Goldilocks and the Three Bears

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Our view: As in the 19th-century British fairy tale "Goldilocks and the Three Bears", we have attempted to find the best 'bed' for gold to outperform. While current conditions appear to be 'just right' for gold prices to outperform, there are several variables at play that have resulted in quite the opposite. While timing the market is never an optimal strategy to follow for investors, our research shows firm evidence that long-term oriented investors can benefit from maintaining exposure to gold as an asset class throughout the entire business cycle.

This bed is too soft. Recent performance of the gold commodity has been softer than expected given the surge in inflation and the impact this has had on real yields (currently at ~-3.5%). While historically this level of real yields has been a boon for gold price performance, we caution investors from jumping to conclusions simply based on an analysis of a single variable. In fact, while the real rate remains in deeply negative territory, early phases of the business cycle have been the worst environment across historical business cycles for the yellow metal. However, the performance of gold improves as we move beyond the early phase of the business cycle.

This bed is just right. The most favourable period for gold price performance in the business cycle is during a contraction in economic activity. Looking back at contractionary periods in real GDP since the 1980s shows that gold was up on average by 12% during these periods. This is followed by late-cycle (+10%) and mid-cycle (+8%) periods. In fact, if we look at individual macroeconomic variables to model the most ideal scenario for gold, it would include: **1)** negative real GDP growth (not present in the current environment); **2)** a weak/weakening USD (not present in the current environment, especially with the Fed beginning to taper); and **3)** negative real interest rates (currently present).

Final takeaways for investors. While timing the market is difficult, our analysis shows investors can improve the risk/reward profile of their portfolios by maintaining a strategic allocation to gold throughout the entire business cycle. From our research going back to the 1980s, gold has had a negative correlation to most traditional assets classes (e.g., equities and bonds). For investors looking to add exposure to gold, they can achieve this in several ways, including: **1)** buying physical bars/coins; **2)** gold futures; **3)** physically backed ETFs (**click here**); **4)** gold equities (**Top Picks: FNV, WPM, AEM, GOLD, and NEM**); and, **5)** gold indices and/or gold funds. Each vehicle offers a different risk/return profile and exposure to the changes in the price of gold. At one end of the spectrum, we have physical gold bullion, which offers the lowest risk option for investors and direct exposure to changes in the prices of gold (appreciation and/or depreciation). On the opposite end of the spectrum, we have gold company operators and explorers that expose investors not only to changes in gold prices but also to several other factors, such as operational leverage, exploration optionality, expansion potential, etc.

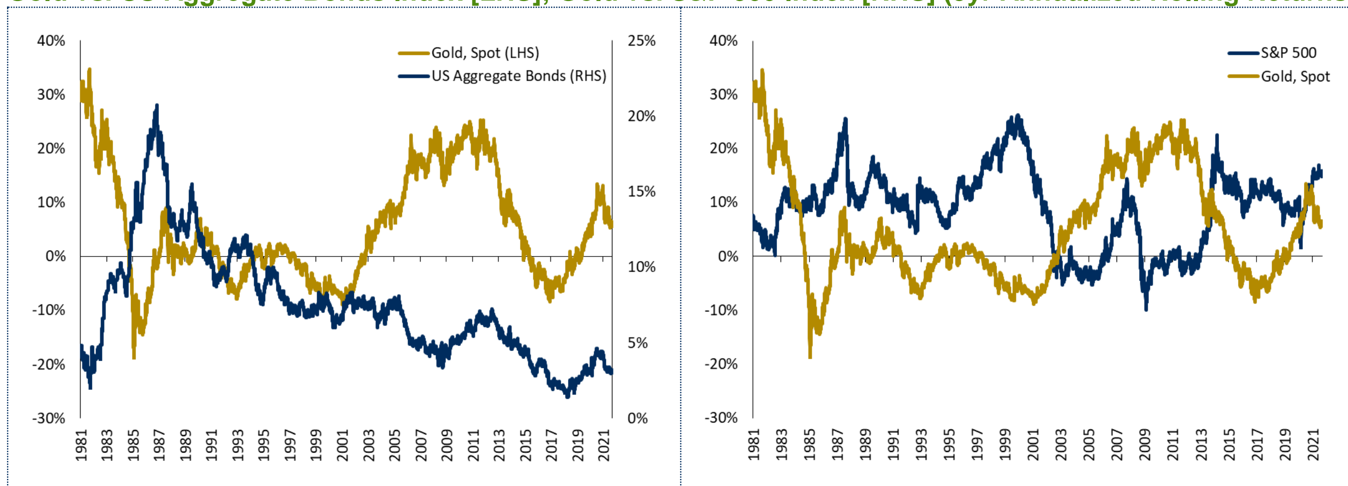
Please read domestic and foreign disclosure/risk information beginning on page 10

The Role of Gold in a Portfolio

We view gold as a distinct asset class, the performance of which is influenced by several macroeconomic factors, such as **real GDP growth, inflation, interest rates, exchange rates, etc**. However, unlike stocks and bonds, there are idiosyncratic factors that play a role in the performance of gold, including its limited supply. These aspects taken together make gold a unique asset with important diversification benefits in a portfolio, **particularly for long-term oriented investors**.

To showcase these benefits within a portfolio, we compare the returns of gold with select asset classes over the duration of a typical business cycle, which has averaged around 5-years in the United States. The charts below suggest that gold provides protection during periods where traditional assets (e.g., equities and bonds) do not perform well (e.g., during H1 of 2020 in the early days of the COVID-19 crisis).

Gold vs. US Aggregate Bonds Index [LHS]; Gold vs. S&P 500 Index [RHS] (5yr Annualized Rolling Returns)



Source: FactSet, Raymond James Ltd.

Moreover, using correlation analysis, we measure the relationship between US bonds (US Aggregate Bond Index), US equities (S&P 500 Index), and gold prices over a 1-year and 5-year period.

There is a negative correlation between gold and US bonds and equities on both a 1-year and 5-year period, showing that these assets move in opposite directions to one another. The negative correlation of gold with stocks and bonds confirms that adding gold to a portfolio composed of stocks and bonds increases the diversification of the portfolio and therefore mitigates its risk, improving the portfolio's risk-adjusted return.

Correlation shows the strength of a relationship between two variables and is expressed numerically by the correlation coefficient. The correlation coefficient's values range between -1.0 and 1.0. A perfect positive correlation means that the correlation coefficient is exactly 1. This implies that as one security moves, either up or down, the other security moves in lockstep, in the same direction. A perfect negative correlation means that two assets move in opposite directions, while a zero correlation implies no linear relationship at all. (Investopedia)

Gold Correlation with Select US Asset Classes

Correlation	US Aggregate Bonds	S&P 500 Index
1 year	-0.12	-0.21
5 year	-0.35	-0.66

Source: FactSet, Raymond James Ltd.

That Bed is too Hard/Soft, but This Bed is Just Right

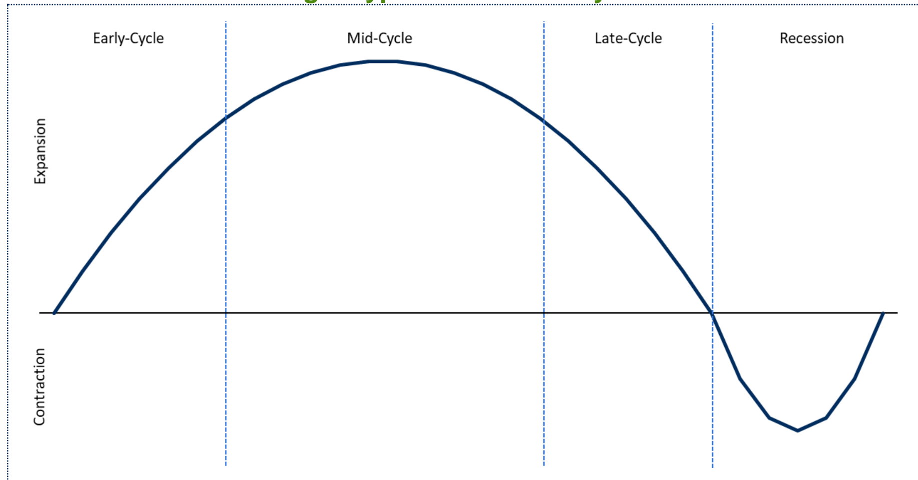
As we have shown above, adding gold to a portfolio with traditional assets is attractive from an asset allocation perspective.

However, for investors interested in making more tactical adjustments to their gold weighting throughout the business cycle (e.g., adding to or reducing their allocation to gold while maintaining a core strategic allocation to it), there are periods of the business cycle when gold performs better than others.

Business cycles are fluctuations in an economy's general activity and commonly include four phases with the following characteristics:

- **Early-cycle:** GDP growth moves from negative to positive as the economy recovers from a recession. High growth rates occur in this phase. Monetary policy is easy and inflation is low.
- **Mid-cycle:** GDP growth increases and eventually hits its peak. Inflation rises, and the central bank removes stimulus as it approaches a neutral stance.
- **Late-cycle:** GDP growth slows as the central bank adopts a more restrictive monetary policy to control inflation.
- **Recession:** GDP growth contracts and the central bank loosens its monetary policy stance. Inflation decreases.

Real GDP Growth during a Typical Business Cycle



Source: Raymond James Ltd.

Using the above definition of business cycles, we determined that the best environment for gold is during periods of contraction in economic activity – gold has traded +12% on average during these periods going back to the 1980s. This is followed by late-cycle (+10%) and mid-cycle (+8%) periods. In fact, if we look at individual macroeconomic variables to create the most ideal scenario for gold, it would include: **1)** negative real GDP growth; **2)** a weak/weakening dollar; and, **3)** negative real interest rate, which is reflective of late cycle/recessionary stages in the business cycle. The worst environment for gold has traditionally been during the early cycle (+0%), when the outlook for the economy is positive, growth is strong, and inflation is low.

Where are we in the cycle? While not an exact science, our data suggests that we are nearing the end of the early-cycle and/or in the early phase of the mid-cycle.

Performance of US Bonds, Equities & Gold during the Full Business Cycle

	US Aggregate Bonds	S&P 500	Gold, Spot
Recession	**12%**	**-7%**	**12%**
1980	11%	26%	20%
1981-82	26%	5%	3%
1990-91	12%	4%	-1%
2001	9%	-12%	5%
2007-09	5%	-26%	12%
2020	12%	-42%	31%
Early-Cycle	**5%**	**14%**	**0%**
1980-81	-7%	10%	-38%
1982-83	10%	20%	-9%
1991-92	12%	9%	-3%
2001-02	7%	-17%	15%
2009-10	10%	11%	32%
2020-21	0%	48%	5%
Mid-Cycle	**7%**	**10%**	**8%**
1976-79	6%	-2%	23%
1983-89	13%	13%	-1%
1992-00	7%	17%	-2%
2002-06	5%	11%	20%
2010-19	3%	12%	1%
Late-Cycle	**10%**	**5%**	**10%**
2000-01	14%	-10%	-9%
2006-07	6%	5%	21%
2019-20	10%	20%	20%

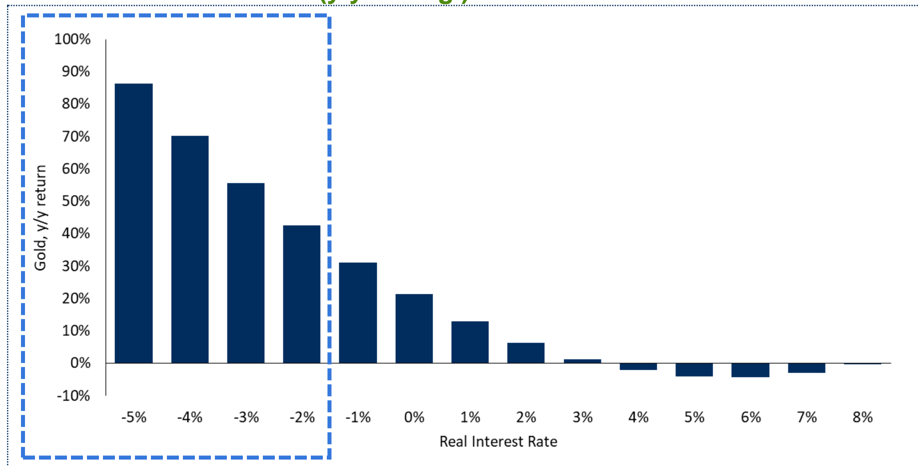
Source: FactSet, Raymond James Ltd.

Given the media's focus on the recent surge in inflation, we took a deeper dive into the relationship between inflation, real yields, and the performance of gold. Our analysis notes that there is a strong relationship between the price performance of gold and real yields, defined as the difference between the 10-year nominal yield and year-over-year (y/y) changes in inflation.

Using data since the 1960s, we estimate the correlation between gold and real yields to be -0.42. This means that **a negative real interest rate is positive for gold**. Moreover, very extreme and extended periods of low real yields have resulted in strong gold price performance.

While we are seeing a very low real yield today (-3.5%), we believe that the recent surge in inflationary pressures that have pushed real yields into negative territory are transitory and not likely to last for an extended period. However, if these transitory pressures prove to be more persistent and or if yields stay lower for longer while inflation runs hot, then this should be a positive environment for gold.

Gold Price Performance (y/y % Chg.) vs. the Real Interest Rate

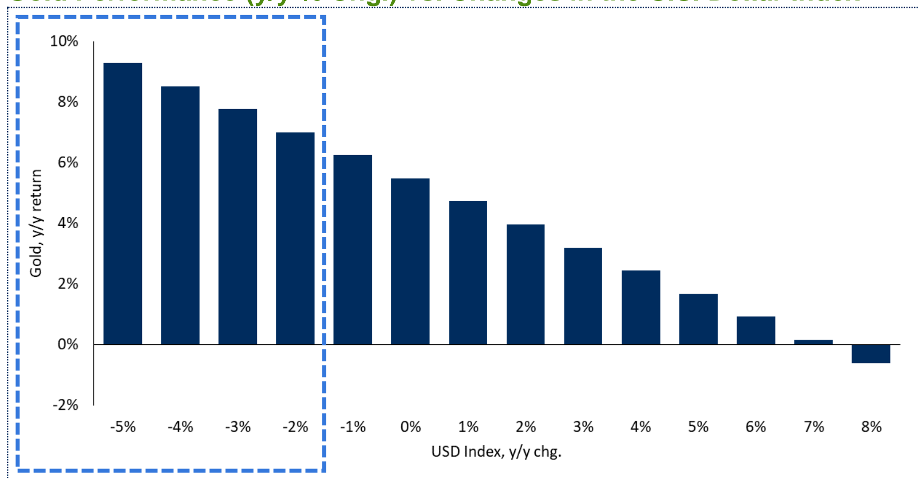


Source: FactSet, Raymond James Ltd.

Since gold is priced in U.S. dollars, changes in the value of the currency are usually associated with changes in the price of gold. We use the DXY index (a trade-weighted benchmark for the international value of the US dollar) to measure the change in the value of the dollar versus the performance of gold. Our data shows that the correlation between gold and the DXY index is -0.44. This means that **a weaker dollar is positive for gold**. This makes sense since investors have historically turned to gold as a store of value during periods of weak USD performance.

There are several factors that influence the USD, the most common being relative real interest rates, which are largely driven by the Federal Reserve (Fed). As discussed above, with real rates in negative territory in the US, changes to the Fed's monetary policy will affect the change in the US currency or DXY Index and the performance of gold. After a period of unprecedented monetary measures (e.g., interest rates slashed to 0%) to combat the impact of the COVID-19 crisis on the economy, there remains high uncertainty concerning the removal of stimulus as we look onward.

Gold Performance (y/y % Chg.) vs. Changes in the U.S. Dollar Index

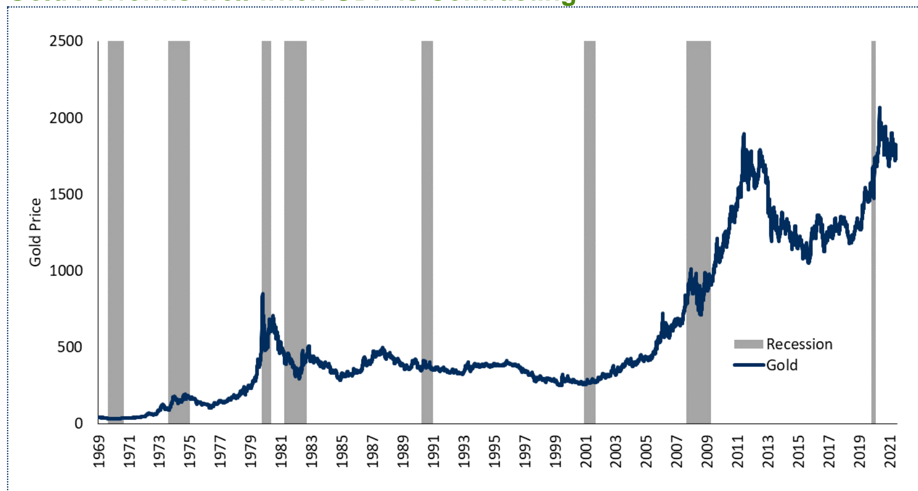


Source: FactSet, Raymond James Ltd.

Finally, **gold performs well when real GDP contracts**. Using NBER's definition of business cycles, the annualized return of gold since the 1960s is 16.2% during recessions.

The current environment is far from contraction territory, with real GDP growing well above historical trend.

Gold Performs well when GDP is Contracting



Source: FactSet, Raymond James Ltd.

Outlook for Gold – Up, Down or Sideways Is our Guess

The current environment has an unusually high level of uncertainty or a "Wall of Worries" as we defined in the October's Insights & Strategies report. The surge in inflation has been dominating the headlines and is conceivably the major risk/catalyst for gold should it remain elevated for longer than expected. While we believe inflation to be transitory, there have been interesting comparisons made to the stagflation environment of the 1970s, a period when gold performed very well (the annualized return on gold was around 30%).

Central banks, particularly in advanced economies, slashed nominal rates to their effective lower bounds to minimize the fallout from the COVID-19 pandemic and the resulting economic shutdowns/restrictions. With high inflation and very low nominal interest rates, the real interest rate is currently negative, around -3.5%, which in isolation should be positive for gold.

However, as mentioned above, real GDP growth is above average and central banks are expected to remove stimulus as the economy moves from the early phase of the business cycle. We believe the U.S. and Canada are between early-/mid-cycle, which historically is not very favourable for gold. The mid-phase, however, is better for gold price performance, while the late and recession phases are the best environments.

Forecasts

	2021	2022	2023	Long-Term
Gold (US$/oz)	$1,788	$1,725	$1,700	$1,600
Silver (US$/oz)	$25.13	$23.00	$23.00	$22.50

Source: Raymond James Ltd.

How to Invest in Gold

Investors can gain exposure to gold in several ways, including buying physical bars, coins, gold futures, physically backed ETFs or gold equities directly or through gold indices and/or gold funds. Each vehicle offers a distinct risk/return profile and exposure to the changes in the price of gold.

In the below table, we have physical gold bullion on one end of the spectrum, which offers the lowest risk option for investors. It gives investors direct exposure to changes in the price of the yellow metal (appreciation and/or depreciation) but no exposure to company or operation risks. On the opposite end of the spectrum, there are gold company operators and explorers, which offer investors not only exposure to changes in the price of gold but also to several other factors such as operational leverage, exploration optionality, expansion potential, etc.

Our recommendation for investors is to focus on the lower risk options in the below table.

How Investors Can Buy Gold–Low Risk to Higher Risk Options

Lower Risk ←→ Higher Risk

	Bullion	Bullion ETF	Gold Royalty/ Streaming Companies	Gold Company Operators	Gold Company Explorers
Exposure to:					
Metal Price Appreciation	Yes	Yes	Yes	Yes	Yes
Production	No	No	Yes	Yes	No
Expansion Potential	No	No	Yes	Yes	No
Discovery Potential	No	No	Yes	Yes	Yes
Acquisition Potential	No	No	Yes	Yes	Yes
Dividend Potential	No	No	Yes	Yes	Yes
Reduced exposure to:					
Capital Costs	Yes	Yes	Yes	No	No
Operating Costs	Yes	Yes	Yes	No	No
Environmental Costs	Yes	Yes	Yes	No	No

Source: Raymond James Ltd

Owning Physical Bullion

Investors have the option of purchasing physical gold bars and coins to gain exposure to bullion. This option provides investors with exposure to changes in its price (appreciation/depreciation). However, owning physical gold bars and coins brings its own set of challenges, including the costs to safely store and transport the physical gold.

Exchange-Traded Options for Bullion Exposure

As an alternative to owning physical bullion, we suggest investors consider Exchange-Traded Receipts (ETRs). The Royal Canadian Mint established the Canadian Gold Reserves Program in order to provide an exchange-traded investment vehicle **that tracks the price of gold and makes investing directly in physical gold available to institutional and retail investors.** Investors can also buy exchange-traded funds (ETFs) to gain exposure to gold. Below we highlight (ETFs) that hold gold as their underlying asset or invest in gold futures contracts. The advantages of ETFs are that they are relatively liquid, low cost, and a convenient option for investing in gold compared to buying physical bullion and storing it.

Gold Bullion ETR/ETF Recommendations

Name	Symbol	Currency	Annual Fee	Domicile
Royal Canadian Mint ETR	MNT MNT.U	$C $U	0.35%	Canada
iShares Gold Bullion ETF	CGL CGL.C	$C (hedged) $C	0.50%	Canada
Purpose Gold Bullion ETF	KILO KILO/B	$C (hedged) $C	0.20%	Canada
SPDR Gold Shares	GLD	$C	0.40%	USA
iShares Gold Trust	IAU	$U	0.25%	USA

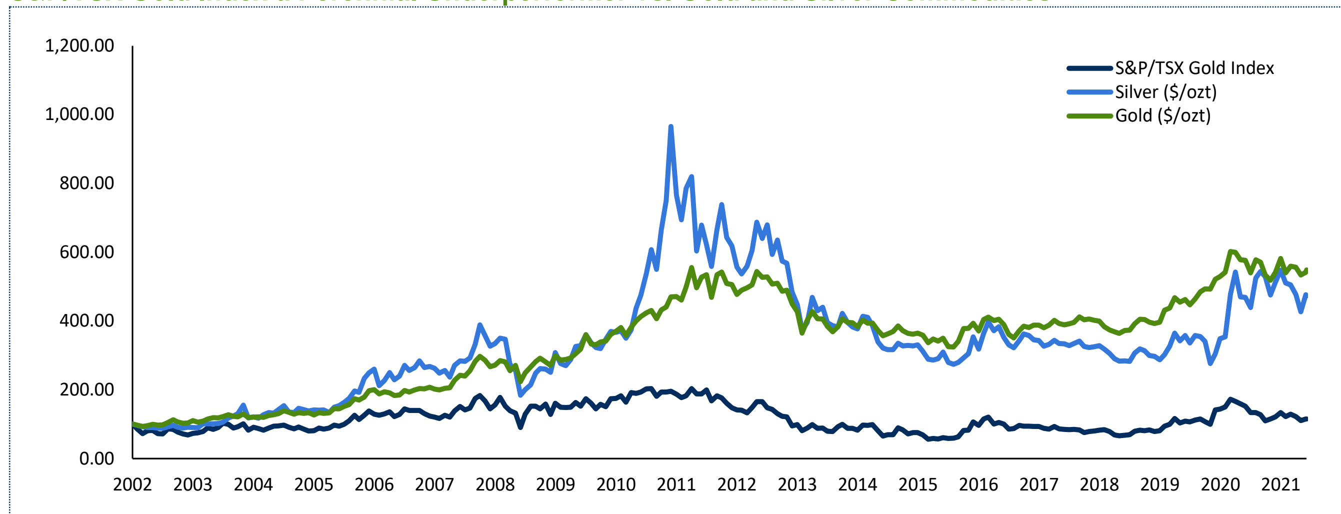
Source: Raymond James Ltd

Equity Recommendations: If you must, stick to quality!

Equities need to show additional returns given their additional risks, aside from providing exposure to price moves in the commodity. That said, this has not entirely been the case for most investors in recent history. In fact, looking back over the past ~20 years, the S&P/TSX Gold Index has significantly underperformed the price performance of gold and even silver.

We attribute this underperformance to: **1)** the ease of access to low-cost alternatives, namely exchange-traded securities; **2)** weak execution by management companies; **3)** poor fiscal discipline at the company level; and, **4)** to a lesser extent, the recent popularity of crypto-assets as a store of value or alternative to gold among the younger demographic.

S&P/TSX Gold Index a Perennial Underperformer vs. Gold and Silver Commodities



Source: FactSet, Statistics Canada

However, there is a "silver lining" during this period. This was the royalty/streaming companies and select senior gold producers, which outperformed, in many cases, the commodity and the broader gold sector.

Royalty/streamers offer a relatively lower risk exposure to the underlying commodity than traditional operating miners, given that they are not exposed to the same extent to operating and capital cost overruns, environmental liabilities, and variable G&A expenses (as the business is scalable). Compared to physical commodities or ETFs,

these companies offer more leverage to commodity prices as they have optionality on potential exploration results, expansion potential, acquisition potential, and production increases (growth). Furthermore, they often pay a dividend.

For investors who have a higher risk tolerance and are interested in gaining additional leverage/optionality to gold, our recommendation would be to **proceed with caution, and if you must,** add beta to the gold complex with the addition of senior gold producers.

Three of the top picks from the Raymond James Equity Research team include **Agnico Eagle, Barrick Gold, and Newmont**. Each of these names offers a compelling risk/reward profile; they are trading at a material discount to their royalty and streaming peers, and have an all-in-sustaining cash cost of around US$1000/oz for 2021/2022 – very profitable even if gold prices move lower.

RJL Top Picks: Royalty/Streamers and Senior Gold Producers

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Royalty & Streaming Companies

Company Name	Symbol	Price ($)	Target Price	Stock Rating	Target Return	Mkt Cap ($mln)	Dividend Yield	EV/EBITDA		P/CF		Sales (koz Au-Eq)		AISC		P/NAV (x)
								2021E	2022E	2021E	2022E	2021E	2022E	2021E	2022E	
Franco-Nevada	FNV-NYSE | FNV-TSX	$142.64	$164.00	OP2	15%	$27,257	0.8%	24.9x	24.8x	27.7x	28.0x	629	630	na	na	2.62x
Wheaton Precious Metals	WPM-NYSE | WPM-TSX	$39.86	$55.00	OP2	38%	$17,959	1.3%	19.3x	18.0x	20.0x	18.6x	757	756	na	na	1.70x
Average					**26%**		**1%**	**22.1x**	**21.4x**	**23.8x**	**23.3x**					**2.2x**

Senior Gold Producers

Company Name	Symbol	Price ($)	Target Price	Stock Rating	Target Return	Mkt Cap ($mln)	Dividend Yield	EV/EBITDA		P/CF		Prod. (koz Au)		AISC Cash Cost		P/NAV (x)
								2021E	2022E	2021E	2022E	2021E	2022E	2021E	2022E	
Agnico Eagle	AEM-NYSE | AEM-TSX	$53.18	$74.00	OP2	39%	$12,993	2.6%	7.8x	7.2x	8.4x	8.5x	2,056	2,108	$1,014	$997	1.66x
Barrick Gold	GOLD-NYSE | ABX-TSX	$18.48	$27.50	OP2	49%	$32,901	4.2%	6.3x	6.5x	7.4x	7.5x	4,431	4,780	$1,023	$962	1.07x
Newmont	NEM-NYSE | NGT-TSX	$54.30	$70.00	OP2	29%	$43,301	2.9%			8.9x	9.5x	6,035	6,258	$1,055	$1,036	1.35x
Average					**39%**		**3%**	**7.0x**	**6.9x**	**8.3x**	**8.5x**					**1.4x**

Source: Raymond James Ltd.

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