



# Capital Perspectives

Monthly investment analysis and insights from Wilmington Trust Investment Advisors

ON THE RECORD

## Russia-Ukraine, Black Gold & Portfolios

In this issue:

<b>On the Record</b> Tony Roth	1
<b>Asset Class Overview: Real Assets</b> Jordan Strauss, CFA Jessica Blitz	6
<b>Investment Positioning</b>	7
<b>Disclosures</b>	9



**Tony Roth**  
Chief Investment Officer

The horrors unfolding in Ukraine are deeply upsetting on every level. As investors, it is our job to separate emotions from facts that alter our 9–12-month view of the economy and financial markets. The situation in Ukraine has deteriorated at a rapid pace in recent weeks, challenging some of our earlier assumptions and raising the risk of a more substantial impairment to global growth—Europe, in particular. As a result, we have reduced our equity overweight, bringing our international developed equities exposure in line with our benchmark. Those proceeds have been added to cash. We retain a modest overweight to U.S. and emerging markets equities.

### Reassessing risks

Twenty-four hours after Russia invaded Ukraine, Wilmington Trust held a [client webinar](#) outlining our portfolio positioning and two key assumptions necessary to avoid a material downgrade of global economic growth:

1. No meaningful reduction in supply of oil or gas flowing from Russia
2. The conflict would evolve in a way that would preserve the infrastructure of Ukraine and avoid a broader commodity supply shock

In the past few days, however, both of these assumptions have broken down, and we have adjusted portfolios as a result.

Over the weekend of February 26, the West united to unleash an unprecedented level of sanctions, including the removal of seven Russian banks from the SWIFT

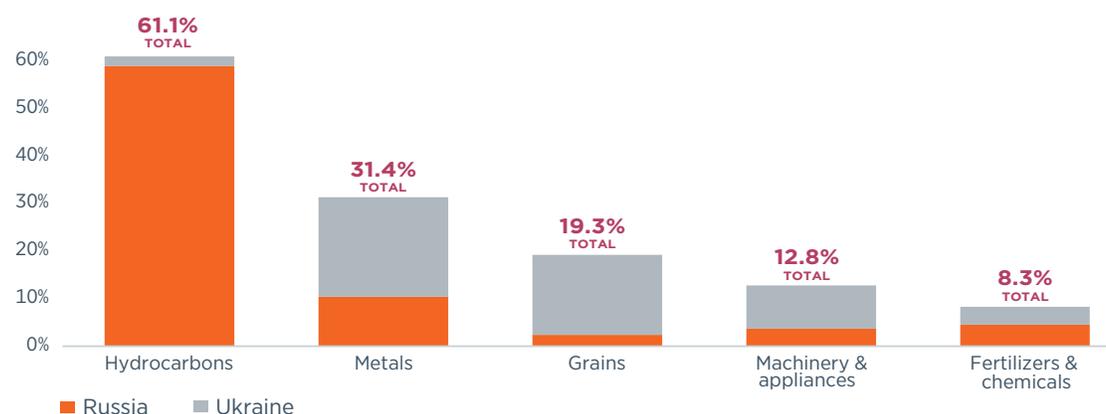
**This month’s letter is based in part on a March 4 Wilmington Wire blog post. It contains additional information and updates in light of recent developments.**

Continued

Figure 1

**Many commodities at risk of disruption**

Key exports from Russia and Ukraine (% of global exports)



Data as of December 2019.

Source: Observatory of Economic Complexity (OEC).

Hydrocarbons include crude petroleum, refined petroleum, petroleum gas, coal briquettes, and other various forms of coal. Metals include iron, steel, aluminum, copper, nickel, and other miscellaneous metal articles. Grains include corn, wheat, soybeans, barley, and other miscellaneous grains. Machinery & Appliances includes electrical and non-electrical machinery, equipment, and appliances. Fertilizers & chemicals includes chemical fertilizers, other inorganic chemicals, and organic chemicals.

**A deal with Iran could potentially add as much as one million barrels per day over a matter of months ... but even that “deal with the devil” looks to be at risk due to Russia’s involvement.**

system (which provides services related to the execution of financial transactions and payments between banks worldwide) and sanctioning of the Russian Central Bank. These sanctions will cripple the Russian economy. Noticeably absent were any sanctions touching oil and gas companies or exports directly.

However, the risks of energy supply disruption are rising. Despite policymakers recognizing that restricting energy supply could be quite painful for consumers already reeling from the highest inflation in 40 years, the U.S. has announced a ban on Russian crude imports. So far, European allies are not on board. Russian oil made up 3% of U.S. crude imports in 2021, according to the U.S. Energy Information Association and Bloomberg. These headline risks contributed to oil’s biggest daily swing ever on Monday.

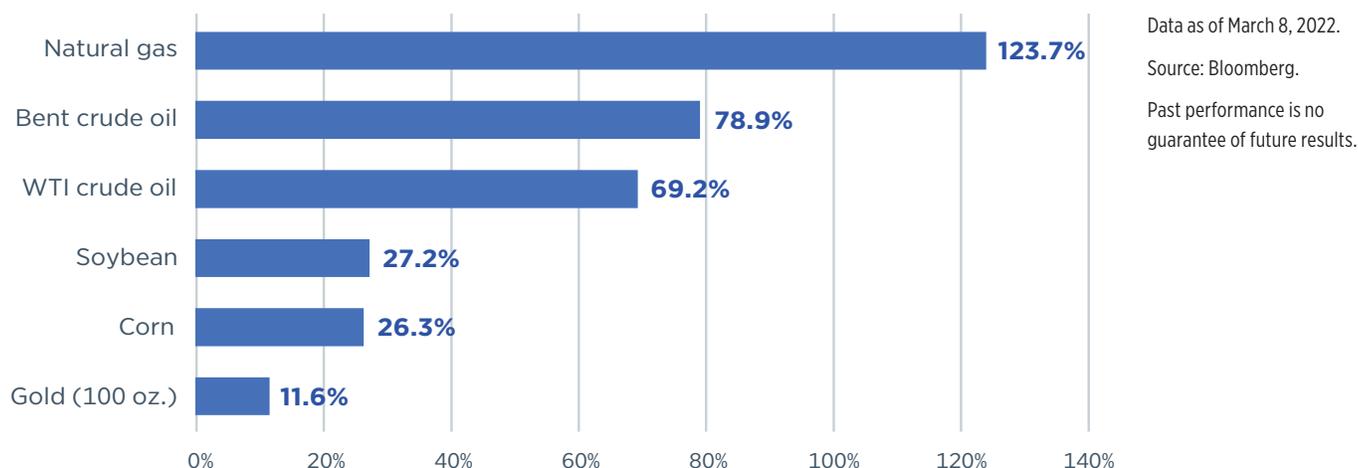
Russia has also threatened retaliation for recently enacted sanctions, which obviously could include shutting off their spigots. Even without overt sanctions on Russian energy exports, there are numerous indirect ways in which supply could be disrupted, including through lack of financing, refusal of shipping companies to accept Russian product, destruction of infrastructure, or “self-sanctioning” by companies and countries. BP took less than a week to decide to pull its 20% stake in Rosneft, the Russian gas goliath. Shell also moved quickly to cut ties with Rosneft. Although Western firms are still technically free to buy Russian output, there are reports of buyers balking, effectively reducing supply from Russia. So far, OPEC does not appear willing or able to add production, though they could step up in the event of an actual supply disruption. Clearly, their existing relationship with Russia and modest spare capacity makes that calculus tricky. A deal with Iran could potentially add as much as one million barrels per day over a matter of months—by far the most meaningful opportunity to offset supply coming offline—but even that “deal with the devil” looks to be at risk due to Russia’s involvement.

Continued

Figure 2

**Commodities having a blowout year thus far**

Top six Bloomberg commodities by index weight (YTD returns)



**With risks building that the war will be extended and with massive destruction to infrastructure, the impact on inflation and supply chains could be significant.**

There are also increased risks to supply of the broader commodity complex. Our second assumption above posited that—one way or another—the conflict would be resolved over a relatively short timeframe and without complete destruction of Ukrainian infrastructure. Russia and Ukraine produce an outsized global share of many important commodities outside of energy, including wheat, iron, aluminum, palladium, and key semiconductor inputs like neon (Figure 1). With risks building that the war will be extended and with massive destruction to infrastructure, the impact on inflation and supply chains could be significant.

**Revisiting portfolios on economic risks**

The bottom line is that the price of Brent crude oil has already increased nearly 60% year to date; the broader commodity complex has increased 32% over that same period.<sup>1</sup> The situation thus far has unfolded in a way few anticipated, and no one knows how it will be resolved. Putin has left himself isolated from the world and with few off ramps. What we do know is that the risk of sustained, higher commodity prices has risen considerably and could spill over into consumer sentiment and tighter financial conditions (i.e., a combined measure of market stress, credit conditions, and financing costs).

Our analysis shows a material but not fatal hit to the economy under various oil price shock scenarios. For example, a sustained increase in the price of Brent crude oil to an average \$134 per barrel in 2022 could drag on global GDP by -0.8% per year and would push inflation higher. Importantly, these estimated impacts are nonlinear and felt differently around the globe. In the U.S., such a shock could drag on U.S. GDP by -0.6% and drive up inflation by 0.9% relative to our current baseline. That would reduce U.S. growth to a still-sturdy 2.4% this year but push our estimate for year-over-year CPI inflation to 3.9% by the end of 2022. These estimated impacts come from a higher oil price, but the sustained nature is equally important. (In other words, prices need to increase and stay elevated to begin to erode economic growth.)

<sup>1</sup> According to Bloomberg, with commodities represented by the Bloomberg Commodity Index.

Continued

**An inversion of the curve is an eerily accurate recessionary signal, and the 26 basis point spread today is flashing a warning of stagflation (a dicey cocktail of slowing economic growth and rising prices).**

In the U.S., we do not expect an increase in energy prices that will sufficiently erode the economic cushion and send the U.S. into recession, though risks have risen. In addition, the Federal Reserve finds itself in a tight spot—needing to raise interest rates beginning in March to aggressively combat inflation in the face of heightened geopolitical risk, volatility, and rising credit spreads. The yield curve bears watching as a cautionary signal. Rarely has the Fed embarked on a rate-hike cycle with the spread between the 10-year and the 2-year Treasury yields as narrow as it is today. An inversion of the curve<sup>2</sup> is an eerily accurate recessionary signal (though with varying and sometimes long time lags), and the 26 basis point spread today is flashing a warning of stagflation (a dicey cocktail of slowing economic growth and rising prices).

As for Europe, the region entered the year on very solid economic footing and is set to benefit from fiscal stimulus later this year. A recession is not yet our base case, but the uncertainty posed to its economy over the next few quarters warrants a reduction of the asset class to neutral. Europe's outsized reliance on Russian oil and natural gas, along with its geographical proximity and more intertwined financial system, poses greater risk to the growth outlook and possible spillover effects to consumer spending. We have taken the proceeds and added to cash, taking our cash holdings slightly above benchmark weight. Should the situation deescalate, we could redeploy that cash. Alternatively, a more severe commodity shock could cause us to reevaluate our current overweight to U.S. equities.

*A quick word on portfolio exposure to Russia specifically:* Many clients are rightfully concerned about their exposure to Russia's equities or fixed income. Direct exposure to Russia in our clients' portfolios is extremely small. Our recommended portfolios hold no direct exposure to Russian debt, and the little exposure to Russian equities is virtually all through our emerging markets equities allocation. In most client portfolios, we access emerging markets equities through one active manager and a passive vehicle. These implementations result in exposure to Russian equities of just 0.07% of the total equity allocation.<sup>3</sup> (Total *portfolio* exposure will depend on a client's risk profile and allocation to equities versus bonds, real assets, and private markets).

Importantly, on March 3, MSCI and FTSE Russell (two major benchmark index providers) announced the removal of Russian equities from its indexes.<sup>4</sup> As a result, we expect these holdings to be sold from all passive implementation vehicles, in addition to most active (as managers benchmarked to an index that no longer holds Russian equities will be unlikely to allocate to the country). The timing of this is uncertain, since capital controls and a closed Russian stock market make liquidation incredibly challenging at present, but we expect this reduced exposure to be reflected in the near future. Indirect exposure—for example, through global oil producers owning a joint venture in Russia or European banks with exposure to Russian assets—is also limited, though more challenging to calculate and dependent on a client's exact holdings.

---

<sup>2</sup> In this case, an inversion of the curve would mean the 10-year Treasury is yielding less than the 2-year Treasury.

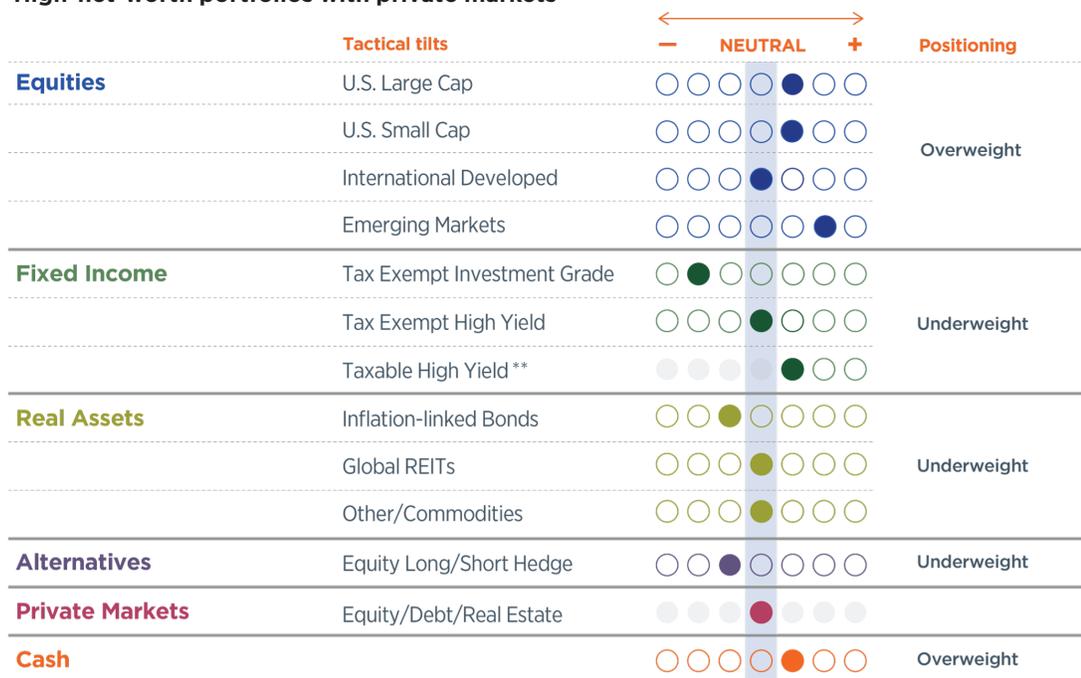
<sup>3</sup> As of March 4, 2022, for a client following our High-Net-Worth portfolio.

<sup>4</sup> MSCI announced the removal of Russia from its emerging markets indexes effective March 9, 2022, and FTSE Russell will delete Russia from all equity indexes, effective March 7, 2022.

Continued

Figure 4

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



Data as of March 3, 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.

\*\*Taxable high-yield bonds are not included in the strategic asset allocation benchmark for tax-sensitive portfolios primarily invested in municipal bonds. In this case, the Investment Committee saw an opportunity to invest in short-term, taxable leveraged loans (high yield) for both taxable and nontaxable portfolios.

**Vigilance and commitment to process**

The current geopolitical environment is extremely tense and uncertain. Risks have risen, but our base case remains that the global economy will continue to grow. *We are reducing our exposure to international developed equities to a benchmark weight and increasing our cash positioning.* We believe the U.S. economic outlook is still solid, and we are retaining a modest overweight to U.S. equities. Emerging markets equities also still present a constructive outlook, particularly as China is showing signs of easing policy to support growth. Commodity producers, such as Brazil, stand to benefit from higher commodity prices. Our Investment Committee is in constant discussion as we continue to evaluate the economic ramifications of the Russia-Ukraine war. While that discussion does not always lead to action in portfolios, we remain dedicated to our economic-led investment process and will make adjustments as that process dictates.

Best,



## ASSET CLASS OVERVIEW

# Real Assets

**Jordan Strauss, CFA**, Senior Portfolio Manager  
**Jessica Blitz**, Research Analyst

AS OF FEBRUARY 28, 2022

	Month	QTD	YTD
S&P Developed Property TR USD	-2.27%	-7.89%	-7.89%
Bloomberg Barclays US Treasury US TIPS TR USD	0.85%	-1.19%	-1.19%
Bloomberg Commodity TR USD	6.23%	15.56%	15.56%

Source: Morningstar. 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

Real assets saw highly positive performance in 2021, with property, inflation-linked bonds (ILBs), and commodities all posting strong returns. Markets were driven higher by economic optimism through the middle of the year, and real assets were further bolstered by inflation concerns and rising energy prices in 4Q.

Real estate has seen a strong recovery since its dramatic selloff in March 2020. Investors viewed the sector as a strong beneficiary of the economic reopening and continue to favor the space as a high inflation hedge. Fundamentals improved across all property types, with strong earnings results coming out of 3Q. Particularly acute pricing power was reported by industrial, residential, and storage operators. Retail landlords also surprised with better-than-anticipated results. Hotels, health care, and office lagged on Omicron fears, though remain higher than pandemic lows. M&A activity in the property sector stayed elevated through year end, highlighting robust institutional demand and increased levels of access to capital. The transaction prices also provided pricing gains that were supportive of REIT valuation levels.

ILBs performed well in 4Q and ended the year up. Prices were supported by greater demand as inflation concerns escalated in the second half of the year. The yield curve flattened as the Fed tapered its asset purchases and signaled rate hikes in 2022. Yields of longer-dated Treasuries declined while shorter-term yields increased slightly. Inflation ended the year well above the Fed's historical 2% target. The breakeven inflation curve remained inverted, and real yields continue to hold at negative levels.

Commodities saw strong performance in 2021 but fell slightly during 4Q. Energy dragged down the index, with natural gas weakening significantly on higher-than-expected temperatures leading into the winter. Industrial metals was the strongest-

performing sector for the quarter, though precious metals also rose as inflation concerns increased. Gold moderated its price gains through 2021 from early pandemic highs but remained elevated relative to history.

### What's changing

The onset of the Omicron variant, which initially spooked markets, had minimal impact broadly as spikes in hospitalizations were quick and local governments were hesitant to institute new lockdowns. With inflation concerns top of mind, the Fed announced that asset tapering would accelerate in January 2022 and was likely to end by March. The market appears to be pricing in multiple rate hikes through 2022, though the ultimate number and level remain undecided as geopolitical tensions roil global markets. Conflict in Ukraine and the anticipated global supply crunch caused oil prices to jump above \$100 per barrel in the first months of 2022 and safe-haven assets like gold and silver to spike.

### What we expect

The Fed, which was previously hesitant to act too swiftly on rising inflation, has taken steps to rein in price increases and is poised to continue to do so through the rest of the year. Despite the prospect of rate increases, with COVID cases hitting lows, our views on real estate remain positive for structurally resilient properties like apartments and logistics spaces. Commodities, especially energy, is likely to bear the brunt of geopolitics-induced price moves. As long-term investors, we aim to maintain our discipline in times of increased unknowns. Despite near-term concerns, our longer-term outlook remains constructive.

# Investment Positioning

Portfolio targets effective March 3, 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%	Overweight
U.S. Small Cap	5.5%	Overweight
International Developed	16.0%	Neutral
Emerging Markets	5.5%	Overweight
<b>Fixed Income</b>		
U.S. Investment Grade-Tax-Exempt	28.5%	Underweight
High-Yield-Tax-Exempt	2.0%	Neutral
High-Yield-Taxable	0.0%	Overweight
<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 March 3, 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%	Overweight
U.S. Small Cap	4.3%	Overweight
International Developed	11.6%	Neutral
Emerging Markets	4.1%	Overweight
<b>Fixed Income</b>		
U.S. Investment Grade-Tax-Exempt	24.7%	Underweight
High-Yield-Tax-Exempt	2.0%	Neutral
High-Yield-Taxable	0.0%	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.

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

\* Private markets are only available to investors that meet Securities and Exchange Commission standards and are qualified and accredited.

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.

# Disclosures

Wilmington Trust is a registered service mark used in connection with various fiduciary and non-fiduciary services offered by certain subsidiaries of M&T Bank Corporation including, but not limited to, Manufacturers & Traders Trust Company (M&T Bank), Wilmington Trust Company (WTC) operating in Delaware only, Wilmington Trust, N.A. (WTNA), Wilmington Trust Investment Advisors, Inc. (WTIA), Wilmington Funds Management Corporation (WFMC), and Wilmington Trust Investment Management, LLC (WTIM). Such services include trustee, custodial, agency, investment management, and other services. International corporate and institutional services are offered through M&T Bank Corporation's international subsidiaries. Loans, credit cards, retail and business deposits, and other business and personal banking services and products are offered by M&T Bank, member FDIC.

Wilmington Trust Investment Advisors, Inc., a subsidiary of M&T Bank, is an SEC-registered investment adviser providing investment management services to Wilmington Trust and M&T affiliates and clients. Registration with the SEC does not imply any level of skill or training. Additional Information about WTIA is also available on the SEC's website at <https://adviserinfo.sec.gov/>.

**Financial Advisors are investment advisor representatives of, and offer securities and advisory services through LPL Financial LLC (LPL), a registered investment advisor and broker-dealer (member FINRA/SIPC).** Insurance products are offered through LPL or its licensed affiliates. Wilmington Advisors @ M&T is a brand name used by LPL representatives to offer securities, advisory, and insurance services and is not a separate legal entity. Registered representatives of LPL using the Wilmington Advisors @ M&T name are employees of M&T Bank. LPL and its affiliates are entities separate from, and not affiliates of, M&T Bank. Securities and insurance offered through LPL or its affiliates are:

<b>Not Insured by FDIC or Any Other Government Agency</b>	<b>Not Bank Guaranteed</b>
<b>Not Bank Deposits or Obligations</b>	<b>Subject to Investment Risks, Including Possible Loss of Principal Amount Invested</b>

These materials are based on public information. Facts and views presented in this report have not been reviewed by, and may not reflect information known to, professionals in other business areas of Wilmington Trust or M&T Bank who may provide or seek to provide financial services to entities referred to in this report. As a result, M&T Bank and Wilmington Trust do not disclose certain client relationships with, or compensation received from, such entities in their reports.

The information in Capital Perspectives has been obtained from sources believed to be reliable, but its accuracy and completeness are not guaranteed. The opinions, estimates, and projections constitute the judgment of Wilmington Trust and are subject to change without notice. This commentary is for information purposes only and is not intended as an offer or solicitation for the sale of any financial product or service or as a recommendation or determination that any investment strategy is suitable for a specific investor. Investors should seek financial advice regarding the suitability of any investment strategy based on the investor's objectives, financial situation, and particular needs. The investments or investment strategies discussed herein may not be suitable for every investor. Diversification does not ensure a profit or guarantee against a loss. There is no assurance that any investment strategy will succeed.

**Any investment products discussed in this commentary are not insured by the FDIC or any other governmental agency, are not deposits of or other obligations of or guaranteed by M&T Bank, Wilmington Trust, or any other bank or entity, and are subject to risks, including a possible loss of the principal amount invested.**

Some investment products may be available only to certain "qualified investors"—that is, investors who meet certain income and/or investable assets thresholds.

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.

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.

## **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 the fund relative to the return of the benchmark index is a fund's alpha.

**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.

## 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 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 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.

**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.

Continued

# Disclosures Continued

**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.

**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.

**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.

**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.

**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.

**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.

**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.

### Limitations on use:

This publication is intended to provide general information only and is not intended to provide specific investment, legal, tax, or accounting advice for any individual. Although information contained herein was prepared from sources believed to be reliable, Before acting on any information included in this publication you should consult with your professional advisor or attorney.

Third-party trademarks and brands are the property of their respective owners.

CFA® Institute marks are trademarks owned by the Chartered Financial Analyst® Institute.

Reference to the company names mentioned in this presentation is merely for explaining the market view and should not be construed as investment advice or investment recommendations of those companies.