



New Study by TTMzero

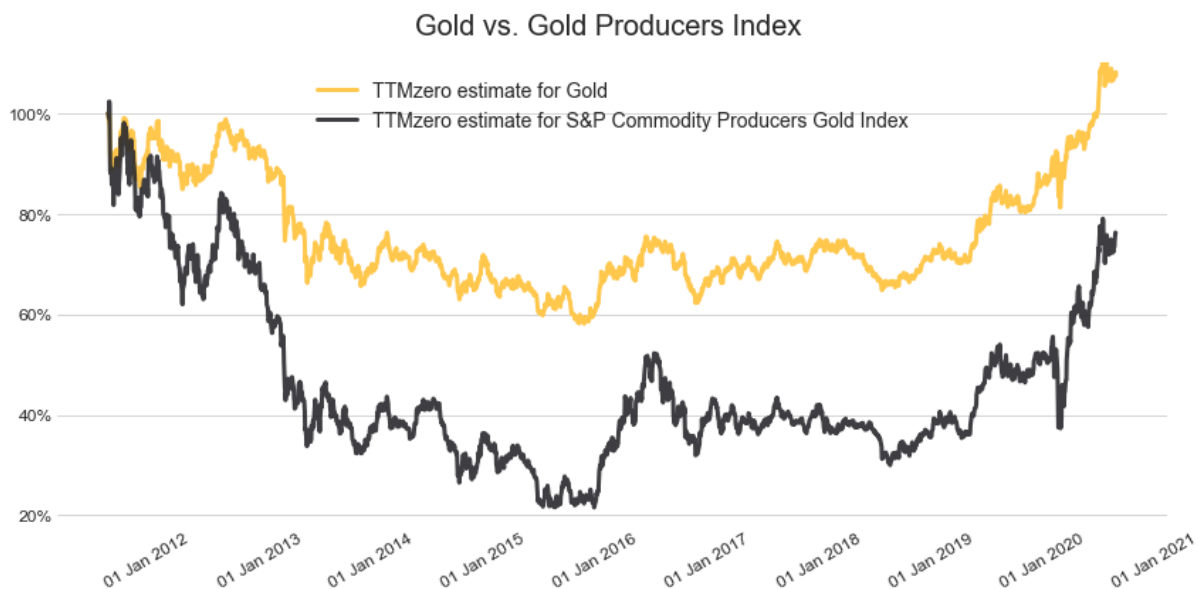
Discount-Certificates on Gold Producers

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Having been an alluring metal for centuries, with its many special characteristics being its advantages - durable, malleable, rare, valuable, and no maximum shelf-life - Gold has proven to be among the most prominent and valued financial assets throughout human history. Thus, after the market chaos in March when central banks worldwide brought their ultra-loose monetary policies to a new level pumping trillions of dollars into the world's giant pool of money, investors have been increasingly turning to gold in search of a safe haven for their money. But is it really a smart retreat?

While you get to keep the physical bars in your own hands/vault, owning physical gold is pure old-fashioned, as it is a non-liquid asset and managing its storage can be a real hassle. Therefore, it tends to suit more marathon long-term investors.

In the meantime, investing in Gold miners could be a better choice that many investors pay attention to. Although these are 2 distinct investments - investing in the precious metal itself compared to investing in the mining company - when you look at the big picture it can easily be noticed in this historical chart that the correlation of gold and gold miners (here represented as *TTMzero estimate for S&P Commodity Producers Gold Index*) over the long term is fairly high.



Therefore, many investors have recently shifted their interest to gold producers instead of the commodity gold. In fact, doing so they can comfortably find themselves with attractive benefits as dividends. Thanks to a much more dynamic market universe nowadays, investing in stocks or ETFs of gold mining companies can be a more enchanting option as opposed to owning physical gold like in the old days.

For the purpose of this analysis, TTMzero specifically focuses on Newmont Goldcorp and Barrick Gold - the [2 largest gold producers](#) worldwide. Although the gold price was hitting multiple record highs in 2020, the Year-to-Date (YTD) return on physical gold (29.71%) still completely underperformed compared to the YTD return on the mining companies Barrick Gold (60.20%) and Newmont Goldcorp (54.84%) (as of 31/Aug). This can be seen clearly in the following chart (available on FIS MarketMap):



*standardized at 100% on 1/JAN/20, in relative scale

TTMzero estimate for Barrick Gold - red

TTMzero estimate for Newmont Goldcorp - yellow

Gold - blue

Looking at the period between 1/Apr and 31/Aug this year, after the crash in March when the downturn was about 40%, the same observation can be spotted: While the return on physical gold is 24.66%, the return on Barrick Gold is as high as 49.42%, and on Newmont Goldcorp 48.59%.

An excellent alternative to invest in gold producers are structured products such as Discount Certificates. This product type fits especially well for investors who want to reduce risk from exposure to the stock market.

The buyer of a discount certificate participates in the performance of the underlying asset, but at the same time waives price increases above a fixed level, the cap. For this waiver he receives a discount, i.e. the certificate is usually slightly cheaper than the underlying asset.

The buyer of the discount certificate does not acquire the physical underlying asset, but takes a synthetic long position in the underlying asset via a long call option. The cap is represented by a short call option.

The buyer of the discount certificate thus has a long call position on the underlying asset with a strike price equal to zero and a short call position on the underlying asset with a strike price equal to the cap.

The discount between the value of the certificate and the value of the underlying asset is equal to the option premium from the short call position on the underlying asset with a strike price equal to the cap.

The higher the strike price of the short call, the lower the option premium received and the higher the value of the certificate. A higher strike price of the short call also means a higher maximum yield which goes hand in hand with a lower probability for achieving the maximum yield.

TTMzero analyzed Discount Certificates that are based on Newmont Goldcorp and Barrick Gold during two periods this year: from 1/Jan to 31/Aug (594 products) and from 1/Apr to 31/Aug (617 products).

In great correlation to gold as seen in the chart above, Newmont Goldcorp and Barrick Gold - although both had experienced a crash in March - bounced back instantaneously and sharply during the time between April and August. Such market developments led to spot prices at the beginning of April more or less at similar levels as they were on 1/Jan (TTMzero estimate for Newmont Goldcorp - around 43US\$ per share, TTMzero estimate for Barrick Gold - around 18US\$ per share). On the other hand, after the COVID-19 turmoil causing turbulence across all stock markets, the implied volatility observed on 1/Apr at 48.51% was significantly higher than on 1/Jan at 36.35%.

In this particular case of Gold producers' stock development, when comparing Discount Certificates on Gold mining companies between Jan-Aug and Apr-Aug, it is clear that the smaller the Maximum Yield Probability (MYP) that a product has at observation start date, the larger the maximum return that can be achieved in a favorable market scenario. Investors can really benefit from the market environment of decreasing volatility and increasing spot prices when buying the certificate at times of high volatility. This assumption is effectively confirmed during the period between 1/Apr and 31/Aug.

Discount certificates are suitable for both conservative and risk-averse investors. When selecting certificates, investors should make sure that the product profile matches their individual risk appetite. Maximum Yield Probability plays an important role in this reconciliation and selection process.

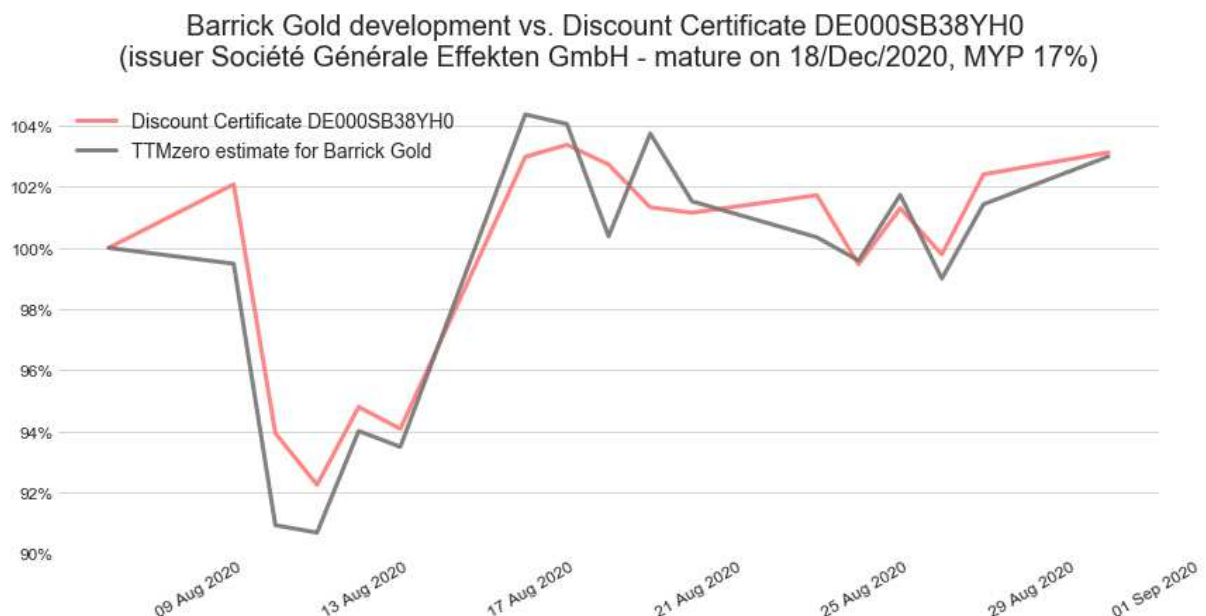
We would like to illustrate the function of Maximum Yield Probability by segmenting all risk appetites into three classes:

1. Conservative (capital preservation is in the foreground): The targeted return is based on the market interest rate, for example the return on certain corporate bonds. This yield target can best be achieved with discount certificates with very high Maximum Yield Probability.

2. Market-neutral (possible losses on the invested capital are accepted): The targeted return should be above the market interest rate. This return target can best be achieved with discount certificates with a Maximum Yield Probability of less than 90%.
3. Risk-taking: The targeted return is based on the return of the underlying asset. This return target can best be achieved with discount certificates with a Maximum Yield Probability of less than 20%.

In the certain category where Discount Certificates on Gold producers had a Maximum Yield Probability below 20%, the average annualised yield was 52.21%. The average relative discount on the first observation date (01/APR/2020) was 38.25% in this product category. This performance remarkably outperformed direct investments in both underlyings (ie. Newmont Goldcorp and Barrick Gold) which achieved an average annualised yield of 46.35% for the same period (1/Apr - 31/Aug).

Example:



*Discount Certificate DE000SB38YH0 annualised yield 35% (p.a.),
Barrick Gold annualised yield 32% (p.a.)
(first observation date: 7/Aug/2020, last observation date: 31/Aug/2020)*

Meanwhile, Discount Certificates observed between 1/Jan and 31/Aug had a relatively lower volatility level (36%) with similar spot price at purchase and could not take advantage of the profitable conditions. As a result, for the same category of Discount Certificates on Gold producers with Maximum Yield Probability at 20%, the annualised return was 18.04% at a relative discount level of 33.26%, while underlyings return was 31.8% p.a.

Risk taking investors who were willing to bet on Gold Producers using Discount Certificates with low Maximum Yield Probability (particularly below 20% on 1/Apr) were certainly rewarded with winning payoff.

In the current market regime with tendencies to high volatilities, fears of increasing inflation and uncertain expectations about central banks' monetary policies, choosing an instrument to invest in is ever more critical. Gold producer stocks can be a reasonable investment if central banks continue to flood the markets with liquidity and inflation increases. Discount Certificates with the appropriate Maximum Yield Probabilities can be used to tailor market risk exposure to investor's individual risk appetites. Investors that pay attention to this important Key Figure while also analyzing the market conditions when buying Discount Certificates will surely benefit from great earnings.

Over 70 Key Figures such as Maximum Yield Probability are constantly computed and provided by TTMzero in real-time in cooperation with Börse Stuttgart. Investors can conveniently achieve competent portfolio management and build outstanding trading strategies when combining TTMzero Key Figures with more than 2000 TTMzero Evaluated Real-Time Prices for Indices, Equities, Futures, currencies, crypto currencies and FX pairs. The data is accessible via FIS MarketMap.

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September 2020