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Market Commentary

We believe that the only means to achieve compounded investment returns above market benchmarks without correspondingly higher risk is to formulate a unique process and adhere to it through multiple market cycles. This stands in contrast to the conventional approach, which constantly shifts investments based on the perceived preferences of the market. The latter approach requires not only the prescience to consistently interpret the market's next predilection, but also the ability to time the shifts such that they are neither too early nor too late. Difficult as it is to do this successfully, most investors invest in this manner. Perhaps they have the hubris to believe that they are in the vast minority of investors who have been able to (consistently) shift investments profitably. However, the more likely reason is that most investors are unwilling to accept underperformance over discrete periods of time and attempt to reposition "dynamically." Adherence to a disciplined investment approach over an extended period all but guarantees intervals of underperformance when other strategies are in vogue.

This is no different for our hard asset strategy, which seeks to benefit from rising inflationary forces in the global economy. There will invariably be periods when higher risk hard asset exposures outperform, and others where hard assets underperform in aggregate. However, the positioning of the Fund is always oriented around a minimum of a 3 to 5 year investment time horizon. This extended investment time horizon is a competitive advantage in and of itself, as most investors chase calendar year returns. However, the very nature of these companies, and the broader market structure is likely to result in our positioning remaining comfortably non-consensus indefinitely. This also provides the discounted pricing for otherwise excellent companies. The consensus narrative appears to be that higher inflation, whether transitory or not, is an episodic trading opportunity and not a secular investment thesis. In contrast, we believe that there will be opportunities and threats from inflation for decades —which are not priced into markets.

The cornerstone of our non-consensus investment positioning is our emphasis upon hard assets. Hard assets are simply tangible, finite resources which have largely inelastic demand and limited supply growth potential. Examples include energy, precious metals, base metals, agricultural commodities, and land. Companies engaged in these industries are typically capital intensive and highly exposed to the market

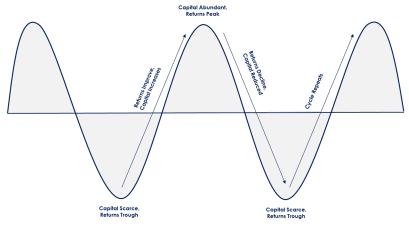


Figure 1

cycles, and therefore, they trade at low cash flow multiples. Furthermore, many of these industries



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experience extreme "capital cycles" (Figure 1): capital chases high returns when market conditions are accommodative, ultimately increasing supply such that forward returns are dismal, following which capital flees the industry. These violent cycles can result in sharp (episodic) gains, but also substantially impair capital, particularly in highly indebted companies with poor unit economics. This helps explain why there is such a dearth of successful long-term investment track records in hard asset equities.

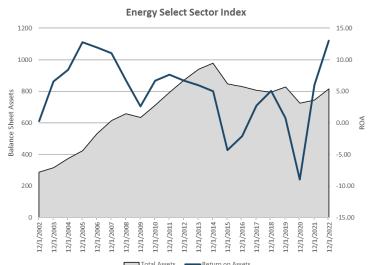
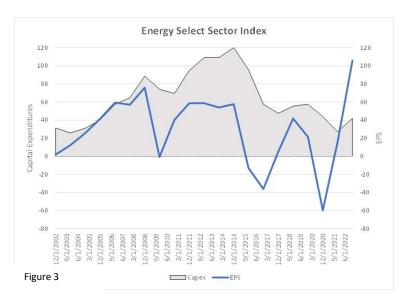


Figure 2



We have experienced a reasonably robust cycle of higher returns in many hard asset markets, in terms of equity performance, profits and rising returns on capital. Despite the sharp reversal off the pandemic year lows, we believe that a much longer, steeper capital cycle is only just beginning. This view is largely based on the fact that i.) the preceding capital "down cycle," where capital has been withdrawn from these industries, has been particularly protracted (arguably dating back to 2006 for many sub-industries), and ii.) capital has yet to return to these industries despite higher returns over the past year. This supports our belief that that hard asset companies will remain non-consensus investments for years, if not decades to come.

The prolonged capital cycle is evident in the energy sector (Figure 2) which currently has approximately 20% lower balance sheet assets compared to 2014, despite returns on assets reaching nearly 15% and eclipsing the prior cycle peak. The capital expenditures from the sector show a similar trend (Figure 3) where energy industry spending is approximately

67% lower than the 2014 peak, despite nearly a doubling of the earnings per share. The most important factor for fund flows is equity performance – the S&P 500 Energy sector returned over 60% in 2022 (the



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only positive sector other than Utilities +1.6%), while the index fell more than 18%—this was still insufficient to attractive meaningful capital. The lower (nominal) capital deployed in the energy sector is juxtaposed against rising resource extraction costs, declining base production rates and lower productivity levels in new wells. Absent a severe and protracted decline in traditional energy demand, this should lead to high energy prices on a secular basis.

The supply side dynamics for hard assets could easily be interpreted as extremely constructive for long-term investment, despite the myriad short-term challenges. This is categorically *not* a situation where investors should eschew risk consideration and embrace investments with the highest upside leverage. The current setup for this investment style reminds us of the 1888 poem "Casey at the Bat" by Ernest Thayer. In the poem the fictional "Mudville" baseball team is losing by two runs in the last inning of the game, with their star player "Casey" up fifth in the lineup. The crowd is of the belief that victory is assured if only Casey can get to bat; however, this would require two of the lowly players preceding him to get on base. Alas, after the 1st and 2nd batters fail to advance, the 3rd and 4th batters safely reach base —only for Casey to strike out.

The poem is illustrative of the hard asset capital cycle, where the investments appear to be in a dire position, but against the odds salvation arrives—yet, ultimately fails to deliver. Investment fund flows only enter hard assets once Casey has arrived at bat, which equates to high prices and low prospective returns. The only way for an investment to be successful at this point is for Casey to hit a home run—anything less will be punished by the market. The worst-case scenario is for Casey to strike out, which results in steep investor loses and capital fleeing the industry again. Recall that robust emerging market (BRICS) demand for hard assets in 2005 resulted in near euphoric stock/commodity pricing — and many sub-industries failed to recover until only very recently.

We don't think that we are anywhere near a "Casey moment" yet, where capital is abundant, valuations are high, and prospective returns are low, but we recognize the need not to strike out in these investments. The best way to protect against such a scenario is to recognize the volatility in these sub-industries and to invest in efficient, capital light business models that are less susceptible to striking out. Tempting as it may be to try to hit a home run and embrace companies with the highest leverage to higher hard asset prices (i.e., indebted mining and energy extraction companies), these businesses are far more prone to the permanent impairment of capital. On the other hand, capital light businesses are consistently hitting singles and doubles, slowly compounding value. This summarizes our strategy and positioning: though returns may be variable, we emphasize companies that we are confident can prosper through drawdowns and compound capital over time.

<u>Market/Economic Backdrop</u> We view sustained, structural inflation as the most important macroeconomic variable today given the myriad of factors it influences ranging from corporate profit margins to government funding levels. While the portfolio maintains exposure to more pro-cyclical inflationary assets, the performance of the portfolio is not predicated on ever rising inflation. In other



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words, we believe that reasonable returns can be achieved under status quo conditions or even in lower price environments. However, market sentiment around companies exposed to these end markets is highly sensitive to inflation expectations over the short to intermediate term. To be sure, inflation expectations have fallen considerably compared to a year ago.

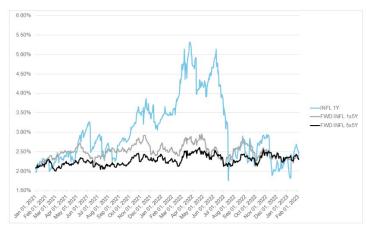
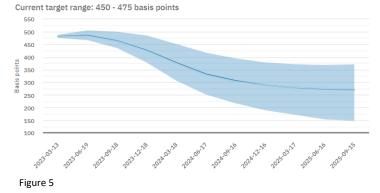


Figure 4, INFL 1Y, 1x5Y and 5x5Y refer to terms of inflation futures

The Expected Future Path of the Three-Month Average Fed Funds Rate



The market increasingly appears to expect a reversal to the pre-2020 world of low inflation and low interest rates. The ICE U.S. Dollar Inflation Expectations Indexes (Figure 4) are priced for short, intermediate and long-term inflation levels to all fall below 2.5% within a year. The market has consistently underestimated 1-year inflation levels as indicated by the light blue line (INFL 1Y). In June of 2021, the market was pricing approximately 3% inflation a year later, which turned out to be 9.1%. Perhaps more important is the fact that the market assigns an extremely low probability of intermediate or long-term inflation exceeding 2.5%. Risk assets are clearly priced based on this assumption, and materially lower interest rates.

The Federal Reserve Bank of Atlanta Market Probability Tacker (Figure 5) suggests that the Federal Funds Rate is effectively at its peak (4.5% - 4.75%) today with two 0.25% hikes remaining before rates decline, ultimately falling by

approximately 200 basis points, to an effective rate of 2.70% by September of 2025.



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The Central Bank members appear to disagree with these market expectations (hopes) based on the most recent survey of FOMC members expectations for future target rates (Figure 6). The market is pricing in a

median rate of approximately 4.25% by the end of 2023, whereas the FOMC survey is over 5%, with the lowest members only marginally below 5%. Investors clearly either do not believe the Fed or do not want to believe the Fed.

We believe that these inflation and interest rate expectations represent the most sanguine scenario for risk assets but are extraordinarily unlikely to materialize. Regardless, the Fund is not as exposed to these variables as it might appear because:

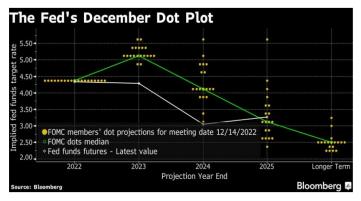


Figure 6

- The structural inflation drivers that the portfolio is primarily exposed to are large components of
 overall inflation measures (i.e., Consumer Price Index CPI, Personal Consumption Expenditures Price
 Index PCE), but can also de-couple from broader benchmarks under certain conditions. We believe
 that this is occurring as cyclical inflation drivers are moderating, yet structural inflation drivers remain
 in low supply, and capacity constrained.
- Consensus investment positioning appears to reflect the belief that a recession is imminent and will
 be sufficiently severe to curtail aggregate demand and suppress inflation. This has resulted in low
 valuation multiples for many hard asset companies.
 - There is a logical inconsistency with regards to a recession permanently "fixing" inflation.
 Such an event would almost guarantee money supply growth and other stimulative measures, which would very likely result in a subsequent bout of inflation.

These are more short-term oriented factors, but are nonetheless relevant to our positioning. We invest with a long-term mindset and are far more focused on secular factors influencing the companies in our portfolio. In short, our long-term views are based on our belief that the prior thirty years of declining interest rates, declining or low inflation and rising profit margins has ceded to a new environment of higher interest rates, higher (volatile) inflation and pressure on profit margins. This view can be summarized through the following points:

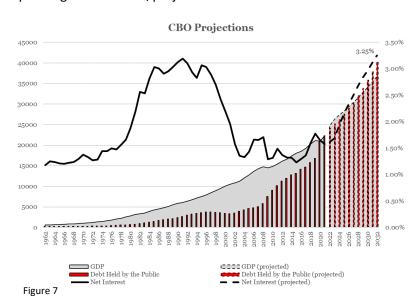
 Globalization is inherently disinflationary (i.e., a slower rise in prices) due to various trade and supply chain efficiencies. After years of increasing globalization, the marginal benefit of these factors is declining. At the same time, there are also various current global onshoring initiatives to increase the resilience of businesses/governments, perhaps at the expense of efficiency. This will add to cost pressures over time.



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- A secondary benefit of globalization, enjoyed largely by the developed world, was abundant and
 inexpensive labor and raw materials. As many of the non-OECD nations have grown GDP per
 capita and exhausted the lowest cost resources, they are now competing with the OECD world for
 labor and materials. Higher labor and materials costs are likely to be amongst the most enduring
 cost pressures in the years ahead.
- One of the greatest economic accomplishments of the modern era was the productivity gains
 achieved by the mature western economies. This coincided with the wide scale adoption and
 implementation of the internet (i.e., 1999-2010), a period during which productivity gains added
 over 320 basis points per year to nominal GDP growth. Absent a similar technological breakthrough, productivity gains will be muted particularly as "inefficient" government spending
 grows as a portion of GDP.
 - It is also interesting to note the large-scale layoffs in the technology sector as these companies are forced to target profits over growth. Although there is limited data, nonprofitable technology businesses have certainly subsidized corporate and consumer costs for many years.

These rapidly reversing disinflationary forces must also be considered within the context that they facilitated consistent federal government deficits in every year since 2001, resulting in 2.4x growth in the debt to GDP ratio in the United States <u>without inflation</u>. It bears considering what type of inflation these deficits would have created without these trends, and whether politicians are likely to reduce current spending entitlements/projections.



Conventional economic wisdom holds that rising federal debt levels disinflationary, deflationary largely due to the additional cost of servicing the debt. All else equal this might be true, but the U.S., U.K. and E.U. are all experiencing near record inflation concomitant with near record debt levels. The nuance is that the respective central banks can effectively issue new Dollars, Pounds and Euros in order to pay the interest expense (and expenditures). The issue is that the

central banks are attempting to withdraw money from the system, which is necessary to the keep the system functioning. The U.S. Congressional Budget Office (CBO) projects that sustained deficits will



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require ever higher levels of federal debt, which will in turn be funded by the public (Figure 7). In fact, the projections suggest that the public will fund U.S. debt equal to close to 110% of GDP by 2032, which is greater than the historical peak following World War 2 in 1946 (106%). This math would result in over \$1.2 trillion in interest expense for the year 2032 alone. Bear in mind that the CBO projections assume nominal economic growth and higher tax receipts in each year through 2032 to arrive at the debt figures – presumably any recession would result in higher deficits/debt.

If the public does not fund the additional debt, at reasonable interest rate, the alternative options will be to i.) revert to Federal Reserve bond purchases ii.) reduce deficit spending and or iii.) a debt restructuring. We will leave readers to come to their own conclusions on these scenarios, and the implications for inflation and hard assets.

Portfolio Positioning

The portfolio positioning is primarily a function of the run-rate economic returns for each position using various cash flow assumptions. The cash flow profile of hard asset companies is driven by underlying asset prices and production levels/volumes; hence we must include forecasts of future prices and volumes. Ultimately, the Fund will have higher relative weights in companies that have the best cash flow profiles and valuations under a variety of price/volume scenarios.

Energy: The energy sector continues to trade at amongst the lowest valuations of all hard asset sub-industries in our universe, assuming mid-cycle oil and gas pricing. The fact that we believe energy prices have amongst the highest potential to structurally re-rate higher relative to historic mid-cycle pricing leads to our overweighting in energy companies.

There are two primary variables that we believe are pressuring energy prices and the related equities. The first is production volumes, which continue to underwhelm relative to earlier forecasts, particularly in U.S. shale basins. This is clearly a function of insufficient capital investments, but limited labor, materials, and infrastructure have compounded the growth limitations. There are also idiosyncratic dynamics, such as lower inventories of drilled uncompleted wells (DUCs) and premier drilling locations, which have translated into lower well productivity (per frac foot) compared to earlier years. We require more data to determine if this is indicative of a broader trend, but it appears that U.S. shale may be past peak well productivity. This should result in lower production forecasts for the U.S., but most global agencies (EIA, IEA, OPEC) have yet to adjust production levels lower. This has resulted in lower energy prices, while equity investors are also pricing in lower production for U.S. operators.

The other variable suppressing prices is the fear of lower demand, whether it be due to a deteriorating economy or to technological innovation (i.e., renewables and higher efficiency internal combustion engines). We have highlighted in past letters that demand is resilient in all but the most severe recessions, particularly from non-OECD nations that now drive global consumption and growth. Similarly, some governments are gradually accepting that the initial pace and scope of a renewable transition must be



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revisited. We believe that global demand is likely to grow through at least 2030, and there has been a minimal supply response thus far.

Notwithstanding the short-term noise, we believe that energy is likely to be amongst the most profitable investments for the next decade. We solve for some of the idiosyncratic issues in the industry by focusing on i.) royalty businesses ii.) North American assets in premier basins. We believe that this "quality" overlay in terms of business model and asset base will serve us well over time and limit the vulnerability to rising production costs.

Exchanges: Financial exchanges are the underappreciated engines that power the global financial system, providing trading, clearing and data across geographies and asset classes. The core transitional side of these businesses benefits primarily from higher transactional volumes, and to a much lesser extent rising revenue per contract (RPC). The other side of the businesses is largely recurring, subscription revenues related to data, connectivity and other market services.

The core markets for exchanges are derivatives, which are captive products to the trading platform and clearinghouse, in interest rates, currencies, commodities and index futures. Volatility is the largest driver of volume, as it incentivizes both hedging and speculation from market participants. It would be reasonable to have expected a record (volume) year for exchanges in 2022 given the unprecedented market volatility, and this was the case for most interest rate, equity and currency markets. There was more variability in volume growth in certain energy, agriculture and metals markets, which can be partially attributed to margin financing availability. The more important trend is that aggregate exchange volumes grow at or above nominal GDP growth in most years, and universally over rolling three-year periods. The relationship will facilitate revenue growth equal to or higher than nominal growth, and with operating leverage on expenses, operating income should improve with nominal economic growth even if real growth is laggard.

These companies have higher growth and margins compared to the broader market, and command a modest valuation premium as a result. This was apparent in 2022, as exchanges were not immune to the market beta, despite otherwise strong operational results.

Precious Metals: The price of gold, and the broader precious metals complex, is subject to so many variables that it is all but impossible to determine the primary driver over any given period. The prior year had these dynamics on full display, as a rising U.S. Dollar and rising (real) U.S. rates overwhelmed rising inflation and market volatility in sending prices slightly lower. Silver is even more challenging to analyze because there is a considerable industrial demand component for the metal, whereas gold demand is largely financial.

We believe that there are many arguments in favor of having exposure to precious metals over the long-term, if none other than the federal debt/deficit and renewable demand for silver. Similar to energy, we have our exposure to the assets via royalty ("streaming") companies which have i.) high quality reserves



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ii.) long reserve lives, and iii.) strong operating jurisdictions and iv.) copper mine byproduct. The first three variables are intuitive, particularly operating jurisdiction given the potential governments involved in mining projects. However, its largely underappreciated that the world's largest gold streams are found in copper mines where gold is a byproduct of industrial metal production. This will be critical for volume growth because there is an acute shortage of new copper production, which will be critical for the electrification/renewable shift worldwide. Not only will this support growth, but in the unlikely event that gold prices fall below global mining break-even levels, industrial mines are not concerned with precious metals costs, given that the production is largely pre-sold via a stream.

Precious metals royalties admittedly offer less upside leverage to gold and silver compared to more speculative mining companies, but the margin profile and low debt profile make these companies our preferred exposure to the sector.

Agriculture: Food prices are amongst the most acute and damaging components of inflation, but there are a few attractive business models within the industry. The western world has benefitted from abundant and inexpensive food for decades, as crop yields have risen with fertilizer and other technologies, and weather trends have been accommodative. The future is less certain, with rising GDP per capita across most of the non-OECD world driving higher caloric consumption, and higher protein diets. The ability to fulfill this demand without price pressure was tenuous at best before natural gas prices drove fertilizer prices to unsustainable levels, and the world lost a substantial portion of the harvest from the Black Sea region. We hope that these variables prove to be isolated events, but fear that disruptions to food supplies may be more commonplace in the post-pandemic world.

The agriculture industry is also very susceptible to higher labor and materials prices due to the intensity of labor, fertilizers and other crop treatments, but also the thin profit margins. Modestly higher input costs can turn a profitable farm into a loss generating operation quickly. Thus, the best business models that we can identify in the industry are global agri-businesses which process the worlds grains and seeds into starches, sweeteners, olefins and other finished/intermediate products. The "middleman" produces economic value by turning a useless raw material into a useable end product, and earns a crush margin related to the activity. Soybeans are the largest market in the western world, driven by demand for both soybean oil used in various end applications, and soybean meal which is primarily used for animal feed. There are a limited number of companies that can provide these services at scale and coordinate on a global scale. During the previous era of abundant supply and rising crushing capacity, agribusiness margins were low and volatile. We believe that these dynamics are shifting rapidly and should support higher earnings for longer.

Industrial Metals: The industrial metal complex can be divided into ferrous (iron bearing) and non-ferrous (copper, aluminum, zinc, lead, etc.). Iron ore, when smelted into steel, is a critical input for heavy commercial construction and infrastructure development, while the non-ferrous group is heavily used in electrification and other end markets.



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Iron is generally regarded to be a proxy bet on Chinese activity due to the fact that the construction boom supported iron demand for many years following the global financial crisis. This may be true, but so too is the fact that iron ore grades are falling globally, while western steelmaking is shifting towards electric arc furnaces which require higher grade, pelletized iron. Iron demand will also be driven by large infrastructure and power generation development (wind, solar, and transmission) related to the electrification and renewable transition. As a result, we believe that there is upside potential relative to yearend iron prices. However, even at the prevailing price, various iron focused royalty companies offer double-digit yields at current production levels. We are happy to earn this yield over time, with potential upside from mine growth and/or rising iron prices.

The demand outlook for non-ferrous metals is far less controversial compared to iron ore given the copper, zinc and aluminum intensity for the energy transition. Even modest estimates for copper demand suggest that global consumption will grow by approximately 80% by 2040. However, global capital expenditures to increase production have been muted, and the IEA estimates that a new copper mine will take 15 years to reach scale production. These projections are offset by the same fears that are suppressing energy and iron ore prices: a global recession and muted Chinese demand. We don't have unique perspective into these events, but recognize that zinc, aluminum, copper and nickel inventories are dramatically below 5-year median levels. This leaves little buffer should demand prove to be resilient, or when demand rebounds following potential recession/China policy shift. The non-ferrous metal market has a small, and largely un-investable universe of public royalty assets. As a result, we seek to identify advantaged, highly economic business models within the sub-industry. These companies have the ability to thrive without rising price levels, but also to benefit from rising prices should they occur.

The balance of the portfolio is allocated to brokerage, health care, timber, real estate, defense and land companies that share the ability to grow revenues in excess of costs in an environment of rising prices. Similarly, these companies are not directionally dependent upon rising price levels to generate economic returns but have the ability to benefit from higher prices. As always, we continue to evaluate new and unique business models that have these dynamics.

IMPORTANT RISK DISCLOSURES

Please consider carefully a fund's investment objectives, risks, charges and expenses. For this and other important information, obtain a statutory and summary prospectus by contacting 646-495-7333. Read it carefully before investing.

Past performance is not a guarantee of future returns and you may lose money. Opinions and estimates offered constitute our judgment as of the date made and are subject to change without notice. This information should not be used as a general guide to investing or as a source of any specific investment recommendations.

Fund holdings and sector allocations are subject to change and are not a recommendation to buy or sell any security.



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The Horizon Kinetics Inflation Beneficiaries ETF (Symbol: INFL) is an exchange traded fund ("ETF") managed by Horizon Kinetics Asset Management LLC ("HKAM"). HKAM is an investment adviser registered with the U.S. Securities and Exchange Commission. You may obtain additional information about HKAM at our website at www.horizonkinetics.com.

Definitions:

S&P 500 Energy comprises those companies included in the S&P 500 that are classified as members of the GICS® energy sector. **The Organization for Economic Co-operation and Development (OECD)** is a group of 37 member countries that discuss and develop economic and social policy.

CPI: Refers to the Consumer Price Index (CPI), a measure of the average change over time in the process paid by urban consumers for a market basket of consumer goods and services. Indexes are available for the U.S. and various geographical areas.

PCE: Refers to the Personal Consumption Expenditures Price Index. A measure of the prices that people living in the United States, or those buying on their behalf, pay for goods and services. The PCE price index is known for capturing inflation (or deflation) across a wide range of consumer expenses and reflecting changes in consumer behavior. **Basis points (BPS)** are used to show the change in the value or rate of a financial instrument, such as 1% change

equals a change of 100 basis points and 0.01% change equals one basis point.

Risks:

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