EQUITY
SEPTEMBER 2025

Introducing MarketVector™ Global Gold Miners Index

Strategic Exposure to Gold Beyond Bullion

Steven Schoenfeld
CEO
Joy Yang
Head of Product Management and Marketing
Alka Banerjee
Member of the MarketVectors Index Advisory Committee

MarketVector™

Contents

Executive Summary

Gold has reasserted itself as the ultimate safe-haven asset amidst escalating global instability. Renowned as a safe haven and a hedge against inflation and geopolitical risk, gold consistently proves its value in uncertain times.

However, physical gold presents limitations. It lacks liquidity and does not generate income. To address these drawbacks, investors often turn to gold mining stocks. These stocks provide indirect exposure to gold's price movements while offering potential dividends and capital gains. The MarketVector™ Global Gold Miners Index (MVGDX) exemplifies this approach by tracking a broad basket of global gold and silver mining companies, delivering both the diversification benefits of commodities and the income potential of equities.

Indexing Gold Mining Companies: Harnessing the Value of Gold

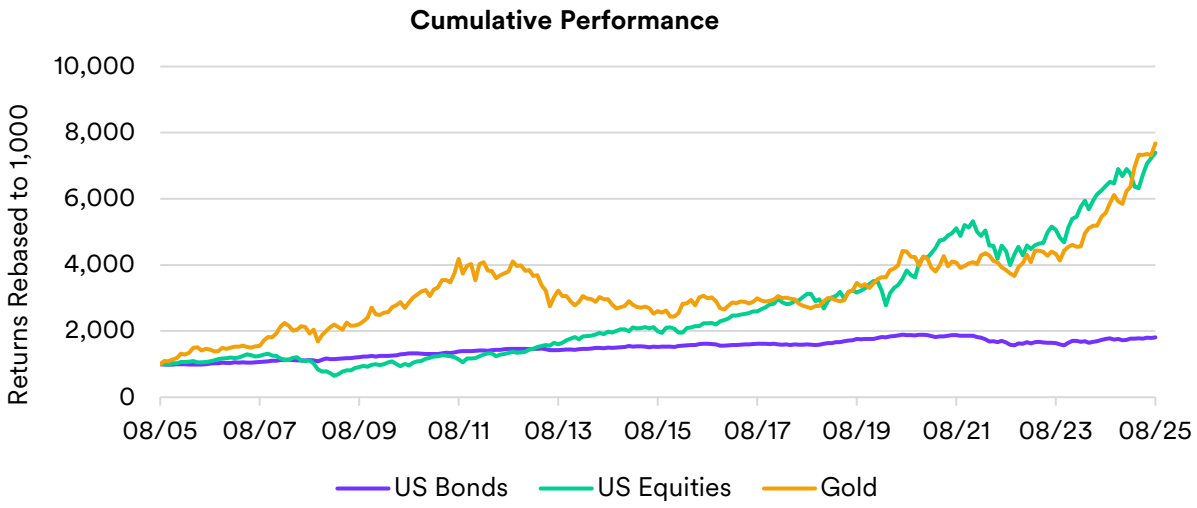
With U.S. budget deficits at record highs and projected to rise further. Investors are increasingly drawn to gold as a hedge against inflation and long-term fiscal instability. The U.S. economy's growing debt burden and potential entrapment in a classic debt spiral further enhance gold's appeal as a store of value.

When gold demand rises, so does the opportunity for gold mining equities. In this paper, we re-examine the case for the MarketVector Indexes™ ("MarketVector") flagship gold miners index. The MarketVector™ Global Gold Miners Index (MVGDX), tracks gold mining companies amidst a backdrop of inflationary pressures, shifting trade dynamics, and geopolitical tensions, offering a lens into the potential dynamics of a sustained gold cycle.

Demand Drivers: Why Gold is Gaining Ground

Gold has served as a form of exchange, a safe haven investment, in times of financial market turmoil, as well as a hedge against severe inflation. As an investment, gold delivers the ability to enhance portfolio diversification, acts as store of value, and hedges against systemic risk. In addition, gold has outperformed traditional asset classes over the last 20 plus years, with an annualized return of 10% vs 8% for US Equities and 0% for US Bonds over the period from 8/31/2005 to 8/31/2025.

Figure 1: Asset Class Returns from December 31, 2005 to August 31, 2025



Source: MarketVector, Blackrock. Data as of May 1, 2025. US Bonds (iShares AGG ETF), US Equities (iShares ITOT ETF), Gold (World Gold Council 2005-2014; Vaneck OUNZ ETF 2014-2025).

With U.S. debt at historic highs, inflation proving persistent, and the threat of new trade wars With With U.S. debt at historic highs, inflation proving persistent, and the threat of new trade wars emerging, gold has regained prominence as a global haven asset. Historically, U.S. Treasures and other U.S. assets absorbed global investment flows during periods of uncertainty. This time, however, with volatility emanating from the U.S. itself, capital has increasingly fled toward gold.

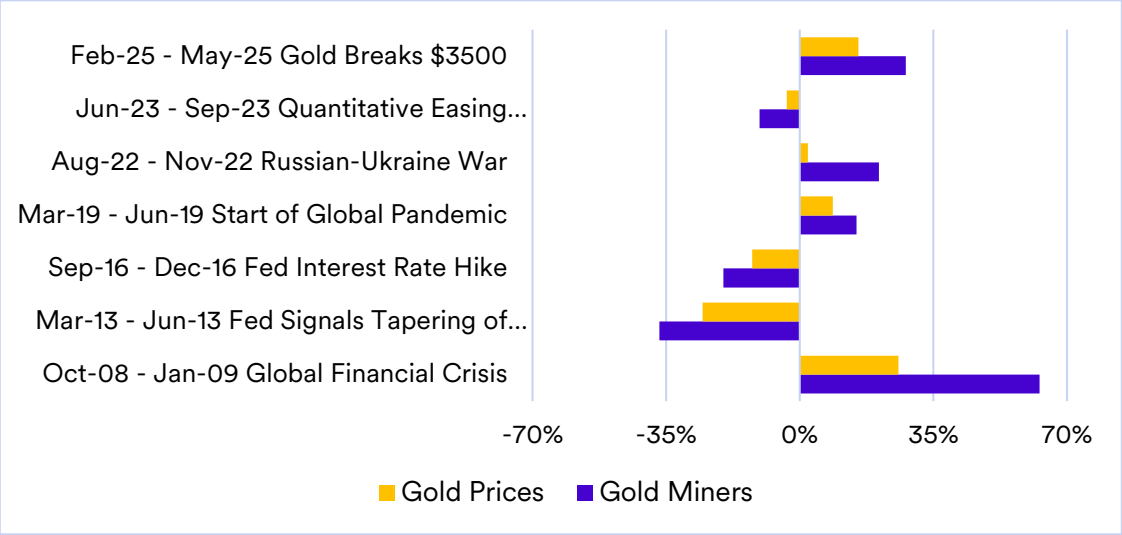
Retail and institutional investors from China and India are leading this demand surge, acquiring gold through physical jewelry, bullion, and a growing range of funds and exchange-traded products. Notably, estimates suggest that retail gold holdings in India now rival or exceed the reserves held by several national central banks.

In parallel, central banks themselves have become the dominant force behind gold's ascent. Between 2010 and 2021, central banks purchased an average of approximately 500 tons of gold per year. Over the last three years, this average has doubled to nearly 1,000 tons annually[1]. In response to sweeping U.S. sanctions on Russia and the resulting geopolitical realignment, emerging market central banks, including those of China, India, Poland, and Qatar, have significantly increased their gold holdings as a hedge against dollar dependency and political risk.

Gold Mining Companies: Leveraged Exposure to Rising Gold Prices

As gold prices rise, gold mining companies often benefit disproportionately. While the cost of extraction and operations tends to remain relatively stable in the short term, higher gold prices directly boost revenues, potentially uplifting expanded profit margins and stronger financial performance. This operating leverage makes gold miners an attractive way to gain amplified exposure to gold's upward momentum. It is to be noted that the performance of gold mining companies is more volatile than that of gold prices; they rise more when gold prices rise and fall more when gold prices fall.

Figure 2: Gold vs Gold Miners Quarterly Performance



Source: MarketVector as of August 2025. Gold Prices (World Gold Council 2026-2014; Vaneck OUNZ 2014-2025. Gold Miners (MarketVector MVGDX).

[1] Gold Demand Trends, Q4 and Full Year 2024, World Gold Council, February 5, 2025, www.gold.org

Unlike physical gold, which generates no yield, many gold mining companies also offer a steady income stream through dividends. This makes them appealing to income-seeking investors who still want exposure to the commodity space. Furthermore, gold mining stocks often exhibit a positive correlation not only with rising gold prices but also with broader equity markets, offering a hybrid advantage of commodity sensitivity and equity-driven growth potential.

Beyond traditional mining companies, firms operating under alternative financing models such as royalty and streaming agreements. In the royalty model, investors provide capital to mining operations in exchange for a fixed percentage of future revenue. In the streaming model, investors secure the right to purchase a portion of the mined metal, typically at prices below market, in return for upfront funding.

These models offer several advantages. For royalty and streaming companies, they provide long-term, predictable revenue streams with significantly lower operational risk compared to direct mining. These firms are insulated from cost overruns, delays, and fluctuations in production costs. In cases of commodity price declines, streamers also have the option to warehouse metals until market conditions become more favorable, preserving value.

For mining companies, these arrangements deliver critical upfront capital during the capital-intensive construction and expansion phases. Unlike traditional debt financing, these investments typically require fixed, long-term payments tied to production, rather than rigid repayment schedules, reducing financial strain and risk during development.

Introducing the MarketVector™ Global Gold Miners Index (MVGDX)

Pure-play Methodology

MVGDX is a pure-play thematic index designed to capture the performance of companies primarily engaged in gold and silver mining activities. A pure-play approach ensures focused exposure to gold and silver price dynamics while capturing the diversity of business models operating across the mining value chain.

Key Features include[2]:

- **Pure Play Integrity:** Companies must derive at least 50% of their revenues from gold or silver mining, royalties, or streaming activities. Existing components may remain in the index if their exposure remains above 25%, ensuring continued alignment with the index's commodity focus.

- **Global Accessibility:** To ensure investability, only securities listed on exchanges accessible to foreign investors are eligible. Listings solely on restricted or sanctioned markets are excluded, though dual-listed companies may still qualify.

- **Size and Liquidity Standards:** Stringent thresholds apply to ensure tradability and scalability. New entrants must have a free-float of at least 10%, a full market capitalization above USD 150 million, and a three-month average daily trading volume exceeding USD 1 million. Existing constituents have more flexible thresholds to allow continuity while preserving liquidity.

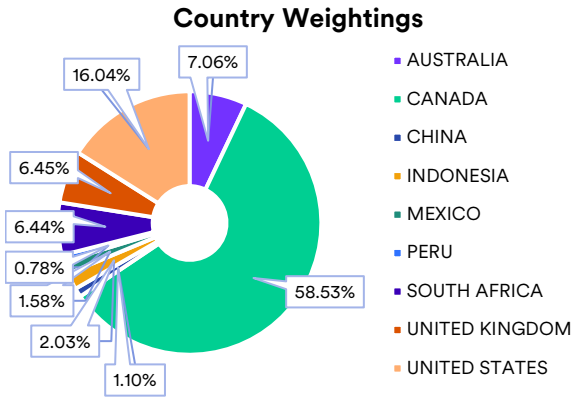
- **Balanced Diversification**: Applies a modified float-adjusted market-cap weighting with caps to avoid overconcentration. No single security may exceed 20% of the index, and components with less than 50% gold-related revenues are collectively capped at 20% to preserve the index's core gold focus.

- **Regular Rebalancing**: The index is reviewed and rebalanced quarterly to ensure it reflects the evolving landscape of gold and silver miners, with a minimum of 25 holdings and a target coverage of 90% of the eligible universe's free-float market capitalization.

- **ESMA-Regulated**: MarketVector is an ESMA-registered Benchmark Administrator under the EU Benchmarks Regulation (BMR), ensuring MVGDX adheres to the highest standards of This methodology ensures that MVGDXJ is a representative, transparent, and investable index for capturing the growth and characteristics of smaller mining companies.

Figure 3: Market Cap of MVGDX Miners Around the World

	Count of Security Name	Average Market Cap (Free Float)
Above $10B	11	32,873,366,228
$5B-$10B	8	6,316,308,062
$1B-$5B	26	3,120,433,688
Grand Total	**45**	**10,961,528,197**



[2] For full details, refer to the MVGDX Index Guide here.

Source: MarketVector, MVGDX marketcap weights by country of incorporation. Data as of August 31, 2025.

Global Footprint: Gold Miner Leaders

- **Newmont Corp.** : One of the world's largest gold producer with mines across the Americas, Australia, Africa, and the Caribbean. Also active in copper, silver, zinc, and lead, providing diversified metal exposure.
- **Barrick Gold Corp.** : Global miner with operations in over a dozen countries including the U.S., Chile, Egypt, and Pakistan. As of 2024, reported 89 million ounces of gold and 18 million tonnes of copper reserves.
- **Gold Fields Ltd.** : South Africa-based producer with a strong portfolio in Australia, Ghana, South Africa, and Latin America. One of the world's top 10 gold miners by production.
- **AngloGold Ashanti Plc** : Global mining company with assets across Africa, Australia, and the Americas. Headquartered in the UK, it has transitioned to a leaner, non-South African operating base.
- **Northern Star Resources Ltd.** : One of Australia's largest gold producers with high-grade operations in Western Australia and a focus on cost-efficient, long-life assets.

Gold Mining Companies as Strategic Portfolio Enhancers

As demand for gold and silver continues to rise amid global economic uncertainty, gold mining and streaming companies offer a compelling way to capture upside potential beyond the metal itself. With diverse business models, international exposure, and income-generating potential, these firms provide investors with powerful tools to diversify portfolios, generate returns, and maintain stability in volatile markets.

Through a disciplined, transparent, and liquid framework, MarketVector™ Global Gold Miners Index provides investors with the tools to mine tomorrow's opportunities today.

Contact

info@marketvector.com

Steven Schoenfeld
sschoenfeld@marketvector.com

Steven Schoenfeld became the Chief Executive Officer (CEO) of MarketVector following its acquisition of BlueStar Indexes in August 2020. As the CEO, he develops and implements the business strategy for the company and oversees all aspects of MarketVector's operations, research and product development, client service, sales, and marketing. Steven was the founder and the Chief Investment Officer of BlueStar and a veteran of the investment management and financial services industry, having served in senior fiduciary positions at Northern Trust and Barclays Global Investors (now Blackrock). Previously, Steven led the team at the IFC/World Bank which developed the first investable emerging market indexes and traded Japanese stock index futures on the floor of the Singapore Exchange.

Steven is the co-author of Mastering Crypto Assets (Wiley Finance, 2024), Editor of Active Index Investing (Wiley Finance, 2004), co-author of The Pacific-Rim Futures and Options Markets (McGraw-Hill, 1992), and co-founder of IndexUniverse.com (now ETF.com). He has a Bachelor of Arts in History and Government from Clark University, was a Fulbright Scholar in Economics at the National University of Singapore and has a Master of Arts from the Johns Hopkins School of Advanced International Studies (SAIS).

Joy Yang
jyang@marketvector.com

Joy Yang is the Head of Product Management and Marketing at MarketVector Indexes™ ("MarketVector"). She is responsible for managing MarketVector products and services to accelerate innovation in financial index design and adoption. Joy brings more than 25 years of investment experience to MarketVector, having led teams delivering index and quantitative-active investment solutions at Arabesque Asset Management, Dimensional Fund Advisors, Vanguard, Aberdeen Standard Investments, AXA Rosenberg, and BlackRock. She has an MBA from the University of Chicago Booth School of Business and a Bachelor of Science in Electrical Engineering from Cooper Union's Albert Nerken School of Engineering.

Alka Banerjee
abanerjee.consultant@marketvector.com

Alka Banerjee is a global leader in strategic business expansion and product innovation in the financial industry with international CEO experience. She is the CEO of her own consultancy firm Emerging Ideas Inc. specializing in consulting on data and analytics with a focus on innovative financial products for banks and asset managers. Alka has over 40 years of work experience including 19 years at S&P Global's Index group (S&P Dow Jones Indices) across product management, research, and operations.

IMPORTANT DEFINITIONS AND DISCLOSURES

It is not possible to invest directly in an index. Exposure to an asset class represented by an index is available through investable instruments based on that index. MarketVector does not sponsor, endorse, sell, promote, or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. MarketVector makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. MarketVector is not an investment advisor, and it makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document.

Investments into cryptocurrencies and/or digital assets are subject to material and high risk including the risk of total loss. The calculated prices may not be achieved by investors as the calculated price is based on prices from different trading platforms. Furthermore, an investment into cryptocurrencies and/or digital assets may become illiquid depending on the trading platform or investment product used for the specific investment. Investors should carefully review all risk factors disclosed by the relevant trading platform or in the product documents of relevant investment products.

Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other vehicle. The inclusion of a security within an index is not a recommendation by MarketVector to buy, sell, or hold such security, nor is it considered to be investment advice.

All information shown prior to the index launch date is simulated performance data created from backtesting ("Simulated past performance"). Simulated past performance is not actual but hypothetical performance based on the same or fundamentally the same methodology that was in effect when the index was launched. Simulated past performance may materially differ from the actual performance. Actual or simulated past performance is no guarantee for future results.