Goldman Sachs | Asset Management

Investment Solutions

GOLDMAN SACHS PHYSICAL GOLD ETF

AAAU

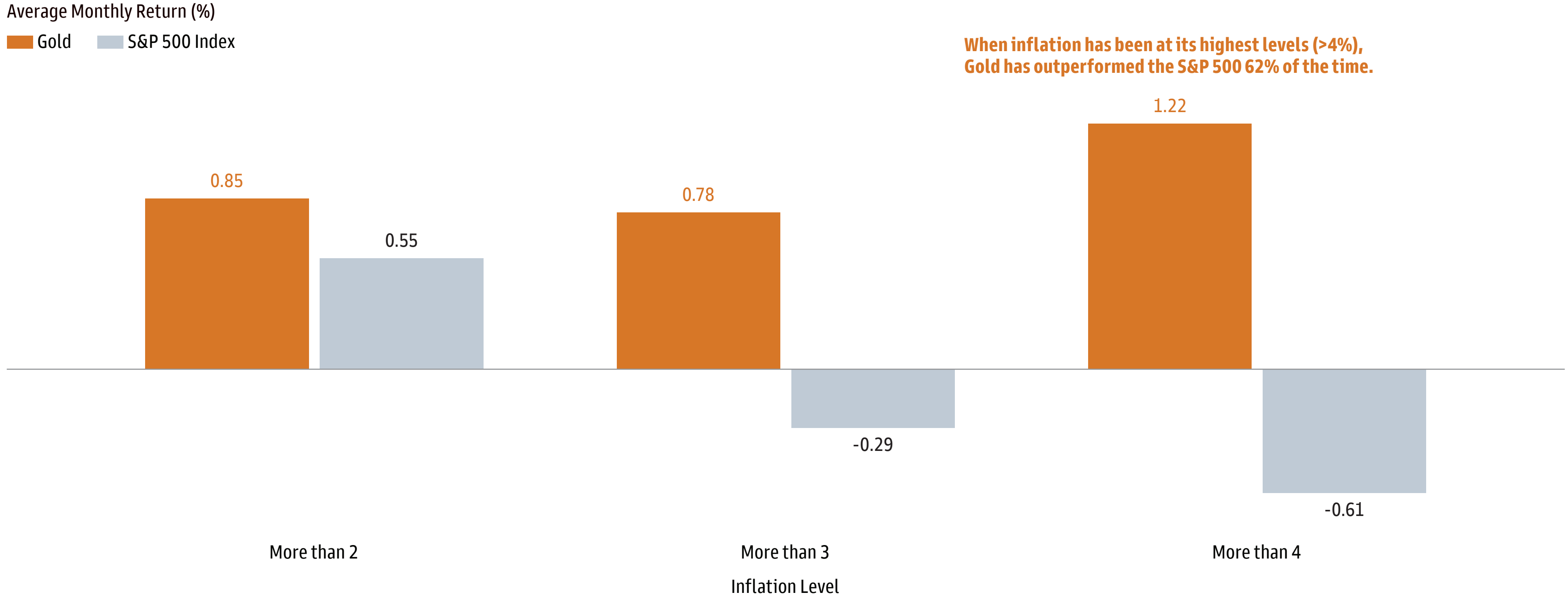
Portfolio Diversification Made Simple

Gold serves as a hedge against inflation, and its low correlation with other asset classes makes it a key portfolio diversifier. These attributes give gold the potential to contribute to steady long-term returns, particularly when volatility and uncertainty are high. And by investing directly in bullion, AAAU provides exposure to gold without the complexities of gold delivery, through an exchange-traded fund.

Why Consider: Gold has historically been an effective hedge against inflation.

A strong correlation to inflation has helped gold beat the broader market when the general price level rises. Over the last 20 years, during months when inflation exceeded 4%, gold outpaced the market nearly 62% of the time by an average of 1.83% per month.

Average Monthly Performance of Gold vs. Market in Inflationary Environments[1]



1. Based on a 20-year average from February 28, 2003–February 28, 2023. Inflation levels measured by CPI YoY Index. Gold returns measured by the GOLDLNPM Index. Past correlations are not indicative of future correlations, which may vary. **Past performance does not guarantee future results, which may vary.**

Why Consider: Gold is a counter-cyclical asset that can diversify portfolios when market volatility is high.

With low correlation to other asset classes, including US and emerging-market equities and investment-grade and high-yield bonds, gold acts as a strategic diversifier in an investment portfolio. To illustrate this, we took a hypothetical 60/40 portfolio and incrementally increased the allocation to gold from 0–5%. We found that a higher gold allocation led to improved 1Y and 3Y returns, lower volatility and a higher Sharpe Ratio.[2]

Hypothetical Portfolio 1-Year and 3-Year Performance with Various Gold Allocations

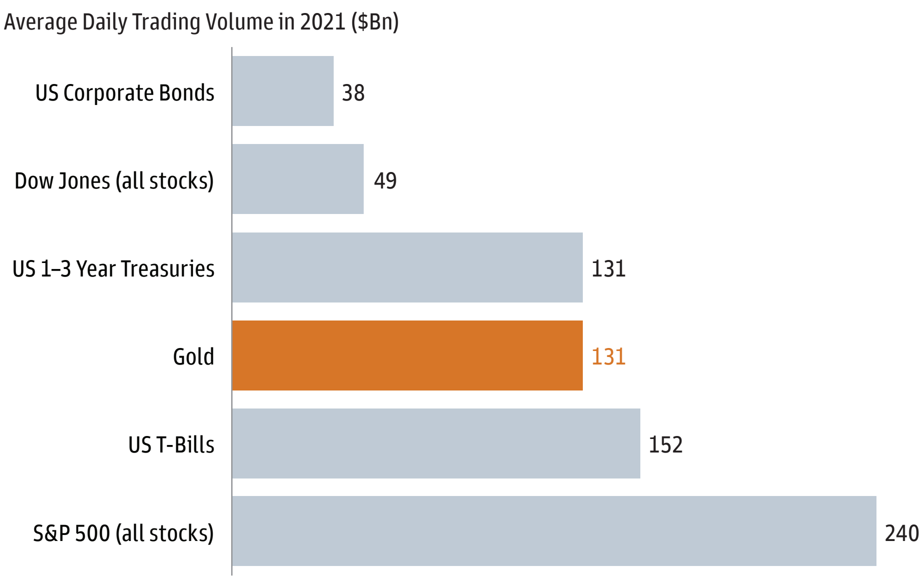
	1 Year Metrics			3 Year Metrics		
Gold Allocation	Returns (%)	Volatility	Sharpe Ratio	Returns (%)	Volatility	Sharpe Ratio
0%	-6.25	13.08	-0.62	9.59	13.23	0.44
1%	-6.21	13.00	-0.62	9.62	13.18	0.44
2%	-6.17	12.93	-0.62	9.64	13.13	0.45
3%	-6.13	12.85	-0.62	9.66	13.07	0.45
4%	-6.09	12.78	-0.62	9.68	13.03	0.45
5%	-6.05	12.71	-0.62	9.70	12.98	0.46

The asset allocation scenario is for hypothetical purposes only and is not intended to represent a specific asset allocation strategy or recommend a particular allocation. Each investor's situation is unique and asset allocation decisions should be based on an investor's risk tolerance, time horizon and financial situation. Each investor's situation is unique and asset allocation decisions should The returns presented herein are gross and do not reflect the deduction of investment advisory/model fees, which will reduce returns. Volatility is measured by standard deviation. 2. More detailed portfolio breakdown available in the appendix. Note, the LBMA Gold Price Index was used as a proxy for gold. As of February 28, 2023. Diversification does not protect an investor from market risk and does not ensure a profit. There is no guarantee that objectives will be met. **Past performance does not guarantee future results, which may vary.**

How to Invest: Gold is a highly liquid asset that trades more frequently on average than most other US financial assets, with several ways to obtain exposure.

When compared to the average daily trading volume of other US equity and fixed income financial assets in 2021, gold's volume is the third highest at $131 billion traded per day. This is down 28% from 2020, in which gold ranked second on this list with an average trading volume of $183 billion per day. This consistently high trading volume, even in years of market turmoil, solidifies gold as a liquid investment.

Gold Is One of the Most Highly Traded Assets in the Market



There Are Many Ways to Invest in Gold

Physical Gold ETFs

Physical gold ETFs provide investors with diversification benefits similar to those that physical gold offers but with lower storage and insurance costs, which simplifies the challenges of gold delivery. Since inception, AAAU has had a 0.99 correlation to physical gold[3] and just a 0.13 correlation to the S&P 500.[4]

Physical Gold

Owning physical gold generally provides the greatest hedge against equity markets, with gold prices having a correlation of just 0.07 to the S&P 500[5]; however, investors must also consider the commission, storage, and insurance costs incurred when buying physical gold.

Gold Mining ETFs

These funds invest in mining equities, which have a 0.79 correlation to gold returns.[6] When compared to physical gold, mining equities historically have had greater volatility[7] and correlation[8] to stock markets, increasing their risk and limiting their use as a portfolio diversifier.

Gold Futures

These liquid but limitedly accessible products allow investors to avoid management fees and use leverage; however, the costs of rolling futures, and, in the case of delivery, the costs of storage and insurance can become significant.

Physical gold ETFs provide one of the strongest correlations to the asset class while decreasing costs and simplifying the challenges of gold delivery.

Source: Bloomberg, World Gold Council. Average daily volumes from January 1, 2021 to December 31, 2021. 3. Calculated based on monthly returns of AAAU and the GOLDLNPM Index from August 31, 2018 to February 28, 2023. 4. Calculated based on monthly returns of AAAU and the SPX Index from August 31, 2018 to February 28, 2023. 5. Calculated based on monthly returns of the GOLDLNPM Index and the SPX Index from February 28, 2003 to February 28, 2023. Past correlations are not indicative of future correlations, which may vary. 6. Calculated based on monthly returns of the GDMNTR Index and the GOLDLNPM Index from September 30, 2004 to February 28, 2023. 7. Calculated based on monthly volatility of GDMNTR Index returns since September 30, 2004. 8. Calculated based on monthly returns of the GDMNTR Index and the SPX Index from September 30, 2004 to February 28, 2023.

Why Us: We provide easy access to physical gold at a competitive price.

With high trading volume and tight spreads,[9] the Goldman Sachs Physical Gold ETF (AAAU) seeks to provide investors with a liquid, high-quality solution to accessing physical gold, offering portfolio diversification without the complexities associated with gold delivery. Goldman Sachs Physical Gold ETF is among the most competitively priced commodity ETFs on the market. The cost of the ETF is 18 basis points, compared to the industry average for commodity ETFs of 63 basis points.[10]

Goldman Sachs Physical Gold ETF

Ticker	AAAU	Goldman Sachs Asset Management Acquisition Date	December 14, 2020
Objective	Seeks to reflect the performance of the price of gold less the expenses of the Trust's operations	Fee	18 bps
ETF Type	Grantor Trust—Passive	Pricing Source	LBMA PM Gold Price, Bloomberg
Asset Category	Commodity—Gold	Gold Custodian	JP Morgan Chase, London Branch
Inception Date	July 26, 2018		

9. Average bid-ask spread since inception of .0119 cents per share as of February 28, 2023. 10. Morningstar as of February 28, 2023. Peer commodity asset group is classified by Morningstar. LBMA Gold Price means the price per troy ounce of gold for delivery in London through a member of the LBMA stated in USDs and set via an electronic auction process run twice daily at 10:30 a.m. and 3:00 p.m. London time each Business Day as calculated and administered by the ICE Benchmark Administration Limited ("IBA"), an independent specialist benchmark administrator who provides the price platform, methodology and overall administration and governance for the LBMA Gold Price. All references to LBMA Gold Price are used with the permission of ICE Benchmark Administration Limited and have been provided for informational purposes only. ICE Benchmark Administration Limited accepts no liability or responsibility for the accuracy of the prices or the underlying product to which the prices may be referenced.

For more information on the Goldman Sachs Physical Gold ETF (AAAU), contact your Goldman Sachs Asset Management representative or visit GSAM.com.

Hypothetical Portfolio

To develop the hypothetical portfolio leveraged on page 3, we used the 60-40, Moderate G-MAPs portfolio, which is one of several model portfolios managed by the Goldman Sachs Asset Management Multi-Asset Solutions team,as a proxy for a common investor portfolio and substituted indices for funds as proxies. Note that the FTSE Goldman Sachs US BB Mkt TR USD Index was replaced with the BBgBarc US Agg Bond TR USD due to Bloomberg data availability. Note that, for every incremental percentage point added to the gold allocation, a proportionate percentage was removed from each of the other asset classes. This model is for illustrative purposes only and does not constitute an offer or solicitation to buy or sell any securities. One cannot directly invest in an unmanaged index.

Index	% of Portfolio
Goldman Sachs ActiveBeta EMkts Eq NR USD	2.5%
Goldman Sachs ActiveBeta Intl Eq NR USD	14.0%
Goldman Sachs ActiveBeta US SmCp Eq TR USD	5.0%
Goldman Sachs ActiveBeta US LgCp Eq TR USD	16.5%
Solactive GBS US LgMdCp Eq TR USD	20.0%
Markit iBoxx Liquid HY 0-5 TR USD	4.5%
FTSE GS Try Infl Protected USD Bd TR USD	2.0%
Bloomberg US Treasury Long TR USD	4.0%
Bloomberg US Agg Bd TR USD	22.5%
FTSE GS EMkts Government Bd TR USD	2.0%
FTSE US Try Bd 0–1 Year TR USD	5.0%
LBMA Gold Price AM USD	0.0%

Disclosures

Index Definitions

The **Goldman Sachs ActiveBeta® International Equity Index** is designed to deliver exposure to equity securities of developed market issuers outside of the United States. The Index seeks to capture common sources of active equity returns, including value (i.e., how attractively a stock is priced relative to its "fundamentals", such as book value or free cash flow), momentum (i.e., whether a company's share price is trending up or down), quality (i.e., profitability) and low volatility (i.e., a relatively low degree of fluctuation in a company's share price over time). The Index is reconstituted and rebalanced quarterly.

The **Goldman Sachs ActiveBeta® Emerging Markets Equity Index** is designed to deliver exposure to equity securities of emerging market issuers. The Index seeks to capture common sources of active equity returns, including value (i.e., how attractively a stock is priced relative to its "fundamentals", such as book value or free cash flow), momentum (i.e., whether a company's share price is trending up or down), quality (i.e., profitability) and low volatility (i.e., a relatively low degree of fluctuation in a company's share price over time). The Index is reconstituted and rebalanced quarterly.

The **Goldman Sachs ActiveBeta® US Large Cap Equity Index** is designed to deliver exposure to equity securities of large capitalization US issuers. The Index seeks to capture common sources of active equity returns, including value (i.e., how attractively a stock is priced relative to its "fundamentals", such as book value or free cash flow), momentum (i.e., whether a company's share price is trending up or down), quality (i.e., profitability) and low volatility (i.e., a relatively low degree of fluctuation in a company's share price over time). The Index is reconstituted and rebalanced quarterly.

The **Goldman Sachs ActiveBeta® US Small Cap Equity Index** is designed to deliver exposure to equity securities of small capitalization US issuers. The Index seeks to capture common sources of active equity returns, including value (i.e., how attractively a stock is priced relative to its "fundamentals", such as book value or free cash flow), momentum (i.e., whether a company's share price is trending up or down), quality (i.e., profitability) and low volatility (i.e., a relatively low degree of fluctuation in a company's share price over time). The Index is reconstituted and rebalanced quarterly.

The **Solactive GBS United States Large & Mid Cap Index** is designed to measure the performance of equity securities of large and mid-capitalization equity issuers covering approximately the largest 85% of the free-float market capitalization.

The **FTSE Goldman Sachs Emerging Markets USD Bond Index** is designed to measure the performance of investment grade and high yield bonds issued by emerging market governments or quasi-government entities denominated in U.S. dollars that meet certain liquidity, governance and fundamental screening criteria.

The **FTSE Goldman Sachs Treasury Inflation Protected USD Bond Index** is designed to measure the performance of inflation-protected, fixed rate U.S. Treasury Securities denominated in U.S. dollars that meet certain screening criteria.

The **S&P 500 TR Index** is acknowledged by many as the best gauge of large-cap US equity performance. The index includes 500 individual companies and on average captures approximately 80% of total market capitalization. The S&P 500 is a market-cap-weighted stock market index.

The **Consumer Price YoY Index** measures the level of prices paid by consumers for a market basket of consumer goods and services. The yearly growth rates represent the inflation rate.

The **LBMA Gold Price Index** (GOLDLNPM) measures the price of unallocated gold delivered in London and is often considered the global benchmark for gold prices.

The **NYSE Arca Gold Miners Index** (GDMNTR) is a modified market capitalization weighted index comprised of publicly traded companies involved primarily in the mining for gold and silver. The index is calculated and maintained by the American Stock Exchange.

The **Markit iBoxx® USD Liquid High Yield 0-5 Index** is designed to reflect the performance of U.S. dollar-denominated high yield (as determined by Markit Indices Limited (the "Index Provider" or "Markit")) corporate debt. The Index offers exposure to liquid (according to Markit's liquidity screens, which could vary from other measures of liquidity) U.S. dollar-denominated high yield corporate bonds maturing between zero and five years and is rebalanced on a monthly basis.

The **Bloomberg US Treasury: Long Index** measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury with 10 years or more to maturity.

The **Bloomberg US Aggregate Bond Index** is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate pass-throughs), ABS and CMBS (agency and non-agency).

The **FTSE US Treasury 0-1 Year Composite Select Index** is a rule-based index that is designed to measure the performance of U.S. Treasury Securities with a maximum remaining maturity of 12 months..

The Trust is not a standard ETF. The Trust is not an investment company registered under the Investment Company Act of 1940 and is not required to register under such act. The Trust is not a commodity pool for purposes of the Commodity Exchange Act of 1936, and Goldman Sachs Asset Management, L.P., as the sponsor of the Trust (the "Sponsor"), is not subject to regulation by the Commodity Futures Trading Commission as a commodity pool operator or a commodity trading advisor under the Commodity Exchange Act in connection with the Shares. As such, the Trust is not subject to the same regulatory requirements as mutual funds. An investment in Shares is not suitable for all investors.

Effective close of business on December 11, 2020, Goldman Sachs Asset Management, L.P. became the sponsor of the Trust, assuming the role from the Trust's prior sponsors. At that time, the name of the Trust was changed from Perth Mint Physical Gold ETF to Goldman Sachs Physical Gold ETF. Investing involves risk, including possible loss of principal. Because the Shares are intended to reflect the price of the gold held by the Trust's custodian on behalf of the Trust, the market price of the Shares is subject to fluctuations similar to those affecting gold prices. Additionally, the Shares are bought and sold at market price, not at net asset value ("NAV") per share. The Shares may trade at NAV per share or at a price that is above or below NAV per share. Any discount or premium in the trading price relative to the NAV per share may widen as a result of the different trading hours of NYSE Arca and other exchanges. Brokerage commissions/fees will reduce returns. **For a more complete discussion of the risk factors relative to the Trust, carefully read the prospectus.**

The value of the Shares fluctuates based upon the price of the gold owned by the Trust. Fluctuations in the price of gold could materially adversely affect investment in the Shares. Investors should be advised there is no assurance that gold will maintain its long-term value in the future. The lack of an active trading market for the Shares may result in losses on investment at the time of disposition of the Shares. Because the Trust invests only in gold, an investment in the Trust may be more volatile than an investment in a more broadly diversified portfolio. Substantial sales of gold by central banks, governmental agencies and multi-lateral institutions could adversely affect an investment in the Shares. Also, should the speculative community take a negative view towards gold, it could cause a decline in world gold prices, negatively impacting the price of the Shares.

The amount of gold represented by the Shares will decrease over the life of the Trust due to sales of gold necessary to pay the sponsor's fee and trust expenses. Without increases in the price of gold sufficient to compensate for that decrease, the price of the Shares will also decline, and investors will lose money on their investment. The liquidation of the Trust may occur at a time when the disposition of the Trust's gold will result in losses to investors. Although market makers will generally take advantage of differences between the NAV and the trading price of the Shares through arbitrage opportunities, there is no guarantee that they will do so. The value of the Shares will be adversely affected if gold owned by the Trust is lost, damaged, destroyed or mis-delivered in circumstances in which the Trust is not in a position to recover the corresponding loss. The Trust is a passive investment vehicle.

The Shares are neither interests in nor obligations of the Sponsor and its affiliates, and are not insured by the Federal Deposit Insurance Corporation or any other governmental agency. Although the Shares may be bought or sold on the secondary market through any brokerage account, the Shares are not redeemable from the Trust except in large aggregated units called "Baskets". Only registered broker-dealers that become authorized participants by entering into a contract with the sponsor and the trustee of the Trust may purchase or redeem Baskets. NAV is determined as specified in the prospectus: the Trustee values the Trust's gold on the basis of the LBMA Gold Price PM.

Past performance does not guarantee future results, which may vary. The value of investments and the income derived from investments will fluctuate and can go down as well as up. A loss of principal may occur.

Standard Deviation is a statistical measure of volatility indicates the "risk" associated with a return series.

Sharpe Ratio is calculated by taking the excess return of the fund versus the risk-free rate and dividing that result by the standard deviation of the fund over that same period.

Correlation is a measure of the amount to which two investments vary relative to each other.

Views and opinions expressed are for informational purposes only and do not constitute a recommendation by Goldman Sachs Asset Management to buy, sell, or hold any security. Views and opinions are current as of the date of this presentation and may be subject to change, they should not be construed as investment advice.

References to indices, benchmarks or other measures of relative market performance over a specified period of time are provided for your information only and do not imply that the portfolio will achieve similar results. The index composition may not reflect the manner in which a portfolio is constructed. While an adviser seeks to design a portfolio which reflects appropriate risk and return features, portfolio characteristics may deviate from those of the benchmark. One cannot directly invest in an unmanaged index.

Although certain information has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness. We have relied upon and assumed without independent verification, the accuracy and completeness of all information available from public sources.

Nothing contained in this material should be construed as an offer to sell nor a solicitation of an offer to buy shares (the "Shares") of Goldman Sachs Physical Gold ETF (the "Trust"). This material must be preceded or accompanied by a current prospectus (the "prospectus") of the Trust. CLICK HERE for a copy of the prospectus. Investors should read the prospectus carefully before investing. You should obtain your own independent financial, taxation and legal advice before making any decisions about any investment in the Shares. This information is not an offer for the Shares and should not be used as the basis for any investment decision.

ALPS Distributors, Inc. is the marketing agent of the Goldman Sachs Trust. ALPS Distributors, Inc. is unaffiliated with Goldman Sachs Asset Management.

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