Global Gold & Precious Metals

Primer on the global precious metal streaming sector – third edition

Primer

Bank of America Merrill Lynch

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Primer on the precious metal streaming sector-3rd edition

We welcome readers to our third edition primer on the precious metal royalty and streaming sector, updating the contents from our previous primer released on June 15th 2018. Inside this primer, we examine the evolution of the precious metals streaming sector from its infancy in the early 1980s to today where the sector has become an integral feature of the precious metals investment landscape. We detail various legal and economic forms in which royalties and streams exist, the flow of cash in a typical royalty and streaming agreement and look at the reasons for creating a royalty or stream. In this primer, we focus primarily on the big four royalty/streaming companies: Franco-Nevada (FNV), Osisko Gold Royalties (OR), Royal Gold (RGLD), and Wheaton Precious Metals (WPM). Together, these four companies have a market capitalization of $34.9 billion, equal to nearly 60% of the combined market capitalization of Newmont Goldcorp and Barrick Gold. We estimate the big four streamers account for over 90% of the market capitalization of the global precious metal royalty/streaming sector.

Royalties & streams benefit from lower operating risk

The primary category-distinction in the royalty/streaming sector is that between royalties and streams.

A royalty is the right to receive a percentage of the value of minerals or other products produced, or a portion of profit/revenue generated, from a mining operation

A stream is the right to receive a percentage of the value of future metal production in exchange for an upfront payment (there is always an upfront payment) as well as an-going payment that represents some fraction of the value of the metal production.

Royalty and stream investment benefits. They are hedged against lower precious metal prices by providing free cash flow from a diversified set of assets with limited or no operating, capital or environmental liability risk, while retaining upside exposure to further exploration discoveries, reserve expansions and commodity price increases.

How the sector has evolved; where to from here

On pages 6-7, Table 1 and Exhibit 1 set out how investment opportunities have evolved in the royalty and streaming sector from 2004 onward. On May 14-16, 2019, we hosted the 36th annual BofAML Global Metals, Mining & Steel Conference at the Hotel Arts in Barcelona which included a well-attended streaming panel. The attending precious metal streaming companies (FNV, OR, RGLD & WPM) have total liquidity of nearly $4 billion to pursue acquisitions. The sweet spot appeared to be in the $100 million to $300 million range to finance new mining projects and/or to provide buyers financing to buy the plethora of non-core gold mines for sale. FNV noted that it continues to pursue new oil and gas royalties in the US. Blessed with robust free cash flow, all four companies are committed to paying a robust, and over time growing, dividend. If there are no transactions, then dividends will likely continue to be hiked.

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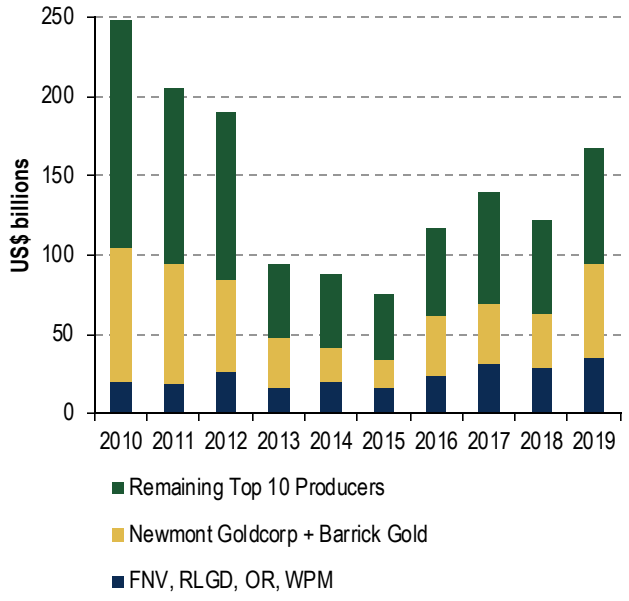
Section 1: Royalty & streaming business

The precious metals royalty business was started by Franco-Nevada Mining (now Franco-Nevada Corporation) and Royal Gold in the early 1980s through the initial purchase of several gold royalties. In 1982, Franco-Nevada purchased several gold royalties on the Goldstrike claim block for $2mn. Starting in 1983 and continuing for several years, Royal Gold began purchasing several royalties covering the Cortez mine for a cumulative total of $10.6mn. These royalties became the cornerstone assets for both companies, providing the necessary cash flow (and market valuation) to fund further royalty acquisitions. In 2004, Silver Wheaton Corp. (now Wheaton Precious Metals Corp.) was created with the objective of creating silver streams on producing mines and development projects. Streaming eventually branched out to gold streams as Franco-Nevada and Royal Gold also diversified into streaming. In 2014, Osisko Gold Royalties was created with two cornerstone gold royalties and subsequently followed up by entering in the precious metals and stones streaming field. Over the past several years, FNV has expanded its exposure to oil & gas royalties while WPM has moved into palladium and cobalt streams. All four companies remain focused on maintained precious metal revenues above 80% of total revenues.

A bona fide sub-sector in precious metals

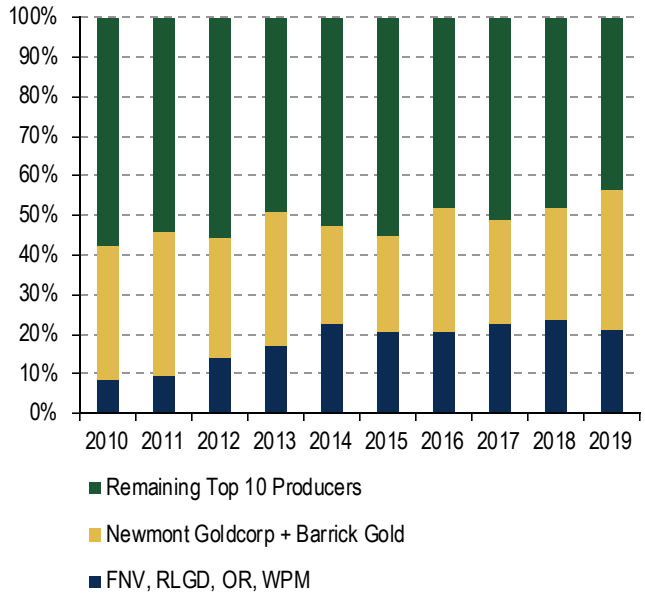
Over the past 10 years, the royalty and streaming sector has transformed from a niche player to a key sub-sector in the global precious metals sector. Charts 1- 2 compare the total market capitalization of these four royalty/streaming companies to the top ten global gold and silver producers under coverage by BofA Merrill Lynch, with Newmont Goldcorp (previously Newmont Mining) and Barrick Gold separated for comparison. As of June 28, 2019 the four royalty/streaming companies had a combined market cap of US$34.9 billion, equal to 21% of the aggregate market value of the top ten gold and silver producers at the time.

Chart 1: Global precious metal sector historical market capitalization



Source: Bloomberg, BofA Merrill Lynch Global Research

Chart 2: Global precious metal sector historical market capitalization (%)

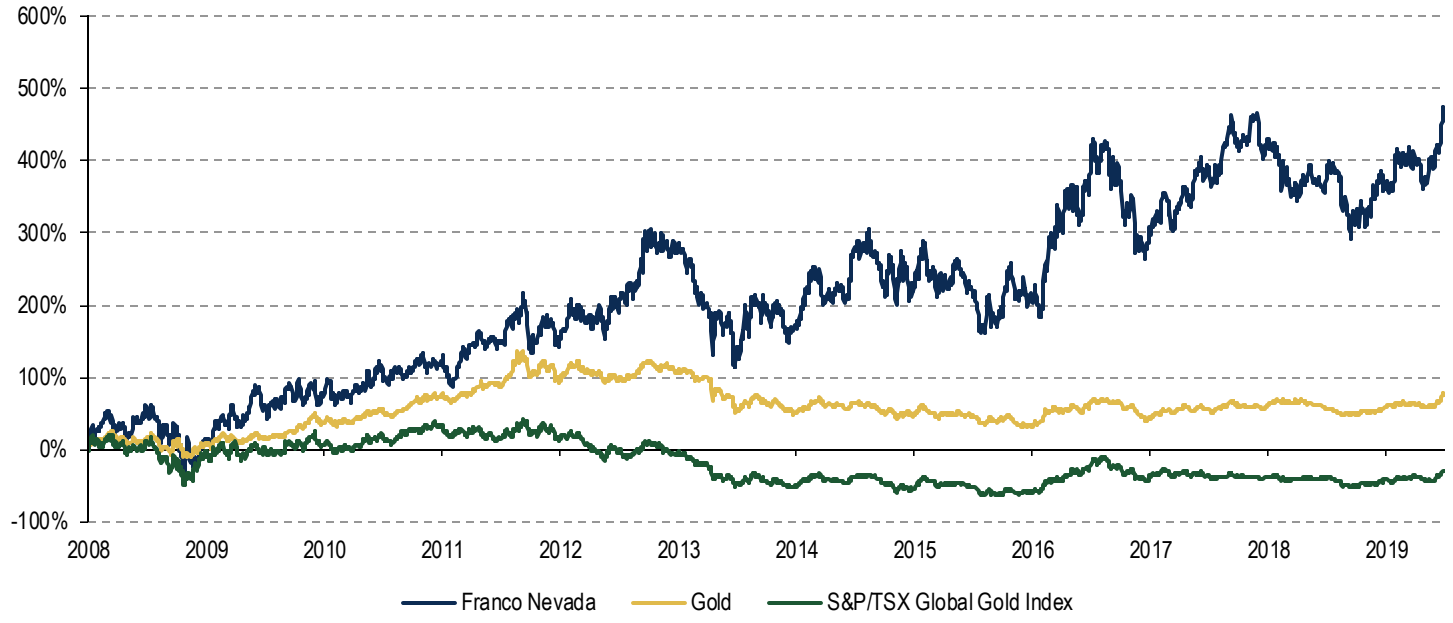


Source: Bloomberg, BofA Merrill Lynch Global Research

Relative performance vs. Gold, silver and Global Gold Index

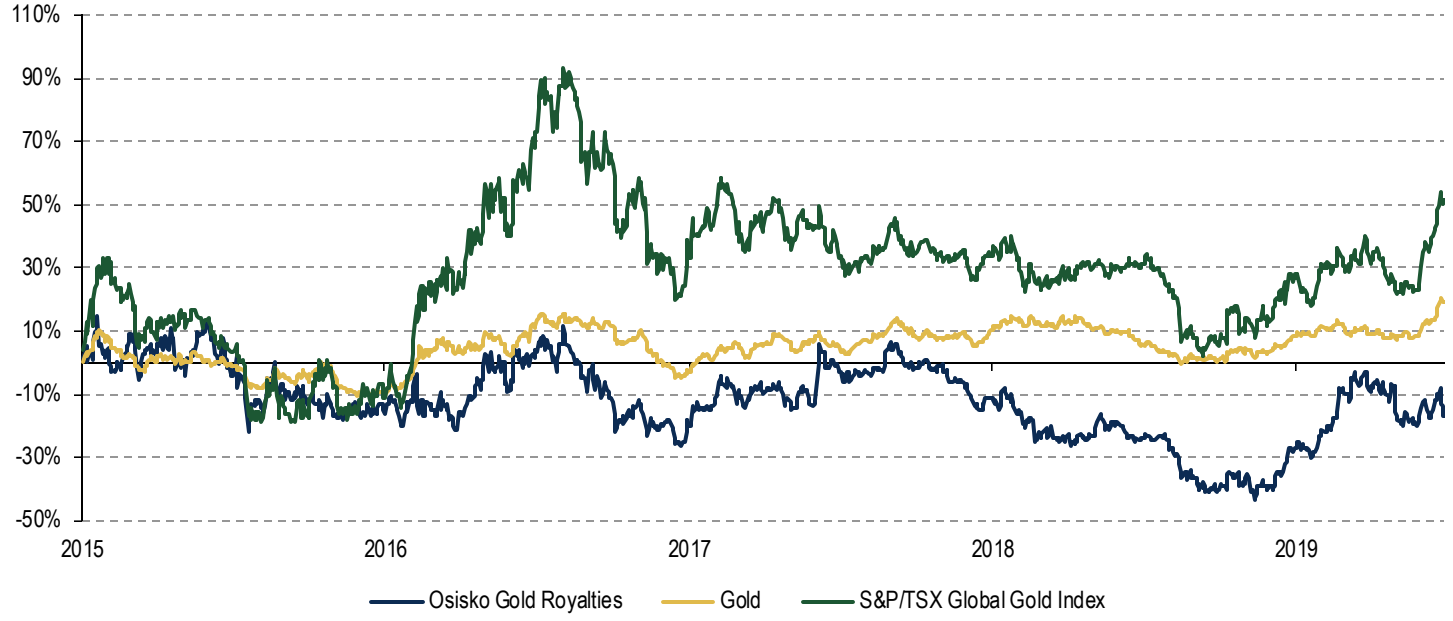
Charts 3-6 shows the relative performance of four royalty/streaming companies against the performance of gold, silver and S&P/TSX Global Gold Index since their approximate respective IPOs or public listings (with the exception of RGLD, which started trading in 1983). The share prices of all four companies have displayed strong and consistent outperformance versus the peer Gold Index and bullion over time.

Chart 3: Franco-Nevada relative performance vs. Gold and S&P/TSX Global Gold Index



Source: Bloomberg, BofA Merrill Lynch Global Research

Chart 4: Osisko Gold Royalties relative performance vs. Gold and S&P/TSK Global Gold Index



Source: Bloomberg, BofA Merrill Lynch Global Research

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Chart 5: Royal Gold relative performance vs. Gold and S&P/TSX Global Gold Index

Source: Bloomberg, BofA Merrill Lynch Global Research

Chart 6: Wheaton Precious Metals relative performance vs. Gold, Silver and S&P/TSX Global Gold Index

Source: Bloomberg, BofA Merrill Lynch Global Research

Investment trends in the royalty & streaming sector

Table 1 and Exhibit 1 (on the next page) set out how investment opportunities have evolved in the royalty and streaming sector since 2004.

Table 1: Acquisition environments for streams and royalties (since 1995)

Timeline	Environment	Date	Asset	Company
Since 1995	Existing 3rd Party Royalties	March 12, 2007	Pascau Lama	RLGD
		May 13, 2013	Brucejack (Platinum Resources)	FNV
		January 31, 2014	Cerro Morro (Yamana)	FNV
Since 2004	Growth	October 15, 2004	San Dimas & Los Filos	WPM
		December 8, 2004	Zinkgruvan	WPM
		March 23, 2006	Yauliyacu	WPM
		December 29, 2006	Peñasquito (royalty)	RGLD
		July 19, 2007	Taparko	RGLD
		July 24, 2007	Peñasquito	WPM
Since 2009	By-Product Funding	January 21, 2009	Palmarejo	FNV
		February 10, 2010	Rosemont	WPM
		June 5, 2010	Mount Milligan	RGLD
		August 7, 2012	Constancia	WPM
		August 8, 2012	777	WPM
		August 20, 2012	Cobre Panama	FNV
		July 9, 2015	Andacollo	RGLD
Since 2013	Primary Product Funding	May 9, 2013	Stibnite Gold	FNV
		August 11, 2014	Karma	FNV
		July 9, 2015	Rainy River	RGLD
Since 2014	M&A Funding	December 12, 2013	Sabodala	FNV
		February 11, 2014	Fire Creek/Midas	FNV
		June 6, 2014	Canadian Malartic (royalty)	OR
		October 6, 2014	Candelaria	FNV
		November 17, 2014	Eleonore (royalty)	OR
Since 2015	Recapitalization	February 28, 2013	Salobo Sudbury	WPM
		March 2, 2015	Salobo 2	WPM
		July 28, 2015	Wassa/Bogosa/Prestea	RGLD
		September 29, 2015	Pueblo Viejo	RGLD
		October 7, 2015	Antamina	FNV
		October 19, 2015	Osisko Mining (royalty)	OR
		November 3, 2015	Antamina	WPM
		February 10, 2016	Antapaccy	FNV
		August 2, 2016	Salobo 3	WPM
Since 2017	Commodity Diversification	December 19, 2016	STACK	FNV
		March 13, 2017	Midland Basin	FNV
		November 12, 2017	STACK	FNV
		February 20, 2018	Delaware Basin	FNV
		June 11, 2018	Voisey's Bay	WPM
		August 6, 2018	Continental	FNV
Since 2018	Project Financing | Lack of Equity	March 3, 2017	Gibraltar	OR
		January 22, 2018	Cobre Panama	FNV
		April 16, 2018	Eagle (royalty)	OR
		July 5, 2018	Stillwater	WPM
		February 25, 2019	Khoemacau	RGLD
		February 27, 2019	Horne 5	OR
Since 2019	M&A Financing			

Source: Company reports, BofA Merrill Lynch Global Research

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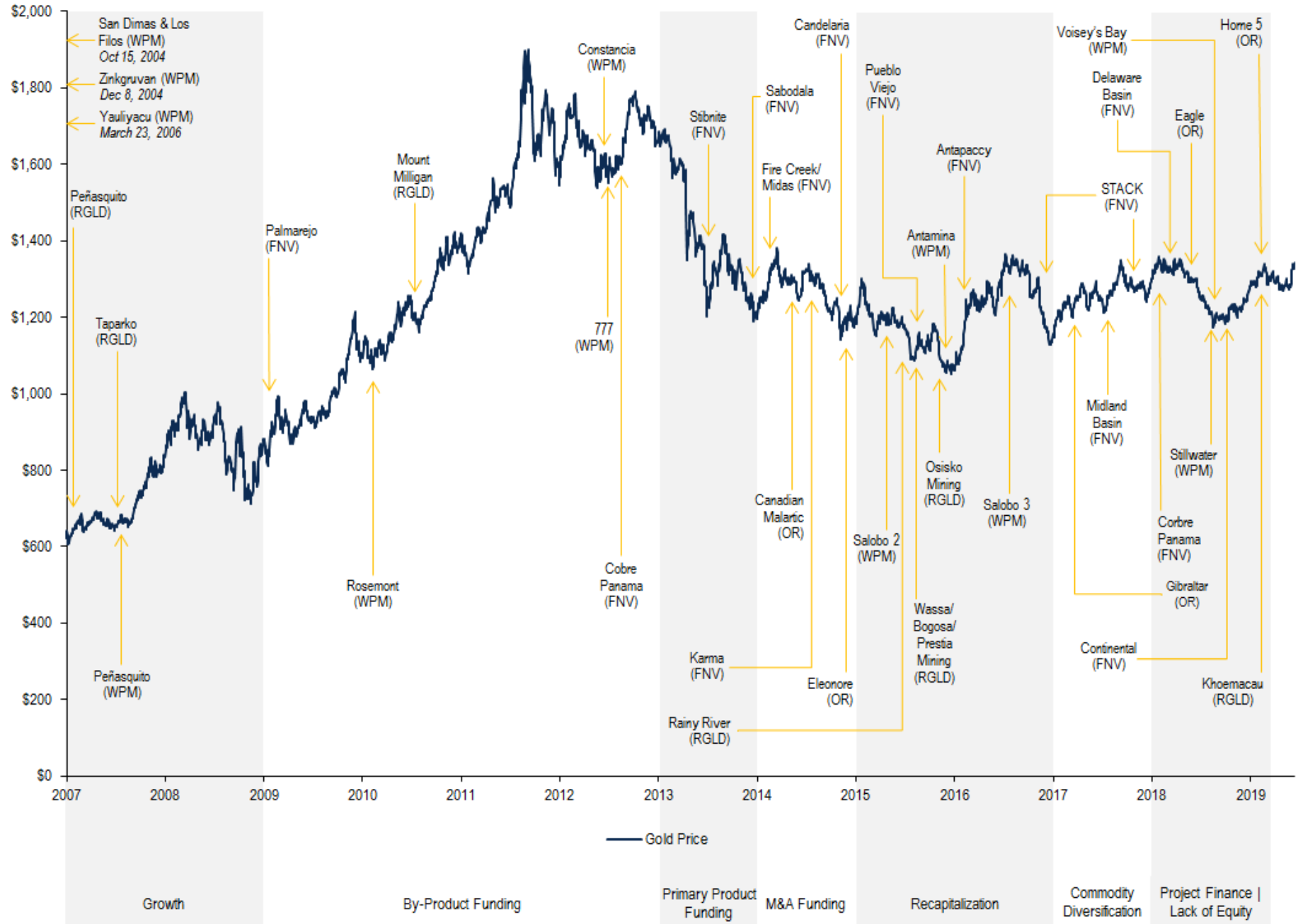
Exhibit 1: Acquisition environments for streams and royalties (2007-present)



Source: Company reports, Bloomberg, BofA Merrill Lynch Global Research

Where are the opportunities

On May 14-16, 2019, we hosted the 36th annual Bank of America Merrill Lynch Global Metals, Mining & Steel Conference at the Hotel Arts in Barcelona which included a well-attended streaming panel. The precious metal streaming and royalty companies (FNV, OR, RGLD & WPM) hold nearly $4 billion in total liquidity to pursue acquisitions. The sweet spot appears to be in the $100 million to $300 million range to finance new mining projects and/or to provide buyers financing to buy the plethora of non-core gold mines for sale. FNV noted that it continues to pursue new oil and gas royalties in the US. Blessed with robust free cash flow, all four companies are committed to paying a robust, and over time growing, dividend. If there are no transactions, then dividends will likely continue to be hiked.

New deals since our last primer in mid-2018 have included

WPM acquires a gold and palladium stream. On July 16 2018, WPM announced the acquisition (through its wholly-owned subsidiary, Wheaton Precious Metals International) of gold and palladium streams on the Stillwater and East Boulder mines (Stillwater). WPM paid Sibanye Gold Limited (owner) an upfront cash consideration of $500 million. WPM will receive 100% of the life-of-mine (LOM) gold output from Stillwater and an initial 4.5% of Stillwater's palladium output until 375kozs delivered, decreasing to 2.25% until 550kozs delivered and then 1.0% for LOM. WPM will make ongoing payments equal to 18% of the spot gold and palladium prices until the reduction of the advanced payment to nil, and 22% of the spot gold and palladium prices thereafter. WPM noted that it expects to receive 5.4 koz of gold and 10.4 koz of palladium or 13.2 k gold equivalent ounces (GEO's).

Franco-Nevada (FNV) announced a two part transaction with Continental Resources. On August 7th 2018, FNV announced the purchase of a basket of oil & gas royalties in the SCOOP and STACK oil & gas plays from Continental Resources for around $220 million. As Continental is currently conducting drilling programs on these lands, FNV believe there is strong potential for new discoveries. FNV and Continental also created a new company which will acquire mineral rights in the areas of the SCOOP and STACK primarily within acreage operated by Continental. The two companies will spend up to a combined $125 million per year over the next three years, with Continental funding 20% of future mineral acquisitions (though Continental will be entitled to 25% to 50% of total revenues generated by the subsidiary).

FNV purchases royalties on projects. In its Q4'18 results released on March 19 2019, FNV announced the purchase of a 2% NSR on Gold Fields' Salares Norte gold project in Chile for $32mn comprised of $27mn in FNV shares and $5mn in cash, and the purchase of a 2% NSR on Marathon Gold's Valentine Lake project in Newfoundland for C$18mn.

Royal Gold buys silver stream on Khoemacau. On February 25th 2019, Royal Gold (RGLD) announced an agreement to acquire a stream on 80% of life of mine (LoM) silver production from the Khoemacau copper-silver project in Botswana, in exchange for advance payments of $212mn. RGLD will also make ongoing payments of 20% of the spot price of silver for each ounce delivered. Cupric Canyon Capital LP ('Cupric'), which owns Khoemacau, will hold an option to receive from RGLD an additional payment of up to $53mn plus ongoing payments of 20% of the spot price of silver per ounce delivered, in exchange for a silver stream on up to the remaining 20% of the LoM silver production. Khoemacau is to begin stream deliveries in H1'21. We estimate a 6.2% after-tax internal rate of return on the transaction (at $17/oz silver), which is above our assumed cost of capital for RGLD of 5%.. Based on an 80% silver stream, RGLD will receive 1.5mn ounces (Moz) of silver or around 24,000-25,000 gold equivalent ounces (GEO) annually,

Substantial liquidity for new transactions

Exhibits 2-5 set out the available liquidity for FNV, RGLD, OR and WPM as of March 31, 2019 (unless stated otherwise).

Exhibit 2: Franco-Nevada – Liquidity profile

AVAILABLE CAPITAL

Working Capital[1,3]	$131.1 M
Marketable Securities[1]	$159.9 M
Credit Facilities[2]	$1,100 M
Available Capital	US$1.4 B

1. As at March 31, 2019
2. Please see notes on Appendix slide – Non-IFRS Measures
3. As at May 8, 2019

Franco Nevada

Source: Franco-Nevada Corporate Presentation

Exhibit 3: Royal Gold – De-levering rapidly

Strong Financial Position – Capital Structure

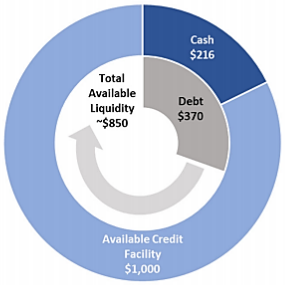
ROYAL GOLD, INC

- Royal Gold is well capitalized
  - Expect to repay $370M June 2019 bonds with cash from Credit Facility
  - $77.4M OCF FQ3 2019

Market Statistics[a]		
Share Price	US$/share	$93.57
52-Week Range	US$/share	$70.16 - $98.53
Shares Outstanding[b]	M	65.5
Market Capitalization	US$ B	$6.1
Average Daily Volume[c]	M	0.430
Dividend	US$/share	$1.06
Dividend Yield	%	1.13%
Cashflow Payout Ratio[d]	%	19.5%

(a) As of: June 6, 2019
(b) As of: March 31, 2019
(c) Ave. previous 3 month daily volume per CapIQ
(d) Dividends / OCF for FY 2018

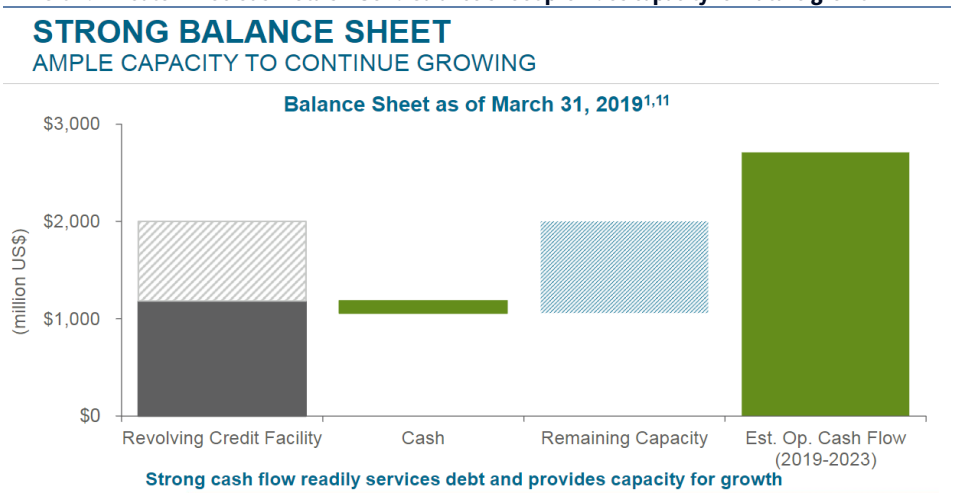
Liquidity[e] ($M):



(e) Cash, Available Credit Facility and Debt as of March 31, 2019

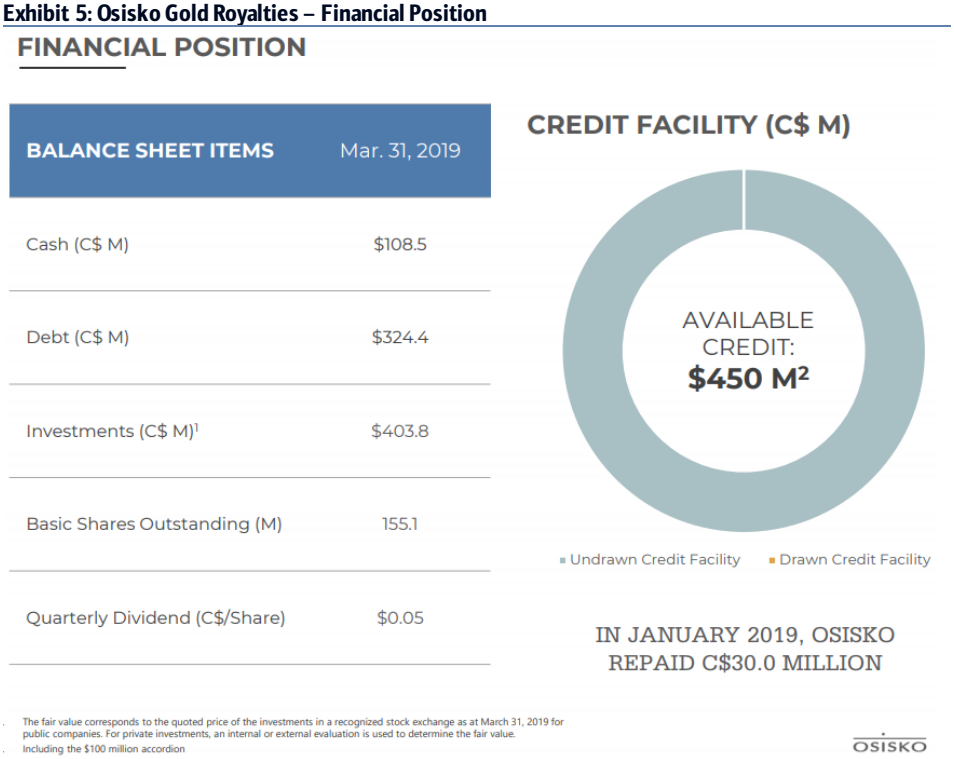
Source: Royal Gold Corporate Presentation

Exhibit 4: Wheaton Precious Metals – Solid balance sheet provides capacity for future growth



Source: Wheaton Precious Metals Corporate Presentation

Exhibit 5: Osisko Gold Royalties – Financial Position



FINANCIAL POSITION

BALANCE SHEET ITEMS	Mar. 31, 2019
Cash (C$ M)	$108.5
Debt (C$ M)	$324.4
Investments (C$ M)[1]	$403.8
Basic Shares Outstanding (M)	155.1
Quarterly Dividend (C$/Share)	$0.05

CREDIT FACILITY (C$ M)

IN JANUARY 2019, OSISKO REPAID C$30.0 MILLION

. The fair value corresponds to the quoted price of the investments in a recognized stock exchange as at March 31, 2019 for public companies. For private investments, an internal or external evaluation is used to determine the fair value.
. Including the $100 million accordion

OSISKO

Source: Osisko Gold Royalties Corporate Presentation

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Section 2: Royalties and streams 101

Royalties

A royalty is the right to receive a percentage of the value of minerals or other products produced or a portion of profit/revenue generated from a mining operation. This right is usually provided in exchange for an upfront payment used to fund a project's development, but can also originate as part of payment for property interests (prospector or junior mining company), from conversion of a participating interest in a partnership or as required by statutory laws of an operating jurisdiction (payment to a government entity).

The majority of mineral properties have government or private royalties associated with them. Private royalties are generally created by the original property owners, prospectors or exploration companies that sell their property rights to a more senior company capable of developing and operating a mine on the property. A royalty allows the seller to retain some exploration and price upside while the operating company only pays if ore is actually mined.

Royalties are not working interests in a property. Therefore, the royalty holder is generally neither responsible for, nor has an obligation to contribute additional funds for any purpose, including, but not limited to, operating or capital costs, or environmental or reclamation liabilities.

Royalty rights are often registered on the title of the property or mineral rights. In addition, registered royalties have strong tenure and, in jurisdictions where recognized, will generally survive the reorganization of an operating company.

Royalties are a natural hedge against lower commodity prices by providing free cash flow from a diversified set of assets with limited or no operating, capital or environmental liability risk, while still retaining upside exposure to further exploration discoveries, reserve expansions and commodity price increases.

Definitions of major royalty types

- **Net Smelter Return (NSR).** Based on the gross proceeds paid by a smelter or refinery to the miner. This type of royalty provides cash flow that is free of any operating or capital costs and environmental liabilities.

- **Net Profit Interest (NPI).** A royalty based on the profit after allowing for costs related to production. The expenditures that the operator deducts from revenues are defined in the royalty agreement. NPI payments generally begin after payback of capital costs. The royalty holder is not responsible for providing capital or covering operating losses or environmental liabilities.

- **Gross Smelter Return (GSR).** A defined percentage of the gross revenue from a resource extraction operation (usually oil and gas), with no deduction for any costs paid by or charged to the operator through fixed rate royalties and floors on its sliding-scale royalties.

- **Net Value Royalty (NVR).** A passive interest in a resource extraction operation that is determined on the basis of deducting contract defined processing-related and associated capital costs, but not mining costs.

- **Overriding royalty.** The owner of overriding royalty interests receives a portion of the income from the production of a natural resource (usually oil and gas), and is usually free of any operating, capital and environmental costs.

- **Advance minimum royalties (AMR).** Effectively, rent paid to the royalty holder in lieu of the payment of royalties on production. Once production begins, the payments are often credited against a stream of production royalty payments.

- **Sliding-scale royalty.** A royalty in which the royalty rate increases or decreases as metal prices increase or decrease.

Working interest (often confused as a type of royalty)
Similar to an NPI except working interest holders have an ownership position in the operation and are liable for their share of capital, and operating and environmental costs usually in proportion to their ownership percentage. Working interests are not considered royalties because of their ongoing funding requirements, although for profitable operations they can be economically similar to NPIs or NPRs.

Limiting considerations in creating a royalty

- Royalty contracts will sometimes limit the payment period to either specific calendar dates or a fixed time period following commencement of production or after reaching a certain production milestone.

- From time to time royalty contracts will place limits on the payment period to specific production levels. For example, royalty payments may cease following attainment of a cumulative production goal, or payments may start at a certain percentage level and decrease or increase over time to a predetermined level.

- Royalty contracts will sometimes specify payment terms that fluctuate with commodity prices. An example would be increasing or decreasing royalty rates as commodity prices increase, typically on a sliding percentage scale.

Streams

Metal streaming agreements are similar to royalty agreements with several key differences. While metal stream agreements provide an upfront payment in exchange for a share of the value of future metal production:

- The percentage of the value of future metal production is purchased at a cost per unit set-out in the agreement that is normally fixed for the life of the agreement (often with a small escalation for inflation).

- Streaming agreements are structured such that payments are based on the gross value of the metal extracted without adjustments for any costs associated with the extraction process (as these are accounted for in the fixed purchase price per unit set out in the contract).

- In practice, metal streaming agreements have often been applied to byproducts of the mineral extraction process (as opposed to the primary metal); although there are some exceptions, including Wheaton Precious Metals' silver stream on Pan American Silver's Navidad project.

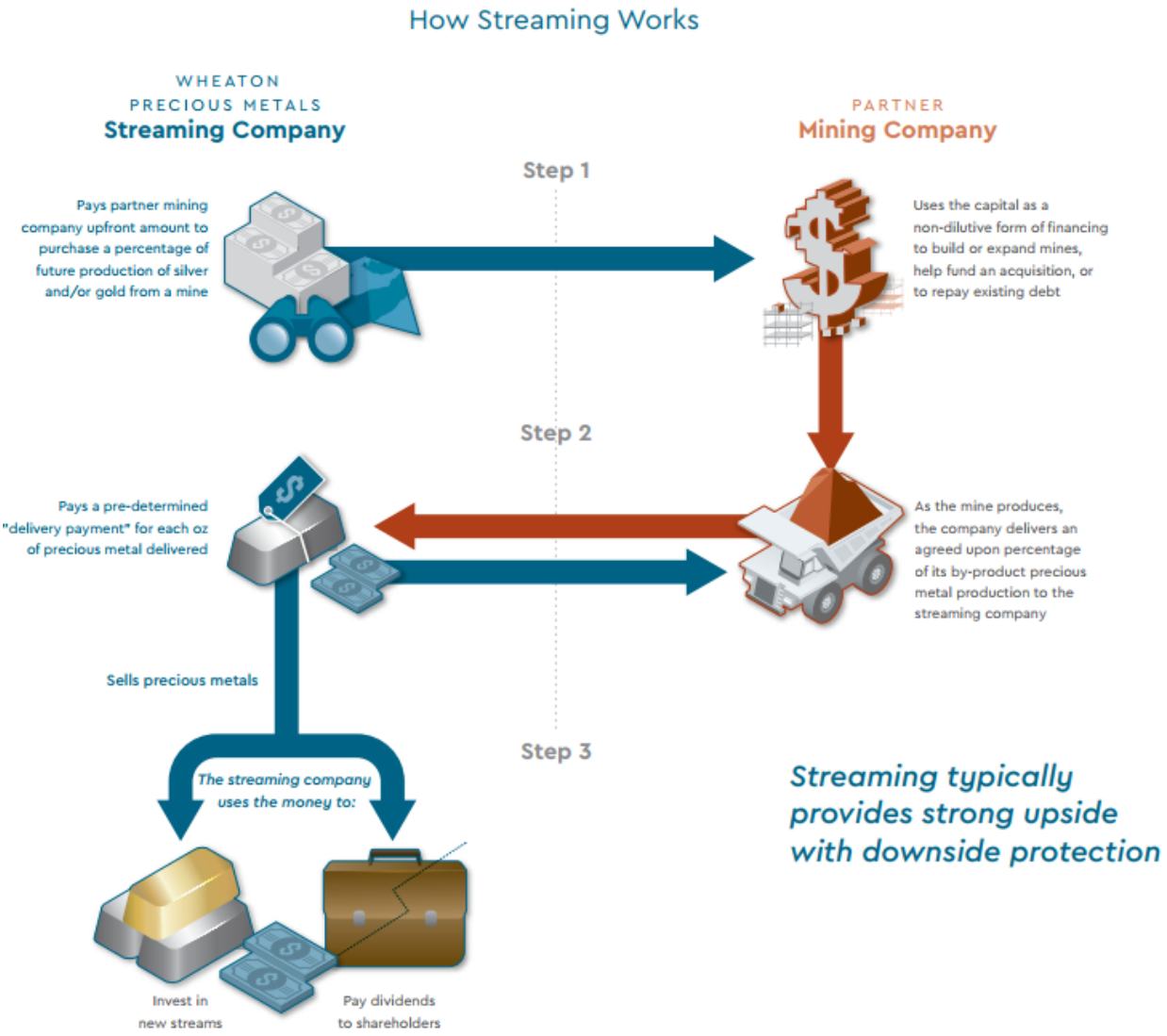
As a result of the application of many metal stream agreements to by-product commodities, the percentage of attributable production purchased is often much larger than that for royalty agreements, with many stream agreements for 100% of attributable production.

Precious metals streaming explained
Wheaton Precious Metals began utilizing the streaming model in 2004 after it was recognized that silver produced as a by-product by mining companies was not being efficiently valued by the financial markets. Streaming was viewed as a way to unlock this value, both for Wheaton Precious Metals' shareholders and partner mine owners. Since its introduction, the streaming model has also been applied to gold and other metals.

Streaming allows Wheaton Precious Metals to purchase a percentage of the precious metals produced by a mine for an upfront payment, and an additional delivery payment as the precious metal is delivered. The delivery payment is set at a level intended to

offset Wheaton Precious Metals' partners' cost to produce an ounce of silver or gold. Wheaton Precious Metals does not own or operate mines and is therefore not exposed to rising capital and operating costs in respect of each stream. However, the company's agreements are typically for the life of the operation, giving Wheaton Precious Metals exposure to potential future exploration success and expansion at these mining assets.

Exhibit 6: Typical streaming process



Source: Wheaton Precious Metals Fact Sheet – June 2017

Example of a royalty (NSR or NPI) versus a stream

Assume for one ounce of gold, a sales price of $1,200, a "stream cost" of $400 per ounce and an "all-in sustaining cost"[1] of $801 per ounce. Also assume that Franco-Nevada has a 4% NSR, a 4% NPI or WI or a 4% stream.

[1] For applicable costs for a developed NPI or WI, Franco-Nevada is, for illustrative purposes, assuming Barrick's 2015 all-in sustaining cash cost measure, as Barrick represents the largest gold company by production and reserves, as well as being the operator of two assets at which Franco-Nevada has NPI interests. Excluded from the all-in sustaining measure are general and administrative costs as Franco-Nevada also has such costs which have not been reflected in the applicable cost for NSRs or streams.

Table 2: Royalty (NSR or NPI) vs a stream

	NSR	Stream	NPI or WI
One ounce sold at	$1,200	$1,200	$1,200
Applicable cost (1)	0	$400	$801
Margin for calculation	$1,200	$800	$399
NSR, Stream or NPI %	4%	4%	4%
Revenue per oz to FNV	$48	$32	$16

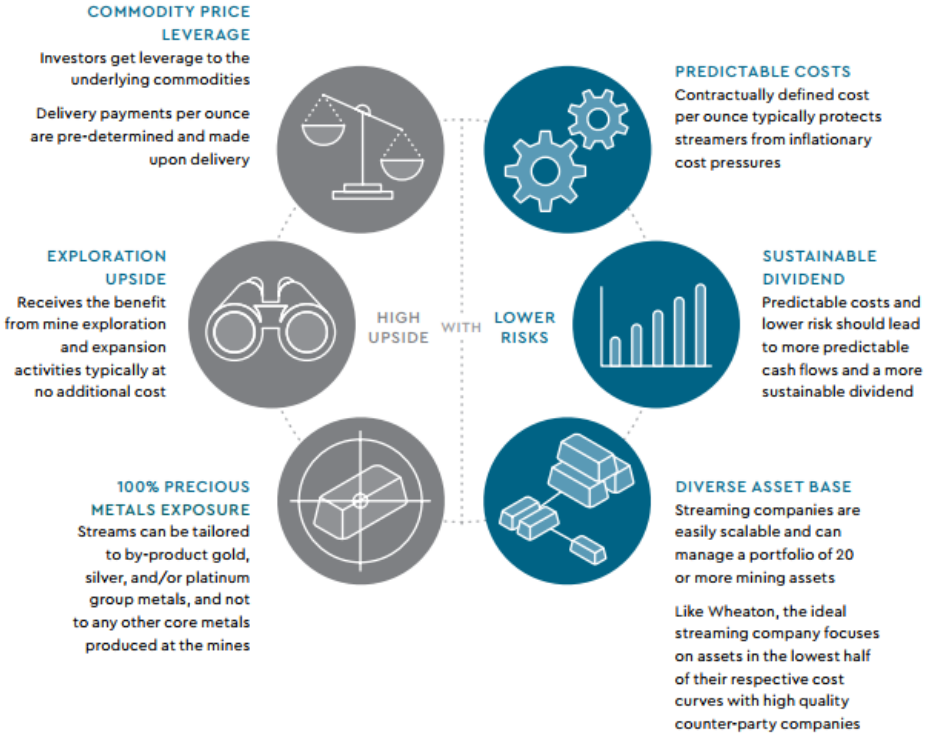
Source: Franco-Nevada. (1) For applicable costs for a developed NPI or WI, Franco-Nevada is, for illustrative purposes, assuming Barrick's 2015 all-in sustaining cash cost measure, as Barrick represents the largest gold company by production and reserves, as well as being the operator of two assets at which Franco-Nevada has NPI interests. Excluded from the all-in sustaining measure are general and administrative costs as Franco-Nevada also has such costs which have not been reflected in the applicable cost for NSRs or streams.

Based on the above economics, a comparable percentage NSR is three times more valuable than an equivalent Developed NPI or WI and 50% more valuable than a stream interest. With changes to the gold price, the NPI or WI would demonstrate the most leverage while the NSR would provide the most down side protection. The stream provides commodity price leverage similar to a low cost operating company with more certainty as to future costs.

Advantages of streaming

While royalty agreements are based on a portion of profit/revenue generated, streaming agreements provide rights to purchase a portion of the metals at a preset price. This unique optionality feature allows streaming companies to enjoy high upside potential with limited downside risks. Exhibit 7 illustrates some potential streaming advantages to consider.

Exhibit 7: The streaming advantage



Source: Wheaton Precious Metals 2017/2018 Guidebook

Section 3: Benefits of streams to miners

Exhibit 8 shows the benefits of streams versus other forms of financing for operating mining companies with respect to the financing of new mining projects.

Exhibit 8: Benefits of streams vs. other forms of financing

PRECIOUS METALS STREAMING

THE BENEFITS TO THE PARTNER MINING COMPANY

	Stream	Equity	Debt
Non-dilutive form of funding	✓		✓
Initial value creation for both parties	✓		
Improves project IRR	✓		
Crystalize future production of mining partner	✓		
Contractual relationship means support & flexibility	✓		
Endorses technical merits of mine / project	✓		
Share production and operating risk	✓	✓	
Mining partner retains full operational control	✓	✓	✓
Expedited due diligence & closing process	✓	✓	
No fixed payments	✓	✓	

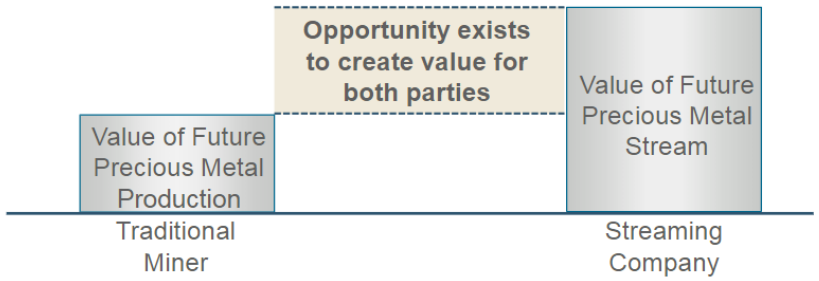
Source: Wheaton Precious Metals 2019 Corporate Presentation

Exhibit 9 sets out several benefits for miners when they enter into streaming agreements.

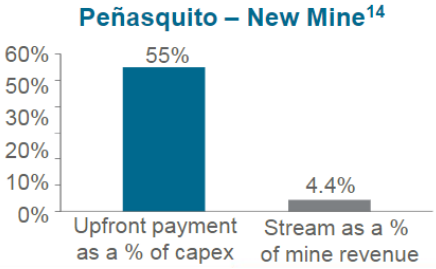
Exhibit 9: Benefits of streams for miner & streaming company

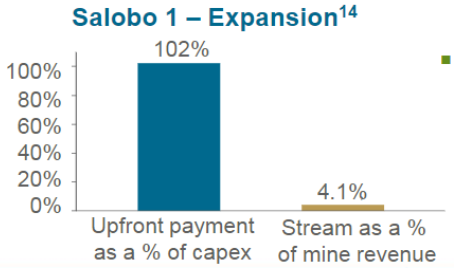
PRECIOUS METALS STREAMING

THE BENEFITS TO THE PARTNER MINING COMPANY



- **Initial Value Creation**
  The market values precious metal in a streaming company's portfolio greater than precious metal produced by a traditional miner





- **Improves IRRs**
  The upfront payment contributes a larger portion of capex than the stream represents as a percentage of revenue

Source: Wheaton Precious Metals 2019 Corporate Presentation

Section 4: Franco-Nevada Corporation

Company description

Franco-Nevada Corporation (FNV) is the leading gold-focused royalty and stream company by both gold revenue and number of gold assets. The company has the largest and most diversified portfolio of royalties and streams by commodity, geography, revenue type and stage of project. The portfolio is actively managed to maintain a focus on precious metals (gold, silver and PGM) and a diversity of revenue sources with a target of not more than 20% from energy (oil, gas and NGLs). FNV does not operate mines, develop projects or conduct exploration. As of May 8, 2019, FNV estimates that it holds 290 mining assets and 80 energy assets for a total of 370 assets. FNV's asset count included: 1) 106 producing assets -> 51 precious metals & other minerals & 56 oil and gas; 2) 37 advanced mining stage assets; and 3) 227 exploration assets (202 mining and 25 energy).

Corporate strategy

FNV's business model is focused on managing and growing its portfolio of royalties and streams. FNV has a long-term investment outlook and recognizes the cyclical nature of the industry. Franco-Nevada has historically operated by maintaining a strong balance sheet so that it can make investments during commodity cycle downturns. Key tenets of its business model are: 1) exposure to precious metals price optionality; 2) a perpetual discovery option over large areas of geologically prospective lands with no additional cost other than the initial investment; 3) limited exposure to many of the risks associated with operating companies; 4) a free cash-flow business with limited cash calls; 5) a high-margin business that can generate cash through the entire commodity cycle; 6) a scalable and diversified business in which a large number of assets can be managed with a small stable overhead; and 7) a forward-looking business in which management focuses on growth opportunities rather than operational or development issues.

Historical financial results

Table 3 sets out a summary of FNV's historical financial results.

Table 3: Summary of Franco-Nevada's historical financial results and key valuation/financial statement metrics

Key commodity prices	2010	2011	2012	2013	2014	2015	2016	2017	2018	Q1'19
Gold ($/oz)	$1,226	$1,571	$1,669	$1,413	$1,266	$1,161	$1,249	$1,259	$1,268	$1,304
Attributable production (gold equivalent ounces (GEO))										
Attributable gold (GEO)	NA	NA	230,252	241,402	293,415	360,070	464,383	497,745	447,902	122,049
Income statement (US$ millions)										
Revenue	$227	$411	$427	$401	$442	$444	$610	$675	$653	$180
EBITDA	$180	$327	$348	$323	$351	$333	$480	$508	$512	$141
EBITDA margin	79%	80%	81%	80%	79%	75%	79%	75%	78%	78%
Basic adjusted EPS attributable to equity shareholders	$0.46	$1.08	$1.19	$0.94	$0.91	$0.57	$0.94	$1.08	$1.17	$0.35
Dividends per common share	$0.29	$0.32	$0.54	$0.72	$0.78	$0.83	$0.87	$0.91	$0.95	$0.24
Cash flow (US$ millions)										
CF from operations (incl. NWC)	$164	$288	$306	$249	$267	$314	$471	$489	$475	$144
Cash flow before working capital changes per share (US$/sh)	$1.27	$2.16	$2.24	$1.99	$2.21	$1.98	$2.65	$2.71	$2.53	$0.72
CF from investing	$157	($225)	($659)	($1)	($816)	($1,106)	($690)	($501)	($989)	($56)
CF from financing	($30)	$324	$180	($94)	$395	$374	$322	$240	$78	($85)
Free Cash Flow (FCF)	**$117**	**$288**	**$306**	**$249**	**$266**	**$253**	**$471**	**$489**	**$475**	**$537**
Balance sheet (US$ millions)										
Cash and cash equivalents	$414	$794	$632	$770	$593	$149	$253	$511	$70	$73
Total debt	$0	$0	$0	$0	$0	$457	$0	$0	$208	$157
Net cash (debt)	$414	$794	$632	$770	$593	($308)	$253	$511	($138)	($85)
Shareholders' Equity	$1,981	$2,834	$3,149	$2,964	$3,406	$3,163	$4,147	$4,706	$4,632	$4,729
Valuation/Ratios - pricing at end of period										
P/E	72.5	35.3	48.0	43.3	54.1	80.3	63.6	74.0	60.0	53.6
P/CF	26.2	17.6	25.5	20.4	22.3	23.1	22.5	29.5	27.8	26.1
EV/EBITDA	18.2	13.6	21.8	16.1	18.4	22.4	21.5	28.1	25.8	25.2
Dividend yield	0.9%	0.8%	0.9%	1.8%	1.6%	1.8%	1.5%	1.1%	1.4%	1.3%
Net debt / EBITDA	NM	NM	NM	NM	NM	0.9x	NM	NM	0.3x	0.2x

Source: Company reports, BofA Merrill Lynch Global Research

Bank of America Merrill Lynch

Financial results

In 2018, FNV generated revenue of $653.2mn, -3.2% vs. $675.0mn in 2017. This was due to 447,902 GEOs sold, a decrease of 10% from the 497,745 GEOs in 2017, but offset by lower cash costs (down 9.8% on a GEO basis). For 2018, mining revenue accounted for 86.8% of total revenue compared to 93.0% in 2017, while revenue generated from the Americas represented 80.8% of revenue compared to 81.7% in 2017. Oil & gas assets generated revenue of $86.1mn in 2018 (95% oil and 5% gas), compared to $47.0 mn for 2017 (95% oil and 5% gas). This reflects substantial growth in production in addition to higher realized prices. Adjusted net income for 2018 was $217.0mn ($1.17/sh), vs. $198.3mn ($1.08/sh) in 2017.

Table 4: Revenues by asset

(in US$mn)	*Year-end*					*YoY %*
Revenues by asset	***2014***	***2015***	***2016***	***2017***	***2018***	***2017/18***
Antamina	0.0	14.4	75.0	62.9	51.1	-18.8%
Antapaccay	0.0	0.0	92.5	90.2	97.5	8.1%
Candelaria	23.9	101.6	88.5	105.2	70.5	-33.0%
Detour Lake	11.2	11.7	13.3	14.3	15.8	10.5%
Gold Quarry	14.3	13.1	14.0	14.2	14.4	1.4%
Goldstrike	21.9	23.4	22.9	16.8	19.0	13.1%
Karma	0.0	0.0	14.4	23.0	22.5	-2.2%
MWS	30.5	26.2	27.1	35.8	32.9	-8.1%
Palmarejo	66.6	59.6	44.6	65.5	45.3	-30.8%
Sabodala	26.3	28.3	26.0	30.5	28.5	-6.6%
Stillwater	22.1	15.6	14.6	20.6	21.3	3.4%
Sudbury	36.3	23.2	30.4	30.3	23.3	-23.1%
Weyburn	57.8	21.1	23.6	32.2	35.5	10.2%
Other	131.5	105.4	123.3	133.5	175.6	31.5%
Total	**442.4**	**443.6**	**610.2**	**675.0**	**653.2**	**-3.2%**

Source: Company reports, BofA Merrill Lynch Global Research

In Q1'19, FNV reported record revenue of $179.8mn. FNV generated 88.4% of Q1'19 revenue from gold and gold equivalents. Revenue contributions from gold, silver, PGM, base metals, and oil & gas were 63%, 11% 11% 3% & 12% in Q1'19 vs. 68%, 14%, 5%, 2% and 11% in Q1'18. Segment contributions in Q1'19 included: Gold ($114.0 vs. $118.3mn a year ago); silver ($20.0 vs. $23.3mn a year ago); PGM ($19.1 vs. $9.3mn a year ago), other mining ($5.9 vs. $3.0mn a year ago), and energy ($20.8 vs. $19.0mn a year ago). FNV sold 122,049 gold equivalents ounces (GEO's) in Q1'19.

Balance sheet

At 31-March-19, FNV held $72.6mn in cash, $157.2mn in debt and long term investments of $197.6mn. During Q1'19, FNV used its cash flow to repay $50mn of its credit facility, make $51.2mn of payments to the Royalty Acquisition Venture (jointly owned with Continental Resources (FNV has up to $206.8mn of remaining commitments)), and acquire two royalties on development projects in Canada and Chile for total cash of $18.5mn (plus $27mn in FNV stock). FNV holds $1.2 billion of total liquidity including $1.0 billion under its credit facility. FNV increased its quarterly dividend from $0.24 to $0.25/sh, the 12th year in a row of dividend hikes.

Transaction since our last primer

On August 7th 2018, FNV announced the purchase of a basket of oil & gas royalties in the SCOOP and STACK oil & gas plays from Continental Resources for around $220 million. As Continental is currently conducting drilling programs on these lands, FNV believe there is strong potential for new discoveries. FNV and Continental also created a new company which will acquire mineral rights in the areas of the SCOOP and STACK primarily within acreage operated by Continental. The two companies will spend up to a combined $125 million per year over the next three years, with Continental funding 20% of future mineral acquisitions (though Continental will be entitled to 25% to 50% of total revenues generated by the subsidiary).

Management overview

David E. Harquail – Chief Executive Officer

Paul Brink – President & Chief Operating Officer

Sandip Rana – Chief Financial Officer

Lloyd Hong – Chief Legal Officer & Corporate Secretary

Franco-Nevada's key asset portfolio

Tables 5-7 set out the key royalty and streaming agreements held by Franco-Nevada as of date. Exhibit 10 sets out an asset location map and Exhibit 11 sets out Franco-Nevada's acquisition history versus the gold price.

Table 5: Franco-Nevada – Key streams

				ATTRIBUTABLE PRODUCTION TO BE PURCHASED							
GOLD, SILVER AND OTHER METAL INTERESTS	MINE OWNER	LOCATION OF MINE	UPFRONT CONSIDERATION[1]	GOLD	CASH COST[2]	SILVER	CASH COST[2]	OTHER METAL	CASH COST[2]	TERM OF AGREEMENT	DATE OF CONTRACT
Sudbury	KGHM International	Canada	(3)	50%	US$424/oz			PGM - 50%	US$424/oz	40 years	14-Mar-11
Antapaccay	Glencore	Peru	$500	300 ozs for each 1,000 tonnes of copper in concentrate shipped until 630koz; 30% thereafter	20% spot price until 750koz; 30% spot price thereafter	4,700 ozs for each 1,000 tonnes of copper in concentrate shipped until 10Moz;30% thereafter	20% spot price until 12.8Moz; 30% spot price thereafter			40 years	10-Feb-16
Antamina	Teck Resources	Peru	$610			22.5% until 86Moz; Stream reduced by one-third at 15.075% thereafter[4]	5% spot price			40 years	7-Oct-15
Candelaria	Lundin Mining Corporation	Chile	$648	68% until 720koz; 40% thereafter	US$400/oz	68% until 12Moz; 40% thereafter	US$4.00/oz			40 years	6-Oct-14
Guadalupe-Palmarejo	Coeur Mining	Mexico	$22	50%	US$800/oz					40 years	2-Oct-14
Cobre Panama - Fixed Ongoing Payment Stream	First Quantum Minerals	Panama	$1,000[5]	80%	US$400	80%	US$6.00/oz			45 years	20-Aug-12
Cobre Panama – Floating Payment Stream	First Quantum Minerals	Panama	$356	20%	20% spot price	20%	20% spot price			45 years	22-Jan-18
MWS	AngloGold Ashanti Limited	South Africa	(6)	25% until 312,500 ozs	US$420/oz					40 years	2-Mar-12
Sabodala	Teranga Gold Corporation	Senegal	$135	Fixed at 1,875 ozs/month until Dec 31, 2019; 6% thereafter	20% spot price					40 years	12-Dec-13
Karma	Endeavour Mining	Burkina Faso	$120 [7]	15,000 ozs/year for 5 years until February 28, 2021; 4.875% thereafter	20% spot price					40 years	11-Aug-14

[1] Expressed in United States dollars rounded to the nearest million, unless otherwise noted.
[2] Subject to an annual inflationary price adjustment except for Antamina, Antapaccay, Karma, Guadalupe, and Sabodala. Lesser of listed cash cost and prevailing market price unless otherwise noted.
[3] As part of Gold Wheaton acquisition for a consideration of approximately C$830mn.
[4] Estimated at the current throughput rate of 54 Mt per year to be in approximately 30 years.
[5] As at December 31, 2017, Franco-Nevada has funded a cumulative total of $726.6mn of its $1 billion maximum commitment.
[6] AngloGold agreed to acquire MWS for $335mn from First Uranium, which is subject to Franco-Nevada's gold streams.
[7] Franco-Nevada and Sandstorm provided True Gold with $100mn in initial funding. Franco-Nevada and Sandstorm provided 75% and 25% of the upfront deposit respectively.

Source: Company reports, BofA Merrill Lynch Global Research

Table 6: Franco-Nevada – Key royalties (metals)

				ATTRIBUTABLE INTERESTS			
GOLD, SILVER AND OTHER METAL INTERESTS	MINE OWNER	LOCATION OF MINE	UPFRONT CONSIDERATION[1]	GOLD	OTHER METALS	TERM OF AGREEMENT	DATE OF CONTRACT
Goldstrike	Barrick Gold	United States		2-4% NSR 2.4-6% NPI		Life of Mine	1986
Stillwater	Stillwater Mining	United States			PGM - 5% NSR	Life of Mine	Apr-98
Gold Quarry	Newmont Mining	United States	$103.5	7.29% NSR		Life of Mine	29-Dec-08
Marigold	Silver Standard Resources	United States		1.75-5% NSR 0.5-4% GR		Life of Mine	Nov-09
Fire Creek/Midas	Klondex Mines	United States	$35	38,250 ozs to be delivered by Dec 31, 2018; 2.5% NSR commencing in 2019 thereafter		Life of Mine	11-Feb-14
Bald Mountain	Kinross Gold Corporation	United States		0.875-5% NSR/GR		Life of Mine	2010
South Arturo	Barrick/Premier Gold	United States		4-9% GR		Life of Mine	
Detour Lake	Detour Gold Corporation	Canada		2% NSR		Life of Mine	
Golden Highway	Kirkland Lake Gold	Canada		0.25%-15% NSR		Life of Mine	
Musselwhite	Goldcorp	Canada		5% NPI		Life of Mine	
Hemlo	Barrick Gold	Canada		3% NSR 50% NPI		Life of Mine	
Kirkland Lake	Kirkland Lake Gold	Canada	$50	1.5-5.5% NSR 20% NPI		Life of Mine	31-Oct-13
Timmins West	Tahoe Resources	Canada	$35	2.25% NSR		Life of Mine	Feb-12
Canadian Malartic	Yamana/Agnico Eagle	Canada	C$9.7	1.5% GR		Life of Mine	12-Jul-11
Duketon	Regis Resources	Australia		2% NSR		Life of Mine	
Subika	Newmont Mining	West Africa	$13	2% NSR		Life of Mine	20-Nov-09
Tasiast	Kinross Gold Corporation	Mauritania		2% NSR		Life of Mine	Sep-10
Edikan	Perseus Mining Limited	Ghana	$35	1.5% NSR		Life of Mine	30-Jun-11

[1] Expressed in United States dollars rounded to the nearest million, unless otherwise noted.

Source: Company reports, BofA Merrill Lynch Global Research

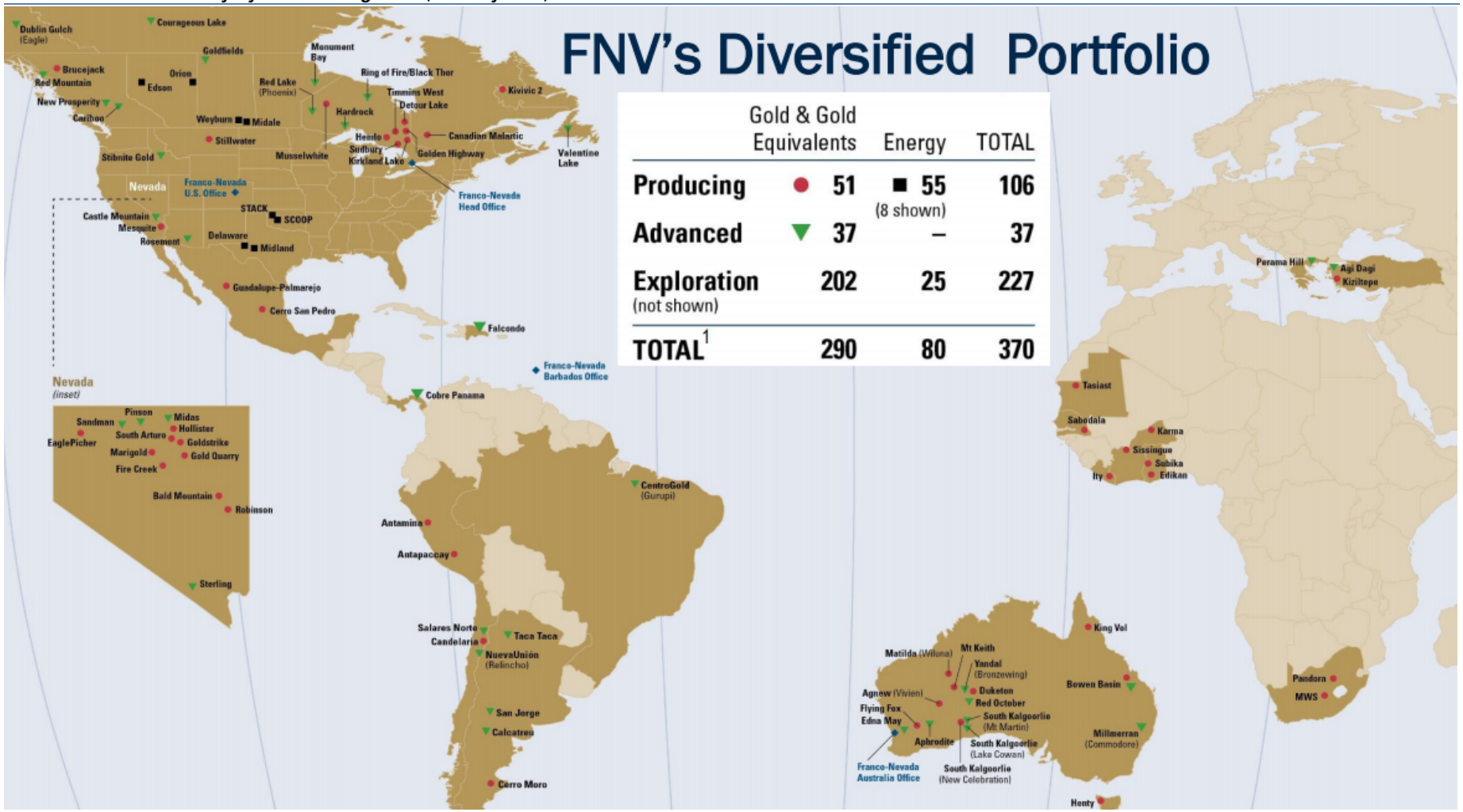
Table 7: Franco-Nevada – Key royalties (oil & gas)

				ATTRIBUTABLE INTERESTS		
OIL WELL	OPERATOR	LOCATION	UPFRONT CONSIDERATION[1]	OIL & GAS	TERM OF AGREEMENT	DATE OF CONTRACT
Weyburn Unit	Cenovus Energy	Canada	C$400	11.71% NRI 0.44% ORR 2.56% WI	Life of Asset	13-Nov-12
Midale Unit	Apache Canada	Canada		1.14% ORR 1.59% WI	Life of Asset	
Edson	Canadian Natural Resources	Canada		15% ORR	Life of Asset	
STACK	Various	United States	$100	1.61% Effective Royalty Rate	Life of Asset	19-Dec-16
Midland Basin	Various	United States	$110	0.14% Effective Royalty Rate	Life of Asset	13-Mar-17
STACK	Various	United States	$27.6	Various	Life of Asset	12-Nov 17
Delaware Basin	Various	United States	$101	Various	Life of Asset	20-Feb-18
SCOOP & STACK	Various	United States	$220	Various	Life of Asset	6-Aug-18

[1] Expressed in United States dollars rounded to the nearest million, unless otherwise noted.

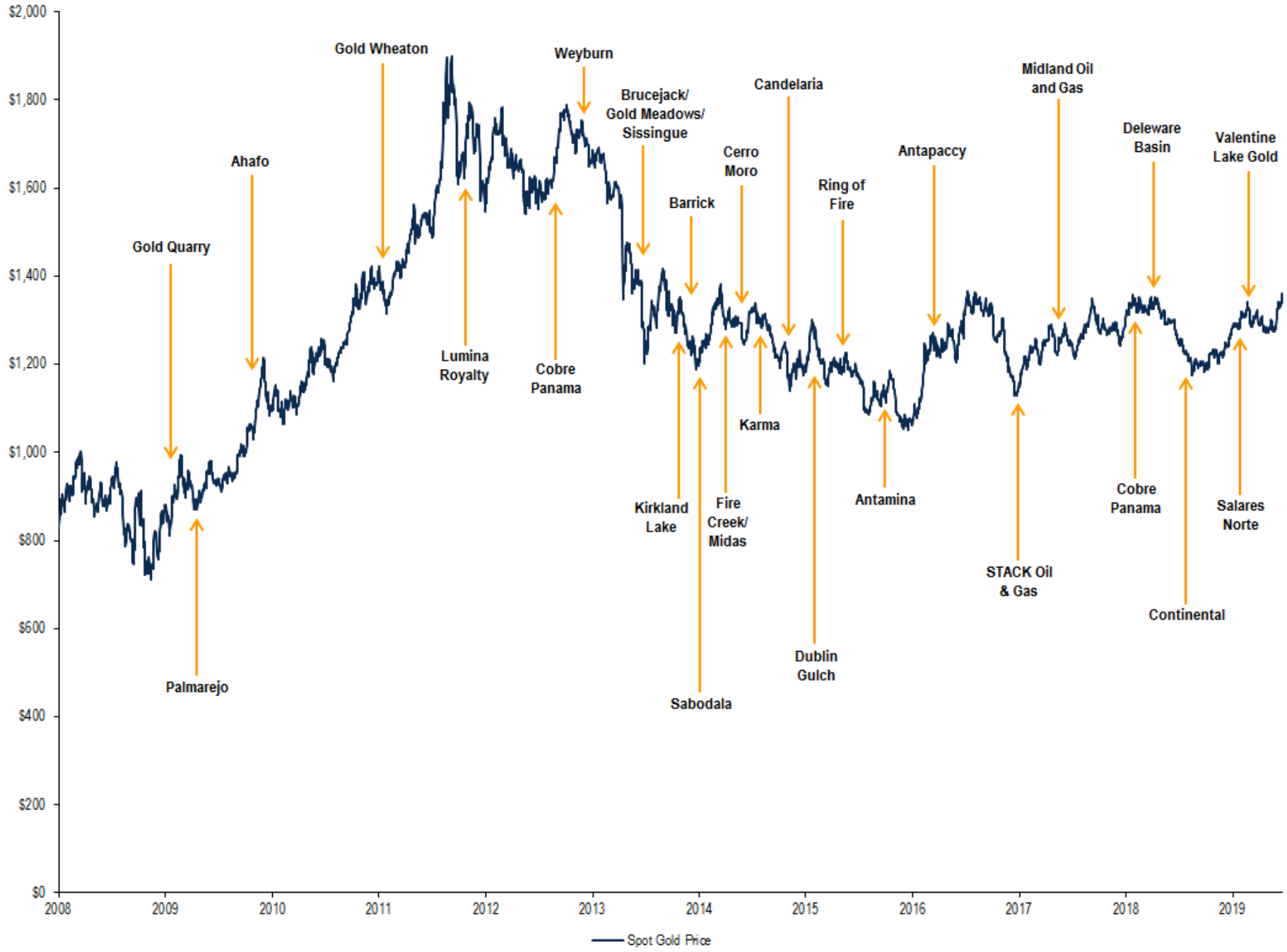
Source: Company reports, BofA Merrill Lynch Global Research

Exhibit 10: Franco-Nevada royalty and streaming assets (as of May 2019)



Source: Franco Nevada Corporate Presentation

Exhibit 11: Franco-Nevada's acquisition history vs. gold price



Source: Company Reports, Bloomberg, BofA Merrill Lynch Global Research

Section 5: Osisko Gold Royalties

Company description

Osisko Gold Royalties Ltd (OR) was formed as a spin-out following the friendly acquisition of Osisko Mining Corporation by Yamana Gold Inc. and Agnico Eagle Mines Limited and commenced active operations on June 16, 2014. OR is focused on acquiring and managing precious metal and other high-quality royalties, streams and similar interests in Canada and worldwide. OR owns a portfolio of royalties, streams, offtakes, options on royalty/stream financings and exclusive rights to participate in future royalty/stream financings on various projects, mainly in Canada. The cornerstone assets include a 5% net smelter return (NSR) royalty on the Canadian Malartic mine, a sliding scale 2.0% - 3.5% NSR royalty on the Éléonore mine, a 9.6% diamond stream on the Renard diamond mine and a 5% royalty on the new Eagle mine, all located in Canada, in addition to a 100% silver stream on the Mantos Blancos copper mine in Chile. In addition, the Company invests in equities of exploration, development and royalty companies.

Corporate strategy

OR's objective is to maximize returns for its shareholders by growing its asset base, both organically and through accretive acquisitions of precious metal and other high-quality royalties, streams and similar interests, and by returning capital to its shareholders through share repurchases and/or dividend payments. OR believes it can achieve this by putting its team's strong technical expertise to work seeking out high margin growth opportunities that provide exposure to the upside of commodity prices and to the optionality of mineral reserve growth and new discoveries. OR's main focus is on high quality gold assets located in favorable jurisdictions and operated by established mining companies, as these assets are expected to support a premium valuation in the marketplace. OR will also evaluate opportunities in other commodities and jurisdictions. Given that a core aspect of its business is the ability to compete for investment opportunities, OR plans to maintain a strong balance sheet and ability to deploy capital.

Historical financial results

Table 8 sets out a summary of OR's historical financial results.

Table 8: Summary of Osisko Gold Royalties' historical financial results and key valuation/financial statement metrics

Key commodity prices	2010	2011	2012	2013	2014	2015	2016	2017	2018	Q1'19
Gold ($/oz)	NA	NA	NA	NA	$1,266	$1,161	$1,249	$1,259	$1,268	$1,304
Attributable production (gold equivalent ounces (GEO))										
Attributable gold (GEO)	NA	NA	NA	NA	15,227	30,588	38,270	58,933	80,553	19,753
Income statement (C$ millions)										
Revenue	NA	NA	NA	NA	$17	$45	$63	$213	$490	$101
EBITDA	NA	NA	NA	NA	$3	$18	$39	$55	$97	$17
EBITDA margin	NA	NA	NA	NA	15%	40%	62%	26%	20%	17%
Basic adjusted EPS attributable to equity shareholders	NA	NA	NA	NA	$0.22	$0.33	$0.33	$0.18	$0.20	$0.04
Dividends per common share	NA	NA	NA	NA	$0.03	$0.13	$0.16	$0.18	$0.20	$0.05
Cash flow (C$ millions)										
CF from operations (incl. NWC)	NA	NA	NA	NA	$8	$29	$53	$49	$82	$25
Cash flow before working capital changes per share (C$/sh)	NA	NA	NA	NA	$0.13	$0.37	$0.52	$0.38	$0.51	$0.17
CF from investing	NA	NA	NA	NA	($33)	($141)	($15)	($878)	($66)	($46)
CF from financing	NA	NA	NA	NA	$197	$184	$208	$679	($183)	($43)
Free Cash Flow (FCF)	NA	NA	NA	NA	**$5**	**$29**	**$45**	**$49**	**$82**	**$25**
Balance sheet (C$ millions)										
Cash and cash equivalents	NA	NA	NA	NA	$175	$259	$502	$334	$184	$122
Total debt	NA	NA	NA	NA	$0	$0	$46	$464	$353	$324
Net cash (debt)	NA	NA	NA	NA	$175	$259	$456	($130)	($168)	($203)
Investments	NA	NA	NA	NA	$80	$150	$191	$372	$305	$259
Shareholders' Equity	NA	NA	NA	NA	$263	$936	$1,212	$1,894	$1,772	$1,727
Valuation/Ratios - pricing at end of period										
P/E	NM	NM	NM	NM	64.1	30.0	29.5	64.4	59.9	93.8
P/CF	NM	NM	NM	NM	110.0	27.0	18.8	30.2	23.6	21.6
EV/EBITDA	NM	NM	NM	NM	229.4	40.7	17.9	34.2	21.1	36.2
Dividend yield	NM	NM	NM	NM	0.2%	1.3%	1.6%	1.6%	1.7%	1.3%
Net debt / EBITDA	NM	NM	NM	NM	NM	NM	NM	2.4x	1.7x	2.9x

Source: Company reports, BofA Merrill Lynch Global Research

Latest financial results

OR reported a Q1'19 loss of ($26.5mn) (-$0.17/sh), vs. Q1'18 net earnings of C$2.3mn (C$0.015/sh). Excluding one-time items (for Q1'19 an impairment charge of $38.9mn on the Renard diamond mine, due to the operator taking a large impairment charge on weaker diamond pricing), OR reported Q1'19 adjusted earnings of $5.8mn ($0.04/sh), vs. Q1'18 adjusted net earnings of C$8.9mn (C$0.06/sh). OR reported 19,753 gold equivalent ounces (GEO's) in Q1'19. For Q1'19, OR reported cash flow of $22.6mn ($0.15/sh), vs. cash flow of $24.5mn ($0.16/sh) a year ago.

For 2018, OR reported record revenues from royalties and streams of $127.6mn ($490.5mn including offtakes) compared to $93.8mn in 2017. Adjusted earnings were $31.4mn ($0.20/sh) in 2018, compared to $22.7mn ($0.0.18/sh) in 2017. Net cash flows provided by operating activities of $82.2mn compared to $48.7mn in 2017. OR reported 80,553 gold equivalent ounces (GEO's) in 2018, up 37% yoy from 58,933 GEO's in 2017. The yoy increase was largely due to the addition of royalties and streams acquired in 2018 and production increases. The GEO breakdown in 2018 included 69% from gold, 17% silver, 11% diamonds and 3% other. This compared to 77% from gold, 14% silver, 8% diamonds, and 1% other in 2017.

Table 9: Gold equivalent ounces (GEOs) by asset

(in ounces)	*Year-end*					*YoY %*
GEOs by asset	*2014*	*2015*	*2016*	*2017*	*2018*	*2017/18*
Canadian Malartic	-	30,146	29,204	33,615	35,386	5.3%
Eleonore	-	402	6,568	6,390	7,540	18.0%
Gibraltar	-	0	0	2,303	1,769	-23.2%
Island Gold	-	0	1,373	1,706	1,406	-17.6%
Kwale	-	0	0	801	2,678	234.3%
Mantos	-	0	0	3,060	5,962	94.8%
Renard	-	0	0	4,686	8,425	79.8%
SASA	-	0	0	2,074	4,707	127.0%
Vezza	-	0	830	1,253	1,357	8.3%
Seabee	-	0	0	1,310	3,299	151.8%
Brucejack	-	0	0	536	1,783	232.6%
Other	-	40	295	3,045	6,241	105.0%
Total	**14,825**	**30,588**	**38,270**	**58,933**	**80,553**	**36.7%**

Source: Company reports, BofA Merrill Lynch Global Research

Recent transactions

On June 25th 2019, OR announced it the repurchase (from Orion Group) and cancellation of 12.385 million common shares of OR in a transactions valued at C$174.6 million. OR funded this transaction through the sale/transfer of seven plus equity positions it held. Post transaction, Orion's holding in OR declined from 19.5% to 7.7%. OR's investment position declined from around C$435 million to a more manageable C$260 million.

Balance sheet

Spending on investments ($47mn) and debt repayment ($30mn) more than offset cash flow generation in Q1'19 leading to net debt rising QoQ from $169mn at 31-Dec-18 to $216mn at 31-Mar-19. Including $450mn available under the revolving credit facility and $109mn in cash, OR has $559mn of total liquidity for acquisitions.

Management overview

Sean Roosen – Chair of the Board & Chief Executive Officer

Bryan A. Coates – President

Luc Lessard – Senior Vice President, Technical Services

Elif Lévesque – Chief Financial Officer and Vice President, Finance

Osisko Gold Royalties' key asset portfolio

Table 10 and Table 11 set out the key royalty and streaming agreements held by Osisko Gold Royalties. Exhibit 12 and Exhibit 13 set out the asset locations and descriptions.

Table 10: Osisko Gold Royalties – Key royalties

				ATTRIBUTABLE INTERESTS				
GOLD, SILVER AND OTHER METAL INTERESTS	MINE OWNER	LOCATION OF MINE	UPFRONT CONSIDERATION[1]	GOLD	SILVER	OTHER METALS	TERM OF AGREEMENT	DATE OF CONTRACT
Bald Mtn. Al. Ridge	Kinross	United States	(2)	1% NSR			Life of Mine	5-Jun-17
Bald Mtn. Duke/ Trapper	Kinross	United States	(2)	4% NSR			Life of Mine	5-Jun-17
Canadian Malartic	Agnico/Yamana	Canada	(4)	5% NSR			Life of Mine	16-Jun-14
Éléonore	Goldcorp	Canada	(5)	2% NSR until 3Moz; 0.25% increase per 1Moz thereafter, to a maximum of 3.5%			Life of Mine	17-Nov-14
Island Gold[6,7]	Richmont Mines	Canada	$24.2	1.38-2.55% NSR			Life of Mine	19-Oct-15
Hewfran Block[6,7]	Metanor Resources Inc.	Canada	$24.2	1.7% NSR			Life of Mine	19-Oct-15
Kwale	Base Resources	Kenya	(2)	1.5% GRR		Illinium - 1.5% GRR Ruthenium - 1.5% GRR Zinc - 1.5% GRR	Life of Mine	5-Jun-17
Seabee	Silver Standard	Canada	(2)	3% NSR			Life of Mine	5-Jun-17
Vezza	Ressources Nottaway Inc	Canada	$10	5% NSR 40% NPI			Life of Mine	10-Sep-15
DEVELOPMENT ASS ETS								
Brauna	Lipari	Brazil	(2)			Diamond - 1% GRR[3]	Life of Mine	5-Jun-17
Casino	Western Copper & Gold	Canada	(2)	2.75% NSR	2.75% NSR	Copper - 2.75% NSR Molybdenum - 2.75% NSR	Life of Mine	5-Jun-17
Cerro Del Gallo	Primero Mining	Mexico	(2)	3% NSR	3% NSR		Life of Mine	5-Jun-17
Gold Rock	GRP Minerals	United States	(2)	4% NSR			Life of Mine	5-Jun-17
Matilda	Blackham Resources	Australia	(2)	Offtake			Life of Mine	5-Jun-17
Nimbus	MacPhersons Resources	Australia	(2)	Offtake	Offtake		Life of Mine	5-Jun-17
Eagle	Victoria Gold	Canada	C$98	5% NSR			Life of Mine	13-April-18
Parral	GoGold Resources	Mexico	(2)	Offtake			Life of Mine	5-Jun-17
Sao Jorge	GoldMining	Brazil	(2)	1.25% NSR			Life of Mine	5-Jun-17
Spring Valley	Waterton	United States	(2)	0.5% NSR			Life of Mine	5-Jun-17
Yenipazar	Aldridge Minerals Inc.	Turkey	(2)	Offtake			Life of Mine	5-Jun-17
Cariboo	Barkerville	Canada	$37.5 [11]	2.25% NSR			Life of Mine	30-Nov-15
Cariboo	Barkerville	Canada	$20	1.75% NSR			Life of Mine	6-Sept-18
Copperwood	Highland Copper Company Inc.	United States	$10	3% NSR [8]		Copper - 3% NSR	Life of Mine	30-Jun-16
Hammond Reef	Agnico Eagle	Canada	(4)	2% NSR			Life of Mine	16-Jun-14
Hermosa	Arizona Mining	United States	$10		1% NSR	Lead - 1% NSR Zinc - 1% NSR	Life of Mine	25-Apr-16
Home 5[10]	Falco	Canada	$10	Gold/Silver Stream or 1% NSR	1% NSR	Copper - 1% NSR Zinc - 1% NSR	Life of Mine	30-May-16
James Bay properties	Osisko Mining	Canada	(4)	1.5-3.5% NSR [9]	1.5-3.5% NSR	Other than Au/Ag - 2% NSR	Life of Mine	16-Jun-14
Kirkland Lake Camp	Agnico Eagle	Canada	(4)	2% NSR		Copper - 2% NSR	Life of Mine	16-Jun-14
Lamaque[6,7]	Integra	Canada	$24.2	1.7% NSR[12]			Life of Mine	19-Oct-15
Malartic - Odyssey North	Agnico/Yamana	Canada	(4)	3% NSR			Life of Mine	16-Jun-14
Malartic - Odyssey South	Agnico/Yamana	Canada	(4)	5% NSR			Life of Mine	16-Jun-14
Marban[6]	Osisko Mining	Canada	$24.2	0.425% NSR			Life of Mine	19-Oct-15
Pandora	Agnico/Yamana	Canada	(4)	2% NSR			Life of Mine	16-Jun-14
Upper Beaver	Agnico Eagle	Canada	(4)	2% NSR		Copper - 2% NSR	Life of Mine	16-Jun-14
Windfall Lake	Osisko Mining	Canada	$5 [13]	1.5% NSR			Life of Mine	4-Oct-16
Eagle Gold	Victoria Gold	Canada	$98	5% NSR [14]			Life of Mine	16-Apr-18

[1] Expressed in Canadian dollars rounded to the nearest million, unless otherwise noted.
[2] Part of Orion's portfolio acquisition for a total consideration of $1.125 billion.
[3] Gross revenue royalty ("GRR").
[4] Result of friendly acquisition of Osisko Mining by Agnico Eagle and Yamana Gold.
[5] Result of combination of Osisko Gold Royalties and Virginia Mines Inc.
[6] On October 19, 2015, the Company announced an agreement to acquire a portfolio of 31 Canadian royalty interests from Teck Resources for cash consideration of $28mn, with an additional $2.5mn to be paid on confirmation of certain rights. On November 17, 2015, Osisko closed the first portion of the acquisition which consisted of 28 Canadian royalties for cash consideration of $24.2mn.
[7] After the sale of a 15% interest in the royalties acquired from Teck Resources Limited to Caisse de dépôt et placement du Québec.
[8] 3.0% NSR royalty on the Copperwood project. Upon closing of the acquisition of the White Pine project, Highland Copper Company will grant Osisko a 1.5% NSR royalty on all metals produced from the White Pine project, and Osisko's royalty on Copperwood will be reduced to 1.5%. 3% NSR royalty applies to all metals produced from the mineral rights and leases associated with the Copperwood project.
[9] Effective October 4, 2016, Osisko entered into an earn-in agreement with Osisko Mining, which was amended in 2017 to create two earn-in agreements. The amendment was necessitated by the optioning of the Kan Project to Barrick Gold Corporation. Under the first earn in agreement, Osisko Mining may earn a 100% interest in 26 of Osisko's exploration properties located in the James Bay area and Labrador Through (excluding the Coulon copper-zinc project and four other exploration properties) upon completing expenditures of $26.0mn over a 7-year period; Osisko Mining may earn a first 50% interest upon completing expenditures totaling $15.6mn over a 4-year period. Under the second earn-in agreement, Osisko Mining may earn a 100% interest in the Kan property (comprised of the Kan and Fosse Au properties) upon completing expenditures totaling $6.0mn over a 7-year period, which represents the guaranteed expenditures to be incurred by Barrick Gold Corporation ("Barrick"), following an earn-in agreement signed between Osisko Mining and Barrick where Barrick committed to spend $15.0mn on the Kan property; Osisko Mining may earn a first 50% interest upon completing expenditures totaling $3.6mn over a 4-year period. Osisko will retain an escalating NSR royalty ranging from 1.5% to 3.5% on precious metals and a 2.0% NSR royalty on other metals and minerals produced from the 27 properties. New properties acquired by Osisko Mining in a designated area during the 7-year term will be subject to a royalty agreement in favor of Osisko with similar terms.
[10] In May 2016, Osisko entered into a financing agreement of $10.0mn with Falco, which will be applied against a stream deposit to be negotiated by October 31, 2017 or converted into a 1% NSR royalty on the Home 5 project if no stream agreement is concluded.
[11] Acquisition of 1.5% NSR on the Cariboo Gold Project for a cash consideration of C$25mn and an additional 0.75% NSR royalty subsequently for C$12.5mn.
[12] Integra has an option to buy-back 1% of the NSR royalty for $2.0mn.
[13] Osisko exercised its option to acquire a 1% NSR royalty on Osisko Mining Windfall Lake property for $5mn. Osisko was already the holder of a 0.5% NSR.
[14] 5% NSR lasts until 97,500 oz of refined gold has been delivered; 3% NSR thereafter; transaction also involves Osisko's purchase of 100mn common shares of Victoria at a price of C$0.50/sh ($148mn w/NSR).
[15] Amended and restated royalty purchase agreement from the previous 2.25% NSR on Cariboo (Nov 30, 2015). Osisko acquires an additional 1.75% NSR for C$20mn, with the option at the discretion of Barkerville to grant Osisko an additional 1.00% NSR for additional cash consideration of C$13mn. As part of the transaction Barkerville will also grant Osisko 10mn common share purchase warrants.

Source: Company reports, BofA Merrill Lynch Global Research

Bank of America Merrill Lynch

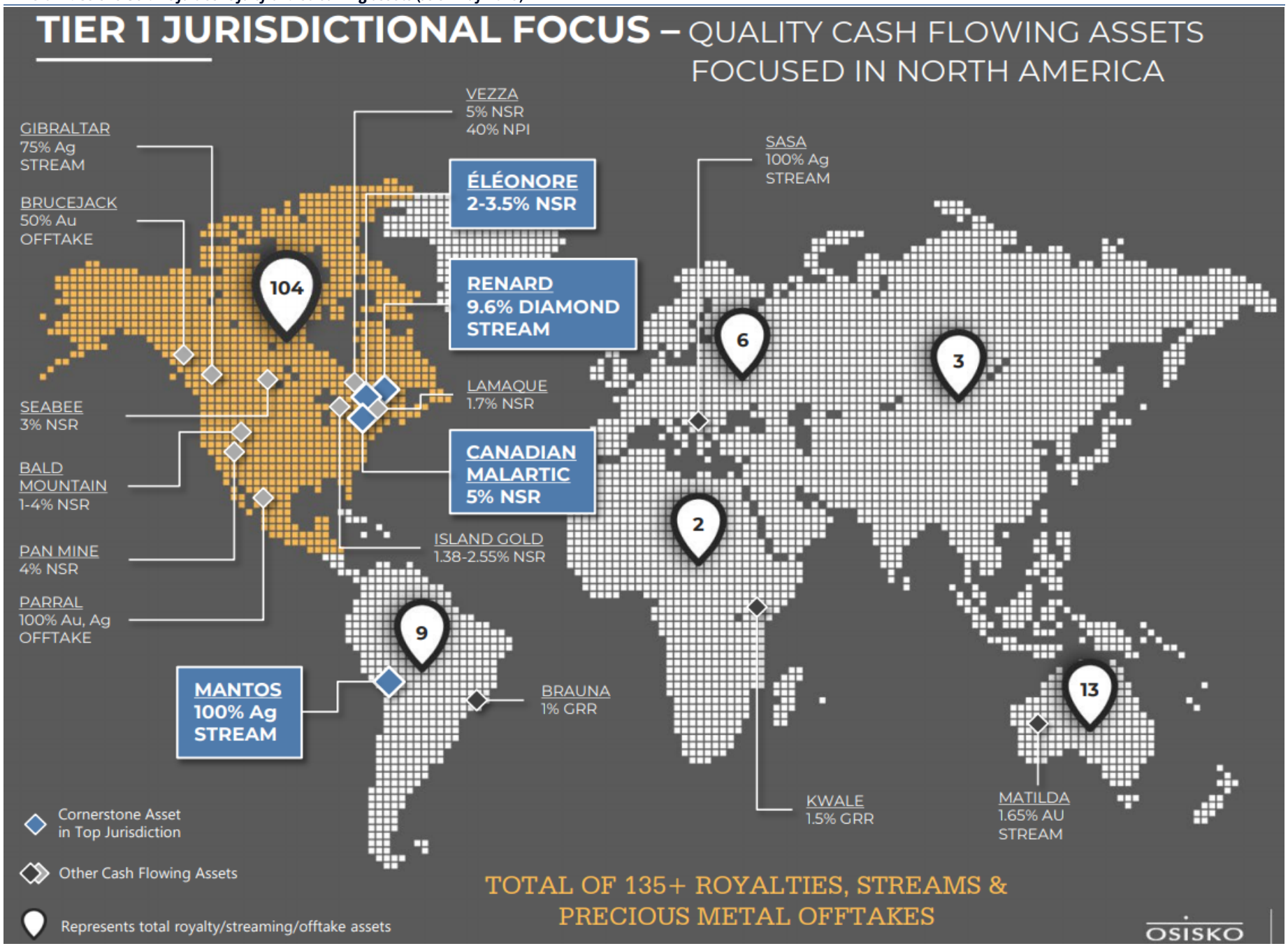
Table 11: Osisko Gold Royalties – Key streams

				ATTRIBUTABLE PRODUCTION TO BE PURCHASED							
GOLD AND SILVER INTERESTS	MINE OWNER	LOCATION OF MINE	UPFRONT CONSIDERATION[1]	GOLD	CASH COST[3]	SILVER	CASH COST[3]	OTHER METALS	CASH COST[3]	TERM OF AGREEMENT	DATE OF CONTRACT
Brucejack[4]	Pretium Resources	Canada	(2)	50% offtake agreement	Based on quotational period					Until delivery of 7.067 Moz	21-Sep-15
Gibraltar	Taseko Mines	Canada	$44.3			100% until 5.9Moz; 35% of Gibco's share of silver production thereafter	US$2.75/oz			Life of Mine	3-Mar-17
Mantos Blancos	Mantos Copper S.A.	Chile	(2)			100% until 19.3Moz; 30% thereafter	25% spot price			Life of Mine	11-Sep-15
Renard[5]	Stornoway Diamonds	Canada	(2)					Diamond - 9.6%	US$40/carat	40 years	8-Jul-14
SASA[6]	Lynx Resources Ltd	Macedonia	(2)			100%	US$5.00/oz			40 years	3-Nov-15
Amulsar[7]	Lydian International[8]	Armenia	(2)	4.22% until 142,454 ozs	US$400/oz	62.5% until 695,549 ozs	US$4.00/oz			40 years	25-Nov-15
Back Forty	Aquila Resources	United States	(2)			75%	US$4.00/oz			Life of Mine	31-Mar-15
Back Forty	Aquila Resources	United States	$55	18.5% until 105 koz; 9.25% thereafter	30% of spot; max of US$ 600/oz					Life of Mine	9-Nov-17
Horne 5	Falco	Canada	$180			100%	20% of spot; max of US$ 6.00/oz			Life of Mine [9]	27-Feb-19

[1] Expressed in Canadian dollars rounded to the nearest million, unless otherwise noted.
[2] Part of Orion's portfolio acquisition for a total consideration of $1.125 billion.
[3] Subject to an annual inflationary price adjustment, unless otherwise noted.
[4] Subject to multiple buyback options: December 31, 2018 pursuant to a 15% internal rate of return to Osisko or December 31, 2019 for US$75mn + 2% ongoing stream.If buyback not exercised by December 31, 2019, US$10mn make-whole payment + 4% ongoing stream.
[5] The term shall be automatically extended beyond the initial term for successive 10-year periods.
[6] The term shall be automatically extended beyond initial term for successive 10-year periods. 3% or consumer price index (CPI) per ounce price escalation after 2016.
[7] Subject to multiple buyback options: 50% for US$31.3mn and US$34.4mn on 2nd and 3rd anniversary of production start date, respectively, which is currently expected to be July 1, 2018.
[8] Lydian has the option to buy back a portion of the stream by one of the following options: (i) the stream percentage may be reduced by 50% on the second anniversary of commercial production for US$55M (US$34.38M attributable to Osisko); or (ii) the stream percentage may be reduced by 50% on the third anniversary of commercial production for US$50M (US$31.25M attributable to Osisko).
[9] Concurrently with the fourth deposit, Osisko may elect, in its sole discretion, to increase the silver stream to a perpetual 100% of future silver production by making an additional deposit of $40 million.

Source: Company reports, BofA Merrill Lynch Global Research

Exhibit 12: Osisko Gold Royalties royalty and streaming assets (as of May 2019)



Source: Osisko Gold Royalties Corporate Presentation

Exhibit 13: Osisko Gold Royalties royalty and streaming assets (as of May 2019)

GROWTH STRATEGY – MOVING ASSETS ALONG THE CURVE

ACCELERATOR BUSINESS EARLY OPPORTUNITIES	DEVELOPMENT OPPORTUNITIES	PRODUCING OPPORTUNITIES
◆ Funding exploration ◆ Early money in ◆ Obtain future rights to project financing ◆ Hybrid equity/royalty structure	◆ Funding studies/ construction ◆ Last money in ◆ Secured royalty/stream (milestone-based funding)	◆ Debt refinancing/M&A ◆ Lowest risk part of the curve ◆ Secured royalty/stream (up-front deposit)
- WINDFALL - CARIBOO - HORNE 5	- EAGLE - HORNE 5 - BACK FORTY	- GIBRALTAR - ORION PORTFOLIO - RENARD

CREATING EXCLUSIVE PIPELINE OF OPPORTUNITIES

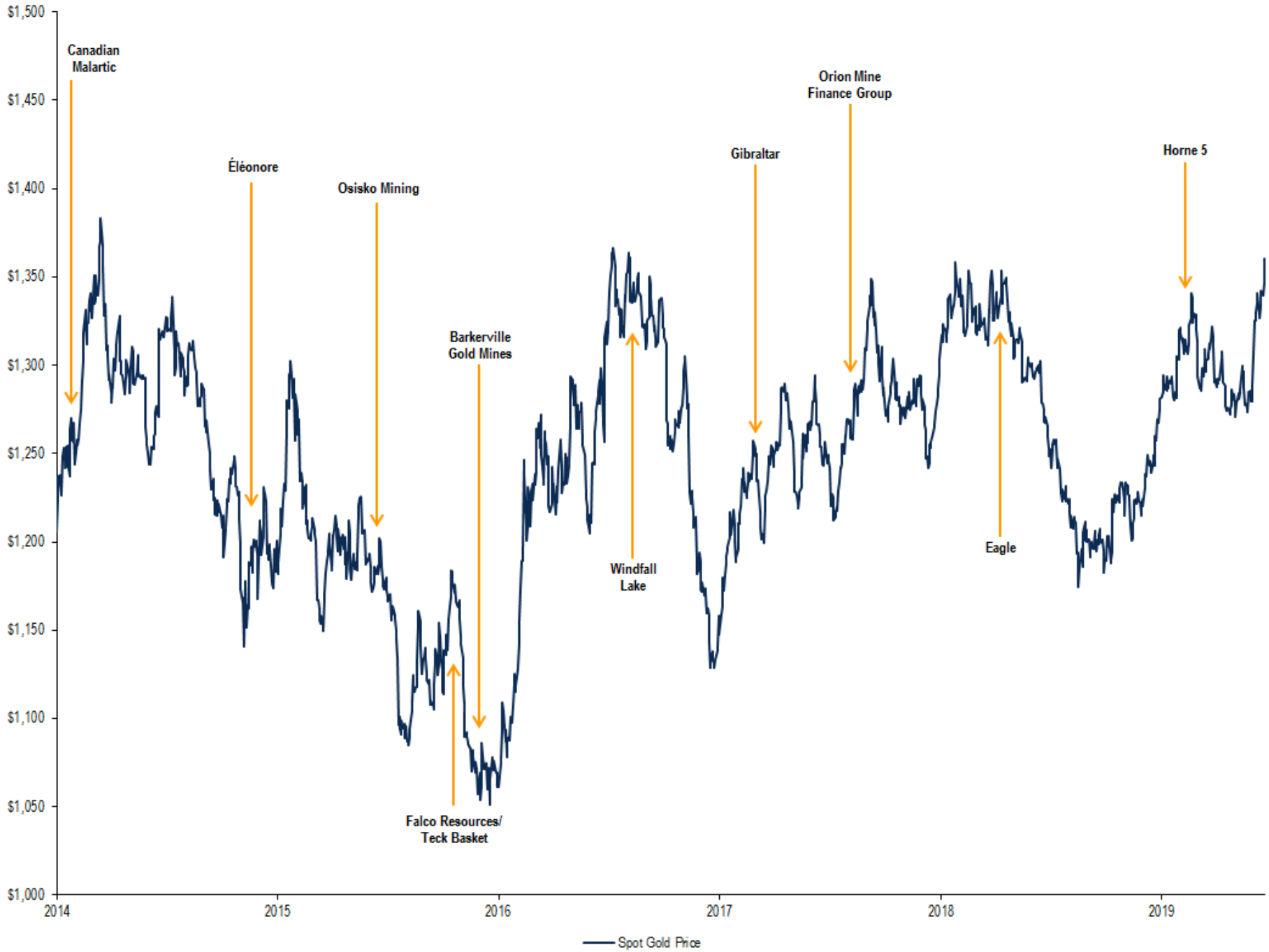
TRADITIONAL ROYALTY & STREAMING BUSINESS

VALUE

TIME

Source: Osisko Gold Royalties Corporate Presentation

Exhibit 14: Osisko Gold Royalties' acquisition history vs. gold price



Source: Company reports, Bloomberg, BofA Merrill Lynch Global Research

Section 6: Royal Gold

Company background

Royal Gold (RGLD) is engaged in the acquisition and management of precious metal royalties and streams. By partnering with capable operators, RGLD focuses on building and managing a diversified, cash-flowing portfolio of precious metal assets. RGLD's gold-focused portfolio includes interests in some 200 producing, development, evaluation and exploration stage royalties and similar interests located in some of the world's most prolific gold regions. With this high-quality portfolio, RGLD benefits from operator exploration successes and when new reserves are discovered and produced.

As of March 31, 2019, RGLD owned seven stream interests, six of which are on producing properties. Stream interests accounted for 71% and 70% of RGLD's revenue for the three and nine months ended March 31, 2019. As of March 31, 2019, RGLD owned royalty interests on 37 producing properties, 15 development stage properties and 131 exploration stage properties, of which 53 are considered to be evaluation stage projects. RGLD uses "evaluation stage" to describe exploration stage properties that contain mineralized material and on which operators are engaged in the search for reserves. Royalties accounted for approximately 29% and 30%, respectively, of RGLD's total revenue for the three and nine months ended March 31, 2019.

Four pronged growth strategy in precious metals

RGLD is engaged in the acquisition and management of precious metal royalties and streams. RGLD seeks to expand its business through four key initiatives: 1) acquire existing royalties or metal streams; 2) provide capital for the exploration, development and construction of precious metals mines in exchange for royalties; 3) monetize precious metals by-product streams from base metals operations in development or operation; and 4) provide acquisition finance, in partnership with established operating companies, in return for a royalty or metal streams on the acquired properties.

Historical financial results

Table 12 sets out a summary of RGLD's historical financial results.

Table 12: Summary of Royal Gold's historical financial results and key valuation/financial statement metrics (June 30th year-end)

Key commodity prices	2010	2011	2012	2013	2014	2015	2016	2017	2018	9M'19
Gold ($/oz)	$1,089	$1,369	$1,673	$1,605	$1,296	$1,200	$1,210	$1,265	$1,299	$1,248
Attributable production (gold equivalent ounces (GEO))										
Attributable gold (GEO)	125,156	158,122	157,235	180,202	182,995	231,667	272,411	350,100	353,404	246,200
Income statement (US$ millions)										
Revenue	$136	$216	$263	$289	$237	$278	$360	$441	$459	$307
EBITDA	$114	$186	$233	$257	$200	$209	$247	$306	$331	$217
EBITDA margin	84%	86%	89%	89%	84%	75%	69%	69%	72%	71%
Basic adjusted EPS attributable to equity shareholders	$0.81	$1.30	$1.61	$1.28	$0.96	$1.07	$0.59	$1.56	$1.79	$1.03
Dividends per common share	$0.34	$0.42	$0.56	$0.75	$0.83	$0.87	$0.91	$0.95	$0.99	$0.78
Cash flow (US$ millions)										
CF from operations (incl. NWC)	$48	$147	$162	$173	$147	$192	$169	$267	$329	$181
Cash flow before working capital changes per share (US$/sh)	$1.74	$2.57	$3.06	$2.66	$2.50	$2.49	$2.66	$4.17	$4.20	$2.48
CF from investing	($481)	($306)	($274)	($309)	($85)	($51)	$1,010	$200	$11	($5)
CF from financing	$462	($51)	$373	$425	($67)	($58)	$213	($97)	($315)	($49)
Free Cash Flow (FCF)	**$48**	**$147**	**$162**	**$173**	**$147**	**$192**	**$140**	**$266**	**$331**	**$181**
Balance sheet (US$ millions)										
Cash and cash equivalents	$325	$114	$375	$664	$659	$743	$117	$86	$89	$216
Total debt	$266	$230	$296	$302	$312	$322	$601	$586	$351	$363
Net cash (debt)	$59	($116)	$79	$362	$348	$421	($484)	($500)	($262)	($147)
Shareholders' Equity	$1,404	$1,460	$1,838	$2,349	$2,355	$2,353	$2,229	$2,275	$2,102	$2,125
Valuation/Ratios - pricing at end of period										
P/E	59.0	45.2	48.6	32.8	79.1	57.8	122.9	50.2	51.9	66.2
P/CF	27.6	22.8	25.7	15.8	30.5	24.7	27.0	18.8	22.1	27.5
EV/EBITDA	22.5	18.2	19.7	9.3	23.2	17.5	21.2	18.5	19.4	21.4
Dividend yield	0.7%	0.7%	0.7%	1.8%	1.1%	1.4%	1.3%	1.2%	1.1%	1.1%
Net debt / EBITDA	NM	0.6x	NM	NM	NM	NM	2.0x	1.6x	0.8x	0.5x

Note: June 30th year-end. Source: Company reports, BofA Merrill Lynch Global Research

Financial results

For fiscal (F) Q3'19 (June 30th year-end), RGLD reported net earnings of $28.8mn ($0.44/sh), vs. adjusted net earnings of $31.3mn ($0.48/sh) a year ago. Total revenue in FQ3'19 was $109.8mn, down from $116.0mn in FQ3'18. Revenue was comprised of $77.8mn for streams and $32.0mn for royalties in FQ3'19. For FQ3'19, cash flow before w/c changes was $66.6mn ($1.02/sh), vs. cash flow of $69.7mn ($1.07/sh) a year ago. Fiscal third quarter results was overshadowed by the news that after thirteen years at the helm, Tony Jensen will be retiring at President & CEO by the end of the first calendar quarter of 2020. Under his watch, RGLD has enjoyed a 13-fold hike in market capitalization and shares have grown at an 8.5% annual compound rate. The RGLD Board has appointed a committee to identify Mr. Jensen's successor.

Table 13: Revenues by asset

(in US$mn)

Revenues by asset	Fiscal year-end					YoY %
Asset	**2014**	**2015**	**2016**	**2017**	**2018**	**2017/18**
Andacollo	48.8	38.0	49.2	60.3	57.4	-4.7%
Cortez	8.1	18.0	6.1	6.5	8.1	24.8%
Mount Milligan	27.2	94.1	125.4	136.7	133.5	-2.3%
Penasquito	29.3	30.3	22.8	26.7	25.9	-3.0%
Pueblo Viejo	0.0	0.0	39.7	91.6	95.1	3.8%
Wassa and Prestea	0.0	0.0	23.3	25.4	29.8	17.2%
Other	123.8	97.5	93.2	93.6	109.2	16.7%
Total	**237.2**	**278.0**	**359.8**	**440.8**	**459.0**	**4.1%**

Source: June 30th year-end. Source: Company reports, BofA Merrill Lynch Global Research

Balance sheet

On the fiscal Q3'19 call, RGLD management noted that the company is well positioned financially (holding $1.2 billion in total liquidity) for new transactions. On the Q3 call, RGLD noted that with a number of non-core gold mines potentially for sale from the seniors, it sees new opportunities for streams in the financing of future M&A transactions. RGLD sees its "sweet spot" for new deals in the +/-$200mn range. On November 13, 2018, Royal Gold announced an increase of its annual dividend from $1.00/sh to $1.06/sh, which equates to a quarterly payment of $0.265/sh. Royal Gold has historically maintained its dividend increases every year since 2001.

New acquisition

On February 25th 2019, RGLD announced an agreement to acquire a stream on 80% of life of mine (LoM) silver production from the Khoemacau copper-silver project in Botswana, in exchange for advance payments of $212mn. RGLD will also make ongoing payments of 20% of the spot price of silver for each ounce delivered. Cupric Canyon Capital LP ('Cupric'), which owns Khoemacau, will hold an option to receive from RGLD an additional payment of up to $53mn plus ongoing payments of 20% of the spot price of silver per ounce delivered, in exchange for a silver stream on up to the remaining 20% of the LoM silver production. Khoemacau is to begin stream deliveries in H1'21. We estimate a 6.2% after-tax internal rate of return on the transaction (at $17/oz silver), which is above our assumed cost of capital for RGLD of 5%.

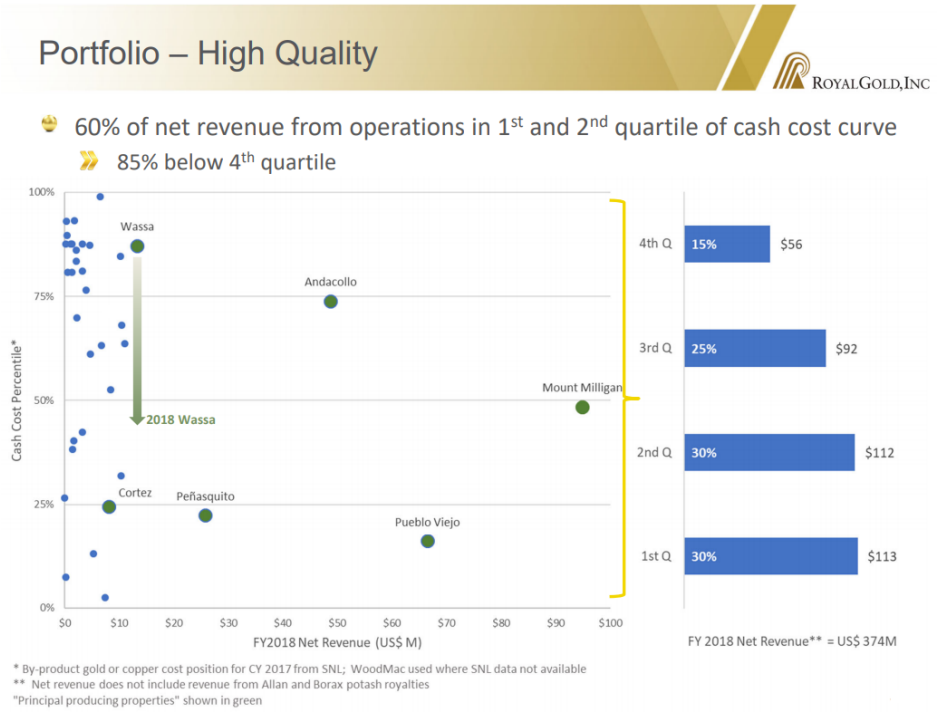
Cupric's current mine plan envisions the mining and processing of 74.4mn tonnes (Mt)of ore grading 2.0% copper (Cu) and 21.4 g/t silver (Ag) over a 21-year mine life, averaging payable production of approximately 62kt Cu and 1.9 (Moz) Ag per year. Before accounting for the Silver Stream and Option Stream, Cupric forecasts life of mine by-product-C1-plus-sustaining-capital costs of approximately $ 1.71/lb on a by-product basis, at a silver price of US$ 16.00/oz. This places Khoemacau at approximately the 50th percentile on the global copper cost curve. After accounting for the 80% silver stream, this implies by-product-C1-plus-sustaining-capital costs at Khoemacau of $1.89/lb ($1.93/lb if the Option Stream is fully exercised), well-into third quartile (based on Woodmac data). While the current reserve is 30.4Mt grading 2.0% Cu and 19.5 g/t Ag, Cupric is now completing a drill program with the goal of converting more resources.

Advance payments to Cupric for an 80% stream will be made quarterly as project development advances, with a current expectation of $60mn in H2'19, $125mn in 2020 and the balance in 2021. After the delivery of 32Moz of silver (about the current 21-year mine life) to RGLD, silver delivered to RGLD would decline by 50%; the threshold would be 40Moz delivered if Cupric's Option is exercised. If a mill expansion in excess of 13,000 tonnes per day is achieved at Khoemacau (30% above the mill design capacity), RGLD will pay higher on-going cash payments for ounces. Cupric's Option can be exercised toward the end of development, at which time RGLD will also make available to Cupric an up to $25mn overrun facility in the form of 7-year subordinated debt at LIBOR+11%.

Asset quality

Exhibit 15 highlights RGLD's portfolio breakdown (fiscal 208 revenue vs. cash cost of the key assets) by key asset.

Exhibit 15: RGLD's asset quality



Source: Royal Gold Corporate Presentation

Management overview

Tony Jensen – President and Chief Executive Officer

William Heissenbuttel – CFO & Vice President, Strategy

Mark Edward Isto – Vice President, Operations

Royal Gold's key asset portfolio

Table 14 and Table 15 set out the key streaming and royalty agreements held by RGLD. Exhibit 16 and Exhibit 17 set out RGLD's asset locations and acquisition history versus the gold price.

Table 14: Royal Gold – Key streams

				ATTRIBUTABLE PRODUCTION TO BE PURCHASED							
SILVER AND GOLD INTERESTS	MINE OWNER	LOCATION OF MINE	UPFRONT CONSIDERATION[1]	SILVER	CASH COST[2]	GOLD	CASH COST[2]	OTHER METALS	CASH COST[2]	TERM OF AGREEMENT	DATE OF CONTRACT
Mount Milligan	Centerra Gold	Canada				35%	US$435/oz	Copper - 18.75%	15% spot price	Life of Mine	5-Jul-16
Pueblo Viejo	Barrick	Dominican Republic	$610 [3]	75% at fixed and 70% recovery rate until 50Moz; 37.5% thereafter	30% spot price until 23.1Moz; 60% thereafter	7.5% until 990koz; 3.75% thereafter	30% spot price until 550koz; 60% spot price thereafter			Life of Mine	29-Sep-15
Rainy River	New Gold	Canada	$175	60% until 3.1Moz; 30% thereafter	25% spot price	6.5% until 230koz; 3.25% thereafter	25% spot price			Life of Mine	20-Jul-15
Andacollo	Teck	Chile	$525			100% until 900koz; 50% thereafter	15% spot price			Life of Mine	9-Jul-15
Wassa/ Prestea	Golden Star	Ghana	$145			9.25% until 12/31/2017; 10.5% until 240koz; 5.5% thereafter	20% spot price until 240koz; 30% spot price thereafter			Life of Mine	28-Jul-15
Khoemacau	Cupric Canyon Capital LP	Botswana	$212	80% until 32Moz; 50% thereafter	20% spot price					Life of Mine	25-Feb-19

[1] Expressed in United States dollars rounded to the nearest million, unless otherwise noted.
[2] Lesser of listed cash cost and prevailing market price, unless otherwise noted.
[3] Part of Precious Metals Purchase and Sale Agreement with Barrick and its wholly-owned subsidiary, BGC Holdings.

Source: Company reports, BofA Merrill Lynch Global Research

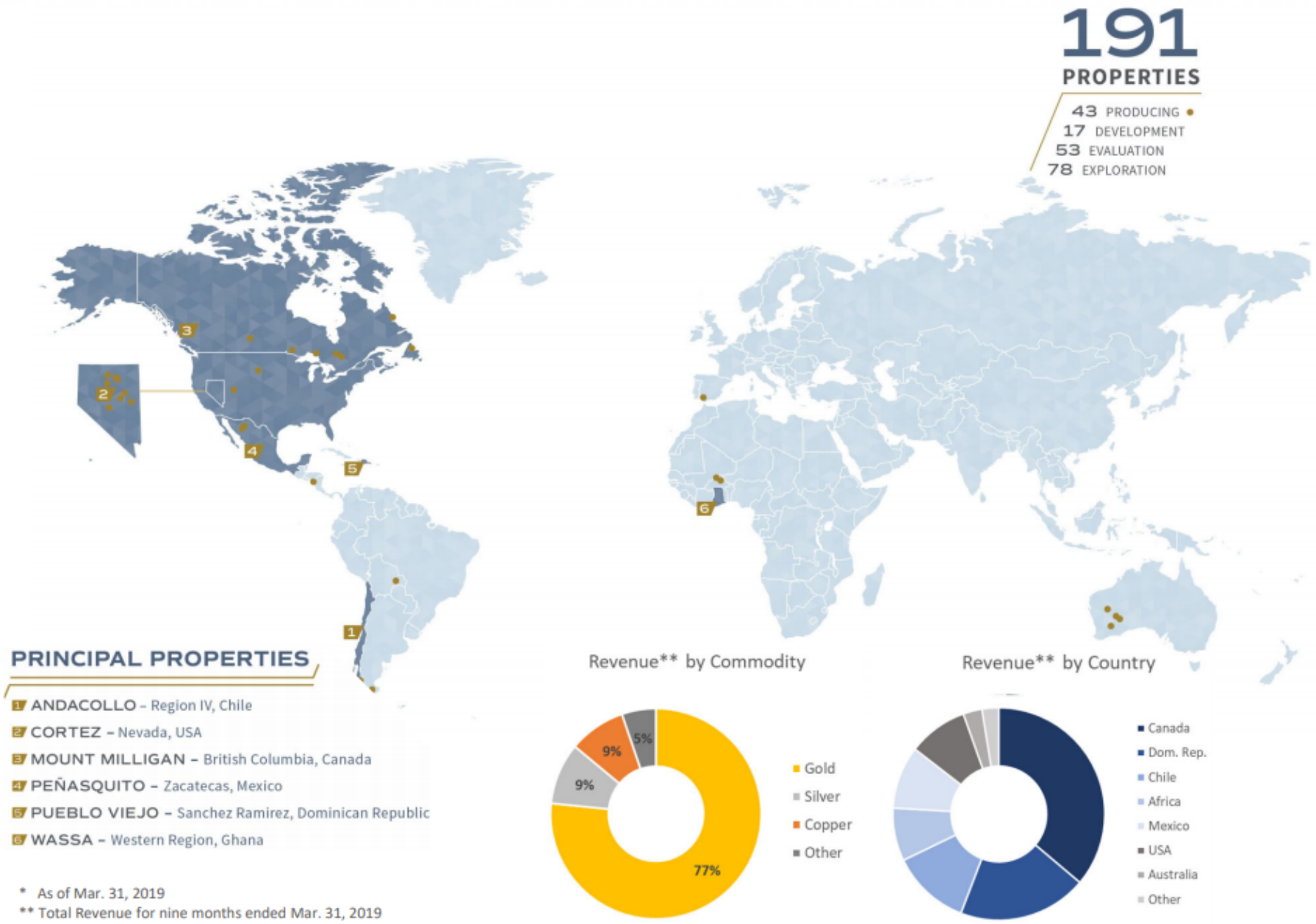
Table 15: Royal Gold – Key royalties

				ATTRIBUTABLE INTERESTS				
SILVER AND GOLD INTERESTS[1]	MINE OWNER	LOCATION OF MINE	UPFRONT CONSIDERATION[2]	SILVER	GOLD	OTHER METALS	TERM OF AGREEMENT	DATE OF CONTRACT
Peñasquito	Gold Corp	Mexico	$100 [3]	2% NSR	2% NSR	Lead - 2% NSR Zinc - 2% NSR	Life of Mine	29-Dec-06
Cortez	Barrick	United States	(4,5)		GSR1 and GSR2[6]: 0.4-5% GSR GSR3: 0.71% GSR NVR1: 4.91% NVR NVR1C: 4.52% NVR		Life of Mine	19-Sep-16
Malartic	Agnico-Eagle & Yamana	Canada	(5)		1-1.5% NSR		Life of Mine	31-Jul-08
Leeville	Newmont	United States	NA		1.8%		Life of Mine	Dec-02
Robinson	KGHM	United States	$25 [7]		3% NSR	Copper - 3% NSR	Life of Mine	23-Dec-05
Mulatos	Alamos Gold	Mexico	$25 [7]		1-5% NSR		Capped; expect to reach within 5 years	23-Dec-05
Holt	Kirkland Lake	Canada	(5)		0.00013 x quarterly avg. gold price		Life of Mine	31-Jul-08

[1] Includes largest royalties by revenue. An additional 27 royalties from producing mines in Royal Gold's portfolio not shown.
[2] Expressed in United States dollars rounded to the nearest million, unless otherwise noted.
[3] $80mn in cash and 577,434 shares of Royal Gold common stock.
[4] Includes initial net cash consideration of $150mn + additional $70mn for additional royalty interest acquired.
[5] Part of Barrick Gold's royalty portfolio acquisition. Consideration to Barrick for the transaction was approximately $150mn net cash and a restructuring of Royal Gold's royalty positions at Barrick's Cortez Pipeline Mining Complex ("Cortez") in Nevada, valued at $31.5mn.
[6] "GSR1" - Reserve Claims, "GSR2" - GAS Claims, "GSR3" - Reserve and Claims Fixed Royalty, "NVR1" - Net Value Royalty.
[7] Royalties from Robinson and Mulatos were acquired for a combined $25mn.

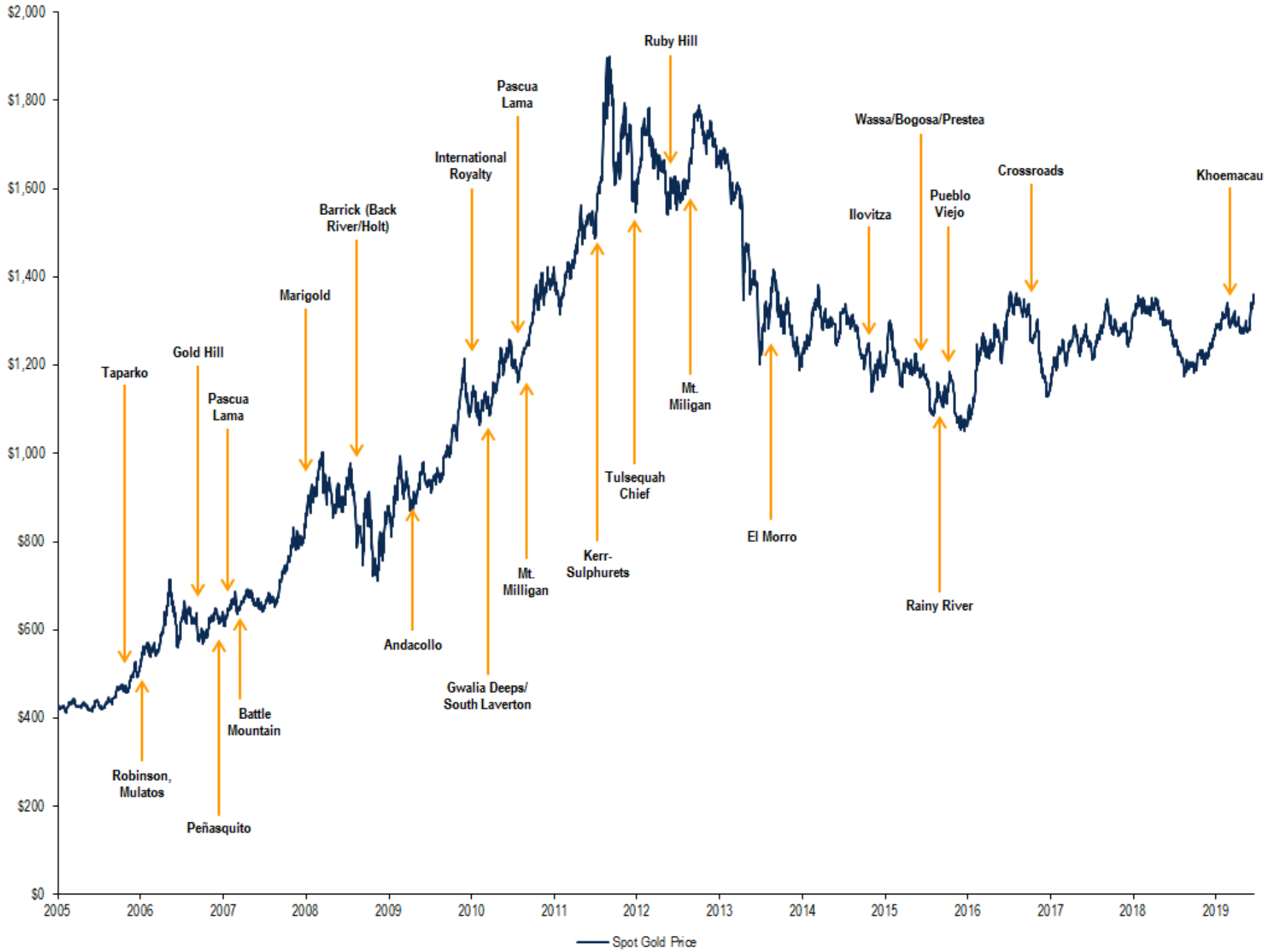
Source: Company reports, BofA Merrill Lynch Global Research

Exhibit 16: Royal Gold royalty and streaming assets (as of March 2019)



Source: Royal Gold Corporate Presentation

Exhibit 17: Royal Gold's acquisition history vs. gold price



Source: Company reports, Bloomberg, BofA Merrill Lynch Global Research

Section 7: Wheaton Precious Metals

Company description

Wheaton Precious Metals Corp. (WPM) is a mining company which generates its revenue from the sale of silver and gold. As of December 31 2018, WPM had entered into 20 long-term purchase agreements and three early deposit long-term purchase agreements for silver and/or gold ("precious metal purchase agreements") relating to 19 mining assets which are currently operating and 9 which are at various stages of development, whereby WPM acquires silver and gold production from the counterparties for an initial upfront payment plus an additional cash payment for each ounce delivered which is fixed by contract, generally at or below the prevailing market price. During the year ended December 31, 2018, the per ounce price paid by WPM for silver, gold and palladium under the agreements averaged $4.67, $409 and $190/oz, respectively. All of the company's streams involve the receipt of silver, gold and palladium.

Corporate strategy

WPM actively pursues future growth opportunities, primarily by way of entering into long-term precious metal purchase agreements. WPM unique business model creates shareholder value by providing: 1) leverage to increases in the price of silver and gold; 2) additional growth through the acquisition of new streams; 3) a dividend yield with the potential to grow over time; and, 4) participation in the exploration success of the mines underlying its current agreements. WPM reduces many of the downside risks faced by traditional miners. In particular, WPM offers its investors both capital and operating cost certainty. Other than its initial upfront payment, WPM typically has no ongoing capital or exploration costs. WPM's operating costs have historically been fixed at approximately $4/oz of silver and $400/oz of gold produced, which allows shareholders to benefit from margin growth in a rising silver and gold price environment. For the Stillwater deal, WPM will make ongoing payments equal to 18% of the spot gold and palladium prices.

Historical financial results

Table 16 sets out a summary of WPM's historical financial results.

Table 16: Summary of Wheaton Precious Metals' historical financial results and key valuation/financial statement metrics

Key commodity prices	2010	2011	2012	2013	2014	2015	2016	2017	2018	Q1'19
Gold ($/oz)	$1,226	$1,571	$1,669	$1,413	$1,266	$1,161	$1,249	$1,259	$1,268	$1,304
Attributable production (gold equivalent ounces (GEO))										
Attributable gold (GEO)	400,044	561,358	538,211	613,777	534,553	657,209	782,963	743,438	688,120	165,819
Income statement (US$ millions)										
Revenue	$423	$730	$850	$706	$620	$649	$892	$843	$794	$225
EBITDA	$316	$616	$701	$532	$431	$426	$598	$559	$497	$139
EBITDA margin	75%	84%	83%	75%	70%	66%	67%	66%	63%	62%
Basic adjusted EPS attributable to equity shareholders	$0.83	$1.56	$1.66	$1.06	$0.75	$0.53	$0.62	$0.63	$0.48	$0.13
Dividends per common share	$0.00	$0.18	$0.35	$0.45	$0.26	$0.20	$0.21	$0.33	$0.36	$0.09
Cash flow (US$ millions)										
CF from operations (incl. NWC)	$320	$626	$719	$534	$432	$431	$584	$539	$477	$118
Cash flow before working capital changes per share (US$/sh)	$0.93	$1.77	$2.00	$1.50	$1.22	$1.08	$1.34	$1.23	$1.06	$0.28
CF from investing	($201)	($131)	($642)	($2,050)	($146)	($1,791)	($805)	($20)	($861)	($1,312)
CF from financing	$80	($84)	($139)	$834	($74)	$1,155	$242	($545)	$361	($67)
Free Cash Flow (FCF)	**$320**	**$626**	**$719**	**$534**	**$432**	**$431**	**$584**	**$539**	**$477**	**$118**
Balance sheet (US$ millions)										
Cash and cash equivalents	$429	$840	$778	$96	$308	$103	$124	$98	$76	$126
Total debt	$363	$209	$50	$1,000	$999	$1,466	$1,193	$770	$1,264	$1,184
Net cash (debt)	$66	$631	$728	($904)	($690)	($1,363)	($1,069)	($672)	($1,188)	($1,058)
Shareholders' Equity	$2,262	$2,654	$3,107	$3,367	$3,629	$4,151	$4,940	$4,900	$5,172	$5,226
Valuation/Ratios - pricing at end of period										
P/E	47.0	18.6	21.8	19.1	27.1	23.5	31.2	35.3	40.5	45.8
P/CF	41.8	16.4	18.0	13.5	16.7	11.5	14.4	17.9	18.5	21.1
EV/EBITDA	41.8	15.4	17.2	15.2	18.8	15.0	16.0	18.7	19.9	21.1
Dividend yield	0.0%	0.6%	1.0%	2.2%	1.3%	1.6%	1.1%	1.5%	1.8%	1.5%
Net debt / EBITDA	NM	NM	NM	1.7x	1.6x	3.2x	1.8x	1.2x	2.4x	1.9x

Source: Company reports, BofA Merrill Lynch Global Research

Latest financial results

WPM reported adjusted Q1'19 earnings of $56.5mn ($0.13/sh) vs. adj earnings of $69.6mn ($0.16/sh) a year ago. Cash flow was $125.4mn ($0.28/sh) in Q1'19 vs. $125.3mn ($0.28/sh) in Q1'18. WPM reported sales of 171,992 GEO's in Q1'19. For Q1'19, WPM produced 93,585 ozs of gold, 5.6mn ozs of silver and 4,729 ozs of palladium for 165,819 gold equivalent ounces (GEOs) or 13.9mn silver equivalent ozs (SEOs). At 60,846 ozs, Salobo was the cornerstone asset accounting for 37% of total GEO output in Q1'19. The Penasquito mine produced 1.6mn ozs of net silver (~19,033 GEOs), +10% yoy due to higher grades partially offset by lower throughput.

For 2018, net earnings and cash flow from operations were $42.7mn and $477mn, respectively ($58mn and $539mn in 2017). The net earnings differential can be attributed to the San Dimas silver stream disposition and impairment charges. For 2018, attributable gold production was 373,239 ounces vs. 355,104 ounces in 2017. Attributable silver production in 2018 was 24.5mn ounces, relative to 28.3mn ounces for the comparable period in 2017.

Table 17: Revenues by asset

(in US$mn)	*Year-end*					*YoY %*
Revenues by asset	**2014**	**2015**	**2016**	**2017**	**2018**	**2017/18**
Antamina	0.0	18.9	120.9	100.6	86.4	-14.1%
Penasquito	134.8	114.1	71.2	87.9	77.7	-11.6%
Salobo	54.8	124.3	253.6	317.6	336.5	5.9%
San Dimas	104.1	113.2	91.9	65.7	26.9	-59.0%
Sudbury	38.7	39.2	53.4	35.3	21.8	-38.2%
Other	287.8	239.3	300.6	236.2	244.7	3.6%
Total	**620.2**	**648.9**	**891.6**	**843.2**	**794.0**	**-5.8%**

Source: Company reports, BofA Merrill Lynch Global Research

Balance sheet

As of 31-March-19, WPM held net debt of $1.06 billion (bn) ($126mn in cash and $1.18bn in total debt), a $120mn improvement from net debt of $1.19bn ($76mn cash, $1.26bn of debt) at 31-Dec-18. During Q1'19 WPM used its free cash flow to repay $81mn in bank debt. WPM has $1.2bn outstanding under its $2bn revolving term loan and $126mn of cash to pursue new acquisitions.

Stillwater streams purchased

On July 16 2018, WPM announced the acquisition (through its wholly-owned subsidiary, Wheaton Precious Metals International) of gold and palladium streams on the Stillwater and East Boulder mines (Stillwater). WPM paid Sibanye Gold Limited (owner) an upfront cash consideration of $500 million. WPM will receive 100% of the life-of-mine (LOM) gold output from Stillwater and an initial 4.5% of Stillwater's palladium output until 375kozs delivered, decreasing to 2.25% until 550kozs delivered and then 1.0% for LOM. WPM will make ongoing payments equal to 18% of the spot gold and palladium prices until the reduction of the advanced payment to nil, and 22% of the spot gold and palladium prices thereafter. WPM noted that it expects to receive 5.4 koz of gold and 10.4 koz of palladium or 13.2 k gold equivalent ounces (GEO's).

Management overview

Randy Smallwood – President & Chief Executive Officer

Curt Bernardi – Senior Vice President, Legal & Corporate Secretary

Gary Brown – Senior Vice President & Chief Financial Officer

Patrick Drouin – Senior Vice President, Investor Relations

Haytham Hodaly – Senior Vice President, Corporate Development

Wheaton Precious Metals' key asset portfolio

Table 18 sets out the key streaming agreements held by WPM.

Table 18: Wheaton Precious Metals – Key streams

				ATTRIBUTABLE PRODUCTION TO BE PURCHASED					
SILVER AND GOLD INTERESTS	MINE OWNER	LOCATION OF MINE	UPFRONT CONSIDERATION[1]	SILVER	CASH COST[2]	GOLD	CASH COST[2]	TERM OF AGREEMENT	DATE OF CONTRACT
San Dimas	First Majestic	Mexico	$44	25% [3]	70:1 gold linked	25%	US$600/oz	Life of Mine	10-May-18
Peñasquito	Goldcorp	Mexico	$485	25%	US$3.90/oz	0%		Life of Mine	24-Jul-07
Salobo	Vale	Brazil	$3,059	0%		75%	US$400/oz	Life of Mine	28-Feb-13
Sudbury[4]			$624				US$400/oz		
Coleman	Vale	Canada		0%		70%		20 years	28-Feb-13
Copper Cliff	Vale	Canada		0%		70%		20 years	28-Feb-13
Garson	Vale	Canada		0%		70%		20 years	28-Feb-13
Stobie	Vale	Canada		0%		70%		20 years	28-Feb-13
Creighton	Vale	Canada		0%		70%		20 years	28-Feb-13
Totten	Vale	Canada		0%		70%		20 years	28-Feb-13
Victor	Vale	Canada		0%		70%		20 years	28-Feb-13
Antamina	Glencore	Peru	$900	33.75% [5]	20% spot price	0%		Life of Mine	3-Nov-15
Constancia	Hudbay	Peru	$430	100%	US$5.90/oz	50% [6]	US$400/oz	Life of Mine	8-Aug-12
Voisey's Bay	Vale	Canada	$390	42.4% Cobalt	18% spot price	0%		Life of Mine[23]	11-June-18
Stillwater	Sibanye-Stillwater	Canada	$500	4.5% palladium[24]		100%		Life of Mine	25-Jul-18
Other									
Los Filos	Leagold[7]	Mexico	$4	100%	US$3.90/oz	0%		25 years	15-Oct-04
Zinkgruvan	Lundin	Sweden	$78	100%	US$3.90/oz	0%		Life of Mine	8-Dec-04
Yauliyacu	Glencore	Peru	$285	100% [8]	US$3.90/oz	0%		Life of Mine	23-Mar-06
Stratoni	Eldorado Gold[9]	Greece	$58	100%	US$3.90/oz	0%		Life of Mine	23-Apr-07
Minto	Capstone	Canada	$55	100%	US$3.90/oz	100% [10]	US$300/oz	Life of Mine	20-Nov-08
Neves-Corvo	Lundin	Portugal	$35	100%	US$3.90/oz	0%		50 years	5-Jun-07
Aljustrel	I'M SGPS	Portugal	$2	100% [11]	US$3.90/oz	0%		50 years	5-Jun-07
Keno Hill	Alexco	Canada	$45	25% [12]	US$3.90/oz	0%		Life of Mine	2-Oct-08
Barrick			$625		US$3.90/oz				
Pascua-Lama[13]	Barrick	Chile/Argentina		25% [13]		0%		Life of Mine	8-Sep-09
Lagunas Norte	Barrick	Peru		100%		0%		Ended	8-Sep-09
Pierina	Barrick	Peru		100%		0%		Ended[14]	8-Sep-09
Veladero	Barrick[13]	Argentina		100% [15]		0%		Ended	8-Sep-09
Rosemont	Hudbay	United States	$230 [16]	100%	US$3.90/oz	100%	US$450/oz	Life of Mine	10-Feb-10
Loma de La Plata	Pan American	Argentina	$43 [17]	12.5%	US$4.00/oz	0%		Life of Mine	n/a[18]
777	Hudbay	Canada	$455	100%	US$5.90/oz	50% [19]	US$400/oz	Life of Mine	8-Aug-12
Early Deposit									
Toroparu	Sandspring	Guyana	$154 [20]	50%	US$3.90/oz	10%	US$400/oz	Life of Mine	11-Nov-13
Cotabambas	Panoro	Peru	$140 [21]	100% [22]	US$5.90/oz	25% [22]	US$450/oz	Life of Mine	21-Mar-16

[1] Expressed in United States dollars, rounded to the nearest million; excludes closing costs and capitalized interest, where applicable.

[2] Subject to an annual inflationary price adjustment. Lesser of listed cash cost and prevailing market price.

[3] First Majestic will deliver 25% of gold output plus an amount of gold equal to 25% of silver output converted to gold

[4] Comprised of the Coleman, Copper Cliff, Garson, Stobie, Creighton, Totten and Victor Gold interests.

[5] Once the Company has received 140mn ounces of silver under the Antamina agreement, the Company's attributable silver production to be purchased will be reduced to 22.5%.

[6] Gold recoveries will be set at 55% for the Constancia deposit and 70% for the Pampacancha deposit until 265,000 ounces of gold have been delivered to the Company. Should there be a delay in achieving completion or mining the Pampacancha deposit beyond the end of 2018, Silver Wheaton would be entitled to additional compensation in respect of the gold stream.

[7] On April 7, 2017, Leagold Mining Corporation completed the acquisition of the Los Filos mine from Goldcorp. Goldcorp's guarantee of deliveries in respect of the Los Filos mine remains in place.

[8] Glencore will deliver a per annum amount to Wheaton Precious Metals equal to the first 1.5mn ounces of payable silver produced at Yauliyacu and 50% of any excess. [9] 95% owned by Eldorado Gold Corporation. [10] The Company is entitled to acquire 100% of the first 30,000 ounces of gold produced per annum and 50% thereafter. [11] Wheaton Precious Metals only has the rights to silver contained in concentrate containing less than 15% copper at the Aljustrel mine. [12] On March 29, 2017, the Company amended its silver purchase agreement with Alexco Resource Corp. ("Alexco") to adjust the silver production payment so that it will be a percentage of the spot silver price that increases with lower mill silver head grades and lower silver prices, and decreases with higher mill silver head grades and higher silver prices, subject to certain ceiling and floor grades and prices. In addition, the outside completion date was extended to December 31, 2019 and the area of interest was expanded to include properties currently owned by Alexco and properties acquired by Alexco in the future which fall within a one kilometre radius of existing Alexco holdings in the Keno Hill Silver District. As consideration, on April 10, 2017 Alexco issued 3mn shares to Silver Wheaton which had a fair value of $5mn. [13] As per Barrick Gold Corporation's ("Barrick") MD&A for the period ended June 30, 2017, Barrick reported that it had completed the sale of a 50% interest in the Veladero mine to Shandong Gold Group Co. Ltd. ("Shandong"), and that they have formed a working group with Shandong to explore the joint development of the Pascua-Lama deposit. Wheaton Precious Metals' streaming agreements with Barrick on Veladero and Pascua-Lama remain unchanged as a result of this transaction.

[14] As per Barrick's disclosure, closure activities were initiated at Pierina in August 2013.

[15] Wheaton Precious Metals' attributable silver production is subject to a maximum of 8% of the silver contained in the ore processed at Veladero during the period.

[23] WPM receives 42.4% of cobalt effective January 1st, Wheaton will be entitled to receive from Vale an amount of cobalt equal to 42.4% of the Voisey's Bay mine cobalt production until the delivery of 31mn pounds of cobalt and an amount of cobalt equal to 21.2% of cobalt production thereafter for the life of mine.

[16] The upfront consideration is currently reflected as a contingent obligation, payable on an installment basis to partially fund construction of the Rosemont mine once certain milestones are achieved, including the receipt of key permits and securing the necessary financing to complete construction of mine.

[17] Comprised of $11mn allocated to the silver interest upon the Company's acquisition of Silverstone Resources Corp. in addition to a contingent liability of $32mn, payable upon the satisfaction of certain conditions, including Pan American receiving all necessary permits to proceed with the mine construction.

[18] Definitive terms of the agreement to be finalized. [19] As Hudbay's Constancia mine has satisfied its completion test, Wheaton Precious Metals' share of gold production from 777 has been reduced to 50% for the life of the mine effective January 1, 2017.

[20] Comprised of $16mn paid to date and $138mn to be payable on an installment basis to partially fund construction of the mine. Following the delivery of certain feasibility documentation or after December 31, 2017 if the feasibility documentation has not been delivered to Wheaton Precious Metals by such date, Wheaton Precious Metals may elect not to proceed with the agreement or not pay the balance of the upfront consideration and reduce the gold stream percentage from 10% to 0.909% and the silver stream percentage from 50% to nil. If Wheaton Precious Metals elects to terminate, Wheaton Precious Metals will be entitled to a return of the amounts advanced less $2mn which is non-refundable on the occurrence of certain events. If Wheaton Precious Metals elects to reduce the streams, Sandspring Resources Ltd. ("Sandspring") may return the amount of the deposit already advanced less $2mn to Wheaton Precious Metals and terminate the agreement.

[21] Comprised of $5mn paid to date, $9mn which is payable on an installment basis spread out over a period of up to eight years and $126mn payable on an installment basis to partially fund construction of the mine once certain conditions have been satisfied. Following the delivery of certain feasibility documentation, the Company may elect to terminate the Cotabambas Early Deposit Agreement. If the Company elects to terminate, the Company will be entitled to a return of the portion of the $14mn paid less $2mn, with this repayment being due upon certain triggering events occurring. Until January 1, 2020, Panoro has a one-time option to repurchase 50% of the precious metal stream on a change of control for an amount based on a calculated rate of return for the Company.

[22] Once 90mn silver equivalent ounces attributable to Wheaton Precious Metals have been produced, the attributable production to be purchased will decrease to 66.67% of silver production and 16.67% of gold production for the life of mine.

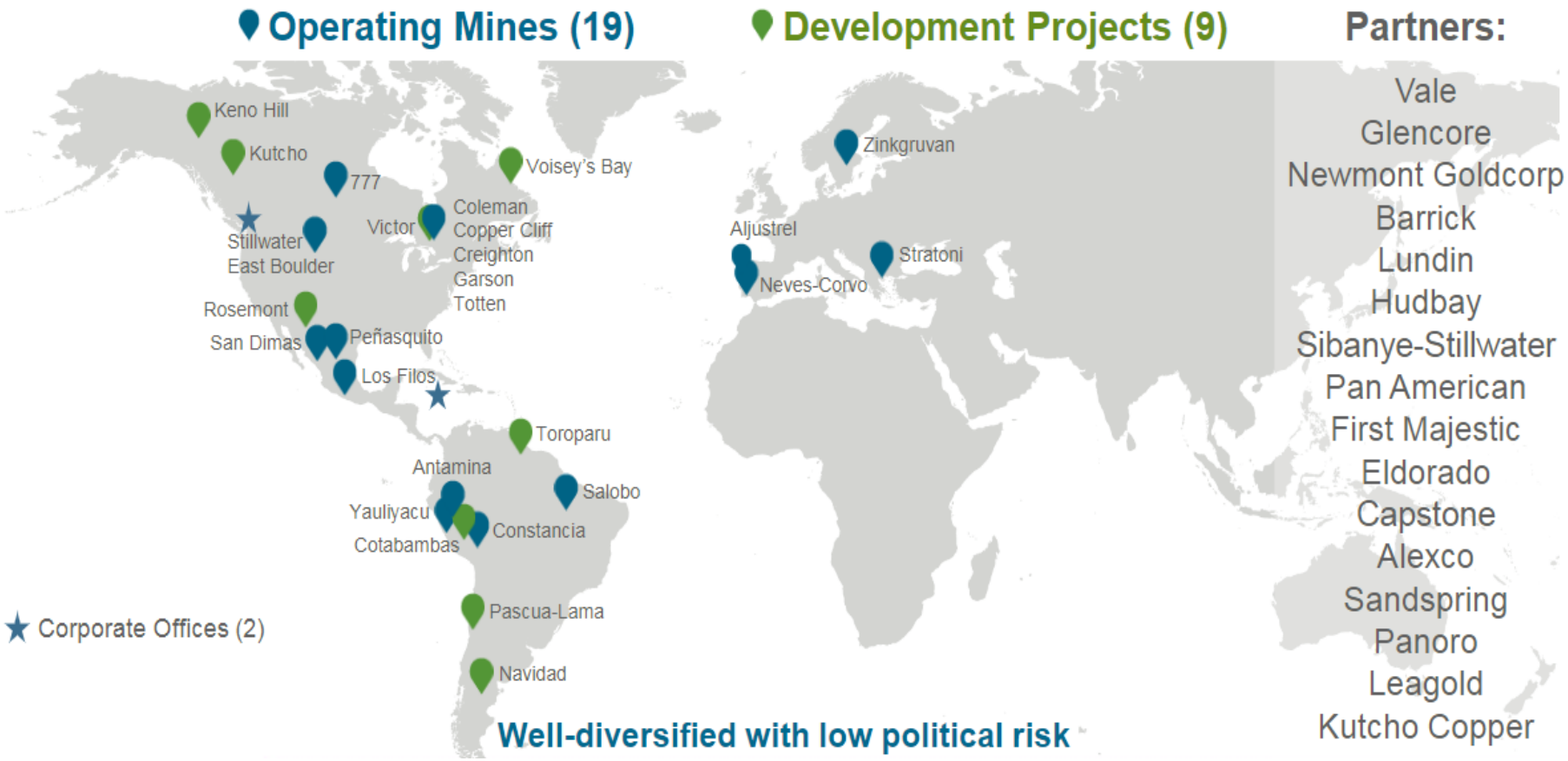
[23] Wheaton will make ongoing payments equal to 18% of the spot gold price and spot palladium price until the reduction of the advanced payment to nil, and 22% of the spot gold and palladium price thereafter.

[24] Wheaton is entitled to 4.5% of palladium production from Stillwater assets until 375,000 ozs are delivered, then 2.25% of palladium production until 550,000 ozs are delivered, and 1.00% thereafter.

Source: Company reports, BofA Merrill Lynch Global Research

Exhibit 18 sets out a location map of the streaming assets. Exhibit 19 sets out the acquisition history versus the gold price.

Exhibit 18: Wheaton Precious Metals streaming assets (as of May 2019)



Source: Wheaton Precious Metals Corporate Presentation

Exhibit 19: Wheaton Precious Metals' acquisition history vs. gold price

Source: Company reports, Bloomberg, BofA Merrill Lynch Global Research

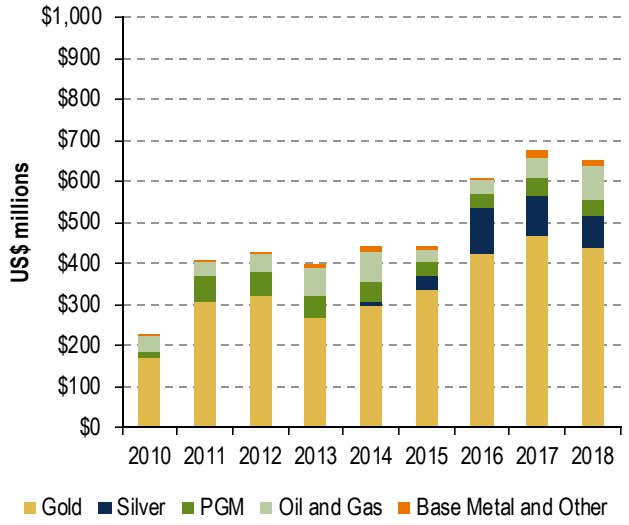
Section 8: Comparing the streamers

Charts 7-50 set out the historical financial and operating profile for the four key royalty and streaming players under our North American coverage universe: Franco-Nevada, Osisko Gold Royalties, Royal Gold and Wheaton Precious Metals.

Revenues by commodity

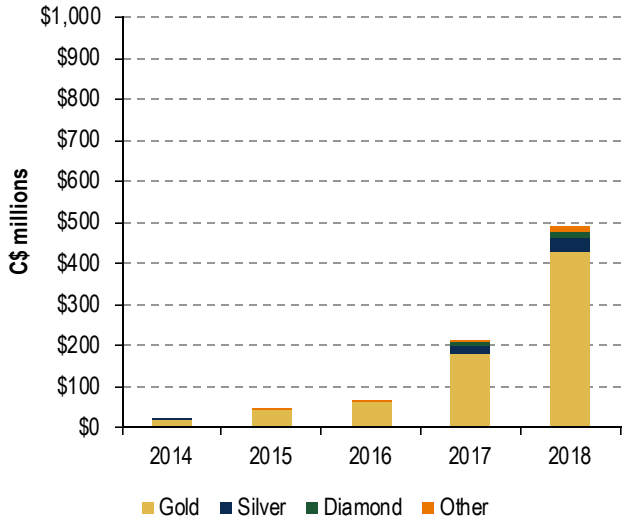
Charts 7-10 shows the historical revenues broken down by commodity type.

Chart 7: Franco-Nevada's revenues by commodity (2010-2018)



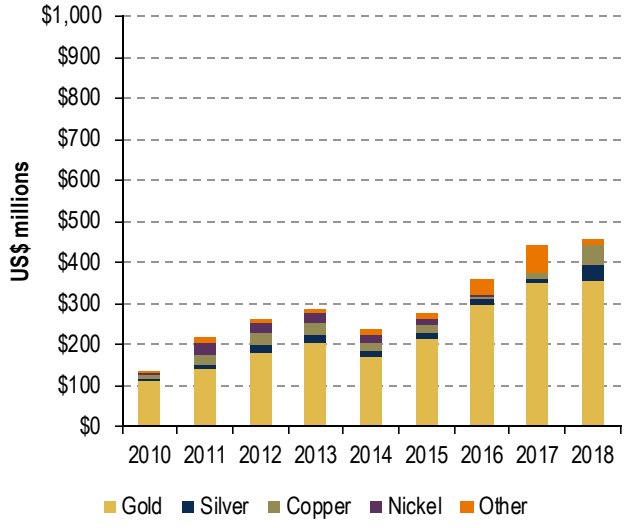
Source: Company reports

Chart 8: Osisko Gold Royalties' revenues by commodity (2014-2018)



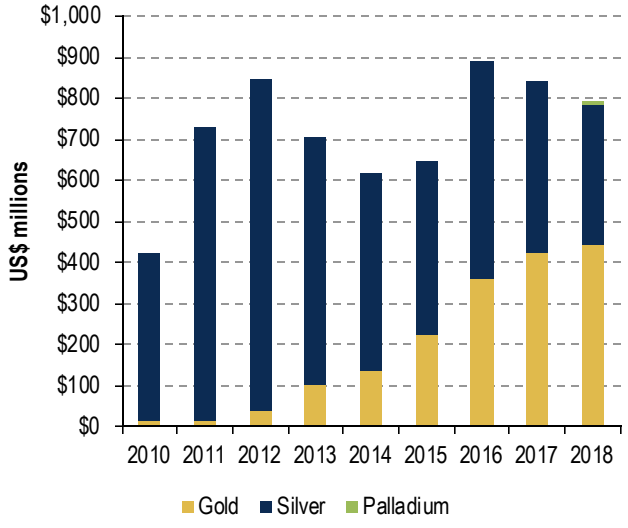
Source: Company reports

Chart 9: Royal Gold's revenues by commodity (2010-2018)



Source: Company reports

Chart 10: WPM's revenues by commodity (2010-2018)



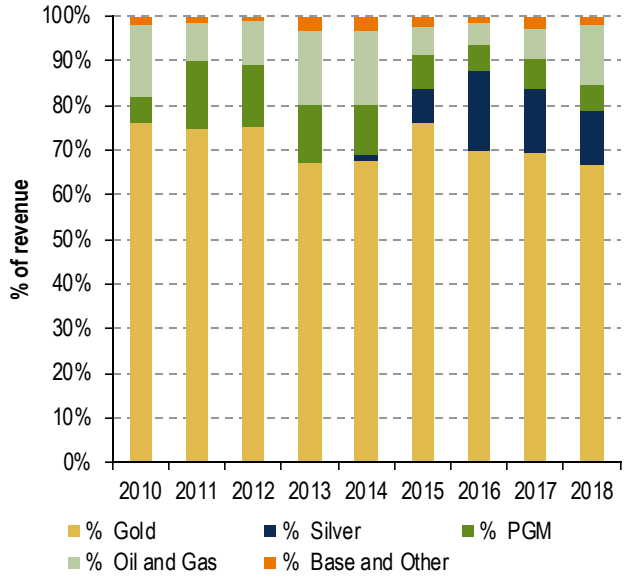
Source: Company reports

Bank of America Merrill Lynch

Revenues by commodity (%)

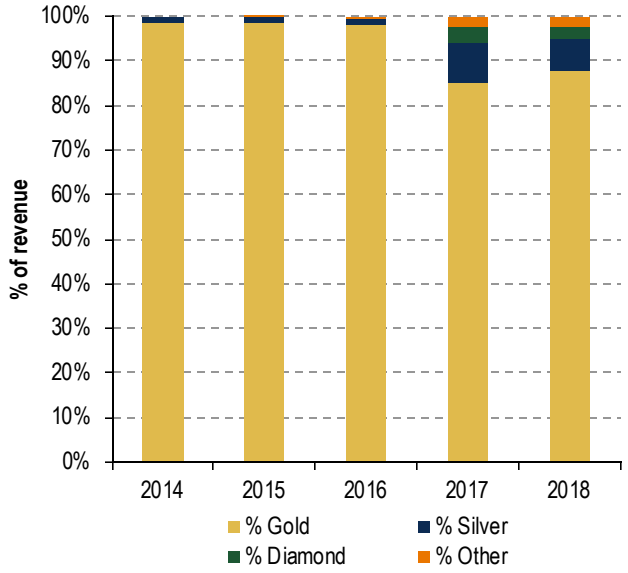
Charts 11-14 shows the historical revenues broken down by commodity type, expressed in % terms.

Chart 11: Franco-Nevada's revenues by commodity % (2010-2018)



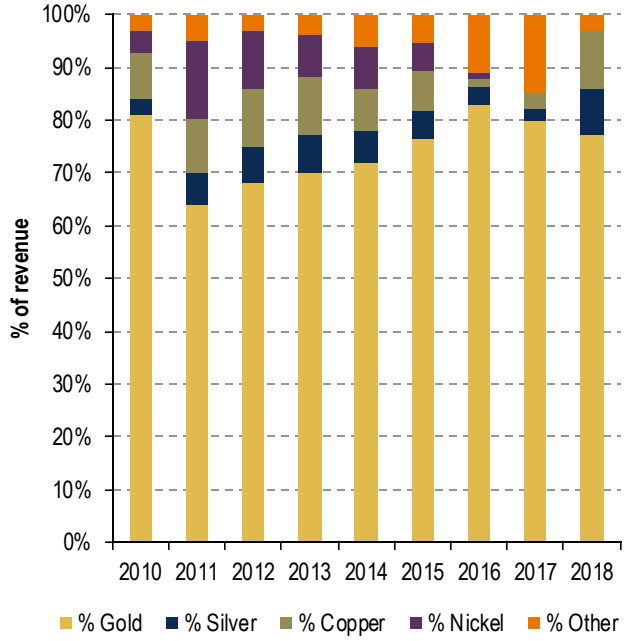
Source: Company reports

Chart 12: Osisko Gold Royalties' revenues by commodity % (2014-18)



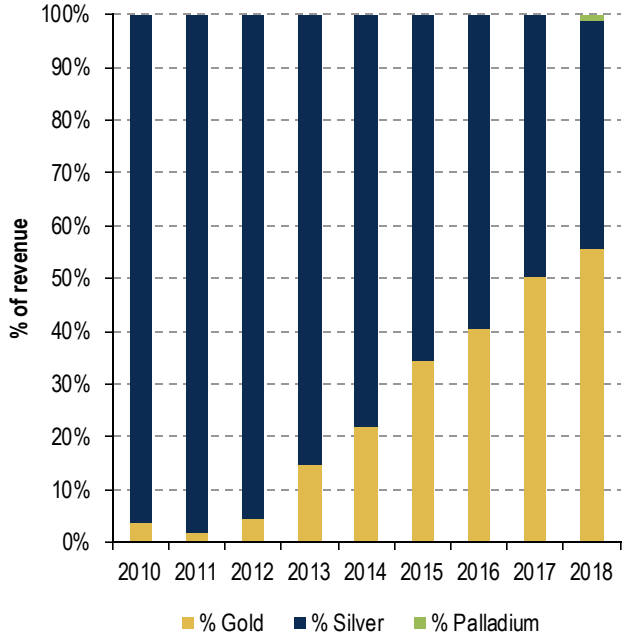
Source: Company reports

Chart 13: Royal Gold's revenues by commodity % (2010-2018)



Source: Company reports

Chart 14: WPM's revenues by commodity % (2010-2018)

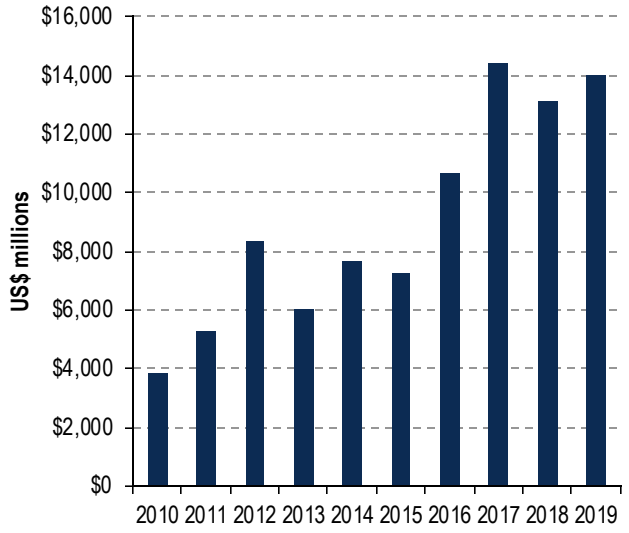


Source: Company reports

Market capitalization

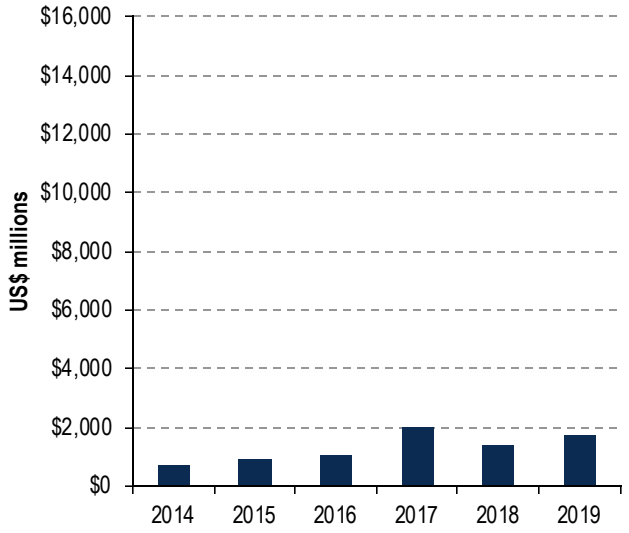
Charts 15-18 shows the historical market capitalization.

Chart 15: Franco-Nevada's market capitalization (2010-June 28, 2019)



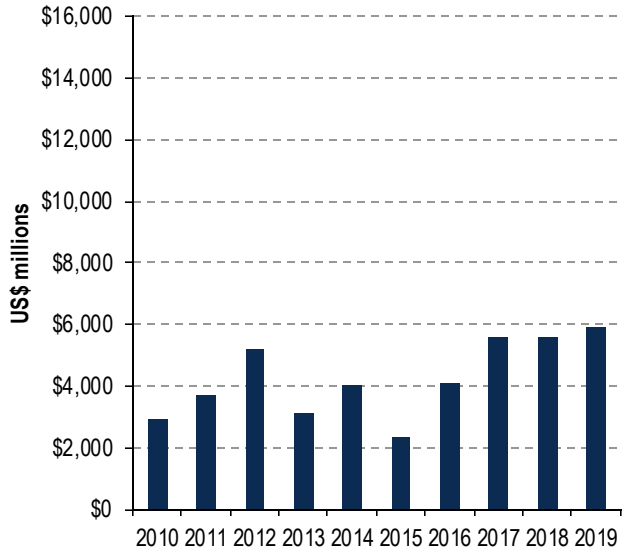
Source: Bloomberg

Chart 16: Osisko Gold Royalties' s market capitalization (2014-June 28, 2019)



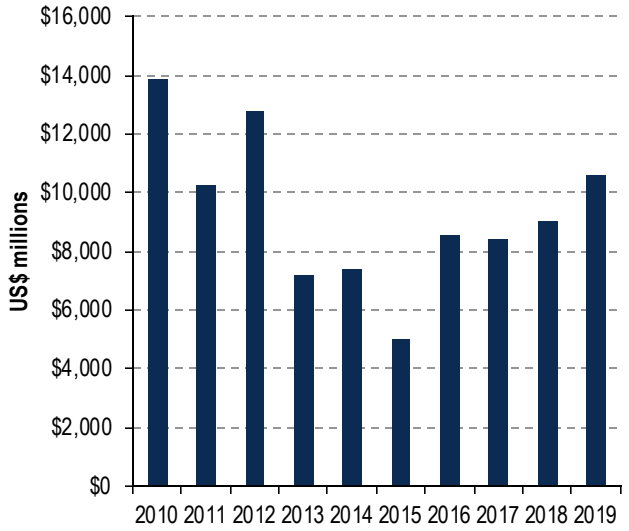
Source: Bloomberg

Chart 17: Royal Gold's market capitalization (2010-June 28, 2019)



Source: Bloomberg

Chart 18: WPM's market capitalization (2010-June 28, 2019)



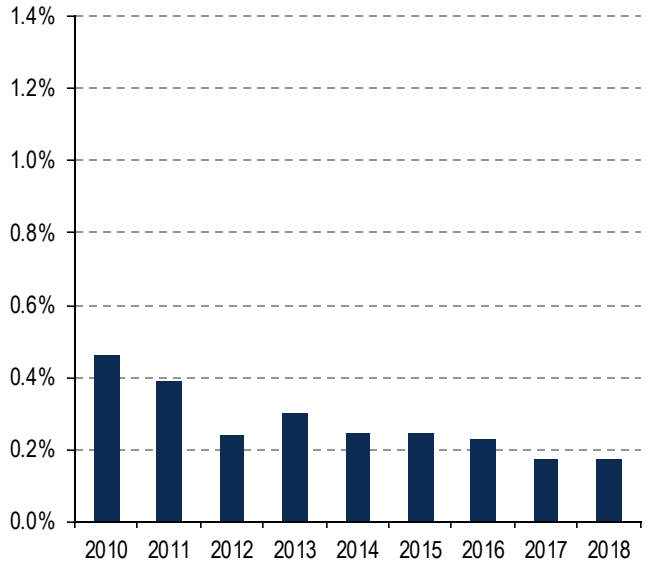
Source: Bloomberg

Bank of America Merrill Lynch

G&A as a % of market capitalization

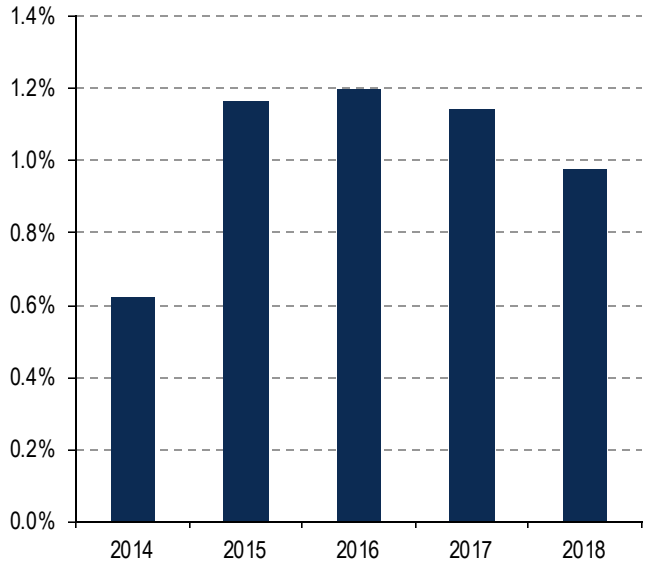
Charts 19-22 shows the historical G&A expense as a % of market capitalization.

Chart 19: Franco-Nevada's G&A as a % of market capitalization (2010-2018)



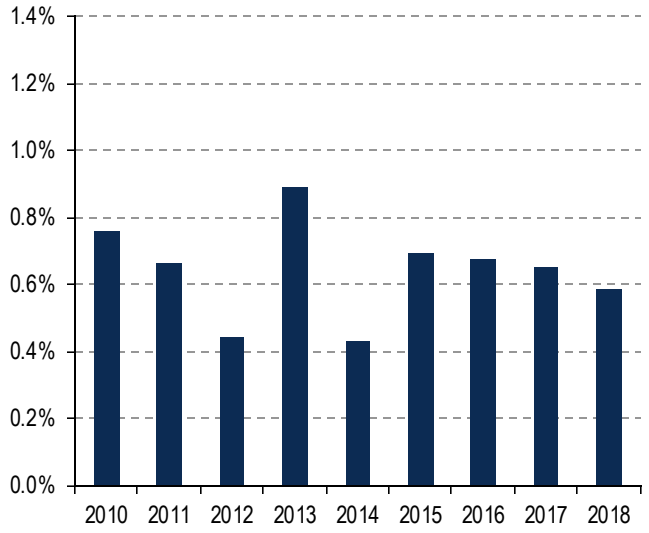
Source: Company reports, Bloomberg

Chart 20: Osisko Gold Royalties' G&A as a % of market capitalization (2014-2018)



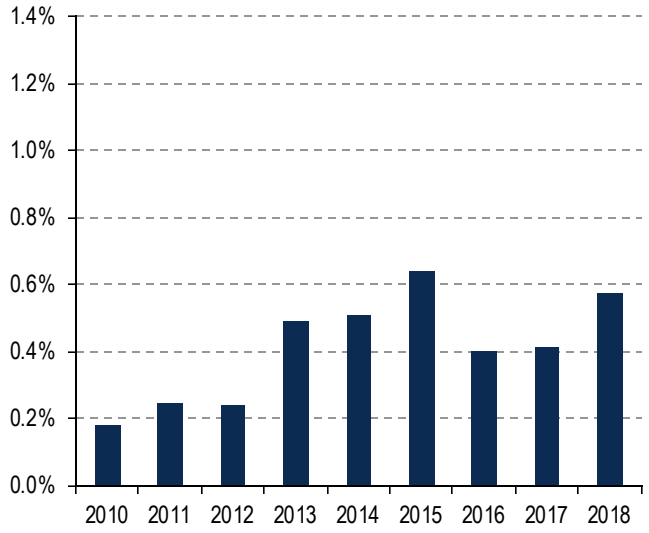
Source: Company reports, Bloomberg

Chart 21: Royal Gold's G&A as a % of market capitalization (2010-2018)



Source: Company reports, Bloomberg

Chart 22: WPM's G&A as a % of market capitalization (2010-2018)

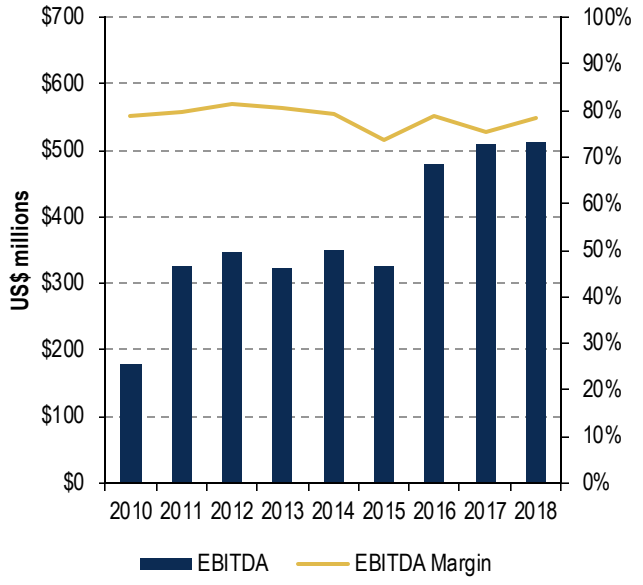


Source: Company reports, Bloomberg

EBITDA and EBITDA margin

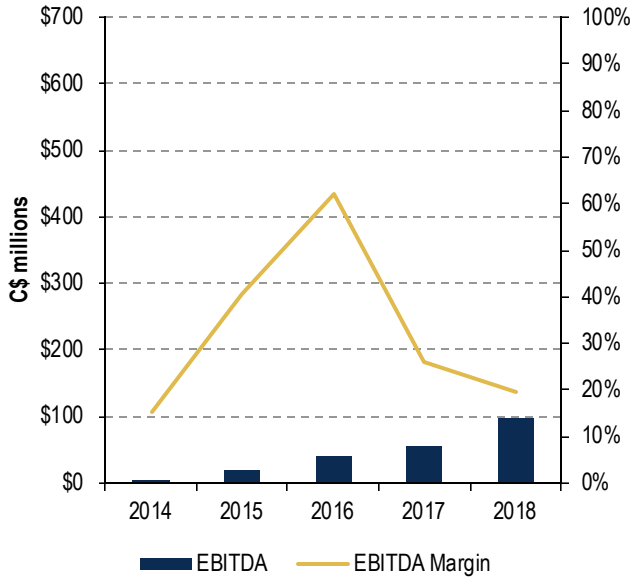
Charts 23-26 shows the historical EBITDA and EBITDA margin.

Chart 23: Franco-Nevada's EBITDA and EBITDA margin (2010-2018)



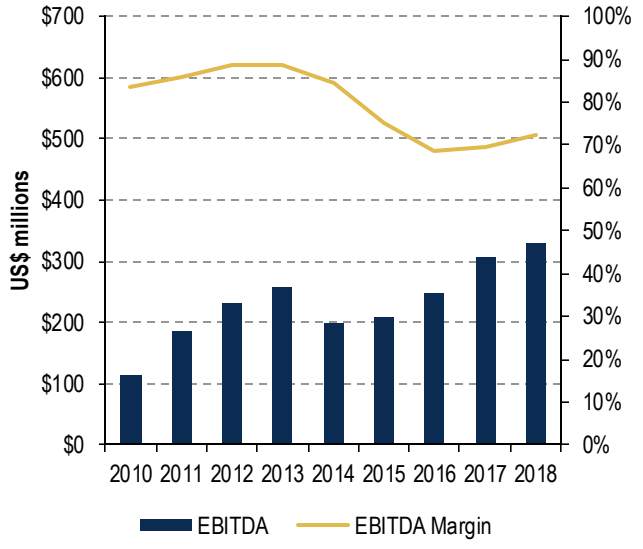
Source: Company reports

Chart 24: Osisko Gold Royalties' EBITDA and EBITDA margin (2014-2018)



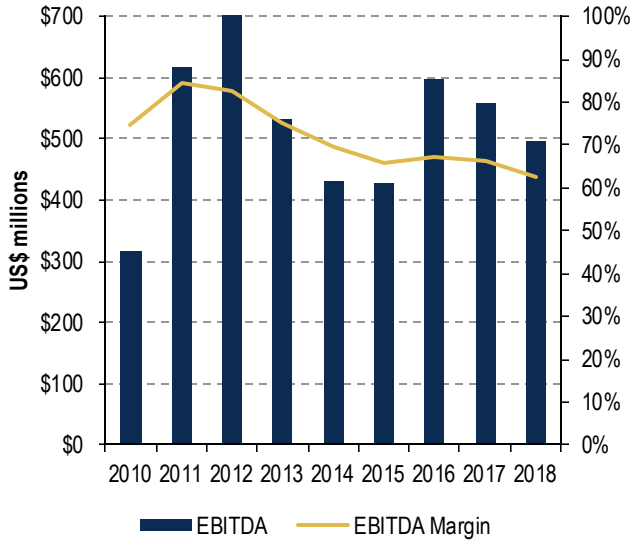
Source: Company reports

Chart 25: Royal Gold's EBITDA and EBITDA margin (2010-2018)



Source: Company reports

Chart 26: WPM's EBITDA and EBITDA margin (2010-2018)

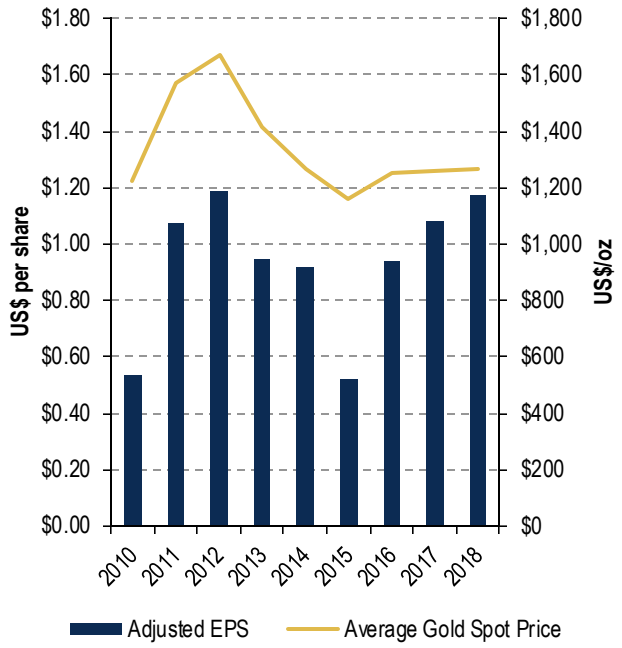


Source: Company reports

Basic adjusted EPS attributable to equity shareholders

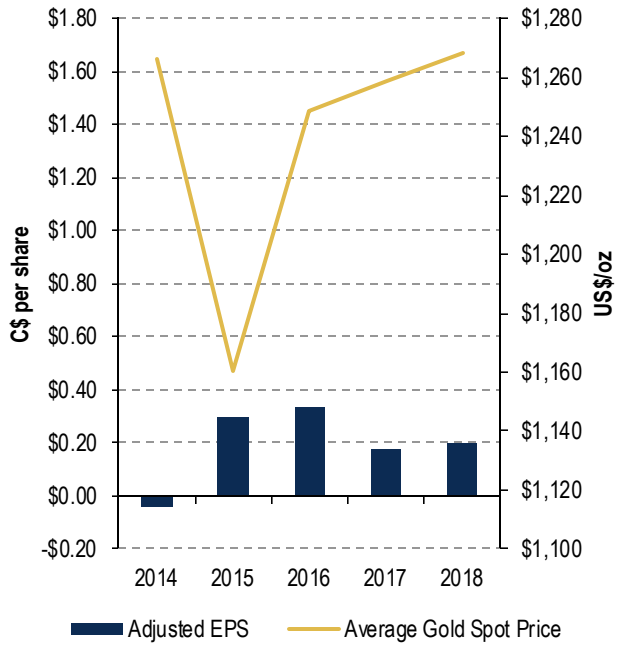
Charts 27-30 shows the historical basic adjusted EPS attributable to equity shareholders.

Chart 27: Franco-Nevada's basic adjusted EPS attributable to equity shareholders (2010-2018)



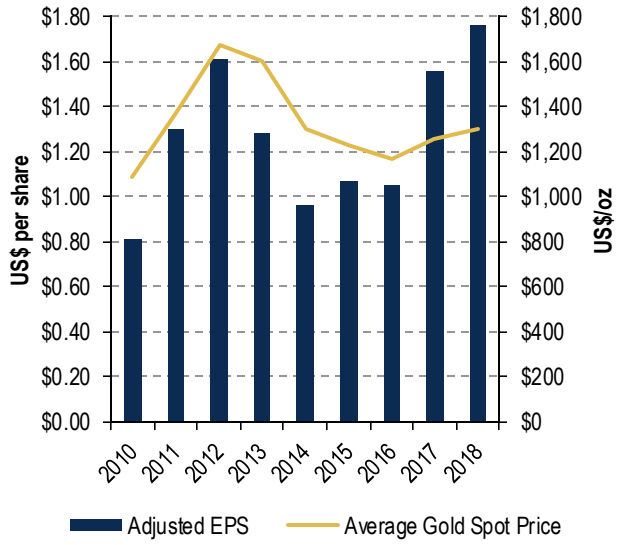
Source: Company reports, Bloomberg

Chart 28: Osisko Gold Royalties' basic adjusted EPS attributable to equity shareholders (2014-2018)



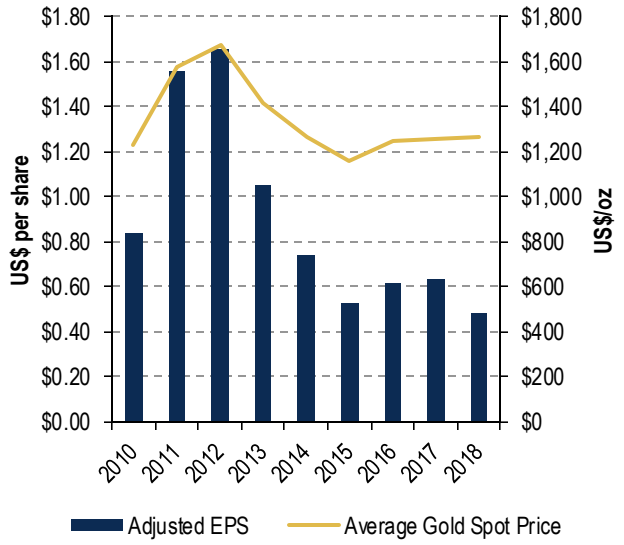
Source: Company reports, Bloomberg

Chart 29: Royal Gold's basic adjusted EPS attributable to equity shareholders (2010-2018)



Source: Company reports, Bloomberg

Chart 30: WPM's basic adjusted EPS attributable to equity shareholders (2010-2018)

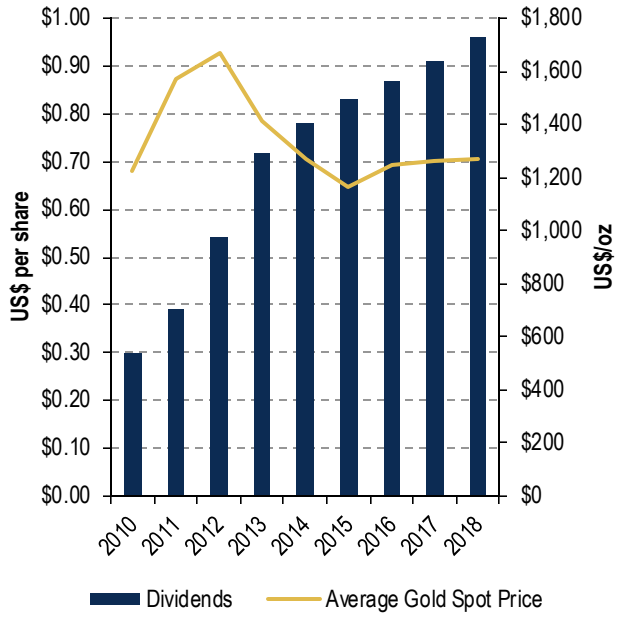


Source: Company reports, Bloomberg

Dividend payout

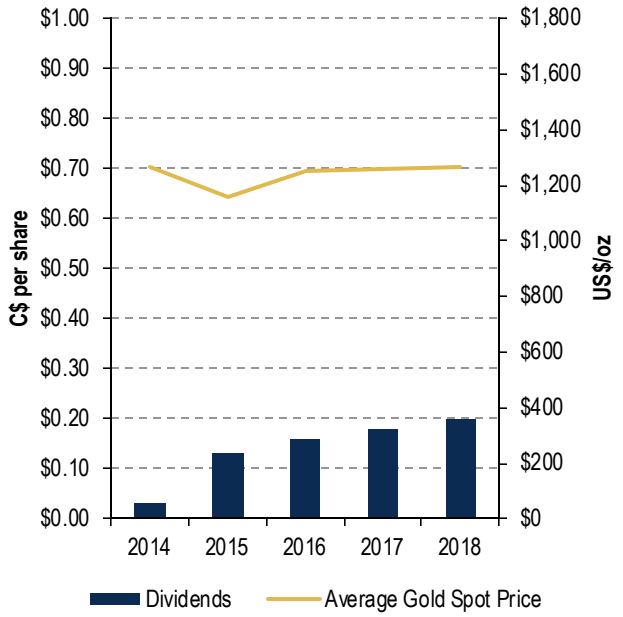
Charts 31-34 shows the historical payout of dividends and the average spot price for gold.

Chart 31: Franco-Nevada's dividend profile (2010-2018)



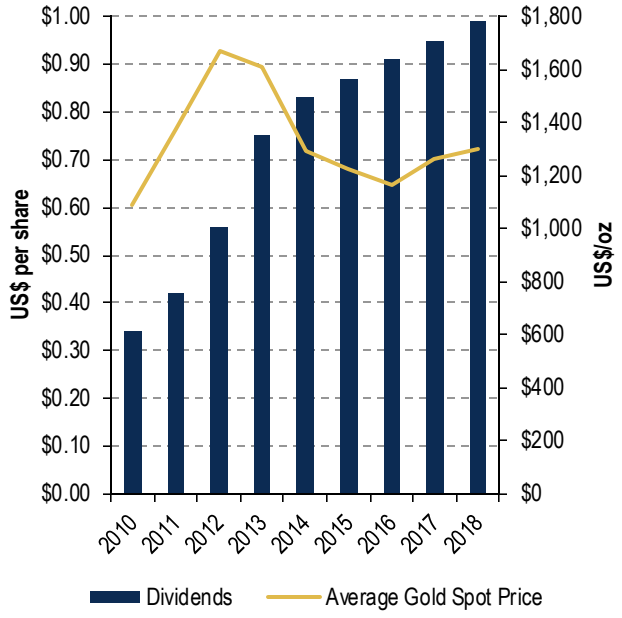
Source: Company reports, Bloomberg

Chart 32: Osisko Gold Royalties' dividend profile (2014-2018)



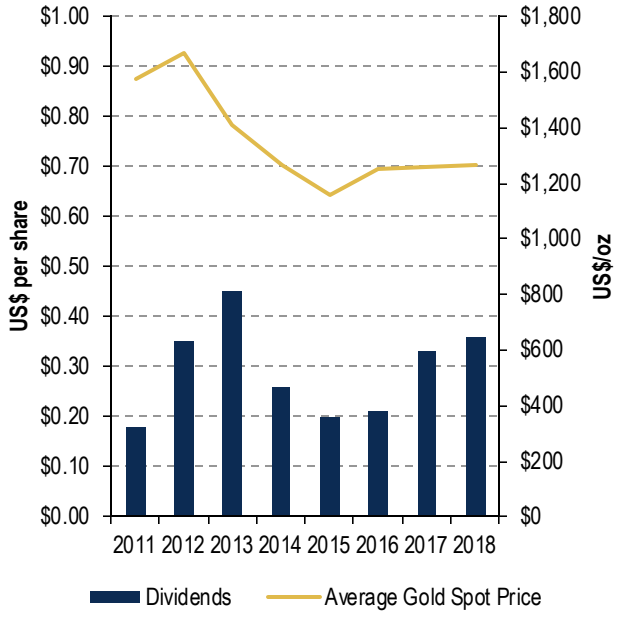
Source: Company reports, Bloomberg

Chart 33: Royal Gold's dividend profile (2010-2018)



Source: Company reports, Bloomberg
Note: RGLD has June 30th fiscal year-end

Chart 34: Wheaton Precious Metals' dividend profile (2011-2018)



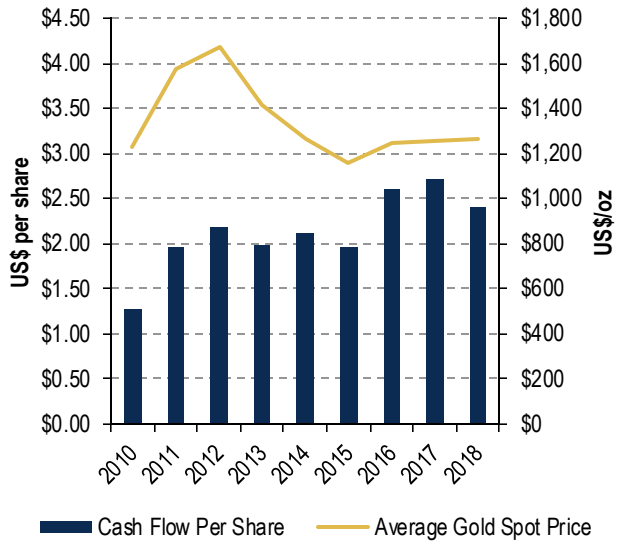
Source: Company reports, Bloomberg

Bank of America Merrill Lynch

Historical CFPS

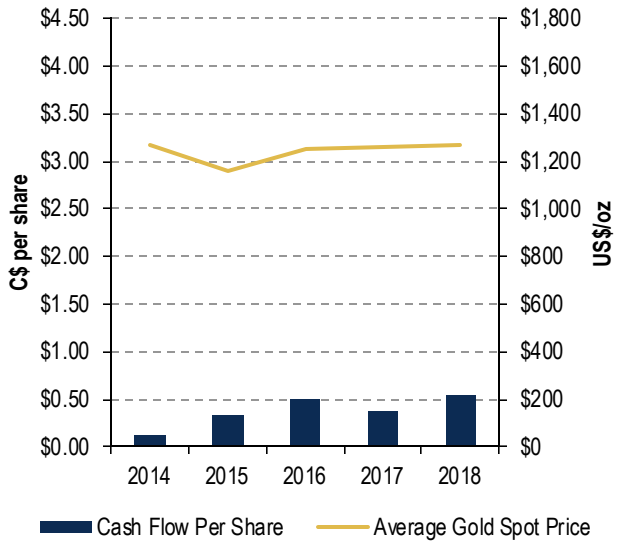
Charts 35-38 shows the historical cash flow before working capital changes per share.

Chart 35: Franco-Nevada's cash flow before working capital changes per share (2010-2018)



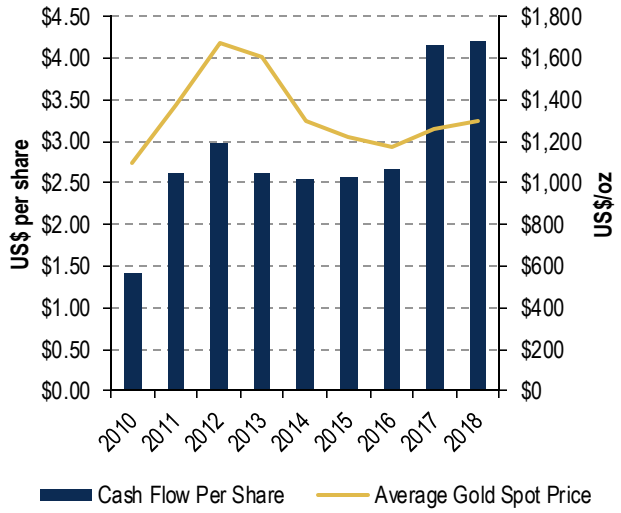
Source: Company reports, Bloomberg

Chart 36: Osisko Gold Royalties' cash flow before working capital changes per share (2014-2018)



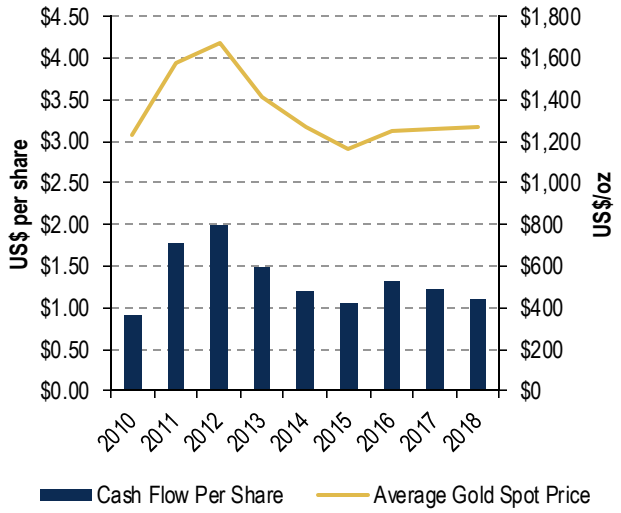
Source: Company reports, Bloomberg

Chart 37: Royal Gold's cash flow before working capital changes per share (2010-2018)



Source: Company reports, Bloomberg
Note: RGLD has June 30th fiscal year-end

Chart 38: Wheaton Precious Metals' cash flow before working capital changes per share (2010-2018)

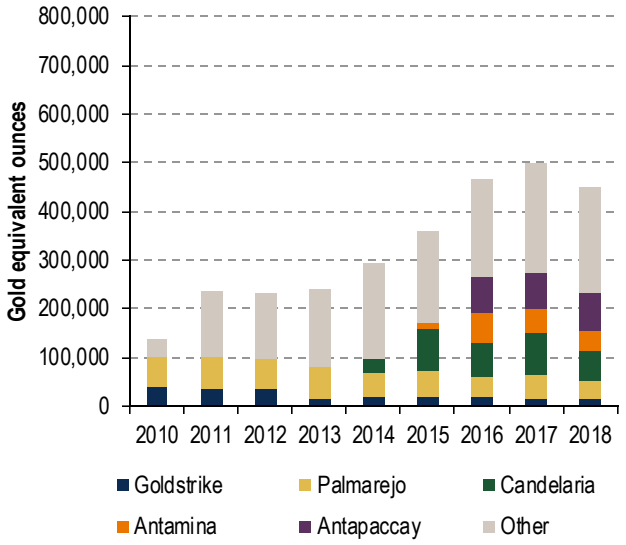


Source: Company reports, Bloomberg

Gold equivalent ounces by asset

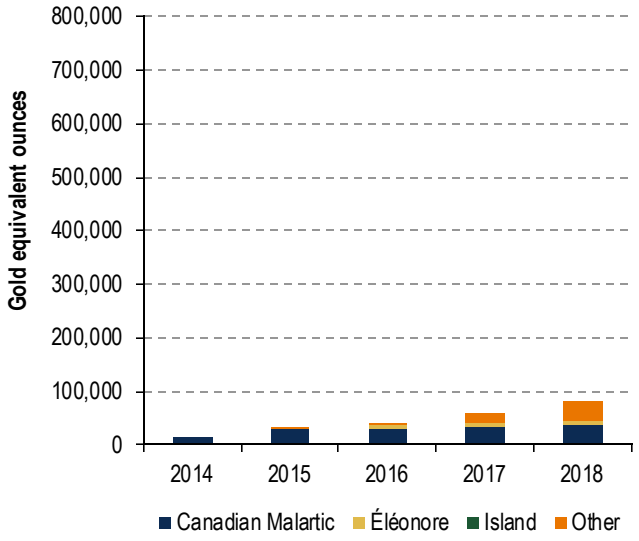
Charts 39-42 shows the historical GEOs broken down by asset.

Chart 39: Franco-Nevada's gold equivalent ounces by asset (2010-2018)



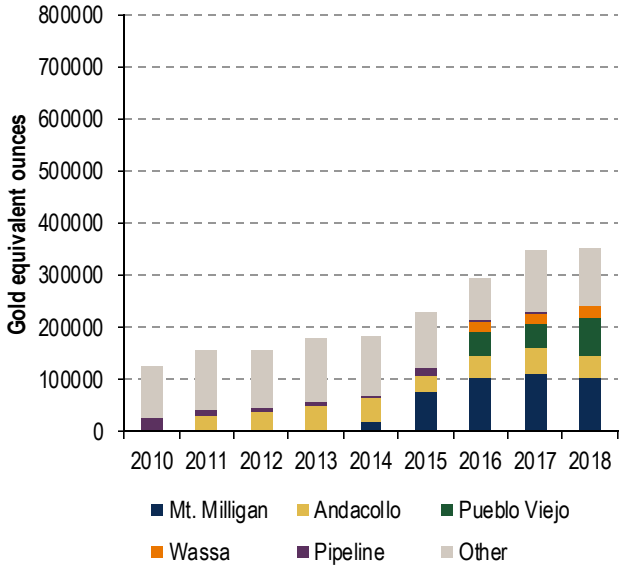
Source: Company reports

Chart 40: Osisko Gold Royalties' gold equivalent ounces by asset (2014-2018)



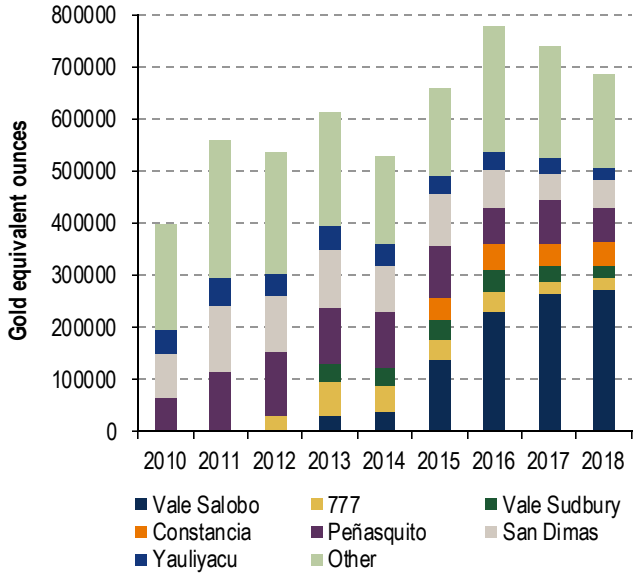
Source: Company reports

Chart 41: Royal Gold's gold equivalent ounces by asset (2010-2018)



Source: Company reports

Chart 42: WPM's gold equivalent ounces by asset (2010-2018)



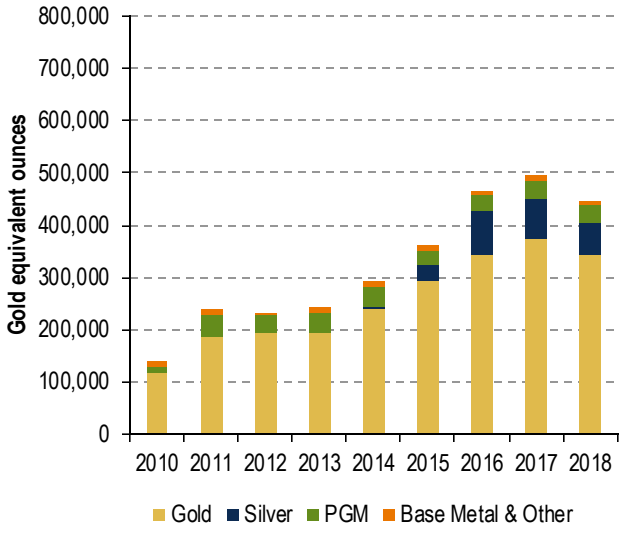
Source: Company reports

Bank of America Merrill Lynch

Gold equivalent ounces by metal

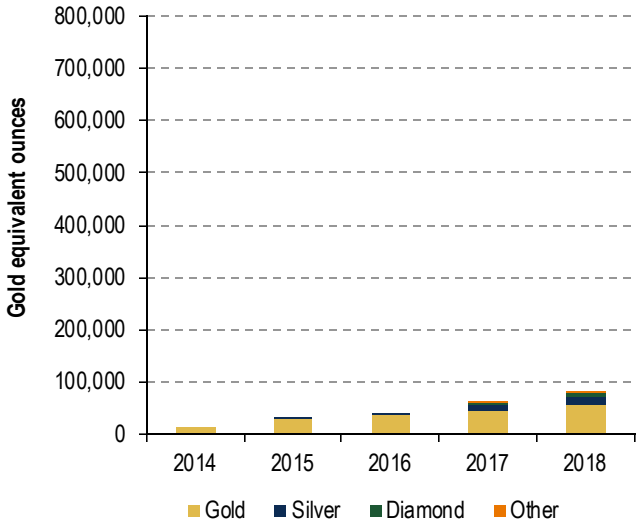
Charts 43-46 shows the historical GEOs broken down by metal.

Chart 43: Franco-Nevada's gold equivalent ounces by metal (2010-2018)



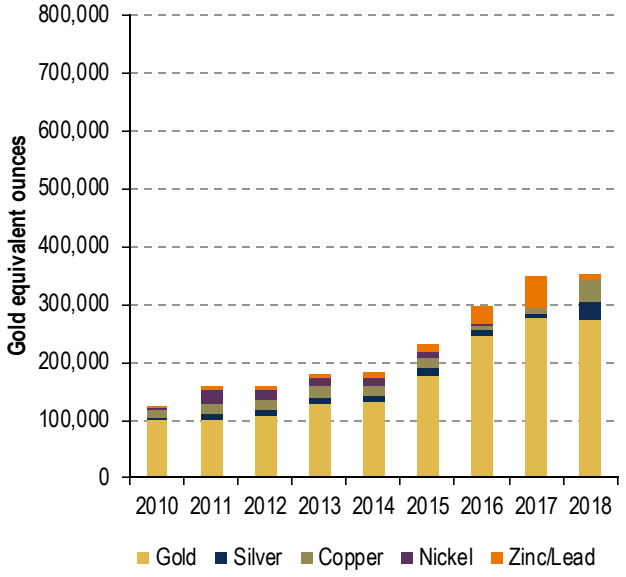
Source: Company reports

Chart 44: Osisko Gold Royalties' gold equivalent ounces by metal (2014-2018)



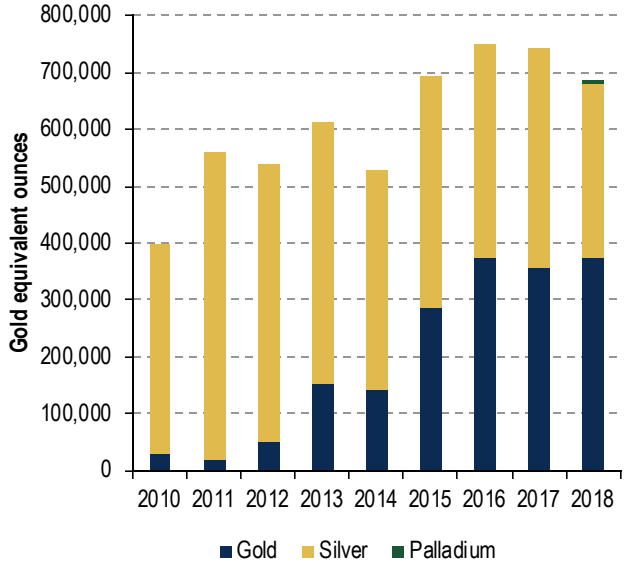
Source: Company reports

Chart 45: Royal Gold's gold equivalent ounces by metal (2010-2018)



Source: Company reports

Chart 46: WPM's gold equivalent ounces by metal (2010-2018)

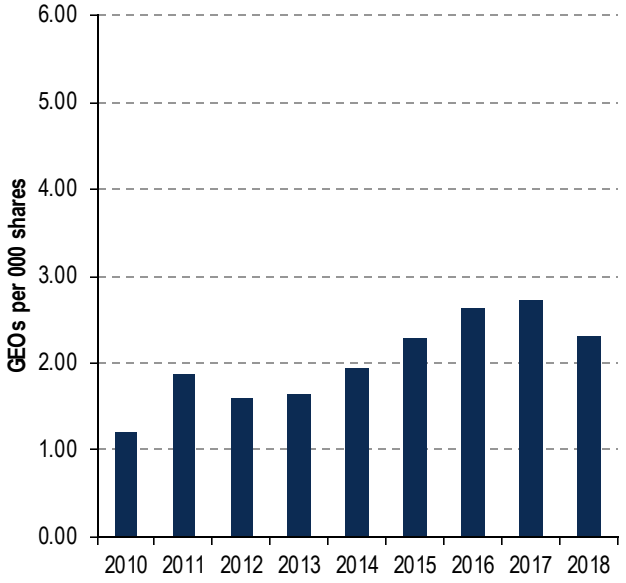


Source: Company reports

Gold equivalent ounces per 000 shares

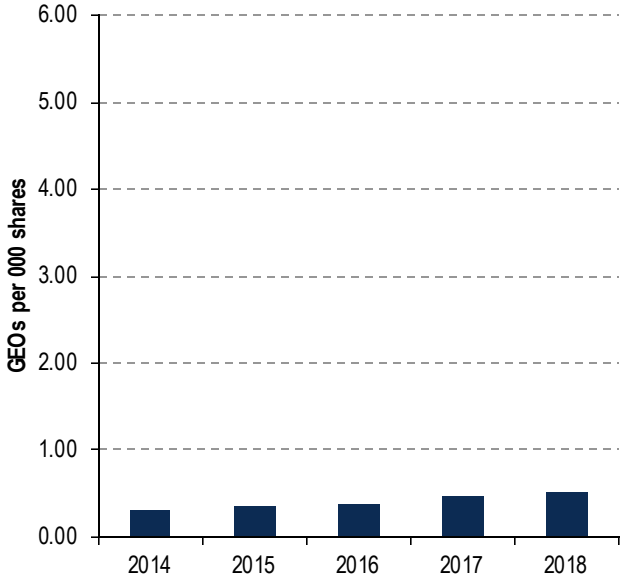
Charts 47-50 shows the historical GEOs per thousand shares.

Chart 47: Franco-Nevada's GEOs per 000 shares (2010-2018)



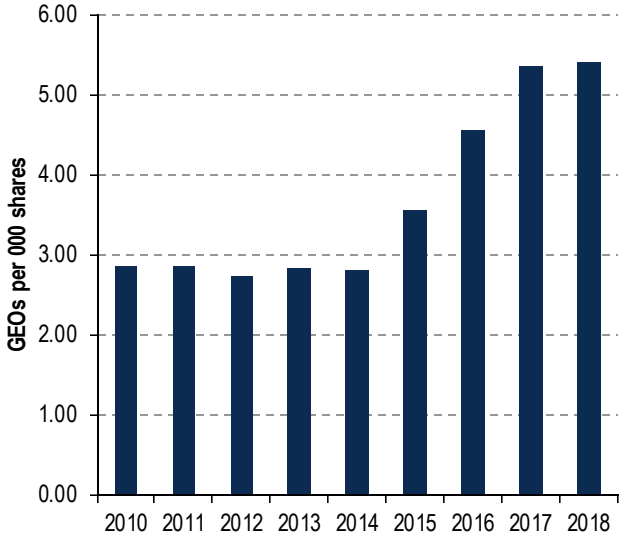
Source: Company reports, Bloomberg

Chart 48: Osisko Gold Royalties' GEOs per 000 shares (2014-2018)



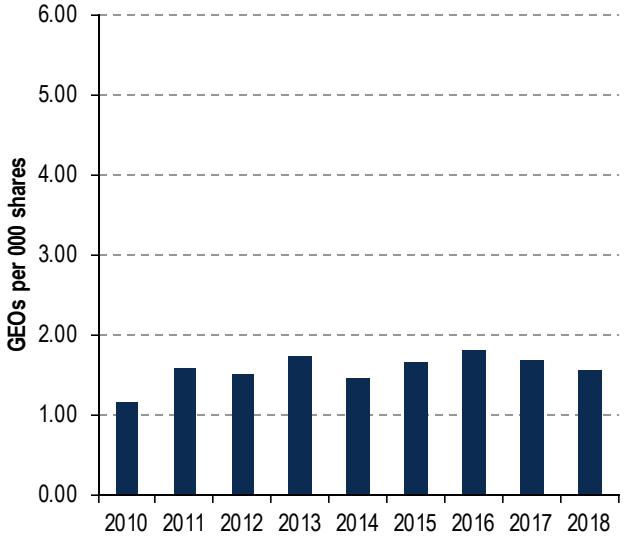
Source: Company reports, Bloomberg

Chart 49: Royal Gold's GEOs per 000 shares (2010-2018)



Source: Company reports, Bloomberg

Chart 50: Wheaton Precious Metals' GEOs per 000 shares (2010-2018)



Source: Company reports, Bloomberg

Section 9: Valuing royalties & streamers

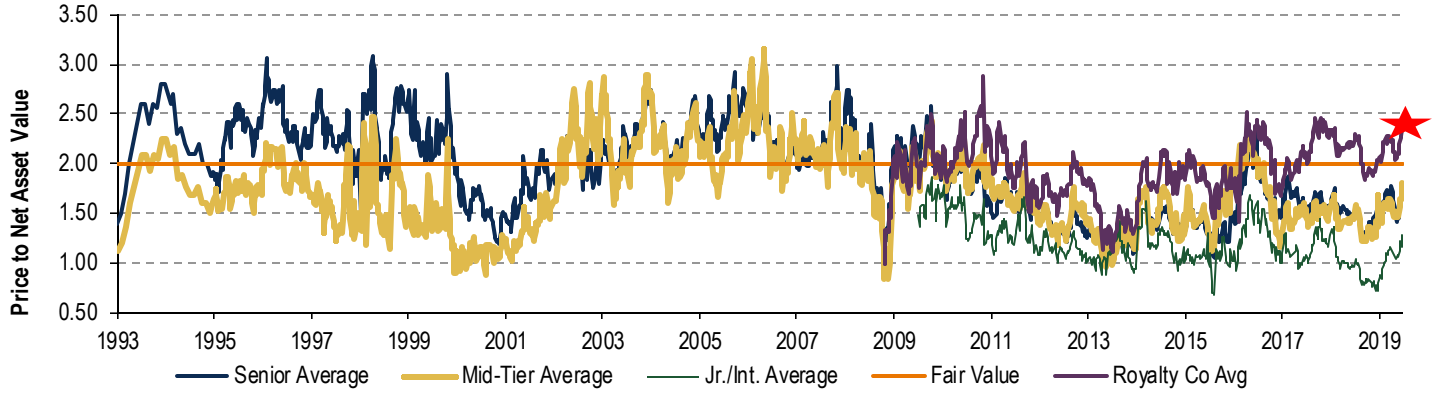
Price to net asset value (P/NAV)

Our primary valuation methodology for our precious metals coverage is discounted cash flow (DCF), in most cases sum-of-the-parts DCF. In our view, this is the most appropriate way to account for value across the cycle. We use a discount rate of 5% (we model in real terms) across our gold equities in keeping with our global gold coverage). Our long-term gold and silver prices is based on several factors including: 1) the three year rolling average gold price; 2) all-in cost structures; and 3) gold and silver prices that companies use for feasibility studies. In periods of increased uncertainty, DCFs may seem less valuable, as the focus on valuation generally shifts to the near term. For this reason, we look at a number of other valuation metrics in an attempt to determine the attractiveness of these counters on near and longer term basis.

Royalty/Streamers trade at premiums to producing entities

As per Chart 51, the average P/NAV multiples for the North American precious metal companies have ranged 1-3x asset value and are currently trading at 1.82x, a big discount to the royalty & streaming companies at 2.37x. Royalty & streaming companies have historically traded at premiums to operating companies due to being non operators, diversification of asset bases, low cost structures, low geopolitical risk, ease of raising capital, free cash flow generation and rising dividends.

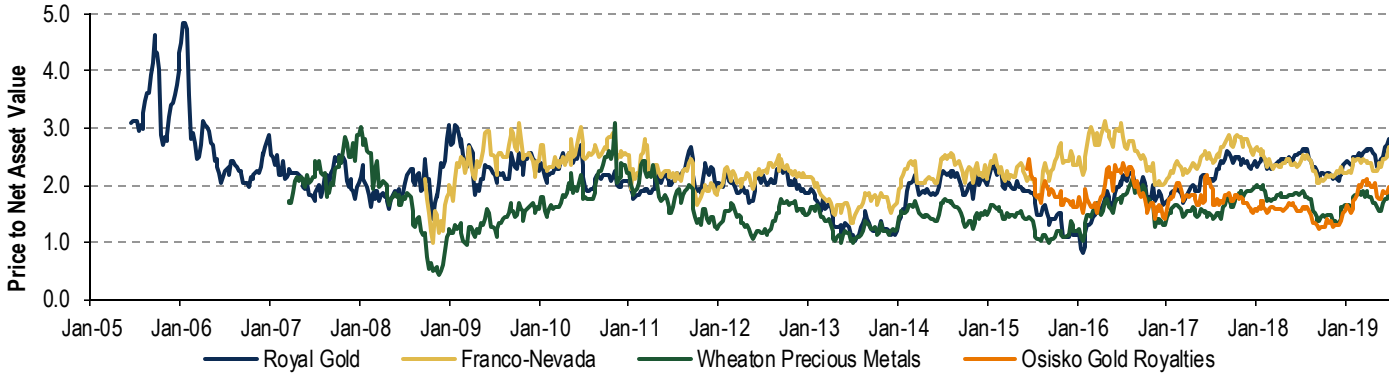
Chart 51: North American Precious Metal Company Average P/NAV Multiples – 1993-2019 (Weekly)



Source: Bloomberg, BofA Merrill Lynch Global Research
Note: 2019 as of Friday June 21st

Chart 52 sets out the historical P/NAV multiples (from 2005) for the North American precious royalty and streaming companies.

Chart 52: Royalty Companies Historical P/NAV - Weekly

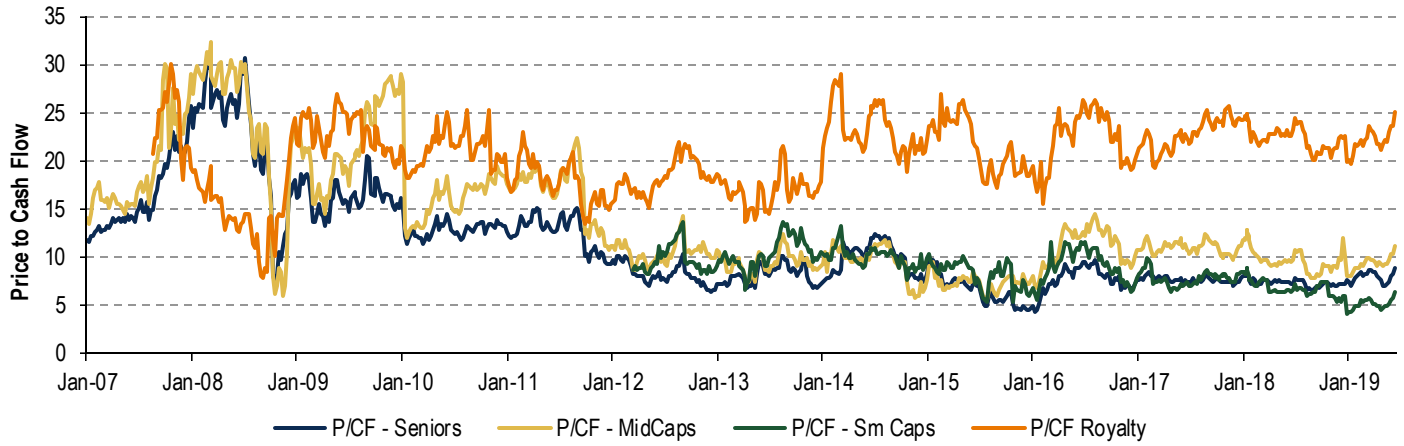


Source: Bloomberg, BofA Merrill Lynch Global Research
Note: 2019 as of Friday June 21st

Price to cash flow

The price to cash flow ratio historically has been a preferred alternative to price to net asset value given its ability capture a similar measure, but on a shorter time horizon and with less estimation bias. Since 2009, the average P/CF for the royalty/streaming companies has ranged from 15x to 30x+, essentially double the average P/CF of 7-15x for the North American senior gold producers.

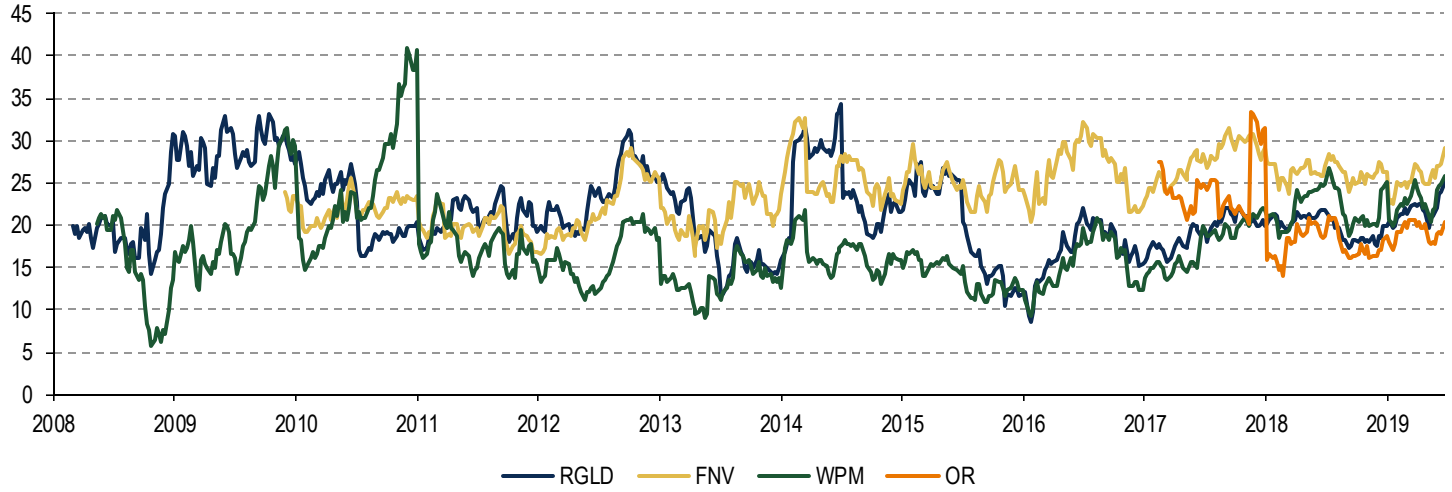
Chart 53: Peer Group Average Historical Price to Current Fiscal Year Estimated Cash Flow (P/CF)



Source: BofA Merrill Lynch Global Research, Bloomberg
Note: 2019 as of Friday June 21st

Chart 54 sets out the historical P/CF for the four senior royalty & streaming companies profiled in this report. Franco Nevada trades at the highest P/CF multiple versus its peers while WPM has been at the end lower end of the range.

Chart 54: Historical Price to Current Fiscal Year Estimated Cash Flow (P/CF) for the Royalty/Streaming Companies



Source: BofA Merrill Lynch Global Research, Bloomberg
Note: 2019 as of Friday June 21st

Bank of America Merrill Lynch

Appendix 1: Glossary of terms

(From Franco-Nevada)

A

Adjusted EBITDA and Adjusted EBITDA per share - Non-IFRS financial measures, which excludes the following from net income and earnings per share: income tax expense/recovery; finance expenses and finance income; foreign exchange gains/ losses and other income/expenses; gains/losses on the sale of investments; impairment charges related to royalty, stream and working interests and investments; depletion and depreciation; and non-cash costs of sales.

Adjusted Net Income per share - Non-IFRS financial measures, which excludes the following from net income and earnings per share: foreign exchange gains/losses and other income/ expenses; gains/losses on the sale of investments; impairment charges related to royalty, stream and working interests and investments; unusual non-recurring items; and the impact of income taxes on these items.

AMR - Advanced Minimum Royalty and is rent paid to the royalty holder prior to the payment of royalties on production. Once production begins, the AMR payments are then credited in full against stream of production royalty payments.

G

GOR – Gross Overriding Royalty is the right to receive a royalty based on the gross value of the minerals produced with few, if any, deductions therefrom. It is usually employed for non-metallic projects.

GR – Gross Royalty is a royalty based on all revenues in cash or in-kind products received by the operator for the sale of product.

M

Mineral Royalties – The royalty interests in precious and base metal properties and certain equity interests

N

NPI – Net Profit Interest: profits after deduction of expenses.

NPR – Net Proceeds Royalties: profits after deduction of expenses.

NRI – Net Royalty Interest: paid net of operating and capital costs (similar to an NPI).

NSR – Net Smelter Return: proceeds returned from the smelter and/or refinery to the mine owner less certain costs.

NSR Royalty – Has the meaning ascribed to it under "Royalties and streams explained".

O

Oil & Gas Interests – Royalty interests, working interests and oil and natural gas mineral rights in oil and natural gas properties owned by Franco-Nevada.

ORR – Overriding Royalty: A percentage share of production, which is free of all costs of drilling and producing, and is created by the lessee or working interest owner and paid by the lessee or working interest owner.

P

PFS – Means preliminary feasibility study.

PGM – Means the platinum group of metals, including but not limited to Palladium, Platinum, Rhodium, Osmium, and Rhenium.

Preliminary Feasibility Study – A comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are sufficient for a qualified person, acting reasonably, to determine if all or part of the mineral resource may be classified as a mineral reserve.

Probable Reserve – In respect of Mineral Reserves has the meaning ascribed to the term "probable mineral reserve" pursuant to CIM Definitions. Probable Reserves are those additional oil & gas reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves. Ore reserves for which quantity and grade are computed from information similar to that used for proven reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven reserves, is high enough to assume geological continuity between points of observation.

Proven Reserve – In respect of Mineral Reserves has the meaning ascribed to the term "proven mineral reserve" pursuant to CIM Definitions. Ore reserves for which: (a) the quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes, and grade is computed from the results of detailed sampling; and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well established.

S

Streams – Metal purchase agreements that provide, in exchange for an upfront deposit, the right to purchase all or a portion of one or more metals produced from a mine at a preset price. Streams are particularly well suited to co-product production providing significant value for by-product precious metal production. Streams are not royalties because they are not an interest in land and there is an ongoing cash payment required to purchase the physical metal.

T

Ton – Equal to 2,000 pounds. Syn; short ton.

Tonne – Equal to 1,000 kilograms.

W

Working Interest ("WI") – Holders have an ownership position in the property and operation and hence are liable for cash calls on their share of capital, operating and environmental costs usually in proportion to their ownership percentage. Working interests are not considered to be royalties because of their ongoing funding requirements although, for profitable operations, they can be economically similar in their calculations to NPIs.

Appendix 2: Glossary of mining terms

A comprehensive list of mining terms is available in our fifth edition of gold and gold industry primer, starting on page 151 (Link to the primer).

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