities is concentrated in U.S. small-cap and international developed stocks. The small-cap equity asset class is more vulnerable than large cap in the current environment given its higher leverage ratios, higher percentage of non-earners, greater exposure to small and medium banks, and more cyclical sector exposure. International developed equities are also, in our assessment, underpricing economic and geopolitical risk. Despite a nice recovery in the economic data to start the year—or perhaps because of it—core inflation for the eurozone continues to climb. Additionally, the war in Ukraine is showing no signs of resolution, and an escalation of the conflict would weigh on European consumer sentiment.

We are neutral to U.S. large-cap and emerging markets equities. Across equities, we are focused on investing in higher-quality companies and prefer the growth factor over value. We also continue to find opportunities in private markets (as we detail in the accompanying "In Focus"), and maintain an overweight to investment-grade fixed income and cash. Municipal bonds look attractive, even at yields that are approximately 40bps off their 2023 highs (as measured by both the 10-year Treasury yield and the Bloomberg Municipal Bond Index yield to worst[2]). Interest

[2] As of March 29, 2023.
Source: Bloomberg.

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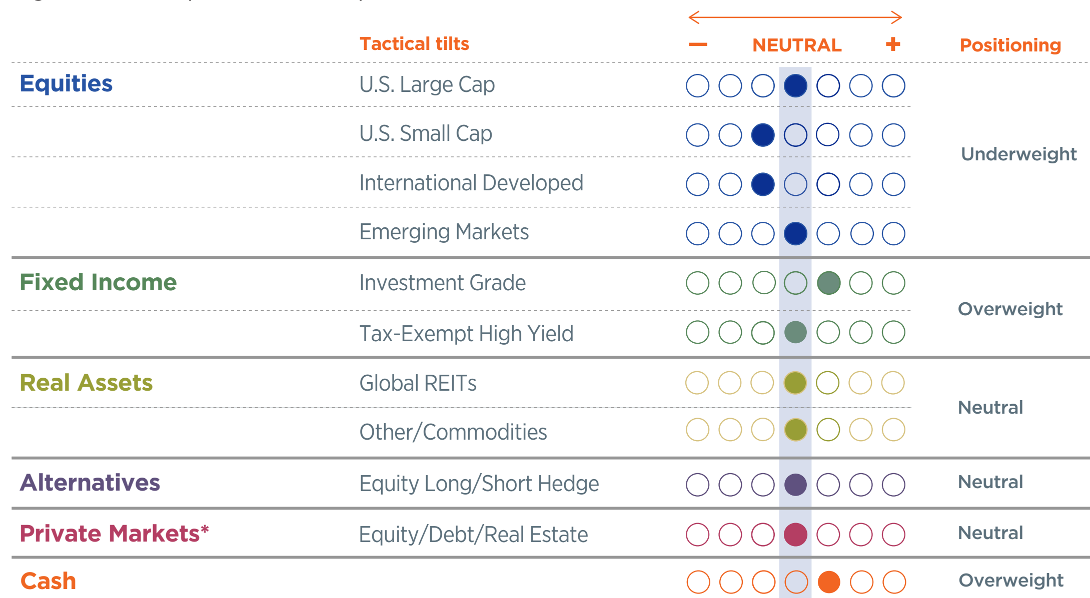
Figure 4
Current positioning
High-net-worth portfolios with private markets*



Data as of April 1, 2023.

Positioning reflects our monthly tactical asset allocation (TAA) versus the long-term strategic asset allocation (SAA) benchmark. For an overview of our asset allocation strategies, please see the disclosures.

* Private markets are only available to investors that meet Securities and Exchange Commission standards and are qualified and accredited. We recommend a strategic allocation to private markets we do not tactically adjust this asset class.

Listen to our latest Capital Considerations podcast episode

How China's Economic Shifts May Affect Us

which lends insight into the scenarios that may unfold, what they could mean for our inextricably linked economies, and the potential market opportunities.

This episode's special guest is Shehzad Qazi, managing director and chief operating officer of China Beige Book, the largest China-based data collection network.

rates may have hit the highs of the cycle regardless of a soft or hard landing for the economy, and municipal bond default rates have historically remained quite low during recessions. The asset class offers opportunities for credit-focused investors.

While the landscape has changed dramatically in just a month, our outlook and positioning have not. We continue to see outsized economic and geopolitical risks in the near term and are protecting capital accordingly.

Best,

Tony

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IN FOCUS

Investing in Private Markets—the Market Cycle and Beyond

Jessica Blitz, CFA
Senior Research Analyst

At Wilmington Trust, we believe in the power of long-term investing. We subscribe to an economics-led investment process because we see the potential value added by incorporating long-term expectations in a market that frequently discounts the future path of the economy.

In public markets, where daily price moves should—but may not—incorporate new information as it becomes available, skilled investors might be better able to generate alpha* by capitalizing on perceived mispricing. In private markets, though, portfolio pricing is often stagnant, and available data are less reliable. Higher performance dispersion, even within similar strategies, makes it more difficult to understand performance as a function of market cycles. Notwithstanding these complexities, private markets general partners (GPs) are not deploying capital in a vacuum, and we believe it is both possible and helpful to consider market cycle when investing in private markets.**

We are often asked what opportunities look attractive at any given point in the market cycle. Here, we aim to delineate the strategies where we attach importance to the cycle, those that we feel can stand more independent of macro-economic factors, and our approach to balancing these inputs in allocation decisions.

We strive to provide clients with access to what we believe are top-tier private markets investments in a disciplined fashion, over time building a private markets program that is diversified across vintage (year of fund formation) and style. In seeking to deliver this, we conclude that the market cycle is one of many factors considered in allocating capital. Recognizing the limits of our predictive ability, we also look at compelling macro themes and lean on our experience as manager search professionals. We believe this more holistic approach helps us in our effort to achieve strong returns, even—or perhaps especially—when the market moves in unanticipated ways.

The market cycle and private market returns

The market cycle moves in waves—a prolonged period of negative market returns is followed by an expansion and then another contraction. When investing in public markets, further parsing the phases to include the early-cycle acceleration or the late-cycle slowdown can help inform allocation. Investing in private markets, though, involves capital lockups, long investment periods, and uncertain realization timelines. These require a longer-term investment horizon, lessening the importance of short-term economic and market shifts.

Continued

*Please see Glossary for definition of industry terms and indices.

** Private markets investments are only available to investors that meet the U.S. Securities and Exchange Commission's definitions of "qualified purchaser" and "accredited investor." Investments such as private funds that focus on alternative strategies are subject to increased risk and loss of principal and are not suitable for all investors. These types of investments may use aggressive investment strategies, which are riskier than those used by typical mutual funds, and you may lose more money than if you had invested in another fund that did not invest as aggressively.

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Investing in private markets, though, involves capital lockups, long investment periods, and uncertain realization timelines. These require a longer-term investment horizon, lessening the importance of short-term economic and market shifts.

Private markets data are limited, and making broad assumptions risks simplifying a complex landscape. U.S. private equity returns have dominated international private equity over the last 30 years, often credited to the relative strength of the U.S. economy and its status as a leading tech innovator. Growth equity has enjoyed a particularly strong run as technology start-ups have generated outsized performance. However, the publicly available data tell an incomplete story. Certain geographic areas outside the U.S. have also produced compelling returns. While real estate as a whole has lagged private equity, certain sectors—like industrial real estate—have produced internal rates of return that could be mistaken for a Silicon Valley venture fund, where capital is pooled for investment in start-ups. Benchmark index-level returns—against which particular investments are measured—also fail to fully capture all the benefits of private market investing. Private debt might trail the S&P 500, but these investments have provided a regular income stream and more limited volatility, highly attractive for certain clients.

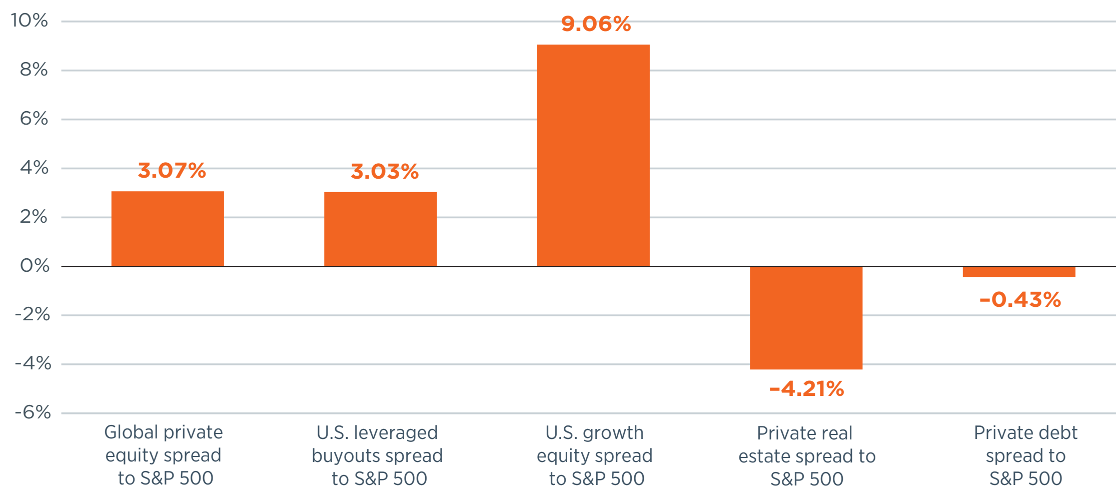
Generally, the data suggest that private markets investing has been additive to portfolio returns (Figure 1). And while past performance can't guarantee future results, even in periods where the broader market was strong, investing in certain private markets strategies still yielded positive relative returns, with more defensive asset classes like real estate and debt still generating positive absolute performance.

Despite compressed return spreads relative to public markets during expansionary periods, investments in private markets funds still generally outperformed their relevant public market proxy.

Figure 1

Certain private markets investments have been additive to portfolio returns during expansionary periods

Return spread to S&P 500 index (5-year periods)



Investing involves risks, and you may incur a profit or a loss. Past performance cannot guarantee future results. Indices are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses such as management fees and transaction costs, which will reduce returns.

Sources: Bloomberg, Cambridge, Morningstar, Wilmington Trust Investment Advisors, Inc. (WTIA).

The chart shows the 5-year cumulative rolling index performance spread over the S&P 500 performance (during expansionary periods defined as a 5-year period with positive S&P performance) from 1986 (or index inception) through 2020. From left to right, the asset classes shown are represented by these indices: Cambridge Global Private Equity Index, Cambridge U.S. Leveraged Buyout Index, Cambridge U.S. Growth Equity Index, Cambridge Private Real Estate Index, Cliffwater Direct Lending Index. **For details on how performance is calculated and other details related to the chart, please see the Disclosures.**

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Despite compressed return spreads relative to public markets during expansionary periods, investments in private markets funds still generally outperformed their relevant public market proxy.

As discussed earlier, private equity of all colors tended to perform well in strong forward-looking market environments. This can make it attractive in early-cycle expansions when forward-looking conditions are generally rosy. Bullish investors might gravitate to riskier private investments in strategies like venture capital or early-stage growth. These may be particularly well positioned to benefit from market expansion, aiming to invest early in the cycle when there is less dry powder and more robust demand for capital, leading to lower entry multiples. The goal of the investors is to find businesses that will grow at above-market rates during the market recovery, allowing them to exit their investments mid- or late-cycle when both market confidence and multiples may be higher.

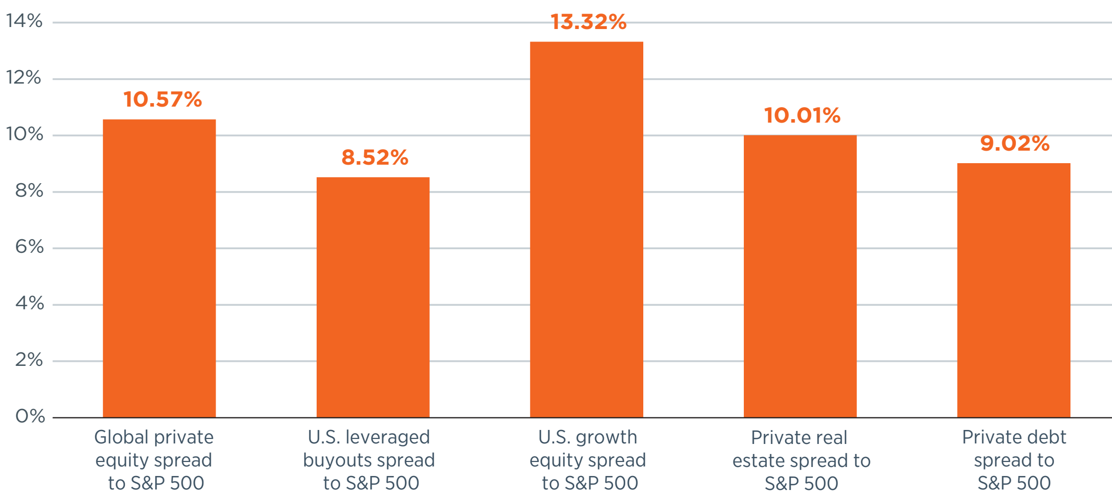
Outside of venture and early stage growth, private equity strategies returns have been more muted than in venture, but still generated positive excess returns versus public markets equities. Leveraged buyouts (LBOs), for example, typically invest in businesses later in their lifecycle than venture funds. This may reduce overall risk, especially in a strong market where the portfolio company is more likely to generate the cash flow required to pay down the resultant debt (see "Key risks of investing in private equity, debt, and real estate" on page 6). For certain investors who find the longer fund lives and increased risk profile of an early-stage fund less palatable, LBOs may present a better option.

Real estate and debt have underperformed the broader equity market during expansions, as demonstrated in Figure 1. Segments of the real estate opportunity set, like development deals, in which firms are responsible for the construction of new real estate, or value-add deals where firms upgrade and/or renovate existing

Figure 2

Private market returns have been most compelling during contractionary periods

Return spread to S&P 500 index (5-year periods)



Investing involves risks, and you may incur a profit or a loss. Past performance cannot guarantee future results. Indices are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses such as management fees and transaction costs, which will reduce returns.

Sources: Bloomberg, Cambridge, Morningstar, WTIA.

The chart shows the 5-year cumulative rolling index performance spread over the S&P 500 performance (during contractionary periods defined as a 5-year period with negative S&P performance) from 1986 (or index inception) through 2020. From left to right, the asset classes shown are represented by these indices: Cambridge Global Private Equity Index, Cambridge U.S. Leveraged Buyout Index, Cambridge U.S. Growth Equity Index, Cambridge Private Real Estate Index, Cliffwater Direct Lending Index. **For details on how performance is calculated and other details related to the chart, please see the Disclosures.**

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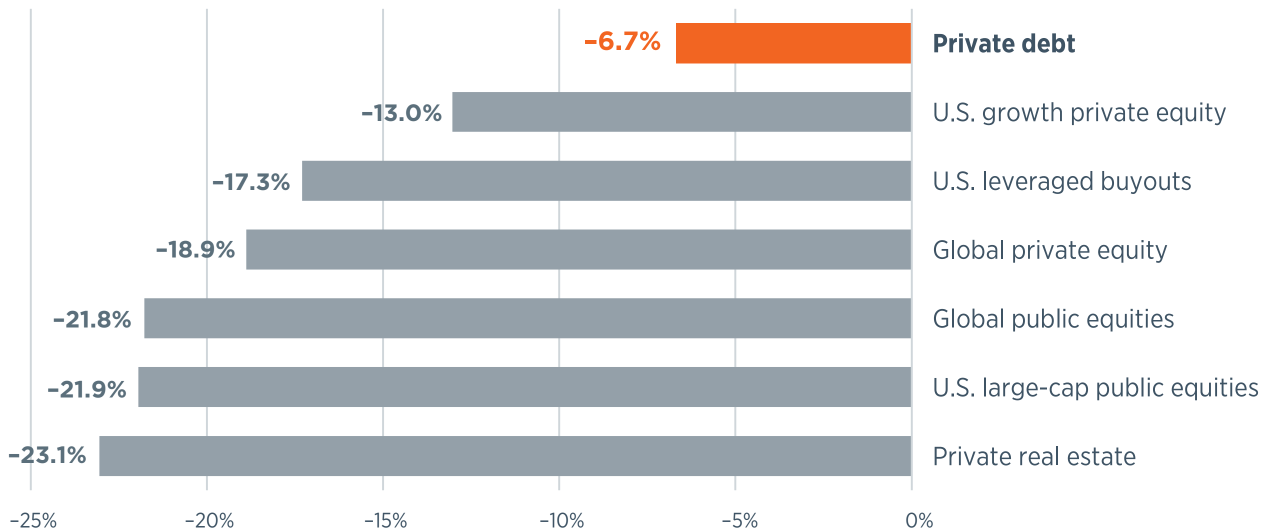
Figure 3

Private debt has protected capital during challenging markets

Global financial crisis drawdown (peak-to-trough drop in asset values) by strategy



Sources: Bloomberg, Cambridge, and Morningstar. Data as of October 1, 2008–December 31, 2008.

Asset class performance is generated with data from the following asset class proxy indices: Cambridge Global Private Equity Index, Cambridge U.S. Leveraged Buyout Index, Cambridge U.S. Growth Equity Index, Cambridge Private Real Estate Index, Cliffwater Direct Lending Index (private debt).

spaces, are more likely to perform well in positive forward-looking environments when debt is cheaper and appetite for risk is higher. A steadier investment strategy, like one that invests in core or core-plus assets that are more likely to hold their value through a downturn, might not keep up with a strong equity market even while it posts positive absolute returns. Private debt, on the other hand, has been historically harder to play as an alpha generation source when the opportunity cost of capital is high.

Private markets strategies have notably outperformed public markets during contractionary periods (Figure 2). While many private markets asset classes have generally produced strong relative returns, private debt has tended to perform particularly well during isolated periods of intense market stress. For example, the Cliffwater Direct Lending Index (CDLI), a private bank-loan strategy that can be used as a rough proxy for private debt investments, declined less than 7% in the fourth quarter of 2008 versus over 20% declines in public markets, –23% in private real estate, and high teens declines in private equity (Figure 3). Private debt also outperformed other asset classes in the first quarter of 2020 when COVID first escalated and the market dropped sharply. While these quarterly numbers are not indicative of the overall rolling five-year returns, the protection of capital is often ultimately additive.

Other private debt strategies aim to generate explicit alpha from market dislocations. Investors might favor a distressed debt strategy, which seeks to deploy capital into firms characterized as good businesses/bad balance sheets

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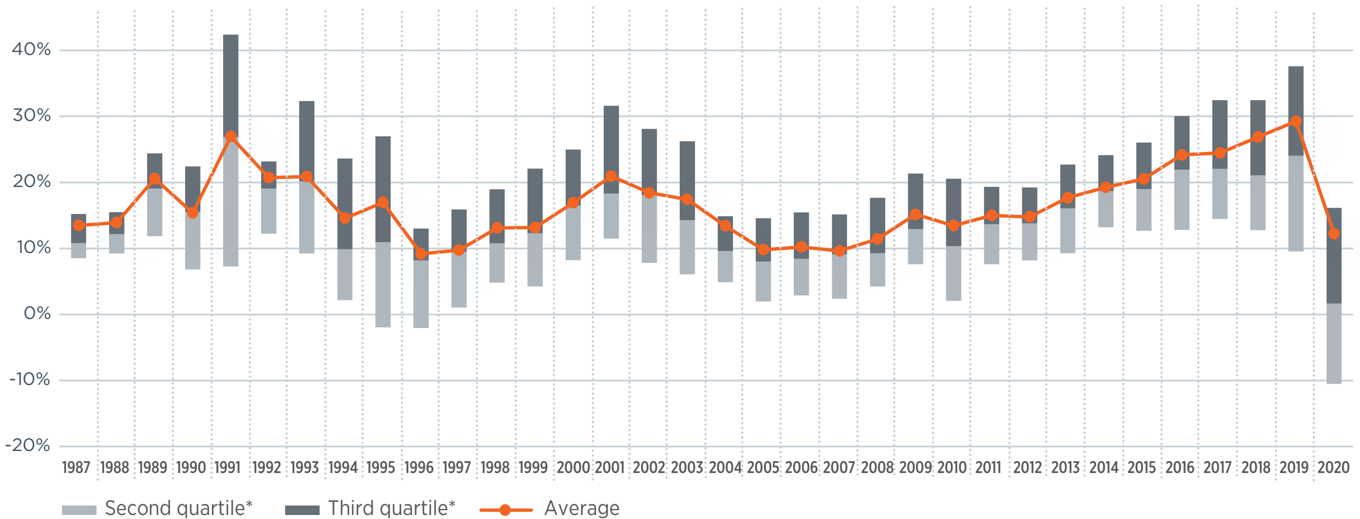
Figure 4

Vintage year returns

Private equity vintage years that invest during downturns have tended to generate strong internal rates of returns (IRR)



*The chart above shows returns by vintage year (inception date) of the Cambridge Private Equity Index. Average return is measured as the equal-weighted pooled return (as measured by IRR) of all funds with the stated vintage year. Investing involves risks, and you may incur a profit or a loss. Past performance cannot guarantee future results. Indices are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses such as management fees and transaction costs, which will reduce returns.

that often carry high debt loads and may be pushed toward bankruptcy by falling stock prices. After investment, distressed managers will typically seek to control the bankruptcy process, either converting debt to equity or getting paid off at par (face value). This strategy would generally have a larger opportunity set during a sustained market downturn than in other periods.

Real estate can also be further broken down by sector. While broader asset prices might suffer during a contraction, certain strategies such as defensively positioned multifamily funds may be more resilient. Multifamily properties, which may be available to aspirational lower-income earners during good times, are also equally well positioned to house higher-income employees during periods of uncertainty. As demonstrated during the COVID-induced downturn, rent collections in these properties remained strong, while other properties, especially in the retail or office space, suffered immensely.

Intuitively, putting money to work while asset prices are cheap—immediately following a contraction—should be beneficial to ultimate returns. This can be seen in the index returns, which show distinct upticks in return among even the lower-quartile private equity managers with 2001 and 2009 vintage years, who would be deploying capital into challenged macroeconomic environments (Figure 4). Timing investments, though, is nearly impossible. Encouragingly, the data suggest that while returns may be more muted, private markets investments were generally additive to total portfolio returns on an absolute basis, regardless of investment timing.

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Key risks of investing in private equity, debt, and real estate

Private markets investments can be important contributors and diversifiers in the context of a broader portfolio. Prior to committing capital to a private markets fund, the following risks need to be fully understood and carefully evaluated:

- Limited liquidity exists because the underlying assets held by private markets funds generally cannot be quickly and easily sold at full price. For this reason, general partners of private equity funds typically structure their funds as long-term investment vehicles, greatly limiting the ability of limited partners to redeem their investments at any given time. Investors generally look for an illiquidity premium in the form of a higher return target to compensate for the higher risk.
- Operational risk is the risk of loss from inadequate internal controls or processes and is particularly important in private markets because of the illiquidity of investments and limited regulation. Operational risk exists at both the general partner level, where it can be mitigated through effective manager due diligence, and at the underlying portfolio company level, where it can be mitigated by the general partner's due diligence.
- Leverage includes the use of additional debt by general partners to finance transactions. Leverage is commonly used by fund managers in private markets to increase returns and optimize the capital structure of their companies. However, the use of leverage also increases risk.
- Less regulation and transparency are the case with private funds. They are not subject to the same U.S. SEC registration as mutual funds and can instead rely on exemptions from such registration. What's more, investors have less transparency on underlying investments, generally committing capital to the fund prior to the fund having made any investments. These limitations make thorough due diligence particularly important when researching private markets opportunities.

Illiquidity structural considerations

The inherent illiquidity of some private markets investments is often a main cause of hesitancy among investors when first considering allocating to the space. Ironically, though, the illiquid nature of a private markets strategy allows managers to execute on value creation or preservation strategies less available to public market investors, which may boost returns in less favorable environments. Because decisions are not made in the context of the next quarterly earnings report, private fund managers instead aim to take actions that improve their portfolios' long-term prospects. Investor lockups mean funds enjoy the security of guaranteed investor capital to execute their long-term plans, mitigating the risk of having to scramble for funding in unfavorable financing environments.

Private firms are often highly involved in their portfolio companies or assets, investing with the goal of improving business function over multiple years. Some firms have an experienced slate of retired C-suite executives with deep expertise within various business lines. While improvements may include identifying operational inefficiencies or strategic hiring, during market downturns, it can involve renegotiating loan terms and debt obligations or even injecting additional equity capital into a company without diluting ownership. In general, these actions have resulted in more resiliency during downturns, with research showing that private equity-backed firms were less likely to default during the global financial crisis than comparable public peers.[1] Sponsor-backed firms may also be able to expand market share during weaker market environments by making accretive acquisitions at lower entry multiples, strategically deploying dry powder at a time when most companies are playing defense.

Further, illiquidity may prevent panic selling, when investors concerned about short-term underperformance offload investments at steep discounts, driving down the price even further, which can necessitate a corporate response that may not be a long-term benefit. Private companies are not typically subject to these price swings, allowing management to better focus on the long term. While private markets investments have generally performed well across market cycles, investing in the face of market stress may present an opportunity to generate alpha associated directly with the attributes of private markets.

[1] Nick Veronis and Tatiana Esipovich, "What Drives Private Equity's Outperformance in a Downturn," iCapital, December 4, 2019.

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Building a diversified program

Of course, timing is challenging. Uncertainty looms large, and our best thinking is always subject to error. We're aware of the inherent difficulty of market forecasting. When market indicators are not telling a straightforward story, investors might look at factors outside the market cycle. An approach we take to allocating to private markets during uncertain macro environments is to identify long-term, multiyear trends that can withstand cyclical moves due to changing consumer demand. For example, industrial real estate investments produced strong returns in the years leading up to and through the pandemic as the growth of e-commerce drove an increased need for logistics space. Certain segments of the health care universe may be attractive moving forward as demographic tailwinds from an aging population create demand for innovative health care solutions. Returns from strategies like these may be less reliant on overall market direction than a generalist fund.

Another option for putting money to work may be niche strategies, which seek to have low correlations to the broader market. Airplane leasing is one example of a strategy where the underlying cash flows are not as dependent on economic conditions. Litigation finance is a second example, where the ultimate returns depend on the outcomes of pending lawsuits.

In cases where market forecasts are used to target certain strategies, strong manager selection may be helpful in blunting the effects of an incorrect base case. Unlike highly trafficked public markets strategies, performance dispersion among private markets managers remains high. We look for managers with substantial GP investment, a strong team, and a proven track record, among other attributes. For instance, investors looking to capitalize on the perceived market peak in early 2020 might have allocated to a distressed debt manager. Though the pandemic did briefly pressure prices lower, the market shot up and continued to trend upward through 2021. This could have been detrimental to a manager with less experience navigating violent market swings, but could also provide an opportunity for experienced teams with flexible investment mandates to pivot toward other investments and continue to efficiently deploy capital for investors.

Though we used five-year fund horizons in our analysis, these funds frequently run far longer, with some lasting upwards of 12 years. This could encapsulate multiple market cycles and does not necessarily line up neatly with a single contraction and expansion. For those reasons, we emphasize diversity in offerings in our own private markets program. We aim to ensure that we are diversified not only across asset classes, but across strategies as well, in an effort to provide clients with broad exposure to the private markets universe. As in public markets, maintaining a well-diversified portfolio may help to blunt tail risk, keeping return expectations within a smaller range of the historical average. For private markets, this would likely still be additive to broader portfolio returns.

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For more background on private markets in general, look to our paper, ***Investing in Private Markets: A Primer.***

Putting it all together

Incorporating future market expectations can be a valuable tool in making private markets allocation decisions. Certain strategies are designed to generate alpha given certain market conditions, while others have shown with historical performance that they might be smarter bets during an expansion or contraction.

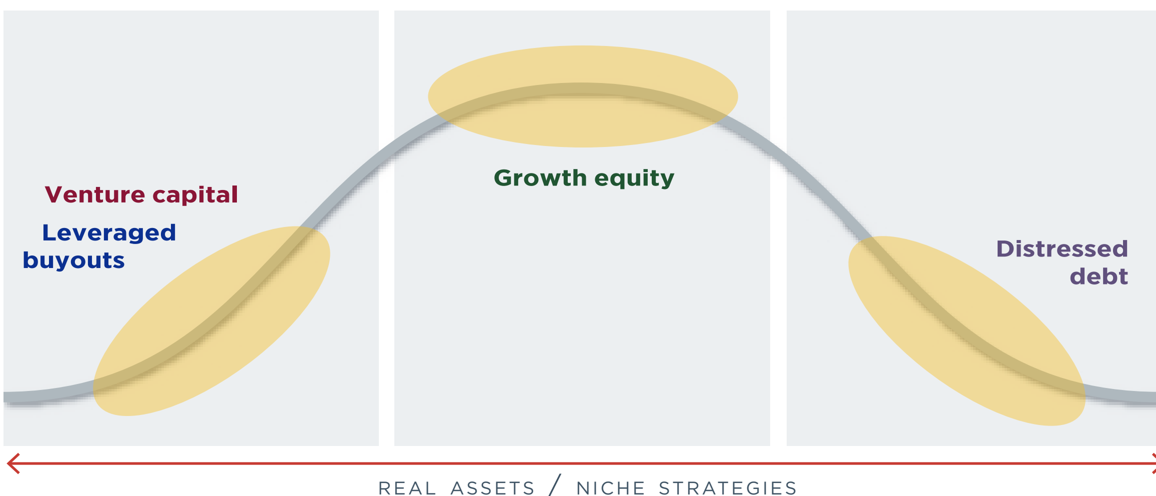
With the help of a crystal ball, we would focus our attention on venture capital and leveraged buyouts during early phases of an expansion, when forward-looking growth is strong. As the cycle matures, we would pivot our efforts to growth equity, where GP expertise can potentially drive growth when other companies begin to flatline. As the market contracts, distressed debt strategies can provide a way for investors to access good businesses at below-market prices. Real estate and other real asset strategies can be additive to a portfolio throughout the market cycle, as can niche or uncorrelated investment opportunities (Figure 5).

Forecasts may not always be right, though, and manager dispersion remains wide. A repeatable approach that considers a wide variety of factors including but not limited to market forecasts can provide both upside potential and a margin of stability when the market moves unexpectedly. In all cases, as in public markets, remaining invested and well diversified should provide the best chance of long-term portfolio outperformance, in our view.

Figure 5

Leveraging different cycle opportunities

Select private market strategies by stage of economic cycle



Source: WTIA.

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ASSET CLASS OVERVIEW

Municipal Fixed Income

Jason Hannon, CFA
Head of Municipal Strategy

	AS OF MARCH 31, 2023		
	Month	3 months	Trailing 12-month return
S&P Municipal Bond Index	2.08%	2.51%	-0.21%
S&P Municipal High Yield Index	1.23%	2.63%	-4.21%
S&P Municipal Bond New York Index	2.27%	3.02%	0.16%
S&P Municipal Bond California Index	2.07%	2.44%	0.10%

Sources: FactSet, Bloomberg. Investing involves risks and you may incur a profit or a loss. Past performance cannot guarantee future results. Indices are not available for direct investment.

What we are seeing now

Municipals started the year in stark contrast to 2022 with a first quarter positive performance of 2.51%. While the positive performance has been well received, there are still plenty of mixed signals in the current environment, leaving the overall municipal market with a lack of conviction on where short-term and long-term yields will go. The municipal yield curve, much like the Treasury curve, is currently inverted from one to eight years, and market participants are finding it difficult to want to buy longer duration when shorter-duration assets are paying higher yields. The fed fund futures market is pricing in a 50% probability of a 25 basis points, or bps (0.25%) increase in May, which further illustrates the lack of conviction in the rates market. The overall municipal market has experienced a year-to-date net outflow of approximately $1.7 billion. However, year-to-date net new issue supply is down about 30% year over year. This has caused a demand/supply imbalance that has contributed to the year-to-date positive returns. Interestingly, lower-rated investment-grade (BBB/A) municipals have outperformed higher-rated investment-grade (AA/AAA) municipals year to date, which shows that the municipal market is more willing to accept credit risk for yield and performance than duration risk in the current environment.

What's changing

While we have seen lower-rated investment-grade credit outperform year to date, we expect to see some shift in credit spreads in credit sectors that are higher beta (where security prices are considered more volatile than the overall market). We are starting to see the hospital sector show weakness in financial results, which in turn has led to credit-specific downgrades and credit spread widening. We remain confident in the hospital sector, particularly in those that operate within a larger system rather than standalone hospitals. There are also signs of value in longer-duration assets when considering the future Federal Reserve (Fed) path of a pause and subsequent tightening. Buying longer-duration assets now and moving our strategies closer to benchmark duration may be an opportune time to lock in relatively attractive yields in the longer-term space before Fed tightening returns us to a more normalized yield curve.

What we expect

As mentioned, the lack of conviction in the current market in regard to the future Fed rate path makes it difficult to position within duration. However, given the increased likelihood of an expected recession, we believe there is more reason to bring strategies in line with benchmark duration and continue to find relative value in higher beta sectors in which we have higher conviction in the underlying credits. The yield advantage to being duration neutral should give positive momentum in a recessionary environment, coupled with additional yield garnered from our relative value credit positioning.

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Indices are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses, such as management fees and transaction costs that will reduce returns.

Private market investments are only available to investors that meet the U.S. Securities and Exchange Commission's definitions of "qualified purchaser" and "accredited investor." In addition, any offer of such products will be made only in connection with the delivery of the appropriate offering documents, which are available to prequalified persons upon request. Investments such as private funds that focus on alternative strategies are subject to increased risk and loss of principal and are not suitable for all investors. These types of investments may use aggressive investment strategies, which are riskier than those used by typical mutual funds, and you may lose more money than if you had invested in another fund that did not invest as aggressively.

An overview of our asset allocation strategies:
Wilmington Trust offers seven asset allocation models for taxable (high-net-worth) and tax-exempt (institutional) investors across five strategies reflecting a range of investment objectives and risk tolerances: Aggressive, Growth, Growth & Income, Income & Growth, and Conservative. The seven models are High-Net-Worth (HNW), HNW with Liquid Alternatives, HNW with Private Markets, HNW Tax Advantaged, Institutional, Institutional with Hedge LP, and Institutional with Private Markets. As the names imply, the strategies vary with the type and degree of exposure to hedge strategies and private market exposure, as well as with the focus on taxable or tax-exempt income.

Model Strategies may include exposure to the following asset classes: U.S. large-capitalization stocks, U.S. small-cap stocks, developed international stocks, emerging market stocks, U.S. and international real asset securities (including inflation-linked bonds and commodity-related and real estate-related securities), U.S. and international investment-grade bonds (corporate for Institutional or Tax Advantaged, municipal for other HNW), U.S. and international speculative grade (high-yield) corporate bonds and floating-rate notes, emerging markets debt, and cash equivalents. Model Strategies employing nontraditional hedge and private market investments will, naturally, carry those exposures as well. **Each asset class carries a distinct set of risks, which should be reviewed and understood prior to investing.**

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Disclosures Continued

Allocations:
Each strategy group is constructed with target policy weights for each asset class. Wilmington Trust periodically adjusts the policy weights' target allocations and may shift from the target allocations within certain ranges. Such tactical allocation adjustments are generally considered on a monthly basis in response to market conditions.

The asset classes and their current proxies are:

- Large–cap U.S. stocks: Russell 1000® Index
- Small–cap U.S. stocks: Russell 2000® Index
- Developed international stocks: MSCI EAFE® (Net) Index
- Emerging market stocks: MSCI Emerging Markets Index
- U.S. inflation-linked bonds: Bloomberg US Treasury Inflation Notes TR Index Value Unhedged*
- International inflation-linked bonds: Bloomberg World ex US ILB (Hedged) Index
- Commodity-related securities: Bloomberg Commodity Index
- U.S. REITs: S&P US REIT Index
- International REITs: Dow Jones Global ex US Select RESI Index
- Private markets: S&P Listed Private Equity Index
- Hedge funds: HFRX Global Hedge Fund Index
- U.S. taxable, investment-grade bonds: Bloomberg U.S. Aggregate Index
- U.S. high-yield corporate bonds: Bloomberg U.S. Corporate High Yield Index
- U.S. municipal, investment-grade bonds: S&P Municipal Bond Index
- U.S. municipal high-yield bonds: 60% Bloomberg High Yield Municipal Bond Index / 40% Municipal Bond Index
- International taxable, investment-grade bonds: Bloomberg Global Aggregate ex US
- Emerging bond markets: Bloomberg EM USD Aggregate
- Cash equivalent: 30-day U.S. Treasury bill rate

Additional information on methodology
Why the five-year period was selected: Private fund lifespans have broad ranges based on a variety of factors including asset class, strategy, firm preference, etc. Further, individual investments may remain within the fund (from time of purchase to time of sale) for a different amount of time than the fund life, which is often much longer than the average asset holding period. As a middle ground, we chose to replicate five-year funds, which is a fair approximation of an average private markets fund taking into consideration that by the end of a longer life, funds often contain very few assets or are in the process of winding down their remaining investments.

The rolling five-year index performance is calculated for each quarter by taking the five-year cumulative return, compounded annually. The cumulative rolling five-year index performance calculation is used as a proxy for private fund performance based on a five-year life cycle (the length of time a fund is active, from first investment to last).

All investments carry some degree of risk. Return volatility, as measured by standard deviation, of asset classes is often used as a proxy for illustrating risk. Volatility serves as a collective, quantitative estimate of risks present to varying degrees in the respective asset classes (e.g., liquidity, credit, and default risks). Certain types of risk may be underrepresented by this measure. **Investors should develop a thorough understanding of the risks of any investment prior to committing funds.**

Quality ratings are used to evaluate the likelihood of default by a bond issuer. Independent rating agencies, such as Moody's Investors Service and Standard & Poors, analyze the financial strength of each bond's issuer. Ratings range from Aaa or AAA (highest quality) to C or D (lowest quality). Bonds rated Baa3 or BBB and better are considered **Investment Grade.** Bonds rated Ba1 or BB and below are **Speculative Grade** (also **High Yield**.)

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Glossary

30-day U.S. Treasury bill rate Bank of America Merrill Lynch U.S. 3-Month Treasury Bill Index measures the performance of a single U.S. Treasury bill added to the index at the beginning of the month and held for a full month; the issue is replaced with a newly selected issue at each month-end and the index will often hold the Treasury bill issued at the most recent three-month auction, it is also possible for a seasoned six-month bill to be selected.

Alpha is a measure of performance, indicating when a strategy, trader, or portfolio manager has managed to beat the market return over a specified period. It may be positive or negative and is the result of active investing.

Basis points refers to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01%, or 0.0001, and is used to denote the percentage change in a financial instrument.

Beta is a measure of how an individual asset moves when the overall stock market increases or decreases. Thus, beta is a useful measure of the contribution of an individual asset to the risk of the market portfolio when it is added in small quantity.

The Bloomberg Agriculture Subindex Total Return (BCOMAGTR), formerly known as Dow Jones-UBS Agriculture Subindex Total Return (DJUBAGTR), is a commodity group subindex of the Bloomberg CITR composed of futures contracts on coffee, corn, cotton, soybeans, soybean oil, soybean meal, sugar and wheat and reflects the return on fully collateralized futures positions and is quoted in USD.

The Bloomberg Commodity Index is composed of futures contracts and reflects the returns on a fully collateralized investment in the BCOM; it combines the returns of the BCOM with the returns on cash collateral invested in 13 week (3 Month) U.S. Treasury Bills.

The Bloomberg Commodity Total Return index (BCOMTR) is composed of futures contracts and reflects the returns on a fully collateralized investment in the BCOM and combines the returns of BCOM with the returns on cash collateral invested in 13 week (3 Month) U.S. Treasury Bills.

The Bloomberg Dollar Spot Index tracks the performance of a basket of 10 leading global currencies versus the U.S. Dollar. It has a dynamically updated composition and represents a diverse set of currencies that are important from trade and liquidity perspectives.

The Bloomberg Energy Subindex Total Return (BCOMENTR), formerly known as Dow Jones-UBS Energy Subindex Total Return (DJUBENTR), is a commodity group subindex of the Bloomberg CITR composed of futures contracts on crude oil, heating oil, unleaded gasoline and natural gas and reflects the return on fully collateralized futures positions and is quoted in USD

The Bloomberg Global Aggregate Bond Index measures the performance of global investment-grade fixed-rate debt markets, including the U.S., Pan-European, Asian-Pacific, Global Treasury, Eurodollar, Euro-Yen, Canadian, and investment-Grade 144A index-eligible securities.

The Bloomberg Industrial Metals Subindex Total Return Index (BCOMTNT), formerly known as Dow Jones-UBS Industrial Metals Subindex Total Return (DJUBINTR), is a commodity group subindex of the Bloomberg CITR composed of longer-dated futures contracts on aluminum, copper, nickel and zinc and reflects the return on fully collateralized futures positions and is quoted in USD.

Bloomberg Municipal Bond Index covers the four main sectors of the USD-denominated long-term tax-exempt bond market: state, and local, general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds.

The Bloomberg Precious Metals Subindex Total Return (BCOMPRTR), formerly known as Dow Jones-UBS Precious Metals Subindex Total Return (DJUBPRTR), is a commodity group subindex of the Bloomberg CITR composed of futures contracts on gold and silver. It reflects the return on fully collateralized futures positions and is quoted in USD.

The Bloomberg U.S. Aggregate Index measures the performance of the entire U.S. market of taxable, fixed-rate, investment-grade bonds. Each issue in the index has at least one year left until maturity and an outstanding par value of at least $250 million.

The Bloomberg US Credit Index measures the investment grade, US dollar-denominated, fixed-rate, taxable corporate and government related bond markets. It is composed of the US Corporate Index and a non-corporate component that includes foreign agencies, sovereigns, supranationals and local authorities.

The Bloomberg U.S. High Yield Corporate Index, formerly Lehman Brothers U.S. High Yield Corporate Index, measures the performance of taxable, fixed-rate bonds issued by industrial, utility, and financial companies and rated below investment grade. Each issue in the index has at least one year left until maturity and an outstanding par value of at least $150 million.

The Bloomberg U.S. Mortgage Backed Securities Index measures the performance of investment grade fixed-rate mortgage-backed pass-through securities of GNMA, FNMA, and FHLMC.

The Bloomberg US Treasury US TIPS TR USD index measures the performance of rules-based, market value-weighted inflation-protected securities issued by the U.S. Treasury. It is a subset of the Bloomberg US Treasury Inflation-Linked Bond Index (Series-L), which measures the performance of the US Treasury Inflation Protected Securities (TIPS) market. Federal Reserve holdings of US TIPS are not index eligible and are excluded from the face amount outstanding of each bond in the index.

Cambridge Global Private Equity Index is a horizon calculation based on data compiled from 2,354 private equity funds, including fully liquidated partnerships, formed between 1986 and 2019. All returns are net of fees, expenses, and carried interest.

Cambridge Private Real Estate Index is a horizon calculation based on data compiled from 1,186 real estate funds, including fully liquidated partnerships, formed between 1986 and 2019. All returns are net of fees, expenses, and carried interest.

Cambridge U.S. Leveraged Buyout Index is a horizon calculation based on data compiled from 936 U.S. buyout funds, including fully liquidated partnerships, formed between 1986 and 2019. All returns are net of fees, expenses, and carried interest.

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Glossary Continued

Cambridge U.S. Growth Equity Index is a horizon calculation based on data compiled from 308 U.S. growth equity funds, including fully liquidated partnerships, formed between 1986 and 2019. All returns are net of fees, expenses, and carried interest.

Cliffwater Direct Lending Index is a private bank-loan strategy that can be used as a rough proxy for private debt investments.

Consumer price index measures the price of consumer goods and how they're trending and is a tool for measuring how the economy as a whole is faring when it comes to inflation or deflation.

Core assets include all assets including essential, important, or valuable property without which a company cannot carry on with its normal operations and remain profitable. Core assets are required to help the company generate revenue.

Core-plus assets are an investment management style that permits managers to augment a core base of holdings, within a specified-objective portfolio, with instruments that have greater risk and greater potential return. Funds that utilize this strategy are called core-plus funds.

Coupon, coupon rate, or coupon payment is the annual interest rate paid on a bond, expressed as a percentage of the face value and paid from issue date until maturity.

Dow Jones Global ex. US Select RESI Index tracks the performance of equity real estate investment trusts (REITs) and real estate operating companies (REOCs) traded globally, excluding the U.S.

Drawdown measures the potential drop in portfolio asset values for the most recent stock market peak to the most recent stock market trough.

Drift occurs when an asset or investment diverges significantly from its objective or investment style, such as market capitalization. It can result naturally from capital appreciation in one asset relative to others in a portfolio, a change in a fund's management, or a manager who begins to diverge from the portfolio's mandate. It can be corrected by rebalancing the fund to optimal weights.

Dry powder is cash that has been committed but not yet allocated to an investment.

Duration risk is the risk associated with the sensitivity of a bond's price to a one percent change in interest rates. The higher a bond's duration, the greater its sensitivity to interest rates changes.

Equity risk premium is the extra return that's available to equity investors above the return they could get by investing in a riskless investment like T-Bills or T-Bonds or cash.

ESG is a strategy that integrates environmental, social, and governance (ESG) factors into the investment process may avoid or sell investments that do not meet criteria set forth by the investment manager. Such investments may perform better than investments selected utilizing ESG factors.

Event-driven hedge fund strategies attempt to take advantage of temporary stock mispricing before or after a corporate event takes place. An event-driven strategy exploits the tendency of a company's stock price to suffer during a period of change.

Federal funds rate is the interest rate at which depository institutions lend reserve balances to other depository institutions overnight on an uncollateralized basis.

Global intangible low-taxed income (GILTI) is a category of income that is earned abroad by U.S.-controlled foreign corporations (CFCs) and is subject to special treatment under the U.S. tax code.

Gold can be significantly affected by international monetary and political developments as well as supply and demand for gold and operational costs associated with mining.

Headline inflation is a measure of the total inflation within an economy, including commodities such as food and energy prices, which tend to be much more volatile and prone to inflationary spikes.

HFR® (HedgeFundResearch) Indices are the established global leader in the indexation, analysis and research of the hedge fund industry. They are broadly constructed indices designed to capture the breadth of hedge fund performance trends across all strategies and regions.

HFRX Absolute Return Index and the HFRX Global Hedge Fund Index represent the overall composition of the hedge fund universe and comprise all eligible hedge fund strategies and selects constituents that characteristically exhibit lower volatilities and lower correlations to standard directional benchmarks of equity market and hedge fund industry performance.

HFRX Global Hedge Fund Index is designed to be representative of the overall composition of the hedge fund universe and are asset weighted based on the distribution of assets in the hedge fund industry.

Inflation-linked bonds are a specific type of index-linked securities that are tied to the costs of consumer goods as measured by the Consumer Price Index (CPI) or another index. Their values increase during inflationary periods, which reduces the risk of uncertainty.

Internal rate of return (IRR) is a metric used in financial analysis to estimate the profitability of potential investments. IRR is a discount rate that makes the net present value (NPV) of all cash flows equal to zero in a discounted cash flow analysis.

The ISM manufacturing index, also known as the purchasing managers' index (PMI), is a monthly indicator of U.S. economic activity based on a survey of purchasing managers at more than 300 manufacturing firms and is considered to be a key indicator of the state of the U.S. economy.

ISM Non-Manufacturing Index is an economic index based on surveys of more than 400 non-manufacturing (or services) firms' purchasing and supply executives and is part of the ISM Report On Business—Manufacturing (PMI) and Services (PMI).

ISM Services Prices Paid Index is a diffusion index calculated by adding the percent of responses indicating they paid more for inputs plus one-half of those responding who paid the same; resulting in a single number that is seasonally adjusted.

Leveraged buyout (LBO) is the acquisition of another company using a significant amount of borrowed money (bonds or loans) to meet the cost of acquisition. The assets of the company being acquired are often used as collateral for the loans, along with the assets of the acquiring company.

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Glossary Continued

LIBOR is the average interbank interest rate at which a selection of banks on the London money market are prepared to lend to one another.

Long, or a long position, describes an investor's expectation of a holding's future value. A position that the investor expects will rise in value and plans to hold for a long period of time is often described as "held long." It is the opposite of short, or a short position.

M2 money supply is a measure of the money supply that includes cash, checking deposits, and other types of deposits that are readily convertible to cash such as CDs.

Macro hedge fund strategies generally focus on financial instruments that are broad in scope and move based on systemic or market risk (not security specific). In general, portfolio managers who trade within the context of macro strategies focus on currency strategies, interest rates strategies, and stock index strategies.

Market cycle is a wide term referring to trends or patterns that emerge during different markets or business environments. During a cycle, some securities or asset classes outperform others because their business models are aligned with conditions for growth. Market cycles are the period between the two latest highs or lows of a common benchmark, such as the S&P 500, highlighting a fund's performance through both an up and a down market.

MSCI AC Asia ex Japan Index captures large- and mid-cap representation across two of three developed markets countries (excluding Japan) and nine emerging markets countries in Asia. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI All Country World Index (ACWI) is a stock index designed to track broad global equity-market performance. Maintained by Morgan Stanley Capital International (MSCI), the index comprises the stocks of about 3,000 companies from 23 developed countries and 26 emerging markets.

MSCI China Index captures large- and mid-cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). The index covers about 85% of this China equity universe. Currently, the index includes large-cap A and mid-cap A shares represented at 20% of their free float adjusted market capitalization.

MSCI EAFE Growth Index captures large- and mid-cap securities exhibiting overall growth style characteristics across developed markets countries around the world, excluding the U.S. and Canada.

MSCI EAFE Index is an equity index which captures large and mid-cap representation across 21 Developed Markets countries around the world, excluding the US and Canada. With 902 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI EAFE® (net) Index measures the performance of approximately 20 developed equity markets, excluding those of the United States and Canada; total returns of the index are net of the maximum tax withholding rates that apply in many countries to dividends paid to non-resident investors.

MSCI Emerging Markets (net) Index captures large- and mid-cap representation across 27 emerging markets countries. With 1,407 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI EAFE Value Index captures large- and mid-cap securities exhibiting overall value style characteristics across developed markets countries around the world, excluding the U.S. and Canada.

MSCI Emerging Markets Index captures large- and mid-cap representation across 26 emerging markets countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Europe Index captures large- and mid-cap representation across 15 developed markets (DM) countries in Europe. The index covers approximately 85% of the free float-adjusted market capitalization across the European DM equity universe.

MSCI Japan Index is designed to measure the performance of the large- and mid-cap segments of the Japanese market. The index covers approximately 85% of the free float-adjusted market capitalization in Japan.

MSCI United Kingdom Index is designed to measure the performance of the large- and mid-cap segments of the UK market. The index covers approximately 85% of the free float-adjusted market capitalization in the UK.

Personal consumption expenditures is the primary measure of consumer spending on goods and services in the U.S. economy and is the primary engine that drives future economic growth.

Price-to-earnings (P/E) ratio measures a company's current share price relative to its earnings per share (EPS).

Producer Price Index (PPI) is a family of indexes measuring the average change in selling prices received by domestic producers of goods and services.

Real estate investment trusts, or REITs, are companies that own, operate, or finance income-generating real estate. Similar to mutual funds, REITs pool the capital of numerous investors, allowing them to earn dividends from real estate investments without having to buy, manage, or finance properties themselves.

Relative value hedge fund strategies cover a variety of low-volatility trading strategies with the consistent theme of attempting to reduce market risk, i.e., the manager seeks to generate a profit regardless of which direction the markets are moving. All relative value strategies minimize market risk by taking offsetting long and short positions in related stocks, bonds, and other types of securities.

Reverse optimization uses risk estimates and optimal portfolio weights (asset allocations) to derive the forward-looking returns that generate the highest expected risk-adjusted return for the portfolio; in contrast, traditional optimization uses risk estimates and forward-looking return assumptions to derive the portfolio weights (asset allocations) that generate the highest expected risk-adjusted return for the portfolio. Reverse optimization can be used to test or validate market outcomes in addition to (not as a replacement for) other methods of analysis.

Risk assets refers to assets that are not risk-free, such as currencies, equities, and other financial instruments. Treasuries are not included.

Risk on refers to the market sentiment where traders and investors in the financial market are taking on risk.

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Glossary Continued

Russell 1000® Index measures the performance of the 1,000 largest companies in the Russell 3000 Index, representing approximately 92% of the total market capitalization of the Russell 3000 Index.

Russell 1000 Growth is a market capitalization-weighted index that measures the performance of the large-cap growth segment of U.S. equity securities; it includes the Russell 1000 index companies with higher price-to-book ratios and higher forecasted growth values.

Russell 1000 Value is a market capitalization-weighted index that measures the performance of the large-cap value segment of U.S. equity securities; it includes the Russell 1000 index companies with lower price-to-book ratios and lower expected growth values.

Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

S&P 500 index measures the stock performance of 500 large companies listed on stock exchanges in the U.S. and is one of the most commonly followed equity indices.

The S&P Developed Property index defines and measures the investable universe of publicly traded property companies domiciled in developed markets. The companies in the index are engaged in real estate related activities, such as property ownership, management, development, rental and investment.

S&P Listed Private Equity Index comprises the leading listed private equity companies that meet specific size, liquidity, exposure, and activity requirements. The index is designed to provide tradable exposure to the leading publicly-listed companies that are active in the private equity space.

The S&P Municipal Bond Index is a broad, market value-weighted index that seeks to measure the performance of the U.S. municipal bond marke

S&P US REIT Index measures the investable U.S. real estate investment trust market and maintains a constituency that reflects the market's overall composition.

Short-duration Treasury securities are backed by the full faith and credit of the U.S. government. They typically mature in one year or less.

Short, or short position, refers to a trading technique in which an investor sells a security with plans to buy it later; it is used when an investor expects the price of a security to fall in the short term.

Stagflation is persistent high inflation combined with high unemployment and stagnant demand in a country's economy.

Tail risk is the probability that the asset performs far below or far above its average past performance. Investors are most concerned with "left" tail risk, or the likelihood that observations fall three standard deviations below the average expected return.

Total return index, or index level returns, refer to a type of equity index that tracks both the capital gains as well as any cash distributions, such as dividends or interest, attributed to the components of the index. A look at an index's total return displays a more accurate representation of the index's performance to shareholders.

Value sectors or stocks, generally refer to those trading at levels perceived to be below their fundamentals.

Yield curve plots yields (interest rates) of bonds having equal credit quality but differing maturity dates. The slope of the yield curve gives an idea of future interest rate changes and economic activity.

Yield to maturity is the estimated total return on a bond if the bond is held until it matures.

Yield to worst measures the lowest possible yield that can be received on a bond with an early retirement provision and must always be less than yield to maturity because it represents a return for a shortened investment period.

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