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INVESTMENTS & WEALTH INSTITUTE®

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By *Jeremy Schwartz, CFA®*, *Florian Ginez, CFA®*, and *Jianing Wu*

After a decade of poor performance, broad commodity indexes such as the S&P GSCI Index (SPGSCI) have rallied more than 27 percent.¹ Many strategists are suggesting this is the start of a commodities supercycle.²

A macroeconomic backdrop of low interest rates, expectations for increasing inflation, the weakening U.S. dollar, and an anticipated global economic recovery intensifies desires to hedge traditional portfolios against rising inflation and rising commodity prices. In the years ahead, we believe commodities can play an essential role in portfolios to address these risks.

In this article, we present four arguments for why commodities are attractive now and provide an overview on the factors that are unique to commodity strategy selection.

WHY COMMODITIES NOW?

Commodities are growing attractive to investors for four reasons. First, they provide an alternative to bonds during periods of low yields. Second, commodities can hedge against expected increases in inflation. Third, they provide additional diversification to counter market risk. Fourth, commodities can deliver protection against a weakening U.S. dollar and subsequent currency risk.

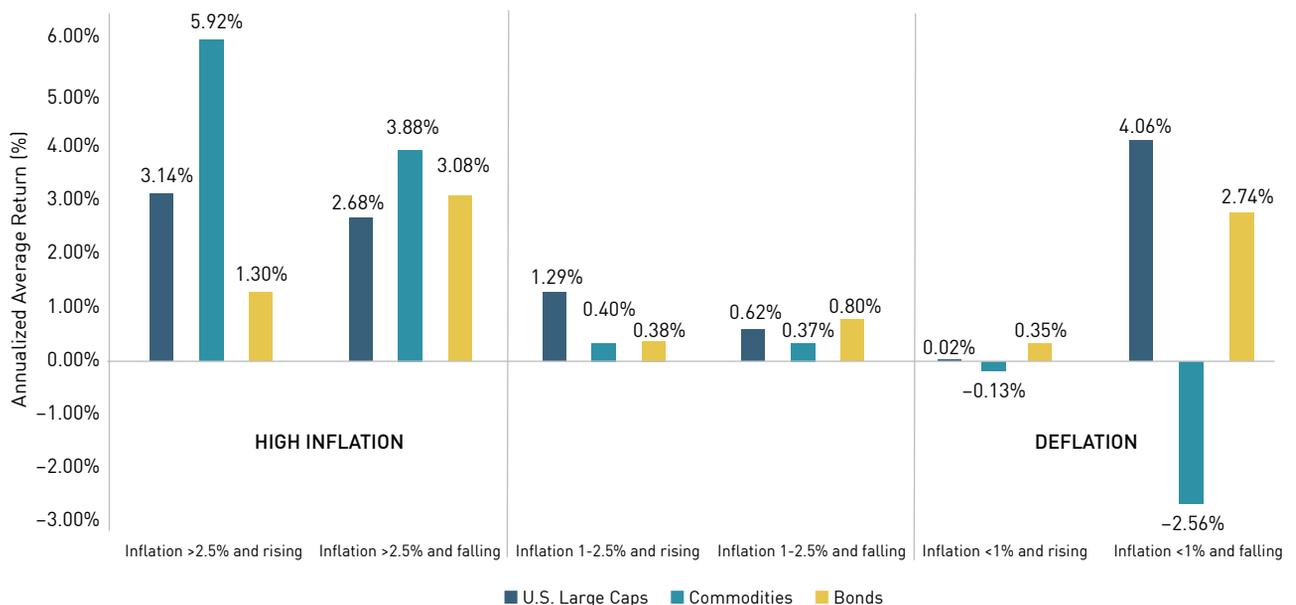
LOW YIELDS FROM FIXED INCOME

As short-term U.S. Treasury yields remain anchored near zero, investors are questioning whether bonds can be relied upon to generate sufficient levels of income. Inflation-adjusted 10-year bond yields are negative—indicating losses in real purchasing power over 10 years from investments in bonds that provide inflation protection.

A dovish Federal Reserve combined with Fed Chairman Jerome Powell’s promise to let the economy run hot could imply inflation-adjusted bond yields remain negative for some time, all while aggressive fiscal stimulus is expected in response to the global COVID-19 pandemic.

Figure 1

ASSET CLASS PERFORMANCE DURING DIFFERENT INFLATION REGIMES



Source: WisdomTree, Bloomberg, Morningstar, from January 30, 1970, to December 31, 2020. Inflation proxied by IA SBB1 US Inflation Index, U.S. large caps proxied by IA SBB1 US Large Stock TR USD Index, bonds proxied by IA SBB1 US LT Govt TR USD Index, commodities proxied by the S&P GSCI Total Return Index (SPGSCITR).

As traditional bonds struggle to generate meaningful income and are subject to inflation risk by design, commodities are one way to directly benefit from an increase in inflation pressures. As we emerge from the pandemic, global manufacturing activities are recovering, supply chains are improving, and demand is picking up quickly.

COMMODITIES' STRONG PERFORMANCE DURING INFLATION

Historically, commodities protected against inflation because their prices are determined largely by supply and demand. When economic activity ramps up, production material utilization increases, which leads to higher prices.

Compared to other major assets such as equities and bonds, commodities tend to be the strongest performing asset during times of high inflation.

Figure 1 shows the performances of equities, commodities, and bonds during various inflation regimes. During periods when inflation exceeded 2.5 percent and rising in the past five decades, commodities generated the highest returns, outperforming equities by more than 250 basis points with a lower volatility.

COMMODITIES AS AN ALTERNATIVE FOR DIVERSIFICATION

Table 1 shows commodities' and bonds' correlations versus equities and their relative returns during different inflation regimes over the past five decades.

Historically, commodities and bonds have similar correlations versus the S&P 500 Index—both are near zero. But in an environment of high and rising inflation, commodities outperformed bonds by 2 percent to 3 percent annually while keeping a correlation near zero. This seems consistent with the macro environment we are now entering.

HEDGING RISKS TO THE DOLLAR

With higher anticipated inflation and an expanded monetary base, the U.S. dollar (USD) may be on a weakening path. Commodities tend to have a negative correlation against the USD because they are priced in USD. When the value of the dollar declines, global commodity prices for buyers in other currencies become relatively less expensive and demand tends to rise. Historical correlations between commodities and the USD are

in the negative territory, while Treasuries rose above zero in recent years.

This inverse relationship also can be shown through commodities' performance during different USD regimes (see tables 2 and 3). Commodities performed well during weak dollar periods—they generated an 11.5-percent return with a hit rate of 76 percent, meaning that returns are positive 76 percent of the time when the USD dropped 5 percent or more.

HOW TO SELECT COMMODITY STRATEGIES

Investors can gain access to the commodities market by purchasing physical commodities, futures contracts, commodity-related stocks, commodity exchange-traded funds (ETFs), and mutual funds.

Table 1

COMMODITIES' AND BONDS' CORRELATIONS VERSUS EQUITIES AND THEIR RELATIVE RETURNS

Inflation > 2.5% and Rising		
	Correlation vs. S&P 500 Index	Average Annualized Return
U.S. Long-Term Government Bonds	0.06	1.30%
SPGSCI Index	0.10	3.61%
BCOM Index	0.07	4.12%
Inflation <= 2.5%		
	Correlation vs. S&P 500 Index	Average Annualized Return
U.S. Long-Term Government Bonds	0.09	4.27%
SPGSCI Index	0.15	-1.51%
BCOM Index	0.12	-1.79%

Source: WisdomTree, Bloomberg, from January 30, 1970, to December 31, 2020. U.S. Long-Term Govt Bond proxied by IA SBBI US LT Govt TR USD Index.

Table 2

AVERAGE COINCIDENT CALENDAR YEAR PERFORMANCE

U.S. Dollar Index Year-End Scenarios

	Gold	Inflation YoY*	Nom. GDP YoY*	10-Year Yield (BP)	S&P 500	Emerging Markets**	Int'l Developed Markets	BCOM Index
DXY Down 5% or More	19.1%	3.8%	6.6%	-9.3	6.3%	12.8%	16.9%	11.5%
DXY In Range of -5% to 5%	18.4%	3.9%	5.6%	-18.3	14.3%	20.9%	7.3%	9.8%
DXY Up 5% or More	-5.9%	3.8%	6.4%	-5.4	6.3%	1.2%	1.4%	-6.4%
Hit Rate DXY Down <-5%	82%	100%	94%	47%	71%	60%	82%	76%
Hit Rate DXY -5% to 5%	65%	100%	100%	47%	82%	69%	71%	65%
Hit Rate DXY Up >5%	31%	100%	94%	50%	69%	40%	50%	44%

Source: Morgan Stanley, Bloomberg, MSWM Market Strategy as of December 31, 2019.

* inflation and gross domestic product (GDP) taken averages based on end-of-year figures

** analysis on all assets back to 1971, emerging markets only to 1988, note 2020 returns are included as year-to-date

DXY = U.S. Dollar Index

Table
3

AVERAGE FOLLOWING CALENDAR YEAR PERFORMANCE

U.S. Dollar Index Year-End Scenarios

	Gold	Inflation YoY*	Nom. GDP YoY*	10-Year Yield (BP)	S&P 500	Emerging Markets**	Int'l Developed Markets	BCOM Index	US Dollar Index
DXY Down 5% or More	23.9%	4.4%	6.7%	1.6	6.6%	21.7%	13.2%	10.8%	-2.8%
DXY In Range of -5% to 5%	6.7%	3.9%	5.9%	16.4	12.1%	3.1%	4.7%	6.3%	0.3%
DXY Up 5% or More	1.9%	3.3%	5.8%	-50.0	8.1%	15.4%	7.4%	-1.8%	2.5%
Hit Rate DXY Down <-5%	75%	100%	94%	63%	81%	70%	81%	75%	38%
Hit Rate DXY -5% to 5%	53%	100%	94%	47%	71%	54%	71%	59%	59%
Hit Rate DXY Up >5%	50%	100%	100%	38%	69%	50%	50%	50%	69%

Source: Morgan Stanley, Bloomberg, MSWM Market Strategy as of December 31, 2019.

*inflation and gross domestic product (GDP) taken averages based on end-of-year figures

**analysis on all assets back to 1971, emerging markets only to 1988, note 2020 returns are included as year-to-date

DXY = U.S. Dollar Index

Commodity ETFs are convenient vehicles because they don't require storage and delivery of physical commodities, nor do they mandate sophisticated knowledge about trading commodity futures. Furthermore, commodity ETFs provide more direct exposure to underlying commodities compared to commodity-related stocks that have corporate overhead and other equity factors baked into them.

For introductory purposes, we will focus on broad-based commodity funds. Selecting the best strategy to invest in mainly depends on three factors: fund structure, commodity sector exposure, and futures rolling mechanism.

FUND STRUCTURE

Exchange-traded commodity funds can take on many structures. The most typical funds are commodity pools, exchange-traded notes (ETNs), and open-ended '40 Act funds.

Commodity pools invest in futures contracts via a pool of money from participants. Although they provide exposure as other ETFs do, they issue Schedule K-1 forms regardless of whether the positions have been sold. These forms generally are issued late and some can cause a delay in investors' tax reporting, which results in more paperwork.

ETNs are unsecured debt securities that track an underlying index. Although they don't issue Schedule K-1 forms like

commodity pools, they do carry default risk and liquidity risk. Default risk exists because the repayment of principal depends on the issuer's financial viability.

Open-ended '40 Act funds are pooled investment vehicles offered by a registered investment company as defined in the Investment Company Act of 1940. This is the structure that most ETFs utilize.

Open-ended '40 Act funds are pooled investment vehicles offered by a registered investment company as defined in the Investment Company Act of 1940. This is the structure that most ETFs utilize. These ETFs solved the Schedule K-1 form headache by investing 25 percent or less of the portfolio to a Cayman Islands subsidiary and investing the remaining 75 percent in the United States. For most investors, this structure is the best choice because it offers exposure to commodities but is taxed as a regulated investment company.

SECTOR EXPOSURE

The second factor that investors should consider is whether the fund's allocation suits their economic outlook and

investing needs. These are reflected through the fund's underlying commodity futures contracts and their target weights.

Future contracts' availability and liquidity determine the eligible commodity futures the fund can invest in. For broad-based commodity funds, most strategies hold approximately 25 futures contracts, covering all four commodity sectors (energy, agriculture, precious metals, industrial metals) with some exceptions holding as few as 14 and as many as 37 futures contracts.

After determining which commodity futures contract is incorporated, weights are assigned to express the fund's economic outlooks. Most strategies use production-based weights to mimic global consumptions of raw materials, similar to the idea of market-cap weighting in equities. These production-weighted strategies tend to have their positions relatively fixed over time.

One characteristic of production-weighted strategies is their concentrated position in energy, which often ranges from 30 percent to 55 percent. This is a natural result of the world's large consumption of oil. However, it is worth noting that heavy weights in energy can diminish portfolio diversification. This is because commodities within the energy sector tend to have a relatively high correlation compared to other sectors.

Heavy weights in energy also can increase portfolio volatility, because energy is the most volatile commodity sector (see figure 2).

To mitigate concentrated risk, some strategies set constraints to diversify positions. The Bloomberg Commodity Index (BCOM) caps each sector's weight below 33 percent to ensure no sector dominates the portfolio.

Some strategies also equally weight all sectors to provide a more balanced exposure. A diversified exposure can benefit the strategy by decreasing correlation among sectors and thus lowering volatility.

Finally, rebalance frequency is also an important element to consider. Although most of the funds rebalance yearly (either at the beginning or end of the year), some funds rebalance monthly to capture more rapid trends. These strategies usually implement a systematic quantitative method based on volatility or futures curves' shape to achieve certain investment goals. Therefore, they require more-frequent re-evaluation.

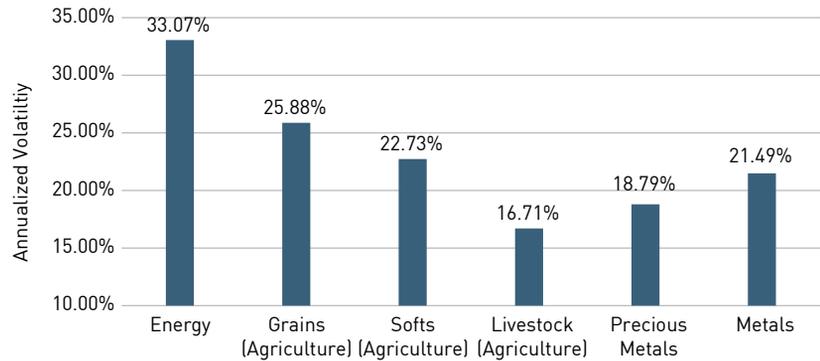
ROLLING MECHANISM

A lot of investors fail to realize the importance of carry cost in trading commodity futures. Investing in a commodity through different points on its curve can lead to widely different returns because carry affects maturities differently. Two strategies with the same commodity allocation but different maturity selection mechanisms thus can show widely different returns over the long run.

BCOM is one example in which carry cost is not taken into account. The strategy focuses on allocation, ignoring carry cost by investing only in the front-end contracts, obeying a fixed rolling schedule,³ regardless of curves' shapes. For contangoed curves,⁴ positions on the front end, where the curve is usually steeper, could suffer significantly more from carry cost than positions on the longer end. Dynamic strategies

Figure 2

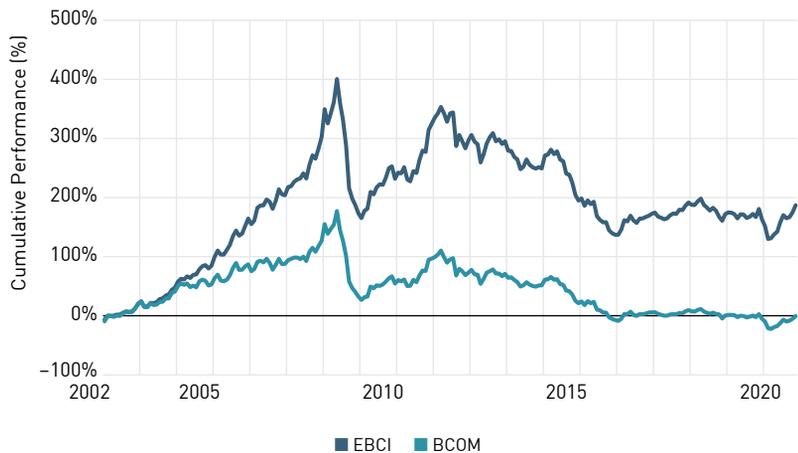
VOLATILITY COMPARISON BY COMMODITY SECTOR



Source: WisdomTree, Bloomberg, as of December 31, 2020. Sector volatility are proxied by SPGSCI subindexes, from December 31, 2004, to December 31, 2020.

Figure 3

CUMULATIVE PERFORMANCE: EBCI VS. BCOM



Source: WisdomTree, Bloomberg. From July 30, 2013, to December 31, 2020. EBCI refers to the Optimized Roll Commodity Total Return Index (EBCIWTT), BCOM refers to the Bloomberg Commodity Total Return Index (BCOMTR). Past performance is not indicative of future results. You cannot invest directly in an index.

would buy longer-dated maturities that seek to reduce carry cost on contangoed commodities.

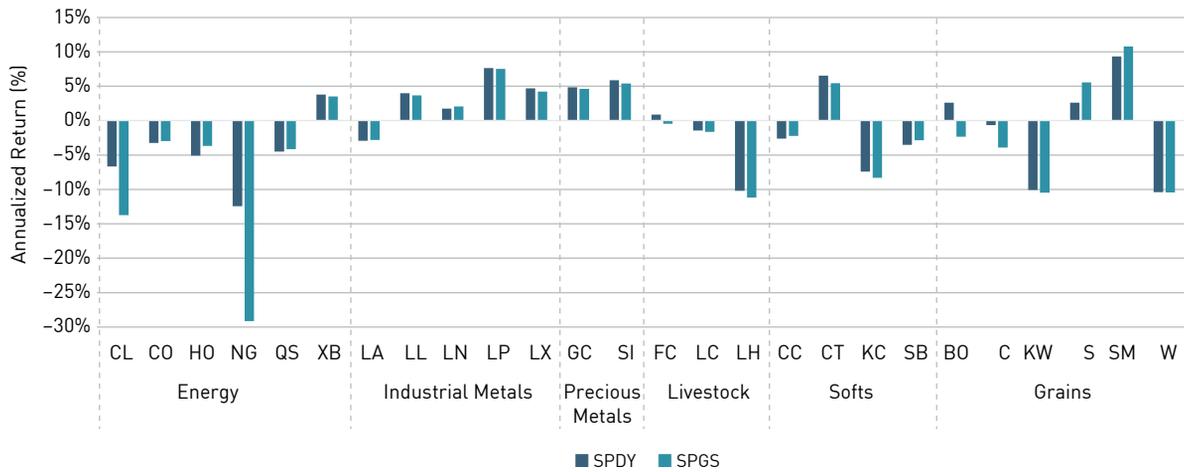
Figure 3 shows the outperformance that is generated from maximizing carry by comparing the performance between the Optimized Roll Commodity Total Return Index (EBCI) versus BCOM. EBCI invests in the same contracts with the same weights and the same rebalance frequency as BCOM. But EBCI selects maturities based on expected carry, while BCOM obeys a fixed rolling schedule, only investing in the closer end of the curve. Hence, performance difference essentially comes from investing in different maturities.

Similarly, comparing the S&P GSCI Index Excess Return (SPGSCIP) against its dynamically rolled version that maximizes carry (SPDYCIP) also shows that carry cost can create a drag on performance. From December 20, 2002, to March 31, 2021, SPDYCIP had an annualized return of 3.46 percent vs. SPGSCIP's -3.96 percent.

In addition, strategies that maximize carry can reduce volatility significantly. This is because longer-dated maturities are less affected by short-term factors and typically have a lower volatility than front maturities.⁵ Selecting longer-dated maturities on a contangoed curve could reduce the overall volatility of enhanced

Figure 4

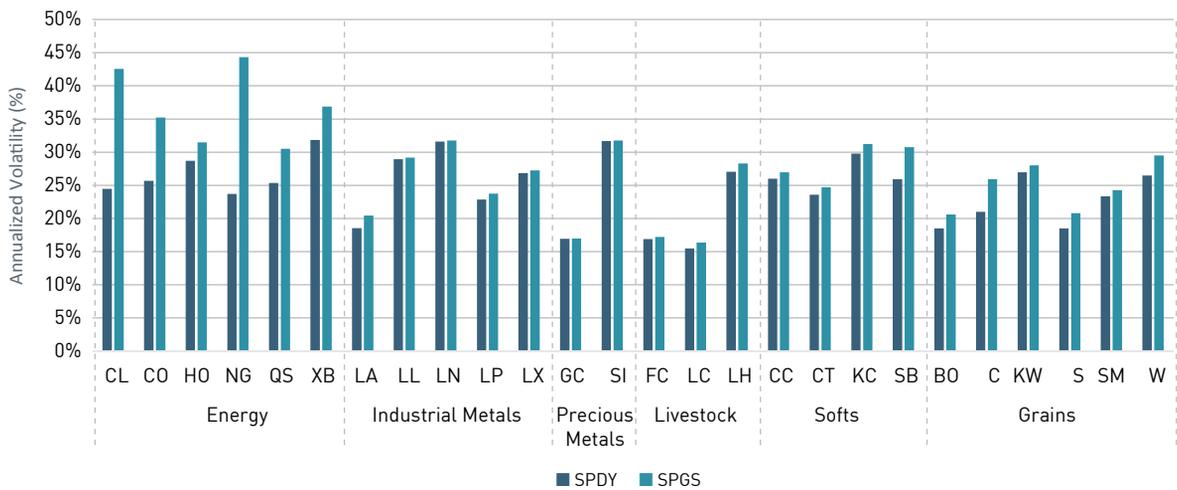
ANNUALIZED RETURN: SPGS EXCESS RETURN SUBINDEXES VS. SPDY EXCESS RETURN SUBINDEXES



Source: WisdomTree, from January 1, 2009, to January 31, 2021. The letters represent commodity contracts: BO refers to Soybean Oil, C refers to Corn, CC refers to Cocoa, CL refers to WTI Crude, CO refers to Brent Crude, CT refers to #2 Cotton, FC refers to Feeder Cattle, GC refers to Gold, HO refers to ULS Diesel, KC refers to Coffee, KW refers to HRW Wheat, LA refers to Aluminum, LC refers to Live Cattle, LH refers to Lean Hogs, LL refers to Lead, LN refers to Nickel, LP refers to Copper (LME), LX refers to Zinc, NG refers to Natural Gas, QS refers to Gasoil, S refers to Soybean, SB refers to #11 Sugar, SI refers to Silver, SM refers to Soybean Meal, W refers to SRW Wheat, XB refers to RBOB Gasoline.

Figure 5

ANNUALIZED VOLATILITY: SPGS EXCESS RETURN SUBINDEXES VS. SPDY EXCESS RETURN SUBINDEXES



Source: WisdomTree, from January 1, 2009, to January 31, 2021. The letters represent commodity contracts: BO refers to Soybean Oil, C refers to Corn, CC refers to Cocoa, CL refers to WTI Crude, CO refers to Brent Crude, CT refers to #2 Cotton, FC refers to Feeder Cattle, GC refers to Gold, HO refers to ULS Diesel, KC refers to Coffee, KW refers to HRW Wheat, LA refers to Aluminum, LC refers to Live Cattle, LH refers to Lean Hogs, LL refers to Lead, LN refers to Nickel, LP refers to Copper (LME), LX refers to Zinc, NG refers to Natural Gas, QS refers to Gasoil, S refers to Soybean, SB refers to #11 Sugar, SI refers to Silver, SM refers to Soybean Meal, W refers to SRW Wheat, XB refers to RBOB Gasoline.

strategies. Measured on a daily basis, during the past two decades SPDYCIP's Sharpe ratio has been higher than SPGSCIP's Sharpe ratio 94 percent of the time.

Examining carry effect at the individual commodity level, we observe that dynamically rolled subindexes (SPDY) have lower volatility and higher return over the long run, compared to the same commodity subindexes that only invest

in front-end contracts (SPGS), as shown in figures 4 and 5.

It is worth noting that out of all commodities, natural gas has suffered particularly from carry cost in the past, so much so that all of its returns are erased by its negative carry. Investing in natural gas's front-end contracts generated a -26.09-percent annualized return with a 48.49-percent annualized volatility, compared to a -3.75-percent annualized

return with a 28.08-percent annualized volatility from the dynamically rolled index.⁶ If investors are keen on gaining exposure to natural gas, we suggest paying attention to the fund's rolling mechanism to avoid heavy carry cost.

CONCLUSION

We expect 2021 to be a year of strong economic performance supported by a large fiscal stimulus, loose monetary policy, and the COVID-19 vaccine

program. As investors balance between risk and return in this environment, we believe commodities should be considered as an essential allocation in portfolios to combat low interest rates, hedge inflation, diversify market risk, and position for a weakening USD.

For investors seeking to incorporate commodities into their portfolios, broad-based commodity funds are the best vehicles for gaining exposure. When selecting the suitable commodity fund, investors need to pay attention to its fund structure, sector exposure, and rolling mechanism. Understanding the differences could help investors find the right strategy to strengthen their economic outlook and achieve their investment goals. ●

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ENDNOTES

1. From December 31, 2021, to May 7, 2021.
2. Including JP Morgan, Goldman Sachs, and Morgan Stanley.

3. Fixed rolling schedule refers to rolling over futures contracts to switch from the front month contract that is close to expiration to another contract in a further-out month with a fixed maturity difference.
4. Contango is a situation where the futures price of a commodity is higher than the spot price.
5. Futures contracts with shorter maturities, located at the front-end of futures curves.
6. From December 20, 1999, to January 31, 2021.

All references to tax matters or information provided in this material are for illustrative purposes only and should not be considered tax advice and cannot be used for the purpose of avoiding tax penalties. Investors seeking tax advice should consult an independent tax advisor.

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