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National Blue Ocean Strategy Institute

# Clearing up misconceptions about valuation of Mineral Investment Income Fund (MIIF)'s Agyapa listing

FROM GHANA CHAMBER OF MINES 2019 REPORT:

“

In Africa, the projected exploration spending for 2019 stood at US$ 615.9 million and Ghana's neighbour, Burkina Faso, was the biggest beneficiary. Burkina Faso was earmarked to receive US$ 132 million in 2019 while Ghana came second with a budget of US$ 98.6 million.

The disparity runs its own sad commentary for the Ghanaian mining industry. As Africa's leading producer of gold, Ghana must continue to create the requisite policy and legal prescriptions and platforms to engender mining exploration. Essentially, it will be immensely useful to put in place an incentive scheme that will reduce the cost associated with exploration to help attract the required investments into this high-risk business of mineral exploration

”

Hene Aku Kwapong, former Head of Management, Global Credit Markets, Royal Bank of Scotland, board member Ecobank Ghana

There is a lot of erroneous assertions on the technical side of the MIIF’s Agyapa Royalty transaction that needs correcting. Simply, stop comparing equity valuation for investors with royalty receivables valuation. They are two totally different cashflows with different risk profiles.

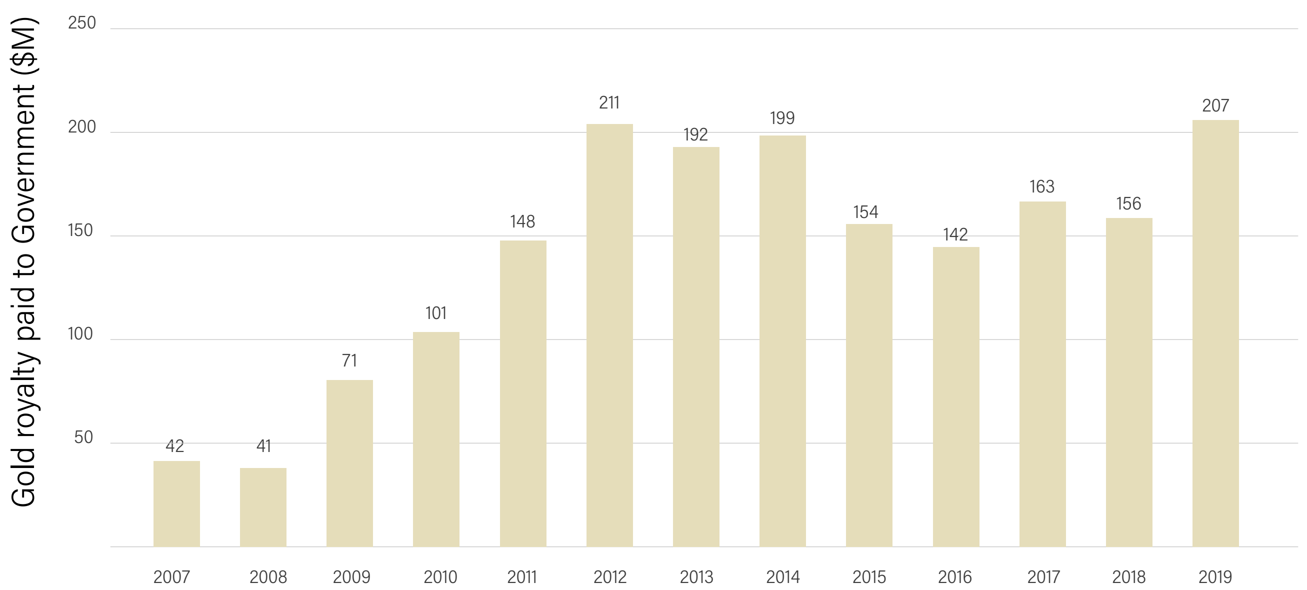
# THE NUMBERS ON OUR MINING SECTOR

Ghana's mining sector has 3 major foreign companies producing about 53% of the country's revenue. Should any of these top 3 companies get into major growth challenge or crisis, the country will face a significant revenue crisis. In 2019, the Chamber of Commerce communicated its concern to the government about the lack of investment flowing into the sector captured in the statement above. If investment dries up, future production needed to even maintain expected royalty payments will suffer. That is our reality.

### Exhibit 1 - Ghana's mining sector companies and revenue

| Mines | Company | Country | 2018 Gold (Ounces) | 2019 Gold (Ounces) | % Ghana (Output) | NYSE | TSE | GSE | JSE | ASX |
|---|---|---|---|---|---|---|---|---|---|---|
| Newmont Ghana Gold | Newmont | US | 436,106 | 643,067 | 22% | X | | | | |
| Gold fields Ghana | Gold fields | South Africa | 524,869 | 519,072 | 17% | X | | | X | |
| Newmont Golden ridge | Newmont | US | 414,427 | 422,099 | 14% | X | | | | |
| AngloGold Ashanti | AngloGold Ashanti | South Africa | 253,487 | 274,665 | 9% | X | | X | X | |
| Asanko Gold Mines | Galiano & Gold Fields | Canada | 223,152 | 251,044 | 8.4% | X | X | | X | |
| Abosso Gold | Abosso Gold | Australia | 180,844 | 208,381 | 7% | | | | | X |
| Chirano Gold | Kinross Gold Corporation | Canada | 226,370 | 201,037 | 7% | | X | | | |
| Perseus Mone | Perseus Mining | Australia | 217,219 | 179,574 | 6% | | | | | X |
| Golden Star Wassa | Golden Star | Canada | 149,698 | 156,168 | 5% | | X | X | | |
| Adamus | Adamus Resources | Australia | 103,731 | 84,197 | 3% | | | | | X |
| Golden Star Bogoso Prestea | Golden Star | Canada | 75,087 | 47,533 | 2% | | X | X | | |

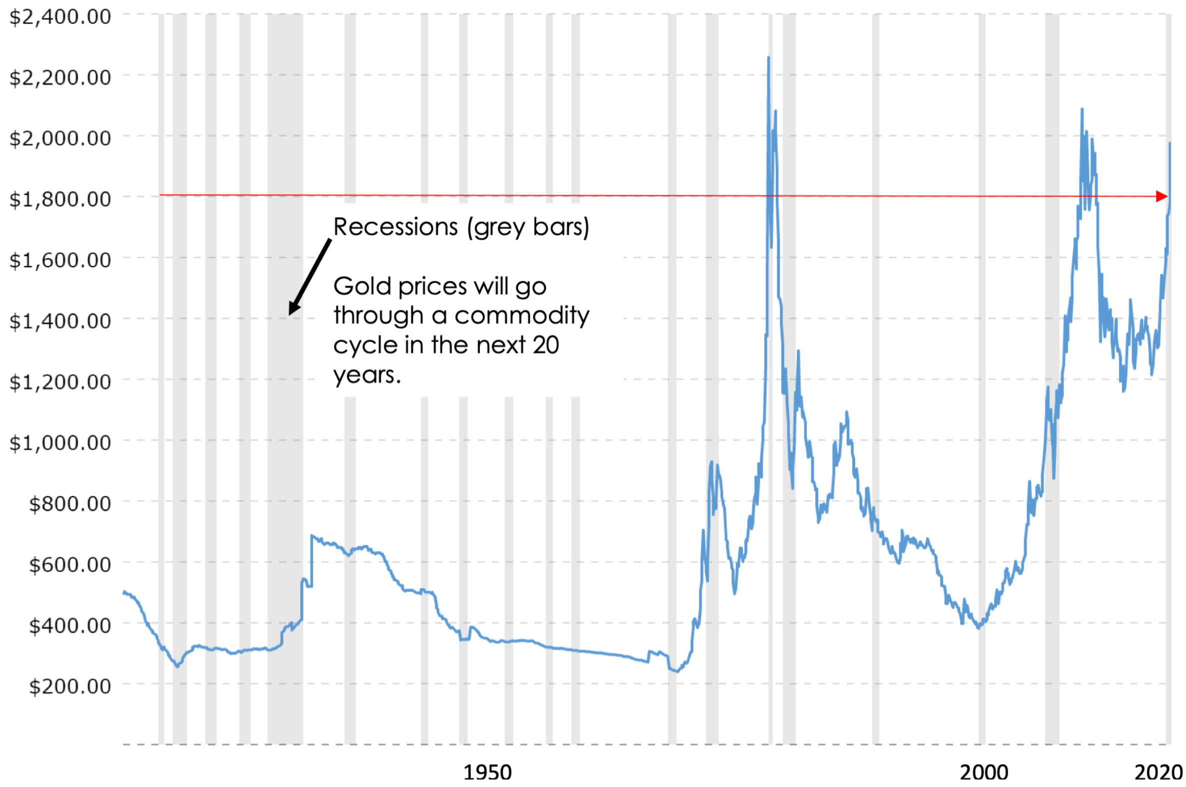
### Exhibit 2 – Government's royalty revenue run rate has averaged $167M over the past 10 years.



The revenue stream in Exhibit 2 is not pretty. A correction in gold prices in 2015 caused government's revenue to decline from $199 in 2014_to $142M in 2016. For the next 20 years of the current royalty contracts, gold will go through its typical commodity cycle. There will be same erratic flows and if gold price should tumble below the sector cost of about $1,100/oz, it will have a drastic impact on government's ability to support the industry.

Is it possible gold prices could face downward pressure? Yes, looking at the past 20 years, gold prices have averaged less than $1,000/oz so it is highly likely the next 20 years could see declining gold prices. That means future royalty flows to government could average less than $200M per year.

### Exhibit 3 - The outlook for gold prices

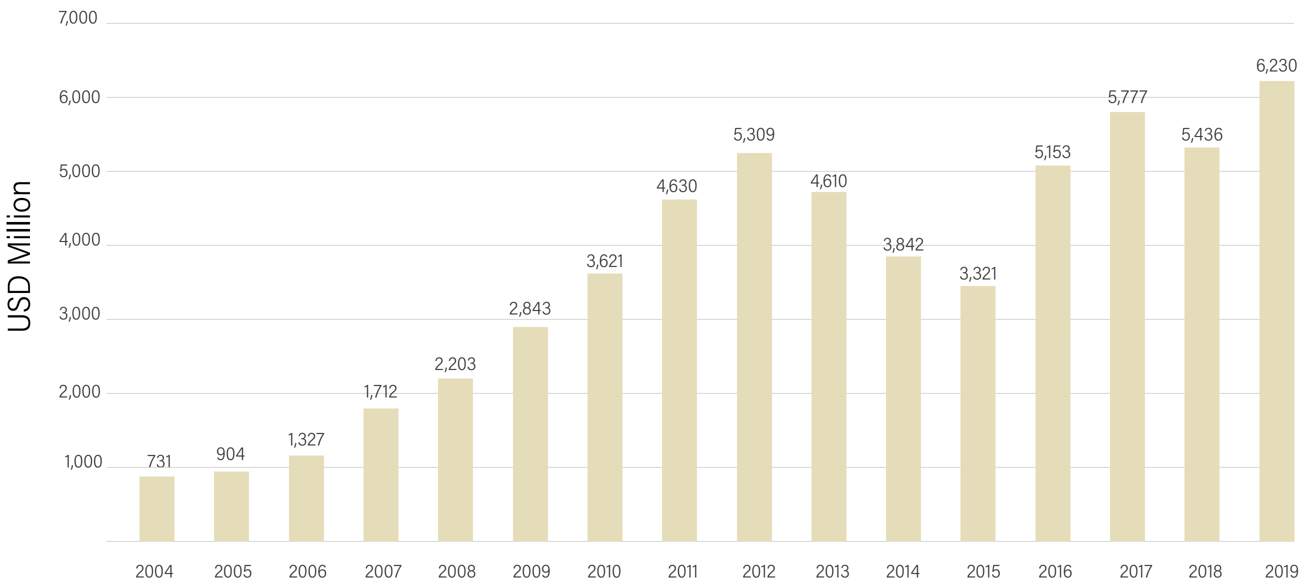



Gold is a commodity and commodity prices go through cycles. Average gold prices for the last 20 years have been less than $1,000/oz so I am not sure why anyone thinks gold prices for the next 20 years will have an average price of $1,800/oz as stated by Kofi Ansah and Fui Tsikata in a note on Wednesday, 26 August 2020. That is erroneous thinking. It is also a misunderstanding of the transaction to think the valuation of the transaction is based on the full royalty revenue from miners to the government.

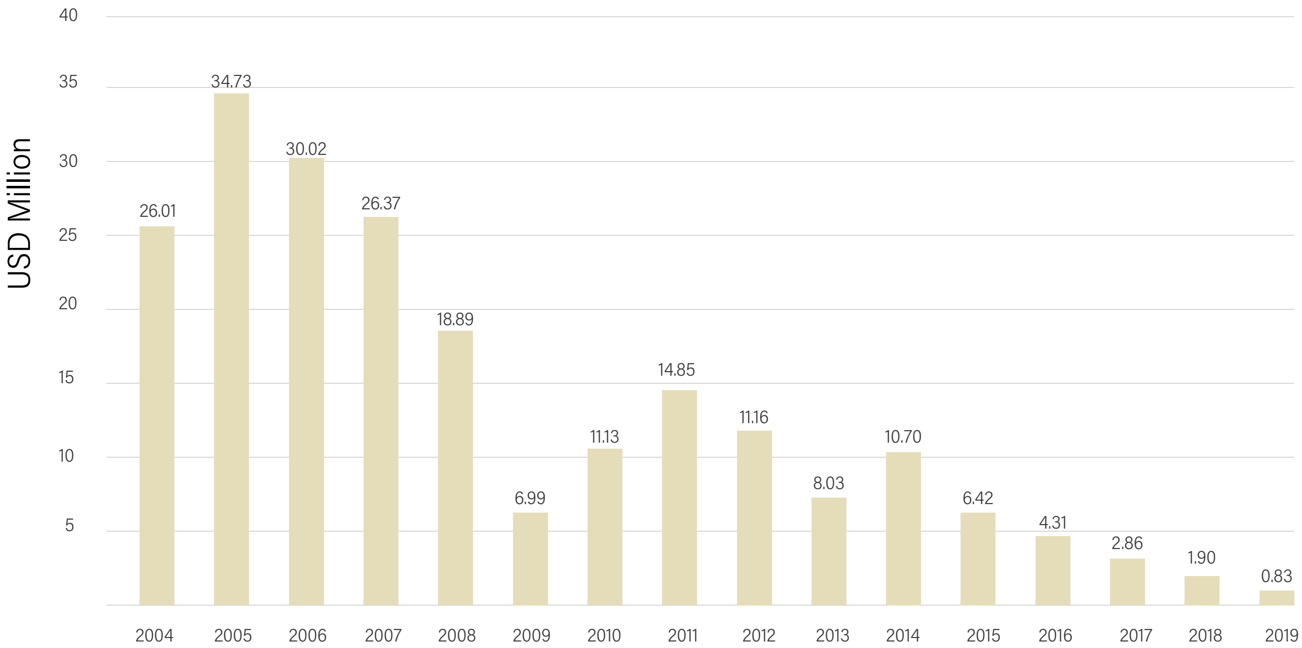
Now let us examine the history of Ghana's annual revenue receipts from gold, bauxite, and diamond as shown in Exhibit 4. For lack of investment in these mines, all these three minerals face significant annual revenue risk with revenue from diamond practically disappearing. Annual revenue from bauxite has been volatile, and annual revenue from gold is at the mercy of uncertainty in gold. prices. Gold prices unfortunately is not driven only by product demand and supply but by exogenous drivers such as demand for risk products.

## Exhibit 4 - Ghana's export revenue from minerals

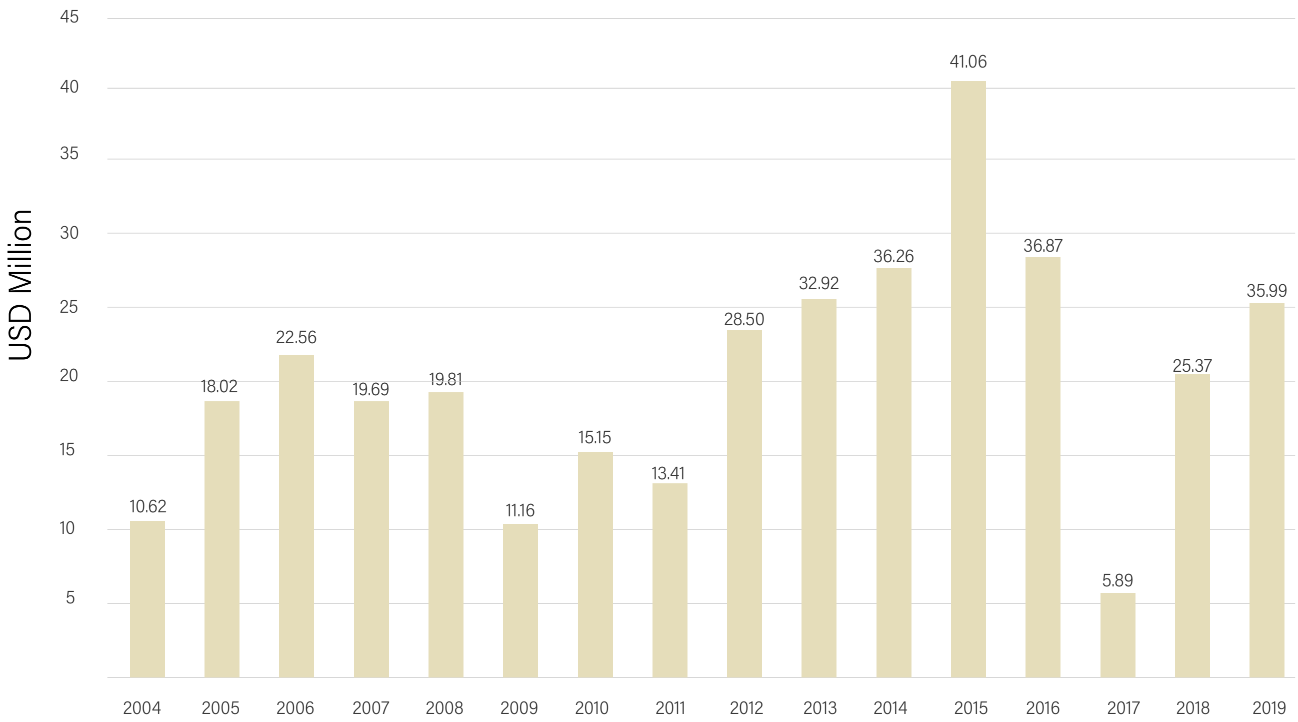
### Gold Revenue for Country




### Revenue from Diamond (Chamber of Mines)



**Bauxite revenue for country**




# RINGFENCING MINING SECTOR REVENUES

Ringfencing and creating the MIIF to hold mining rights and royalties is the first step to addressing these issues of price volatility and lack of investment that are also articulated in Ghana Chamber of Mine's 2019 Annual Report.

It should be noted that the Act establishing MIIF creates a company for as long as needed just like any company but as a Fund. MIIF as an entity can also set up Special Purpose Vehicles (SPVs) and other entities needed to complete transactions and use them as when needed. Below is the summary of the structure of the board and the setup for the Agyapa SPV.

**MIIF – Ghana registered company**

1. Ghana laws and corporate governance
2. Tax-exempt
3. The Board
   a. Only those who qualify for appointment as a director of a company under Companies Act, 1963 (Act 179)
   b. Board term is 4 years, may be re-elected only once
   c. Board Members (at least 3 of which shall be women):
      i. Chief Executive Officer of the Fund
      ii.Director from Ministry of Finance

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ii. Director from Ministry of Finance
iii. Director or above from Ministry of Lands and Natural Resources
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v. Deputy Governor of Bank of Ghana nominated by Governor
vi. Commissioner for Domestic Tax Revenue Division (GRA)
vii. 3 other persons with relevant experience nominated by Minister of Mining

4. The Investment Committee shall go through a process to hire a professional Asset Manager.

**Agyapa Royalties – UK Offshore registered**

- UK Financial Reporting and Corporate Governance
- Jersey administration
- Tax exempt under UK laws

Much has been made about Jersey being a tax haven and hence government should not be setting up entities in Jersey. Jersey is no different from Knightsbridge in London. You get off Heathrow, you take the train and withing about 6 stops you are in Knightsbridge, right next to Harrods. Knightsbridge is an offshore jurisdiction for UK non-residents. Having an entity registered in an offshore account to facilitate global transactions is a common practice in global transactions. What is strange about some of the tax arguments I am hearing about however is not quite accurate. Listing on the London Stock Exchange subjects any entity to UK Financial Reporting rules. Any investor receiving investors handle their own taxes per authority of the Jersey jurisdiction, that is what it means.

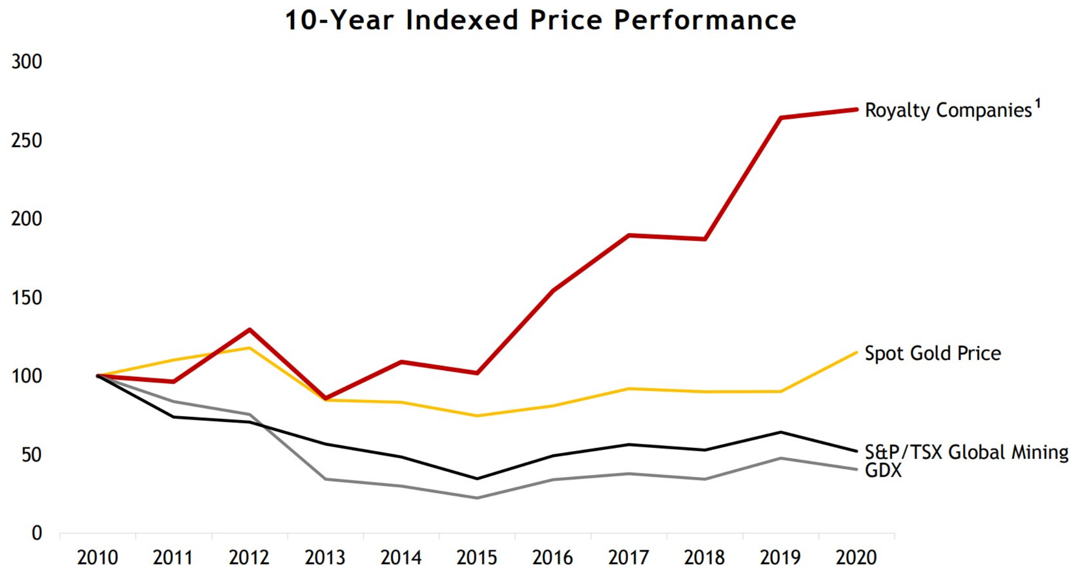
# MINERALS ROYALTY INDUSTRY

The minerals royalty industry is a mature sector of the minerals industry where companies use their future royalties to raise money to do additional investing in mine opportunities.

Over the past decade, investors investing in mineral royalty companies, such as gold royalty companies, have done well and outperformed even the underlying metal. Burkina Faso, Nigeria, and Ivory Coast all have gold mines that have done royalty transactions Canadian, Australian and U.S. royalty companies.

Maverix Metals one the smaller royalty companies from Canada, with both New York and Canada stock exchange listing, is about the size of the IPO MIIF wants to do with Agyapa Royalty. The interesting thing though is that Maverix has also done royalty transactions with Gold Fields, Newmont, and Kingross all gold companies who operate in Ghana. So nothing prevents these same companies from using their revenues to do royalty deals based on their mines in Ghana. The concern the Ghana Chamber of Mines expressed is that the proceeds from such transactions if they do, will be invested in other jurisdictions. A concern government has to address.

### Exhibit 5 – Royalty Companies Returns in the mining sector




1. Market capitalization-weighted Index year over year increase. Index includes Franco-Nevada, Wheaton Precious Metals, Royal Gold, Sandstorm Gold, Osisko Gold Royalties, Abitibi Royalties, EMX Royalties, Ely Gold Royalties, Maverix Metals, Metalla1.

The global royalty sector is about $72B that investors have invested in. It is attractive for investors because of the attractiveness of investing in mining sector without the trouble of worrying about all the corporate risk associated with operations.

Exhibit 7 shows the current valuation levels from a selected set of companies. The larger companies with long track record of solid results command higher valuations than newer companies. MIIF's Agyapa Royalty will be about the size of Maverix Metals and will probably have comparable valuation. The risk though is Maverix Metals has a much better portfolio that is diversified both geographical and types of transactions.

## Exhibit 5 – Royalty Companies Returns in the mining sector

### THE ROYALTY SECTOR TODAY
### MODEL APPEALS TO INVESTORS GIVEN LOW-RISK PROFILE

**SECTOR THEMES**

- Sector domninated by the three largest players that benefit from very low cost of capital.
- Many successful new entrants over the last 3-5 years (Osisko, Triple Flag, Maverix, Metalla).
- Few barriers to entry however the prospect of long-term success dependent upon.
- Little to no corporate M&A Actiticty over the last 10 years.

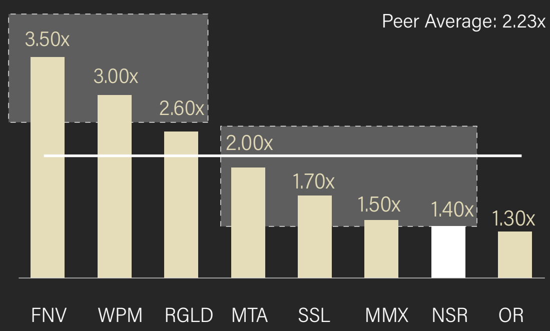
**ROYALTY SECTOR MARKET CAP1 (US$B)**


Source: Bloomberg, Company Reports, Scotiabank, BMO, CIBC, S&P Capital IQ. End of year shown. 2020 figure as at July, 2020

## Exhibit 7 – Valuation trends in the aggregate sector

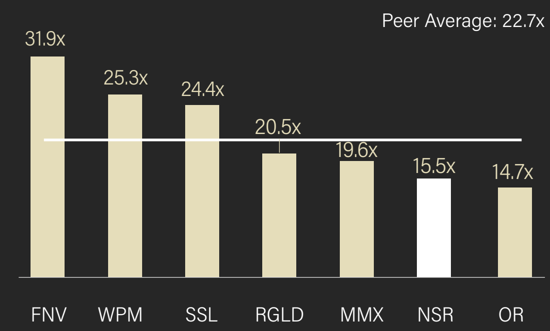
### ATTRACTIVE VALUATION

**P/ NAV**

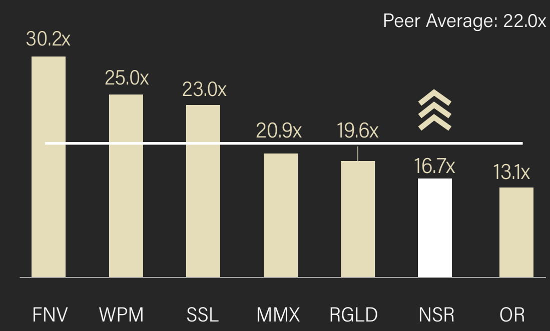



- Significant re-rating potential - 2 zones
- Cash generation to fuel higher multiples
- Current environment to further fuel valuation with arrival or genetalists

**EV/ 2021 EBITDA**



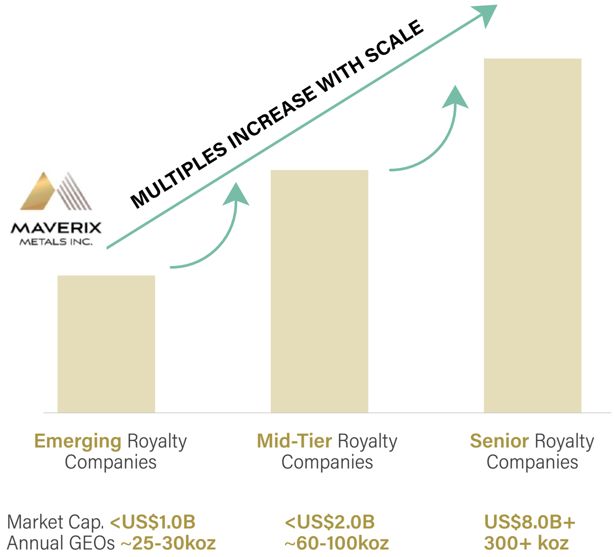

**P/ 2021 CF**



## Exhibit 8 – Comparable companies to Agyapa – Maverix Metals, considered emerging

### LARGER COMPANIES TRADE AT HIGHER VALUATION MULTIPLES

- Proven track record of growth
- TSX and US listing
- Sustainable dividend
- Asset Diversitification
- Increased liquidity
- More research coverage
- Index inclusion (e.g. GDXJ)




Source: Maverix Metals presentation to Investors

Note that the mineral royalty revenues coming to government is just a receivable and therefore anything can happen to its realization. One thing for sure, without continuing investments in the sector, these annual revenues are at risk. Hence MIIF as an institution and a fund must act to secure its future revenue stream. MIIF has options to monetize the future revenues

1. Selling total royalties outright: Government and MIIF can sell outright to a foreign royalty company the total stream of expected royalty revenues. The valuation will be derived from discounting the future streams of royalty revenues until expiration of the contracts, and at a risk adjusted rate that reflects the riskiness of the companies holding the contracts.

OR

2. Raising money using a portion of the royalties: In this second alternative which is Agyapa, MIIF is setting up a a joint equity investment where it holds 51% (to establish majority status) and have investor (s) hold 49% of the equity. The total valuation of the equity, NOT royalties, is what we then need to value. Investor is not buying royalty, but buying equity.

# HOW MUCH IS GOVERNMENT'S EXPECTED ROYALTY WORTH IF IT WERE OFFERED FOR SALE IN ITS ENTIRETY?

In its 2019 annual report, the Ghana Chamber of Mines raised concerns about the lack of investments in the sector, and the volatility in royalty revenues due to gold price volatility.

Investments in the form of capex, maintenance, etc are needed to assure protection and growth of existing royalties:

This equation values the underlying contracts based on which royalties are being paid to government.

Mining companies have to invest both to maintain existing contracts and add new contracts from new mines.

$$PV= \frac{CF_1}{(1+r)^1} \quad \frac{CF_2}{(1+r)^2} \quad \frac{CF_3}{(1+r)^3} \cdots \frac{CF_n}{(1+r)^n} \cdots + \text{New cash flows from new mines and new contracts}$$

CF equals cash flow of the period

r equals the discount rate, and

n equals the number of periods

Note: the cash flows here CF are for the total government royalties amount which is far larger than the dividends that will flow to investors. The above formula captures the value of the underlying contracts if government were to offer its expected future royalties from the current set of contracts for sale in its entirety, excluding new mining contracts on mines yet to be built or developed. Valuing government's royalty cash flows is done based on the contract terms with the optionality in the contracts that defines the different royalty rates and contingencies. Valuation is then completed with discounting using the corporate risk curves for the companies.

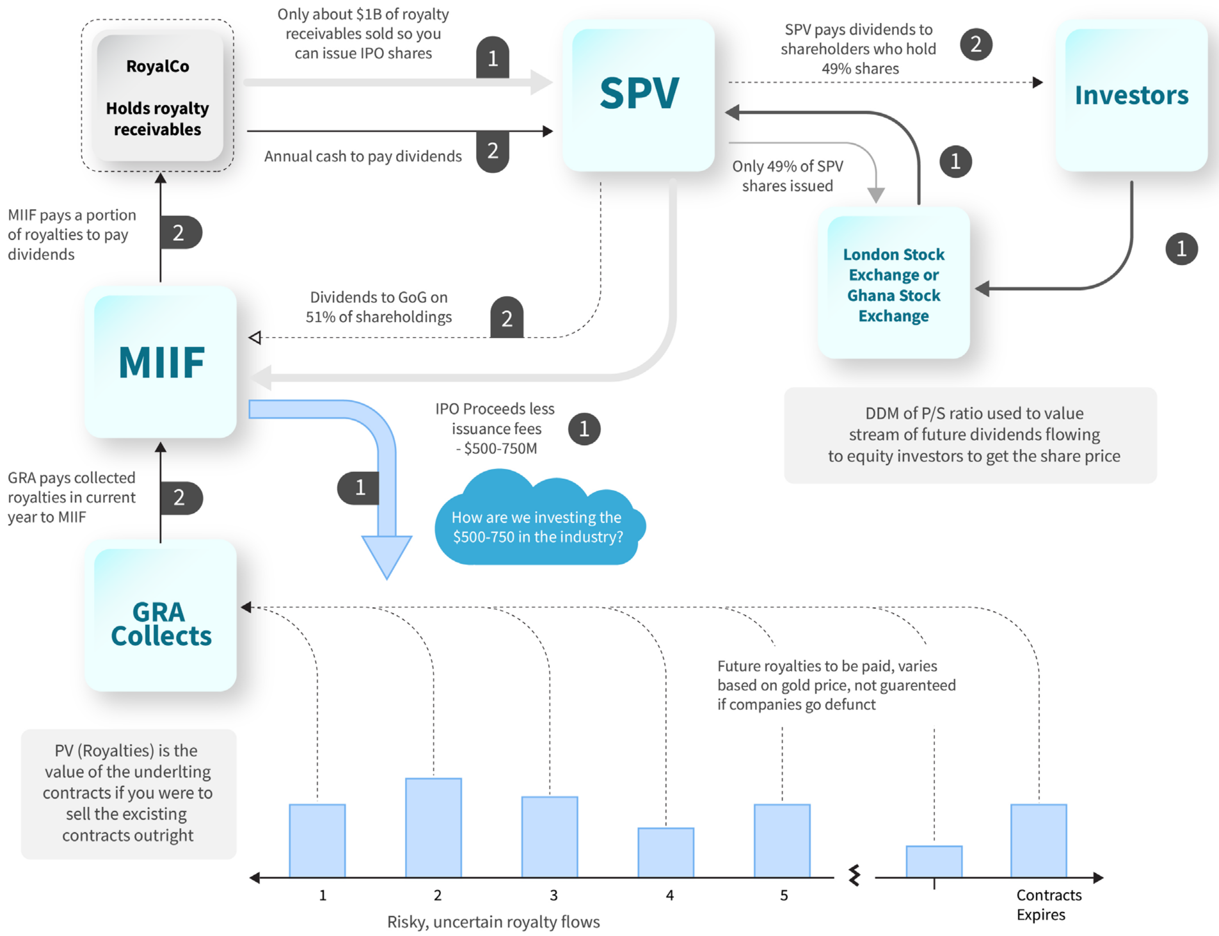
However, the greatest challenge with our mineral revenue is the lack of investment in the sector to grow the size of revenues and to create new sources of revenue though value addition along the value chain similar to other commodity markets that attract foreign participants. Is it the case that we are not capable of doing it? No, it is a case of poor prioritization and paranoia of liberalizing the sector. Thus we are unable to attract investors and the massive capital needed for new investment.

The variability or the uncertainty in our royalty revenues due to volatility in mineral prices is not a trivial issue. It can easily be addressed by government transacting in a standard commodity swap to receive certainty of income, but our problem is bigger than that. Ours is a case of aging assets and a shrinking revenue source without new investments.

# WHAT IS THE VALUATION OF THE TOTAL EQUITY IN THE SPV USED TO RAISE $500M

Summary of the MIIF proposed transaction

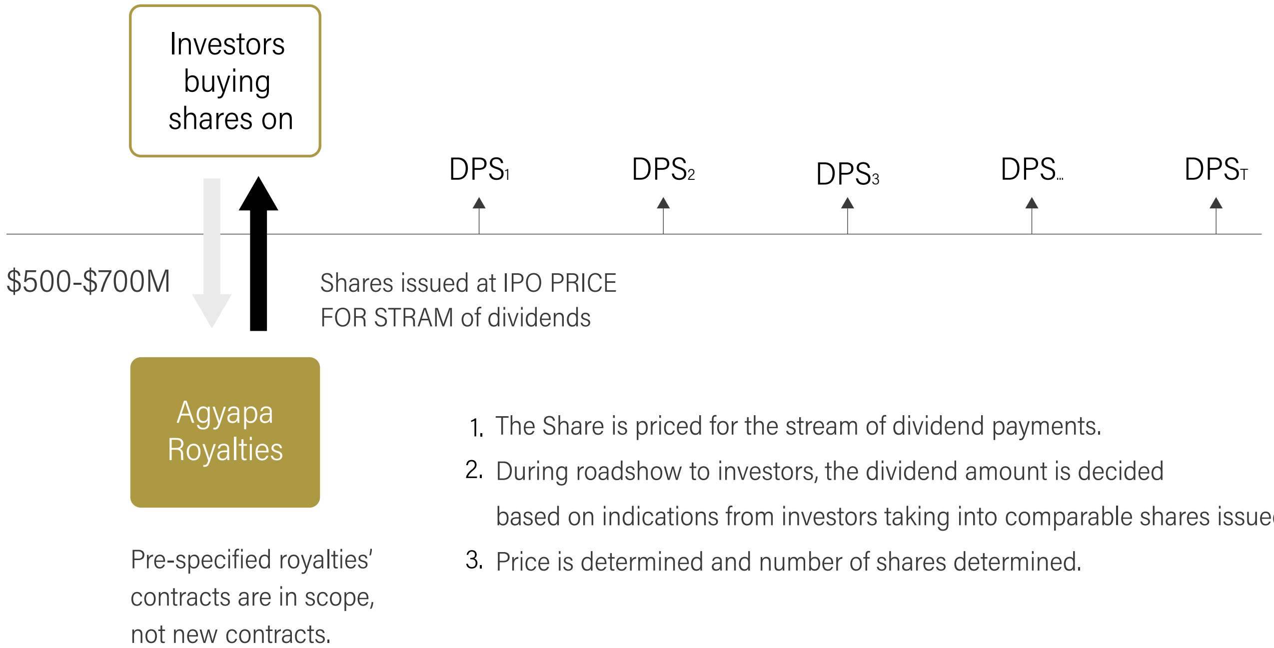
Below is a flow of the MIIF's Agyapa IPO issuance that I drew to clarify the valuation and the flow of dividends to both the investors and also to the government.




The initial indications you go to investors with starts with a simple math. If Finance Minister wants to raise say $500M in capital and issue 49% of equity, then 500/0.49 is about $1,020M (about $1B estimate + fees and expenses). That is where you start and then in talking to investors, you will agree on dividend rate looking at comparable market listings and their required return and firm up the full valuation, which should be not too far from the $1B.

A valuation around $1B is what you are seeking for the equity stake, not receivables. So, you go ahead and park about $1B in royalty receivables (accounting receivables that will later be collected by GRA) in the RoyaltyCo which is where you assign expected revenue, sort of like your holding box. Based on my experience, if investors agree that $2 per share is a good dividend rate for them then you use that as a comparable to price the equity shares and if sovereign risk rate is about 7%, you end up issuing about say 23M shares to investors for $500M. Your only responsibility is paying dividends on the share to both investors and government till either contract expires or you can chose to make it a close fund and do buy out at the end of a period.

### Pricing Framework for IPO Shares




1. The Share is priced for the stream of dividend payments.
2. During roadshow to investors, the dividend amount is decided based on indications from investors taking into comparable shares issued.
3. Price is determined and number of shares determined.

$$\textit{Value of Share of stock in Agyapa} = \sum_{t=1}^{t=\infty} \frac{DPS_t}{(1+r)^t}$$

DPS = Dividend per share to be paid

r = Required rate of return on the stock

It is very important to remember that it is the stream of dividends flowing to investors (both external and government) that you are valuing and that is not the same as valuing the underlying contract which has the risk profile of the companies.

Note that the underlying royalty contracts have an expiration date so when they expire then you can wind down the SPV or re-issue with new contracts on new mines. The risk and rewards both issuer and investors face can be put in 2 broad buckets:

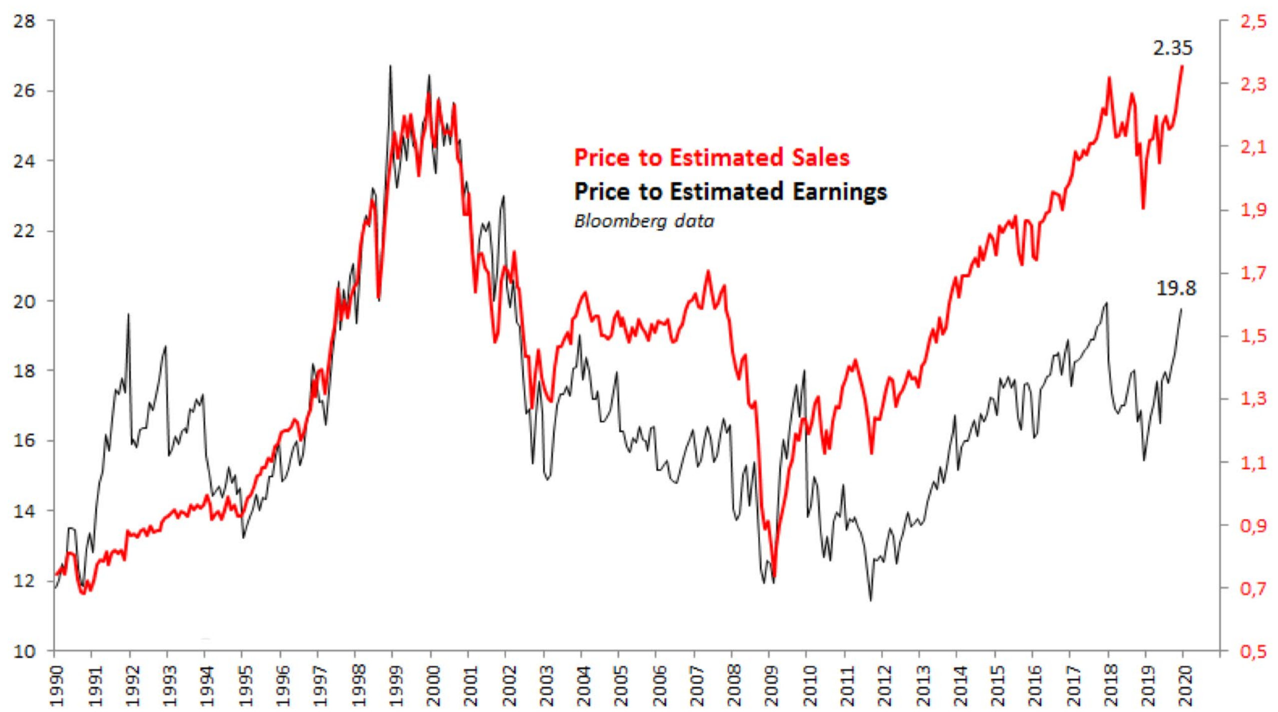
1. The existing mines can grow revenues or lag in production. If it is expected that there will be growth in dividends then the equation above will need to factor in the growth.

2. Gold prices may tumble since they are currently at all time high or some of the mining companies may go bankrupt if Galamsey becomes too destructive or they may pull out of country. That is a risk to government royalty revenues.

# WHEN IS THE RIGHT TIME TO RAISE CAPITAL?

If government wants to raise capital, timing is very critical. As you and I will tend to go to a bank to ask for a loan when interest rates are low, so governments and companies also go out to raise capital when valuations are high or when investors are valuing your assets higher. Why? Because you get more money now and able to avoid valuations going lower. For current equity share issuance, equity markets as indicated by the S&P index in the chart shows quite high valuations for equity.

**Exhibit 3 - The outlook for gold prices**




Source: Maverix Metals presentation to Investors

Equity issuers judge conditions in the market when valuations are high to do transactions in order to get the most risk and lose out on investors deploying new capital.

Note that initially, the Fund owns 100% of Agyapa Royalties SPV, and the Fund has to maintain ownership and be able to consolidate Agyapa Royalties into the government of Ghana books. As a result, the Fund's stake in Agyapa SPV can never fall below what it takes to maintain the majority stake, which is 51%.

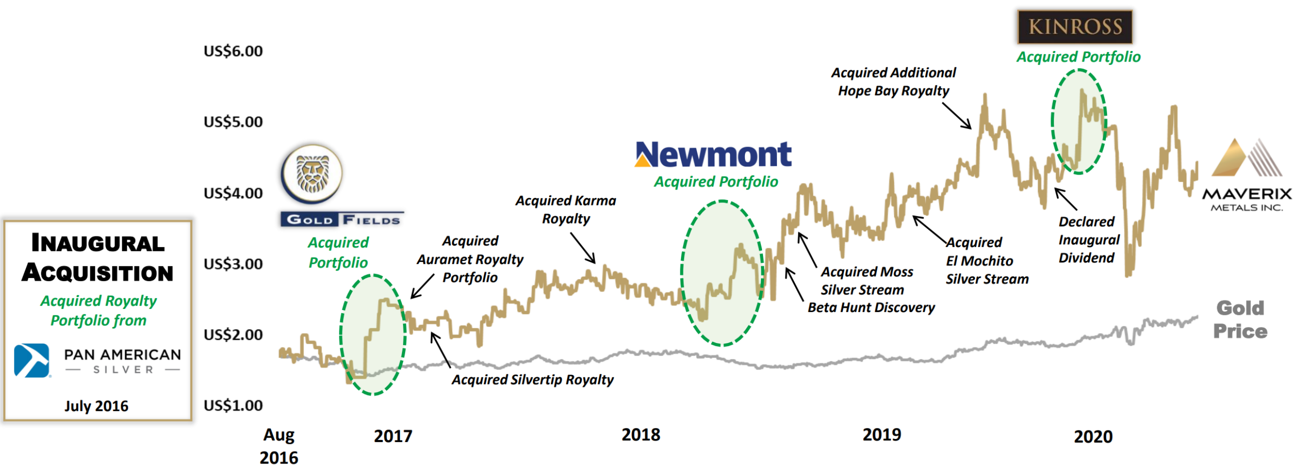
When valuations are high in the marketplace that is when you raise money. If gold tumbles, investors will need higher return to invest and government will end up getting less money.

At the end of the day, the government should do this type of transaction if we believe there are better opportunities to invest in for mining sector to grow. The future royalties require investment in maintenance and capex. In the absence adequate investment, government's royalties will be at risk. Getting new mining contracts and new companies to move down the value chain and create more products for expect will then be a pipe dream. Let's focus on the transformation.

Discussions around that conflate valuation of the underlying royalties by the mining companies with equity valuation of government issuance to support a $500M equity stake should never have been even a debatable issue. It is an error in knowledge that I will advise others to let technical folks with domain experience handle. Let's focus on policy.

## AN EXAMPLE OF SIMILARLY MARKET-PRICED ROYALTY LISTING ON NYSE – MAVERIX METALS

**Exhibit 9 – Maverix Metals, a mineral royalty company about same size as Agyapa**




**Acquired 4 major royalty portfolios in ~4 years**

## Snapshot

| | |
|---|---|
| Share Price *(NYSE American as at 07/31/2020)* | US$4.67 |
| Shares Issued | 128.1M |
| Options | 4.5M |
| Warrants | 10.0M |
| • 5M at US$2.41, expiry December 2021<br>• 5M at US$3.28, expiry June 2023 | |
| Market Capitalization | US$600M |
| Cash & Marketable Securities | ~US$51M* |
| Debt Outstanding | US$60M |
| Available Credit Facility | US$60M |
| Quarterly Dividend per Share | US$0.01 |

## Strong Shareholders

Newmont (23%)

Pan American Silver (20%)

Kinross (9%)

**Other Notable Shareholders**

Management, Board, Insiders (~10%)

Resolute Funds Ltd.

Sprott

Merk Investments LLC

US Global

Ross Beaty

## Research Coverage

| Firm | Target Price |
|---|---|
| Cantor Fitzgerald | C$8.50 (US$6.20) |
| PI Financial | C$8.50 (US$6.20) |
| Stifel | C$7.90 (US$5.90) |
| CIBC | C$7.50 (US$5.45) |
| National Bank | C$7.50 (US$5.45) |
| Raymond James | C$7.50 (US$5.45) |
| Scotiabank | US$5.00 (C$6.75) |

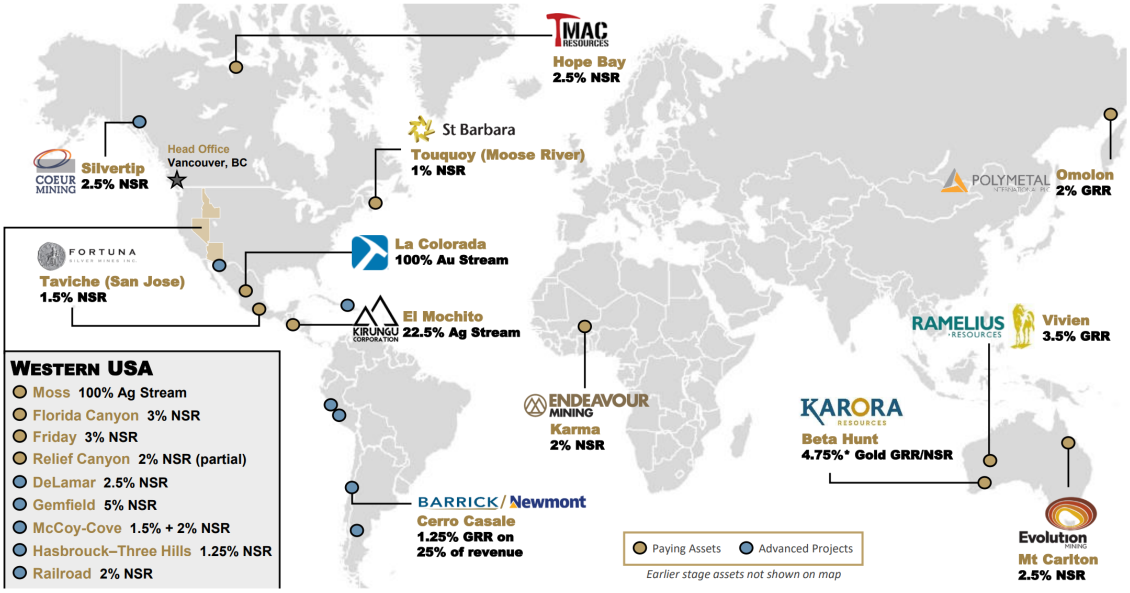
**13** Paying Assets

**100+** Total Assets

**Gold** Focused

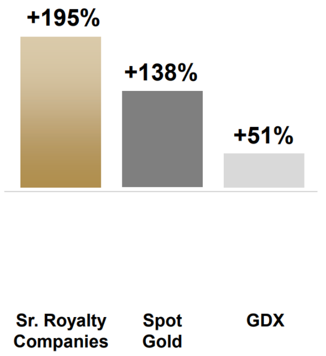
Mining Friendly Jurisdictions

Strong Operating Partners




### Rising Gold Price

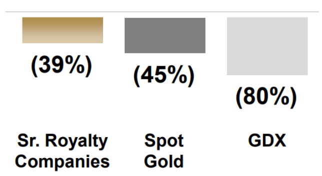
December 2007 to September 2011




- Significant gold leverage in development portfolio
- Royalties have no cost inflation = substantial margin expansion

### Falling Gold Price

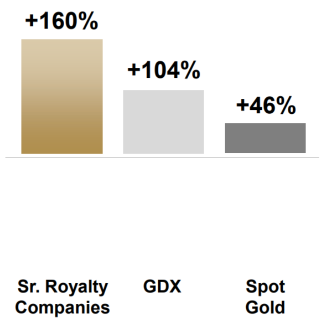
September 2011 to December 2015




- High margins ➔ downside protection
- Diversified portfolio ➔ risk mitigation

### Since December 2015

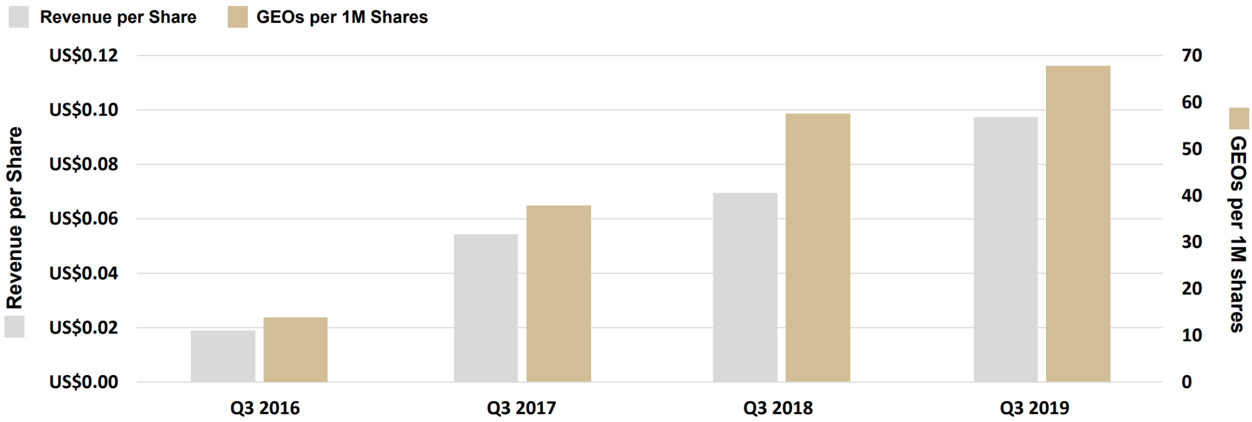
December 2015 to Present




- Outperformance through various markets

Senior Royalty Companies = Franco-Nevada, Wheaton Previous Metals, Royal Gold; returns are in USD and include dividends

## Revenue and GEOs per Share



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NBOSI

**National Blue Ocean Strategy Institute**
A non-profit sovereign strategy, policy analysis and implementation group focused on working with African governments to create actionable solution pathways to national challenges. The National Blue Ocean Strategy Institute (NBOSI) is a member organization with members invited to become fellows in specific solution areas to foster the work of the non-profit.

We help government think through policy choices, create conditions for informed decision-making, and bring implementation skills where necessary