



# Capital Perspectives

Monthly investment analysis and insights from Wilmington Trust Investment Advisors

ON THE RECORD

## Our Midyear Market and Economic Outlook

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**Tony Roth**  
Chief Investment Officer

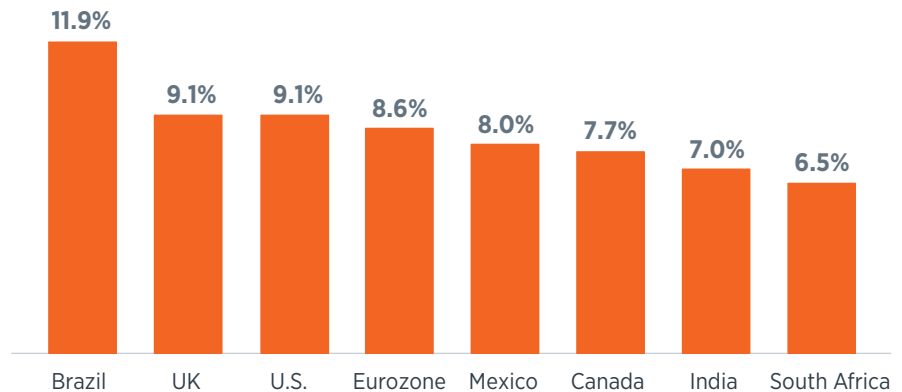
It is with little remorse that we close the book on the first half of 2022. Whereas the first quarter could be characterized by—among other things—a crisis of confidence in valuations and a historic adjustment in expectations for Federal Reserve policy tightening, investor attention in the second quarter shifted toward the prospects for an economic recession. Inflationary pressures continued to defy gravity, not only in the U.S. but also around the world (Figure 1), and stocks and bonds alike suffered. The S&P 500 returned -20% in the first six months. Perhaps more shocking for diversified investors was the -8% and -18% returns for investment-grade fixed income and a 60/40 stock/bond portfolio, respectively (Figure 2).

Figure 1

### Inflation running rampant

Year-over-year change in Consumer Price Index (CPI) for key countries/regions

Source: Bloomberg.  
Inflation is measured as year-over-year CPI. UK, Canada, and India figures reflect May 2022 CPI data. U.S. and all other countries and regions reflect June 2022 CPI data.

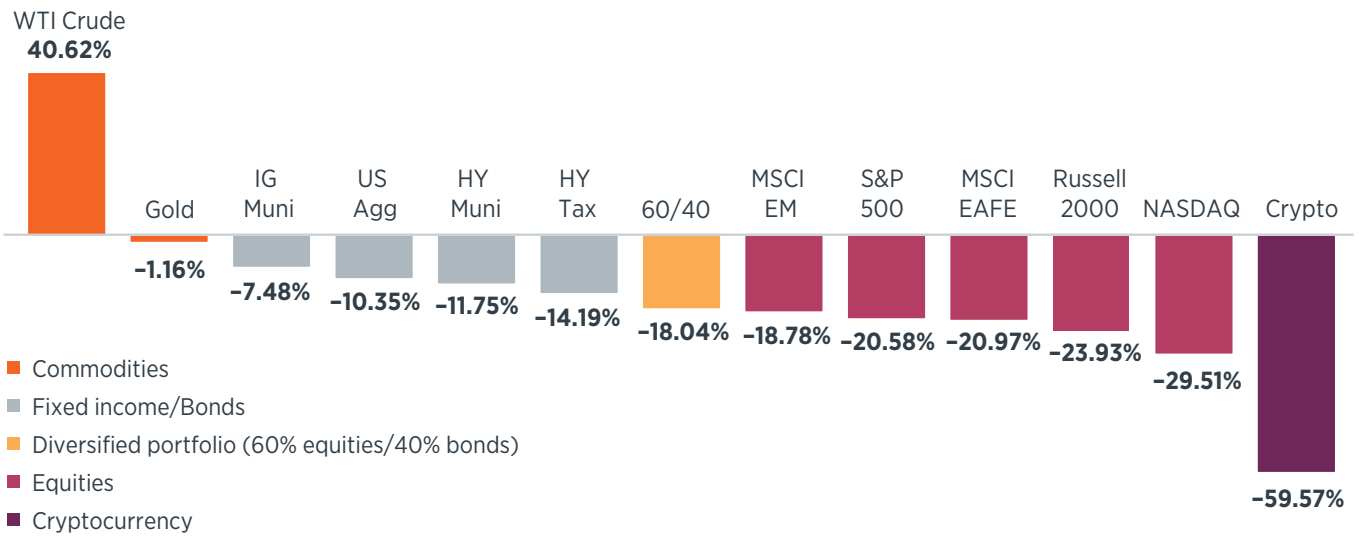


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Figure 2

**A dismal first half for most asset classes**

Year-to-date % changes for major asset classes



Data as of June 30, 2022.

Source: Bloomberg; 60/40 portfolio comprises a 60% weight to the S&P 500 and a 40% weight to Bloomberg Barclays Global Aggregate Bond Index.

Past performance cannot guarantee future results. Indexes 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.

**The great inflation debate**

Where do we go from here? The answer depends on when inflation peaks and the pace at which it subsides, the key determinants of just how aggressive the Fed needs to be in fighting inflation. This in turn will stand as a primary driver of whether the U.S. experiences a recession in the next 18 months—and if so, how long and how deep that contraction may be.

The Fed has a dual mandate: price stability and maximum employment. However, with inflation raging, Chair Powell has made clear that the priority is eventually returning inflation to the Fed's 2% target, even if it means job losses and recession along the way.

While June's CPI report confirmed headline inflation has yet to peak, in our view, core inflation (prices excluding food and energy) has passed its peak growth rate and is now slowing. Looking under the hood, the signs are encouraging that core inflationary pressures will recede.

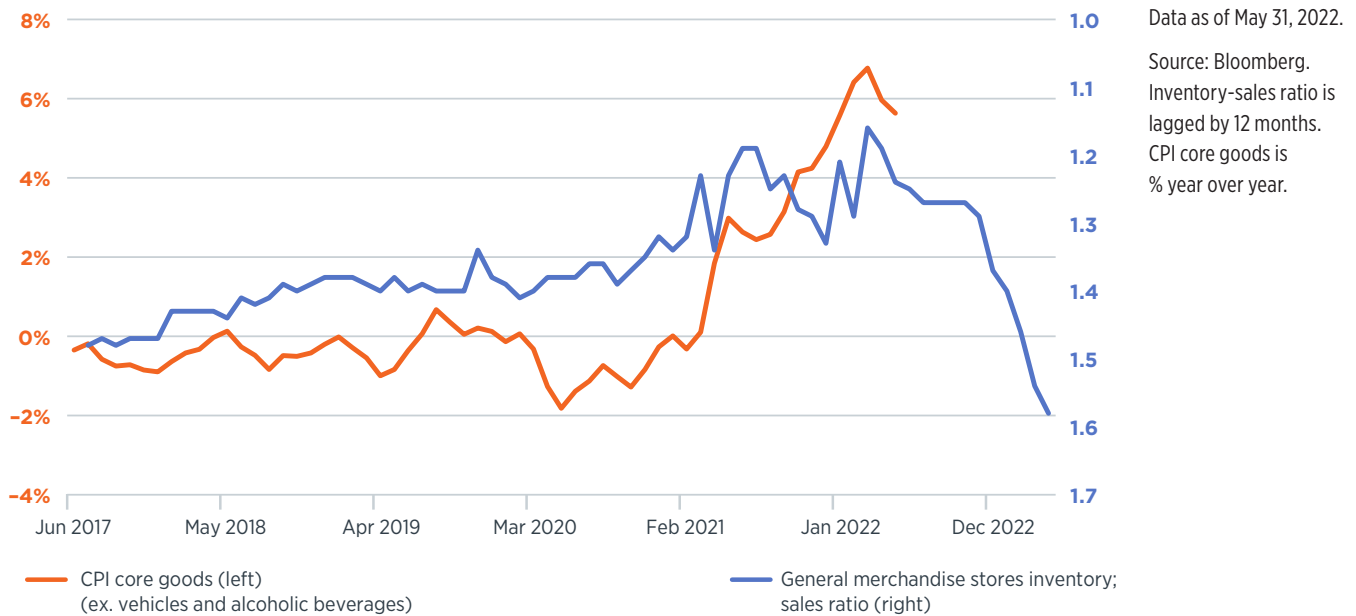
- **Global supply-chain pressures** are easing as China lockdowns lessen and global demand for goods slows. Freight shipping costs from China are down 20%-30% year to date. Chinese policymakers remain committed to a zero-COVID policy, so lockdowns could resume. However, when coupled with slowing consumer demand for goods, we believe the stress in supply chains—and indeed, associated price increases—has peaked.

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Figure 3

**Declining prices for goods as retailers look to offload inventory**

CPI for core goods and merchandise inventories



**Housing is a large component of the CPI at around 30%, and the increase in mortgage rates out of the 2022 gate has already curbed housing activity.**

- **Inventories are building**, particularly in general merchandise. We have already heard from Target and Walmart that miscalculations on consumer demand have resulted in increased inventories for the second quarter. We expect this to become a growing theme in second-quarter earnings reports for retailers. To move this inventory, companies will resort to discounting, which can already be seen in price declines for many consumer goods (Figure 3).
- **Consumer sentiment is low, and savings rates have fallen dramatically**, which we expect to result in slowing of discretionary goods purchases. Excess savings exists in the upper-income tiers but have disappeared for middle- and low-income consumers. The personal savings rate at 5.4% is well below the 2014–2019 average of 7.3%.<sup>1</sup>
- **Housing** is a large component of the CPI at around 30%, and the increase in mortgage rates out of the 2022 gate has already curbed housing activity. We should start to see tighter financial conditions hit home prices, but two wrinkles are worth noting. First, the pass-through effect of home prices on the actual components of the CPI is typically lagged by 14–16 months, so shelter inflation could be sticky through this year.

Second, inventory for homes and rental units is low. There are just 2.6 months of supply for existing homes in the U.S., according to the National Association of Realtors (NAR). This compares to an average of four months from 2016–2019. Encouragingly, the NAR reported the single-largest monthly jump in inventories on record last month and a sharp rise in sellers reducing their asking prices. However, priced-out buyers are also facing frustration in the rental market. The U.S. rental

<sup>1</sup> Bureau of Economic Analysis, Bloomberg. As of May 31, 2022.

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**It is the uncertainty around oil, natural gas, and certain agricultural food stuffs that lies at the heart of our unwillingness to forecast a U.S. economy skirting recession in 2022 and 2023.**

market has a vacancy rate of just 5.8%, compared to a 2016–2019 average of 6.9%. Cooling in both markets is needed to interrupt a vicious cycle of price appreciation.

- **Commodity prices** present the biggest wild card for the inflation consumers experience, and in fact, the Fed policy has little impact on the direction of prices for food and energy. The Bloomberg Commodity Index fell 11% in June, though the index is still up 19.5% year to date. Recession fears and solid crop yields have exerted downward pressure on energy, metals, and agriculture prices. Encouragingly, AAA's estimate for the national average gasoline price is 6.7% below the mid-June peak price of \$5.02/gallon, but still \$0.64 above the prior peak in 2008.<sup>2</sup> Nonetheless, the continuing Russia–Ukraine war could lead to new gains across the commodity spectrum at any time. Indeed, it is the uncertainty around oil, natural gas, and certain agricultural food stuffs that lies at the heart of our unwillingness to forecast a U.S. economy skirting recession in 2022 and 2023.

Peaking of inflation is necessary but not sufficient for the market to put in a bottom. The pace of deceleration will be key in dictating whether the Fed can execute a “soft landing” and therein avoid a recession. The outlook remains uncertain despite our optimism on core inflation. The 10-year-minus-2-year portion of the yield curve has inverted again, and the 10-year-minus-3-month curve could invert next if the Fed's rate-hike path continues. Both measures of the yield curve are reliable indicators of a future recession. The Atlanta Fed's GDPNow forecast for the second quarter is -1.2%, which—if realized—would be the second straight quarter of decline.

For the second quarter of 2023, the market is pricing a peak 3.5% (vs. today's 1.75%) fed funds rate (the overnight rate banks charge one another), quickly followed by rate cuts in the second quarter of 2023. That is more likely an artifact of the market pricing an increased risk of recession, rather than a prediction about the Fed's intended path for policy. The Fed's own economic projections call for an increase in the unemployment rate in 2023 to between 3.8% and 4.1%. The economy has never sustained a 0.5% increase in the unemployment rate without a recession to follow, further clouding the outlook.

### **Glass half full**

Despite pessimism seemingly lurking around every corner, we find reason for optimism. A continued decline in or even stabilization of food and energy prices could lift consumer sentiment from the doldrums and lower inflation expectations. If headline inflation begins to slow, the Fed may raise rates by another 1.25% before pausing to take stock. We don't find that a fed funds rate of 3% would be very restrictive for the overall economy. Consumer demand for services is healthy, evidenced by a solid ISM Services reading for June.

Most importantly, the labor market remains very tight, and an official recession is unlikely to materialize absent a broad-based deterioration in the labor market backdrop. The labor market grew by 372,000 jobs in June and has averaged 375,000 net new jobs in the last three months. Job openings and quits remain elevated. Despite some high-profile companies including Tesla, Coinbase, Microsoft,

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<sup>2</sup> American Automobile Association (AAA) data estimate the daily national average price for a gallon of regular, unleaded gasoline. Bloomberg data for this series began in 2004.

**Corporate pricing power is likely to fall alongside consumer sentiment, which means corporate profit forecasts could be on the chopping block.**

Twitter, and Meta announcing layoffs, initial unemployment claims have increased only modestly from an all-time low set in March 2022. The four-week moving average of continuing claims are just 20,000 above the June 2022 all-time low.

Tying it all together, we have revised downward our 2022 GDP forecast by a full 1.5% since the start of the year and now forecast 2022 GDP growth of 2%. We do not anticipate a recession over the next 12 months but risks for a 2023 contraction have escalated to around 30%–40%.

### **Choppiness ahead**

For investors, both the macro and micro data could be messy in the months ahead. Second-quarter earnings season will illuminate how companies are managing slowing demand, elevated costs, and policy uncertainty. Despite a heightened probability of recession over the next 12 months, Bloomberg consensus earnings estimates for the S&P 500 ex-energy have barely been revised down. Corporate pricing power is likely to fall alongside consumer sentiment, which means corporate profit forecasts could be on the chopping block. The S&P 500 profit margin has declined this year, but at approximately 12.7% remains well north of prior cycle peaks.

Investor pessimism is obviously apparent in the 20% price decline and 24% multiple contraction of the S&P 500. But at 16.3x next-12-month earnings estimates, the price-to-earnings ratio of the S&P 500 is in line with the 30-year average. In other words, stocks are not a screaming “buy!” at these valuations, particularly if earnings are revised down, as expected. It has also been the case historically for a bear market to find a bottom alongside a spike in volatility—and volatility, as measured by the options market, has remained relatively contained.

We have taken several steps since the start of the year to position portfolios more conservatively. Equity exposure was reduced beginning in February. After trimming our modest emerging markets equity overweight this past month, our equity allocation is now neutral versus the strategic benchmark. We are also carefully balancing exposure across a variety of factors, including value and growth. In fixed income, we traded credit risk for duration risk by reducing our leveraged loan position in favor of investment-grade fixed income. Our allocation to high-quality fixed income is now slightly below benchmark, and we expect that, with the 10-year Treasury yield at 3%, the second half of the year will be much improved for bond investors compared to the first half. Our cash position remains elevated. Aside from a bet on commodities, an elevated cash position was the next-best tactical trade so far this year. We continue to value the protection and optionality offered by cash.

Going forward, we counsel investors to be patient. The bear markets of 2018 and 2020 were very different in nature, and monetary policy came to the rescue in both instances. This time around, the inflationary backdrop means the Fed must remain in tightening mode until policy is “neutral”<sup>3</sup> or even restrictive, and inflation has demonstrated unequivocal signs of moderating. The Fed has only just started tightening policy (quantitative tightening began in June<sup>4</sup>), and this process will take

<sup>3</sup> A neutral policy stance from the Fed is not directly observable but is an estimate of the fed funds rate that is neither stimulative nor contractionary for the U.S. economy.

<sup>4</sup> Our Chief Economist opines on the impact of quantitative tightening in a recent [Wilmington Wire blog post](#).

Continued

For more, listen to the latest episode of my podcast, **Capital Considerations:**

## 2022 Economic Halftime Report: Has inflation hit its peak?

Chief Economist Luke Tilley and I delve into how history may shed light on the present and how we believe portfolios should be positioned.

time. Historically, recessionary bear markets have on average taken nearly three times as long to round-trip as “growth scares,” defined as a slowing of growth and fears but avoidance of recession (Figure 4). But either way, our experience has shown us that stocks recover and those remaining invested have stood a better chance of seeing a full recovery of their portfolio than do those who have tried to time near-term market performance.

Figure 4

### Get comfortable, this could take a while

S&P 500 drawdown and days to trough/recover for historical growth scares and recessions

Recent drawdowns	S&P 500 correction (%)	Peak-to-market trough (days)	Market trough to prior peak (days)
<b>Non-recessions</b>			
October 1983	-14.4%	199	125
August 1987	-33.5%	71	414
January 1990	-10.2%	20	79
October 1997	-10.8%	14	28
July 1998	-19.3%	31	28
January 2003	-14.1%	38	39
April 2010	-16.0%	49	88
July 2011	-18.8%	61	94
July 2015	-14.3%	25	219
November 2015	-13.3%	68	80
January 2018	-10.2%	9	115
September 2018	-19.8%	65	81
<b>Average:</b>	<b>-16.2%</b>	<b>54</b>	<b>116</b>
<b>Recessions</b>			
February 1980	-17.1%	30	69
November 1980	-27.1%	430	58
July 1990	-19.9%	62	84
March 2000	-49.1%	637	1,166
October 2007	-56.6%	357	1,011
February 2020	-33.9%	23	103
<b>Average:</b>	<b>-34.0%</b>	<b>257</b>	<b>415</b>
<b>Current Drawdown:</b>			
January 2022	-23.1%	115	

Data as of June 30, 2022.

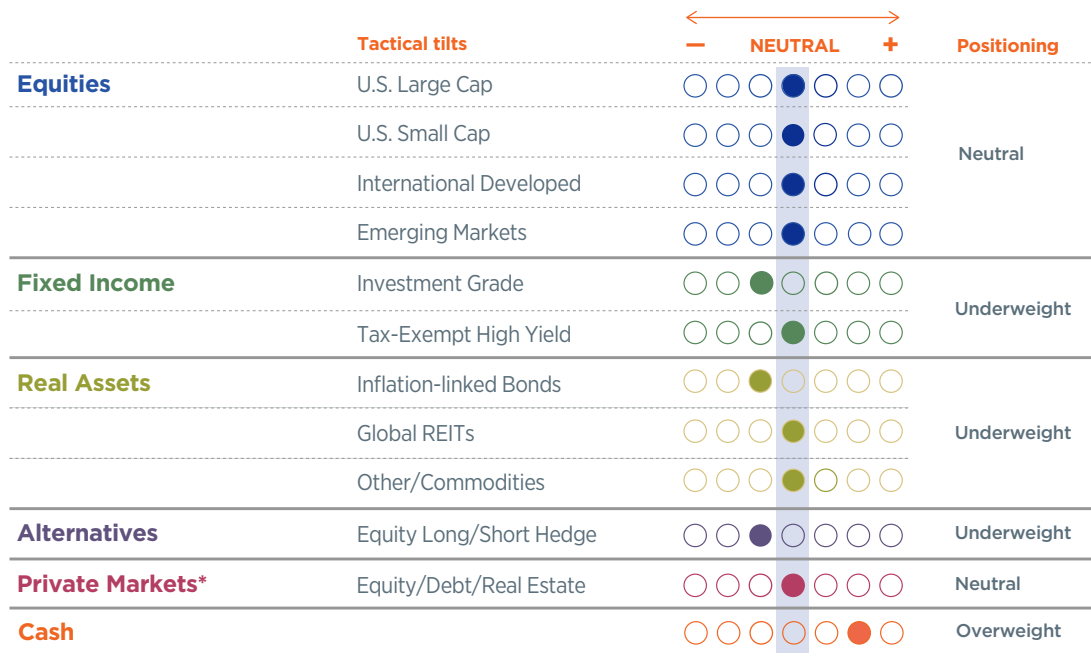
Source: Bloomberg. Dates correspond to the start of the drawdown. Drawdowns highlighted represent all declines of over 10%, in the S&P 500 since 1980.

Past performance cannot guarantee future results. Indexes are not available for direct investment.

Continued

Figure 5

**High-net-worth portfolios with private markets\***



Data as of June 30, 2022.  
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.

As always, portfolios should remain diversified across asset classes, sectors, and factors. Those who have been sitting on excess cash are certainly fortunate but should consider gradually deploying capital into this market. Those who are fully invested should look to stay that way, as the market drawdown is already two-thirds of the way to pricing the average recessionary drawdown, and a recession is still not our base case.

I will close with a silver lining: Valuations have become more constructive for future equity returns. The relationship is not perfect, but current valuations suggest more optimism for three-year annualized equity returns than was warranted when the S&P 500 was trading at more than 22 times forward earnings. In other words, we believe today's pain is likely to lead to good outcomes for those of us investing with a multi-year investment horizon.

Best,



# Taxable Fixed Income

**Ping Gu, CFA**  
Head of Credit Research

AS OF JUNE 30, 2022

	Month to date	YTD	Trailing 12-month return
Bloomberg U.S. Aggregate Bond Index	-1.57%	-10.35%	-10.29%
Bloomberg U.S. Investment Grade Credit Index	-2.61%	-13.81%	-13.64%
Bloomberg Ba High Yield Index	-6.37%	-13.86%	-12.27%
Bloomberg U.S. Mortgage Backed Securities Index	-1.60%	-8.78%	-9.03%

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

Since the beginning of 2022, investment-grade (IG) corporate bonds have seen one of its worst performances in history, driven by much higher Treasury yields and wider spreads. The Federal Reserve has embarked on a mission to tighten financial policy. At the June 15 Federal Open Market Committee (FOMC) meeting, it raised rates for the first time in 27 years by 75 basis points, or bps (0.75%). By the end of June 2022, the 2-year Treasury yield increased 222bps over the previous six months yielding 2.95%, while the 30-year Treasury yield increased 128bps to a yield of 3.18%. The market is now expecting the Fed to increase the fed funds rate to over 3% by December 2022.

In June, the Bloomberg Barclays U.S. Credit Index OAS widened 22bps month over month, reaching the widest level year to date (YTD) at 143bps, the largest monthly selloff since March 2020 resulting in an excess return of -151bps (YTD excess return of -314bps, and total return of -13.8%). From a sector perspective, cyclical credits underperformed versus defensive names. At the rating level, BBBs underperformed as spreads widened 31bps, followed by single-As (+21bps) and AAs (+10bps), leaving YTD excess return at -420bps (total return of -15.2%), -271bps (total return of -13.3%), and -166bps (total return of -13.3%), respectively.

Outflows from U.S. IG mutual funds and exchange-traded funds accelerated resulting in -\$21.0 billion in outflows during in June, extending YTD net flows to a six-month record outflow of -\$109.7 billion. IG supply for the month was \$71 billion, the smallest June issuance since 2013, leaving YTD volumes trailing 10% year over year at \$736 billion.

## What's changing

Given the recent 30bps drop in the 2-year Treasury yield, the balance of risks appears to have quickly shifted from higher inflation to slower growth, which should limit a bond market selloff. In the past three weeks, oil and commodity prices have declined. We also expect interest rate volatility to decline, as yields are far more attractive and offer greater income protection.

## What we expect

We expect inflation to slow further and the Fed to be less aggressive than the market is anticipating in the second half of the year. Therefore, rates should be more stable. Our Investment Committee had held an underweight position to fixed income since the start of the year but recently moved to neutral given a better entry point from a yield perspective. Nevertheless, we expect overseas demand for U.S. dollar credit will remain pressured due to higher yields in Europe and rising foreign exchange hedging costs. We expect this lower demand to increase the volatility of U.S. IG credit spreads as the year progresses. As a result, we remain cautious on spreads with a focus on fundamentals and relative value.

We expect overall credit fundamentals will remain in good shape, as leverage, interest coverage, and most other metrics entered 2022 strongly with positive momentum. Nonetheless, credit selection will remain critical as a slowing economy will likely cause some cash flow deterioration. We also remain cautious on potential merger and acquisition leveraging. As a result, our team of analysts is using a strategic review process to screen companies.

We expect performance will be largely driven by idiosyncratic catalysts in the second half of the year. We continue to favor a mix of recovery/cyclicals that have been hard-hit amid the recent volatility, and are more constructive on defensive sectors with a focus on bonds trading at material price discounts.



# Investment Positioning

Portfolio targets effective June 30, 2022, for high-net-worth clients with Hedge Funds

## Growth & Income

	Strategic Asset Allocation (long term)	Tactical Asset Allocation (short term)
<b>Equities</b>		
U.S. Large Cap	31.5%	Neutral
U.S. Small Cap	5.5%	Neutral
International Developed	16.0%	Neutral
Emerging Markets	5.5%	Neutral
<b>Fixed Income</b>		
U.S. Investment Grade-Tax-Exempt	28.5%	Underweight
High-Yield-Tax-Exempt	2.0%	Neutral
<b>Real Assets</b>		
U.S. Inflation-Linked Bonds	1.0%	Underweight
Global REITs	1.5%	Neutral
Other	1.5%	Neutral
<b>Nontraditional Hedge</b>	5.0%	Underweight
<b>Cash &amp; Equivalents</b>	2.0%	Overweight
<b>Total</b>	<b>100.0%</b>	

Note: Totals may differ slightly from the allocation building blocks due to rounding.

**TAA**, or Tactical Asset Allocation, represents our *current recommendation* for each model strategy.

**SAA**, or Strategic Asset Allocation, represents our *current benchmark* allocation for each model strategy.

This material is for informational purposes only and is not intended as an offer or solicitation for the sale of any financial product or service or a recommendation or determination that any investment strategy is suitable for a specific investor. Opinions, estimates, and projections constitute the judgment of Wilmington Trust and are subject to change without notice. Allocations presume a long-term investment horizon. Wilmington Trust's 2022 Capital Markets Forecast is available on [www.wilmingtontrust.com/cmf-2022](http://www.wilmingtontrust.com/cmf-2022) or upon request from your Investment Advisor. There is no assurance that any investment strategy will be successful. Investing involves risks and you may incur a profit or a loss.

For an overview of our asset allocation strategies, please see the disclosures.

Source: WTIA.

# Investment Positioning

Portfolio targets effective June 30, 2022, for high-net-worth clients with Private Markets\*

## Growth & Income

	Strategic Asset Allocation (long term)	Tactical Asset Allocation (short term)
<b>Equities</b>		
U.S. Large Cap	24.3%	Neutral
U.S. Small Cap	4.3%	Neutral
International Developed	11.6%	Neutral
Emerging Markets	4.1%	Neutral
<b>Fixed Income</b>		
U.S. Investment Grade-Tax-Exempt	24.7%	Underweight
High-Yield-Tax-Exempt	2.0%	Neutral
<b>Real Assets</b>		
U.S. Inflation-Linked Bonds	0.9%	Underweight
Global REITs	1.3%	Neutral
Other	1.3%	Neutral
<b>Nontraditional Hedge</b>	6.0%	Underweight
<b>Private Markets*</b>	17.5%	Neutral
<b>Cash &amp; Equivalents</b>	2.0%	Overweight
<b>Total</b>	<b>100.0%</b>	

Note: Totals may differ slightly from the allocation building blocks due to rounding.

**TAA**, or Tactical Asset Allocation, represents our *current recommendation* for each model strategy.

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Source: WTIA.

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Alternative assets, such as strategies that invest in hedge funds, can present greater risk and are not suitable for all investors.

Any positioning information provided does not include all positions that were taken in client accounts and may not be representative of current positioning. It should not be assumed that the positions described are or will be profitable or that positions taken in the future will be profitable or will equal the performance of those described.

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## **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.**

Continued

# Disclosures Continued

## Allocations:

Each strategy is constructed with target weights for each asset class. Wilmington Trust periodically adjusts the target allocations and may shift away from the target allocations within certain ranges. Such tactical adjustments to allocations typically are 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/Barclays US Government ILB Index; international inflation-linked bonds: Bloomberg/Barclays World exUS ILB (Hedged) Index; commodity-related securities: Bloomberg Commodity Index; U.S. REITs: S&P US REIT Index; international REITs: Dow Jones Global exUS Select RESI Index; private markets: S&P Listed Private Equity Index; hedge funds: HFRI Fund of Funds Composite Index; U.S. taxable, investment-grade bonds: Bloomberg/Barclays U.S. Aggregate Index; U.S. high-yield corporate bonds: Bloomberg/Barclays U.S. Corporate High Yield Index; U.S. municipal, investment-grade bonds: S&P Municipal Bond Index; U.S. municipal high-yield bonds: Bloomberg/Barclays 60% High Yield Municipal Bond Index / 40% Municipal Bond Index; international taxable, investment-grade bonds: Bloomberg/Barclays Global Aggregate exUS; emerging bond markets: Bloomberg/Barclays EM USD Aggregate; and cash equivalents: 30-day U.S. Treasury bill rate.

**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**.)

## Paragon

Paragon® is a portfolio analysis, risk assessment, and goal optimization tool. The Paragon report uses hypothetical examples in conjunction with forecasts for inflation, economic growth, and asset class returns, volatility, and correlation and provides you with general financial planning information and to serve as one tool in helping you develop a strategy for pursuing your financial goals. It is not intended to provide specific legal, investment, accounting, tax or other professional advice. For specific advice on these aspects of your investments, you should consult your professional advisors.

## Gold

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

## ESG

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.

## DEFINITIONS

**Alpha** is a measure of performance on a risk-adjusted basis. The excess return of a strategy relative to the return of the benchmark index is a strategy's alpha.

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

**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 CTR 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 Barclays 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 Barclays 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 with at least one year until maturity and an outstanding par value of at least \$150 million.

**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.

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## Disclosures Continued

### **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 CTR 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 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 CTR 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.

### **The Bloomberg Precious Metals Subindex Total Return (BCOMPRTTR)**

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

**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 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.

**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.

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

**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.

### **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.

**The federal funds rate** is the target overnight inter-bank lending interest rate set by the Fed.

### **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.

**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.

**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).

**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.

**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.

**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.

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## Disclosures Continued

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**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.

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

**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.

**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 approximately 2,000 smallest-cap American companies in the Russell 3000 Index, which is made up of 3,000 of the largest U.S. stocks.

**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.

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

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