

North American Precious Metals Weekly

Q1'23 performance review + latest WGC view on central bank gold buying

Industry Overview

A volatile but ultimately strong quarter for gold

Q1'23 was a notably volatile quarter for gold – driven by real rates, the USD, and swings in risk appetite. In January, gold was up 6%, in February it was down 5% and in March it was up 8%. Ultimately, the gold price ended Q1'23 8% higher and silver price 0.6% higher, respectively. Gold equities followed the metals on this volatile path but on average ended the quarter higher. Below we provide discussion of Q1'23 returns for the metals and indices and highlight stand-out equity performances.

Real rates, USD and safe-haven buying drive performance

As noted, gold was volatile in Q1'23 with the metal hitting a low of \$1,817 per ounce (/oz) on Feb 24 and hitting a high of \$2,013/oz on March 23. The key driver of the downside moves were higher rate expectations and a stronger USD, while the recent aggressive upward moves in the gold price were in our view driven by a weaker USD, real rates quickly heading lower following fears of contagion from the U.S. and global banking sectors and safe-haven buying. Real rates, as proxied by the yield on the U.S. 10-year TIPS, ranged from a low of 1.14% on 31 March and a high of 1.66% on March 8, were very volatile. The USD (DXY), a major headwind for all commodities including gold, has been weak in recent weeks, and is down 1% in the quarter. At \$1969/oz, gold is trading just below key \$2,000-\$2,067/oz resistance (BofA Gold Technicals, 27-Mar-23).

Equities strong on the back of the strong gold price

The equities largely mirrored the upwards movement in metal prices. The S&P/TSX Global Gold Index rose 11% in Q1'23, though at the peak was up 14% on January 25. Similarly, the Philadelphia Gold and Silver Index (XAU) rose 9%, but up 15% to its peak on January 25. Top individual performers in the quarter included: Zhaojin Mining (+36%), DRD Gold (+34%), Osisko Gold Royalties (+31%), Oceana Gold (+30%) and Gold Fields (+29%). Despite higher metals, a handful of equities still generated negative returns in Q1'23, with the top 5 underperformers including Anglo American Platinum (-36%), Impala Platinum (-26%), Koza Gold (-22%), Sibanye (-21%) and Royal Bafokeng (-16%).

WGC expects CB buying to continue

Last week, the World Gold Council (WGC) published a report on central bank (CB) gold buying following a record 2022. The WGC reiterated its view that central banks will continue to build their official gold holdings. This is based on WGC's survey of central banks, but also the view that emerging and developing country central banks are inclined to purchase gold because of the metal's appeal versus other asset classes – low or negative yielding sovereign debt, rising sanctions risks, and threat of currency wars. Gold is an important reserve asset that isn't exposed to downside from geopolitical risks, cannot be de-based and lacks default risk. For further details, see the WGC report.

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Exhibit 1: Real prices of key metals

BofA sees gold at \$1,841/oz in 2023E

	2022A	2023E
Gold, real (\$/oz)	1,802	1,841
Silver, real (\$/oz)	21.79	22.83
Palladium (\$/oz)	2,110	1,865
Platinum (\$/oz)	963	1,325
Copper (\$/lb)	3.99	3.91

Source: Bloomberg, BofA Global Research estimates
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WoW: week-over-week

YTD: year-to-date

ETF: exchange traded fund

NAV: net asset value

Cap: capitalization

PO: Price Objective

yoy: year-over-year

TIPS = Treasury Inflation Protected Securities

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Refer to important disclosures on page 10 to 11.

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Timestamp: 03 April 2023 01:00AM EDT

Exhibit 2: Gold Indices and Closing Prices

Weekly changes for gold and various gold indices

	31-Mar-23	24-Mar-23	Weekly	52 Week	
	Close		% Change	High	Low
Gold Indices					
Philadelphia Gold and Silver Index (XAU)	131.44	127.03	3.5%	171.43	90.08
NYSE Arca Exchange Gold Bugs Index (HUI)	256.18	248.13	3.2%	338.04	172.86
S&P/TSX Global Gold Index	307.44	306.23	0.4%	379.45	216.92
FT Australasia Gold Index	10,223.52	10,188.52	0.3%	12,471.27	5,934.91
FT Africa Gold Index	2,486.08	2,327.20	6.8%	2,676.25	1,361.72
FT North American Gold Index	1,462.34	1,436.28	1.8%	2,055.82	1,066.32
FT All Gold Mines Index	1,941.54	1,889.20	2.8%	2,549.07	1,326.79
Precious Metal Prices					
Gold Prices - US\$/oz	1,969.28	1,978.21	-0.5%	2,009.73	1,614.96
Silver Price - US\$/oz	24.10	23.23	3.8%	26.22	17.56
Platinum Price - US\$/oz	995.21	984.30	1.1%	1,105.72	821.28
Palladium Price - US\$/oz	1,463.77	1,422.00	2.9%	2,550.86	1,350.00

Source: Bloomberg, BofA Global Research

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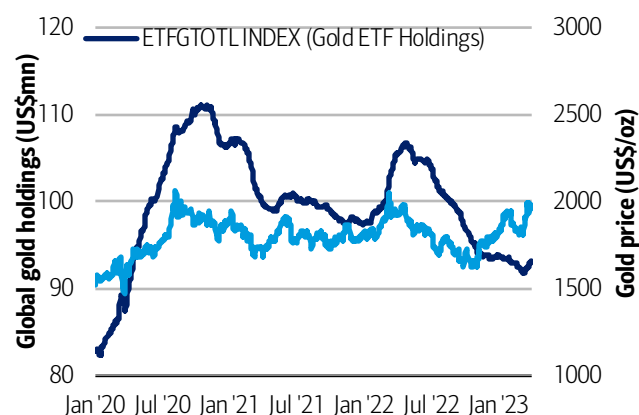
Gold “hits resistance” and softens 0.5%; silver strong

Last week, gold edged lower by 0.5% to \$1,969/oz while silver increase by 3.8% to \$24.10. The market appears now to have stopped pricing more and more rate cuts. The pace of declines in US 2-year real rates (the gold price is historically negatively correlated with real rates) slowed two weeks ago after a dramatic fall in the first week or so following the failure of SVIB bank, and began rising again last week. The USD (to which the gold price is typically also very strongly negatively correlated) was relatively unchanged last week, with the USD (DXY Index) off just 0.6% to 102.5. The Philadelphia Gold and Silver Index (XAU) was up 3.5% to close at 131.44.

Below we note the strong positive correlation between gold and changes in the gold holdings of total global gold ETFs (Exhibit 3). Interestingly, the gold price rose in Q4'22 and January 2023, despite declining ETF gold holdings. We think the explanation lies partly in the elevated central bank buying of gold in Q4'22 and January 2023 (Exhibit 4).

Exhibit 3: Global gold ETF holdings vs spot gold price

Global gold ETFs rose in the past few weeks after a consistent downturn following the failure of SVB

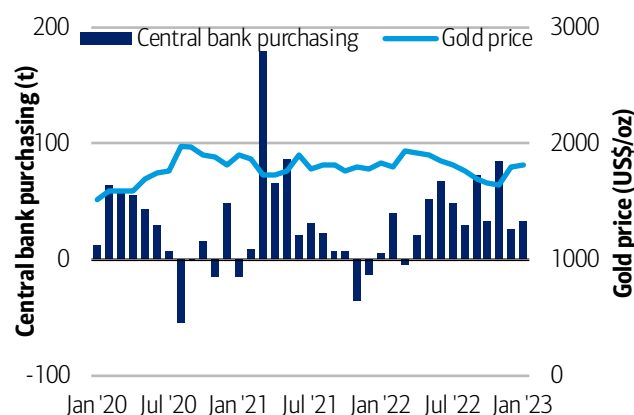


Source: BofA Global Research, Bloomberg

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Exhibit 4: Central bank purchasing vs. gold price

Central banks have ramped up purchasing in 2022 and 2023 in light of difficult global socio-economic conditions



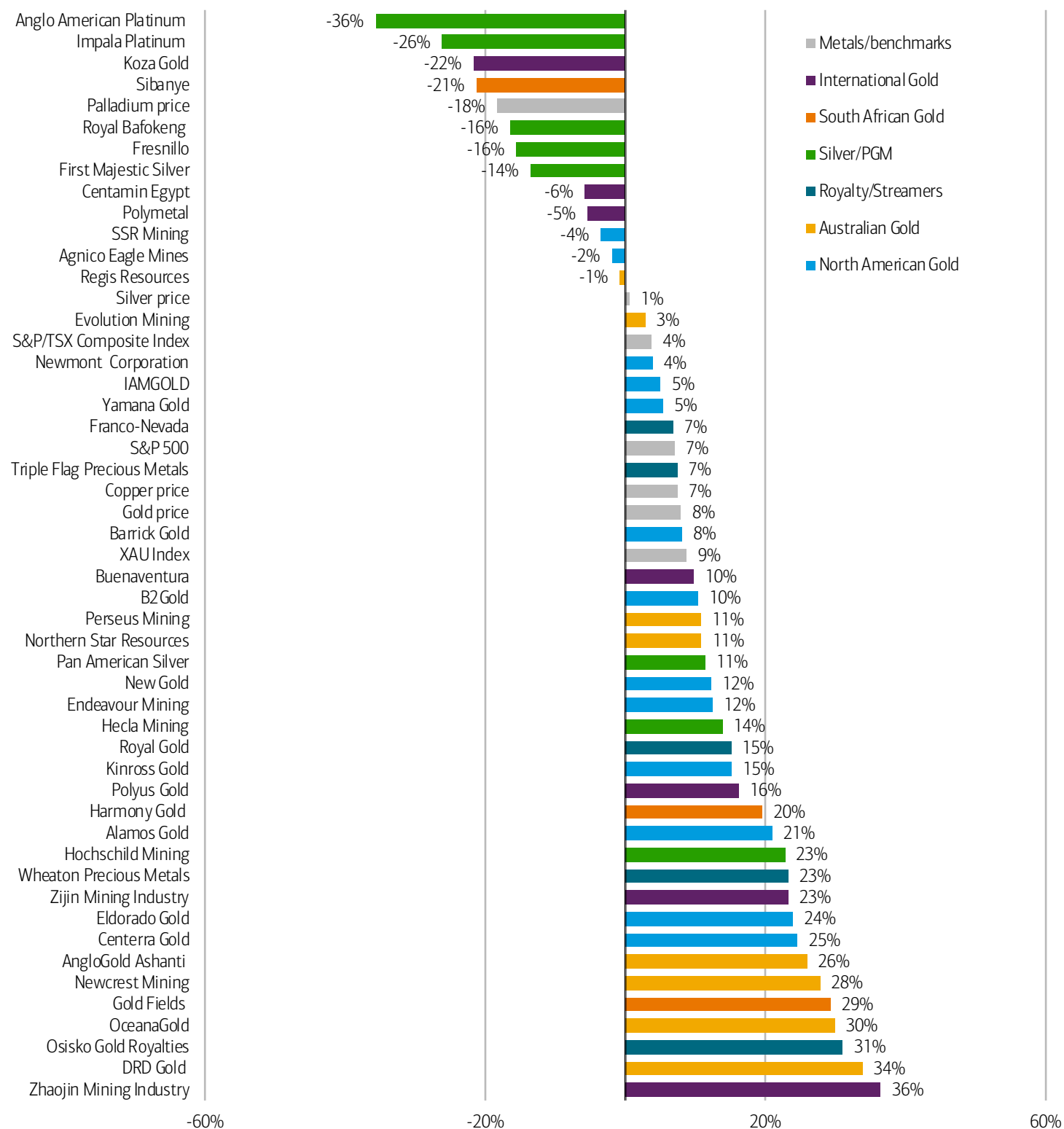
Source: BofA Global Research, Bloomberg

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Q1'23 returns for precious metals

Exhibit 5: Q1'23 returns

Most of the precious metal sector has rallied since the start of the year, as investors fly to bullion in face of banking crises and the fed considering pausing rate hikes



Source: BofA Global Research, Bloomberg

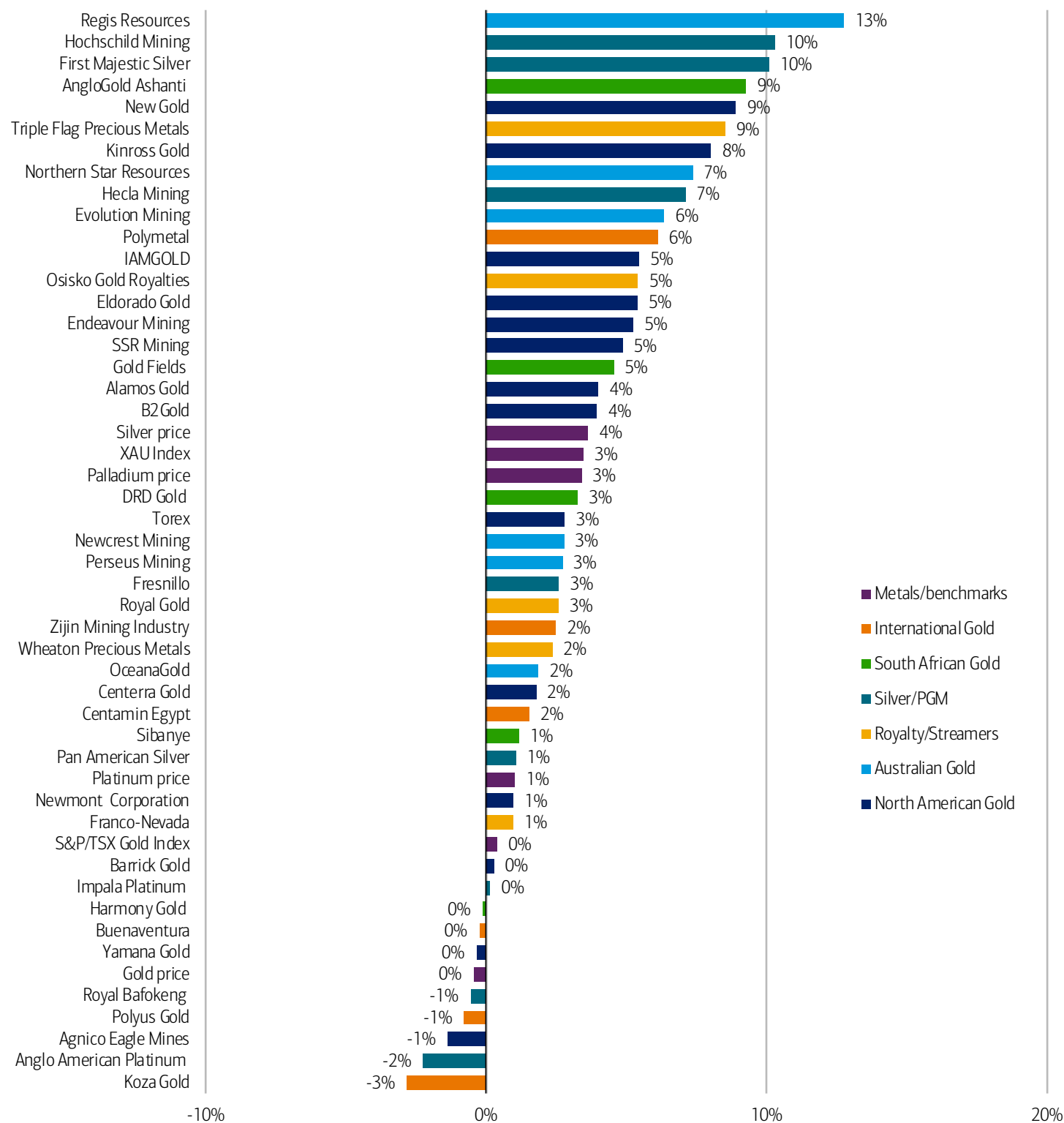
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WoW returns for the gold sector

Exhibit 6: WoW returns for the global gold sector and key metals/benchmarks

Most gold equities traded higher in a strong week for gold. WoW, Regis best performer +13%.



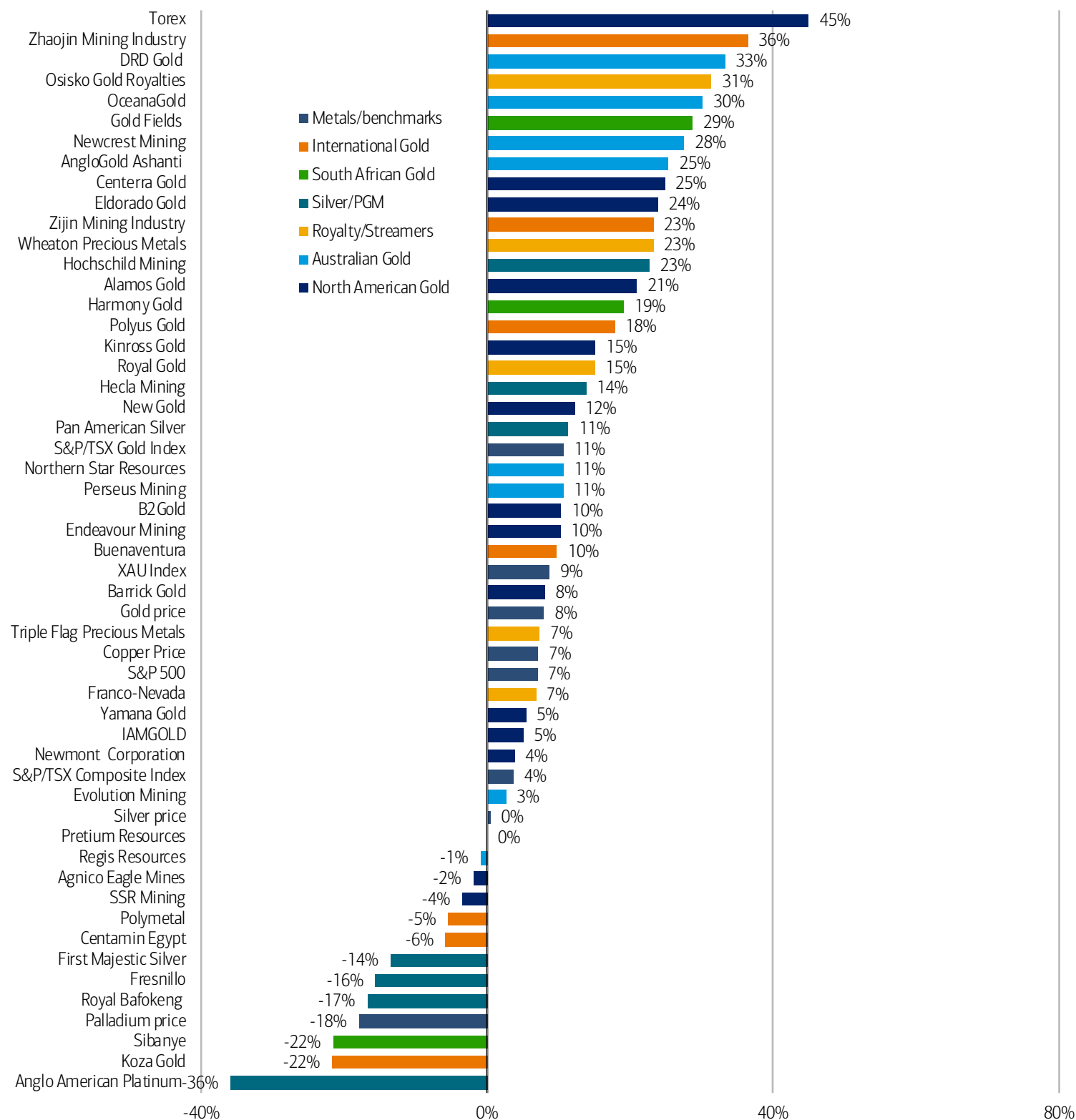
Source: Bloomberg. Note: this is a curated, not exhaustive list of global precious metal equities

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YTD returns for the gold sector

Exhibit 7: Year to date returns for the global gold sector and key metals/benchmarks

Most stocks up given solid start to the year on metal prices, with Torex best performer +45% YTD.



Source: Bloomberg. Note: this is a curated, not exhaustive list of global precious metal equities.



Valuation overview

Exhibit 8: Valuation Comparables for North American Gold and Precious Metals Producers and Royalty Companies

North American precious metal stocks are trading at 1.66x NAV (market value weighted), vs. the 10 year range of 1.0-2.0x NAV

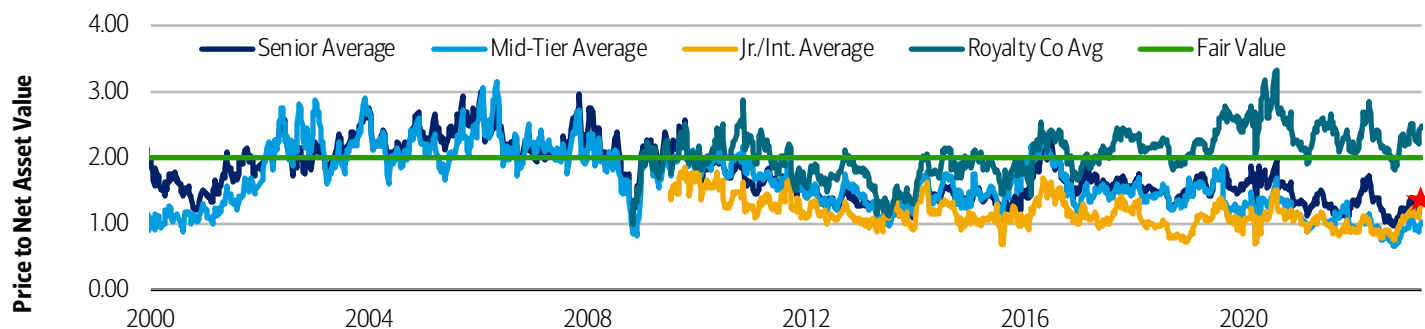
Priced as of 31-Mar-2023				Market Cap		EPS		P/E (x)		CFPS		P/CFPS (x)					
	BofA Sym	Share Price	Shares O/S	(USDmn)	Rating	2023E	2024E	2023E	2024E	2023E	2024E	2023E	2024E	DCF	Net Cash	NAV	P/NAV
Senior Gold Producers																	
	AEM	50.97	457	23,295	BUY	1.98	2.59	25.7	19.7	4.88	5.97	10.4	8.5	35.26	(2.85)	32.41	1.57
	GOLD	18.57	1,755	32,597	BUY	1.05	1.36	17.7	13.7	2.76	2.83	6.7	6.6	15.80	0.40	16.20	1.15
	KGC	4.71	1,222	5,755	BUY	0.29	0.52	16.2	9.1	1.04	1.12	4.5	4.2	5.75	(1.30)	4.45	1.06
	NEM	49.02	794	38,909	BUY	2.09	3.27	23.5	15.0	5.14	6.36	9.5	7.7	35.70	(0.50)	35.20	1.39
Market Cap Weighted Average								21.7	15.3			8.5	7.3				1.34
Mid-Tier Gold Producers																	
	BTG	3.94	1,075	4,234	BUY	0.31	0.33	12.7	11.9	0.66	0.62	6.0	6.4	2.75	0.75	3.50	1.13
	YCG	8.73	218	1,392	UNDE	0.01	0.50	NA	12.7	0.54	1.12	11.8	5.7	6.80	1.41	8.21	0.78
	EGO	10.36	185	1,915	UNDE	0.17	0.48	60.9	21.6	1.40	1.92	7.4	5.4	14.64	(2.84)	11.80	0.71
	YEDV	32.57	247	5,863	BUY	1.84	3.48	12.9	6.8	4.47	6.08	5.3	3.9	25.77	0.33	26.10	0.91
	IAG	2.71	479	1,298	BUY	(0.08)	0.08	NA	33.9	0.51	0.76	5.4	3.6	2.24	0.95	3.40	0.80
	SSRM	15.12	207	3,125	BUY	1.02	1.20	14.8	12.6	2.16	2.40	7.0	6.3	13.06	1.97	15.02	1.01
	AUY	5.85	961	5,622	NO R	0.29	0.37	20.4	15.8	0.82	0.91	7.1	6.4	5.40	(0.40)	5.00	1.17
Market Cap Weighted Average								19.3	13.1			6.5	5.2				0.94
Intermediate/Junior Gold Producers																	
	AGI	12.23	394	4,816	NEUT	0.36	0.60	34.0	20.4	1.05	1.40	11.6	8.7	8.30	0.25	8.55	1.43
	NGD	1.10	682	751	UNDE	0.05	0.29	22.0	3.8	0.35	0.68	3.1	1.6	2.57	(0.28)	2.28	0.48
Market Cap Weighted Average								32.4	18.1			10.5	7.8				1.30
Royalty Companies																	
	FNV	145.80	192	27,929	BUY	3.23	4.27	45.1	34.1	4.85	6.05	30.0	24.1	48.75	6.50	55.25	2.64
	RGLD	129.71	66	8,515	NEUT	3.87	4.55	33.5	28.5	6.63	7.99	19.6	16.2	60.00	1.40	61.40	2.11
	TFFM	14.95	201	3,002	BUY	0.48	0.80	31.1	18.7	0.86	1.18	17.3	12.7	12.85	(0.05)	12.80	1.17
	WPM	48.16	452	21,769	BUY	1.16	1.56	41.5	30.9	1.77	2.34	27.2	20.6	20.70	1.54	21.26	2.27
Market Cap Weighted Average								41.5	31.4			27.0	21.2				2.36
Primary Silver Producers																	
	PAAS	18.20	211	3,834	BUY	0.60	0.55	30.3	33.1	1.75	1.75	10.4	10.4	17.20	0.90	18.10	1.01
Market Cap Weighted Average								30.3	33.1			10.4	10.4				1.01
Gold producer only:								21.9	15.1			8.3	7.0				1.28
Overall average:								28.5	20.8			14.4	11.7				1.62

Source: Bloomberg, Company reports, BofA Global Research estimates (1) stock price in CAD; EPS, CFPS, NAV in USD (2) CAD (3) stock price in AUD (4) 2021 metrics actual

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Exhibit 9: North American gold producer and royalty & streamer P/NAV history

Historical P/NAV multiples for the North American sector. Sector trading at 1.63xNAV, between the 1.0-2.0x historical range

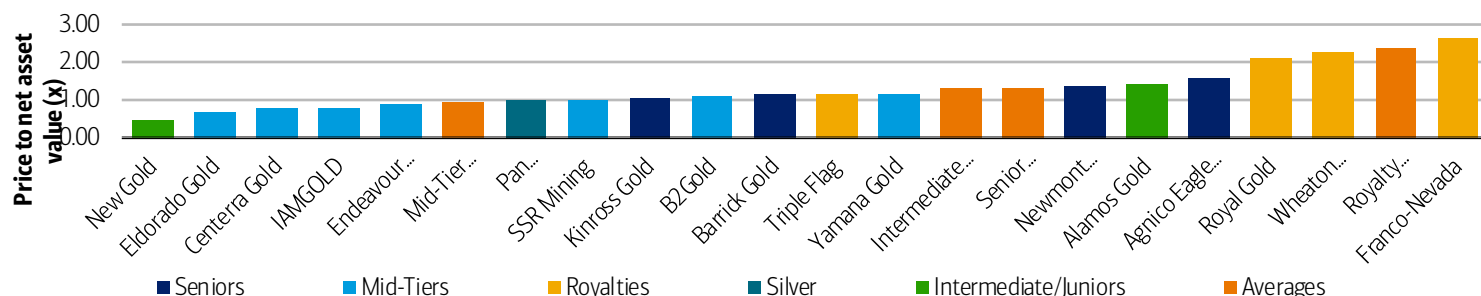


Source: BofA Global Research, Bloomberg

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Exhibit 10: Price to Net Asset Value (P/NAV) for North American Gold and Precious Metals Producers and Royalty Companies

P/NAV multiples for our North American Precious metals coverage. Royalty & Streamers most expensive



Source: BofA Global Research, Bloomberg

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Exhibit 11: Net asset value, reserves and resources

North American precious metals coverage universe, ratings and NAV's

					Gold Only						Primary	Primary
Priced as of 31-Mar-2023	BofA	Share	Shares	Market	Enterprise						Metal	Metal
Senior Gold Producers	Sym	Price	O/S	Cap	Value	Rating	DCF	NC	NAV	P/NAV	Reserves	Resources
											Moz	Moz
Agnico Eagle Mines	AEM	50.97	457	23,295	24,026	B-1-7	32.90	(2.85)	32.41	1.57	44.6	114.8
Barrick Gold	GOLD	18.57	1,755	32,597	41,896	B-1-8	15.80	0.40	16.20	1.15	69.0	271.0
Kinross Gold	KGC	4.71	1,222	5,755	8,040	B-1-7	5.75	(1.30)	4.45	1.06	32.6	70.3
Newmont Corporation	NEM	49.02	794	38,909	41,466	B-1-8	35.70	(0.50)	35.20	1.39	95.5	208.0
Market Cap Weighted Average										1.34		
Mid-Tier Gold Producers												
B2Gold	BTG	3.94	1,075	4,234	3,552	B-1-7	2.75	0.75	3.50	1.13	6.3	22.0
Centerra Gold ⁽¹⁾	YCG	8.73	218	1,411	893	B-3-7	6.80	1.41	8.21	0.74	4.8	13.0
Eldorado Gold	EGO	10.36	185	1,915	2,108	C-3-9	11.80	0.00	11.80	0.88	17.7	57.9
Endeavour Mining	YEDV	32.57	247	8,032	6,298	B-1-7	25.77	0.33	26.10	0.92	17.8	53.8
IAMGOLD	IAG	2.71	479	1,298	1,953	C-1-9	2.24	0.95	3.40	0.79	12.4	45.6
SSR Mining	SSRM	15.12	207	3,125	3,458	B-1-7	13.06	1.97	15.02	1.01	9.2	21.1
Yamana Gold	AUY	5.85	961	5,622	6,666	-6-	5.00	0.00	5.00	1.17	13.7	57.2
Market Cap Weighted Average										0.97		
Intermediate/Junior Gold Producers												
Alamos Gold ⁽⁶⁾	AGI	12.23	394	4,816	4,686	B-2-7	8.30	0.25	8.55	1.43	10.3	21.8
New Gold	NGD	1.10	682	751	868	C-3-9	2.60	(0.30)	2.30	0.48	3.7	6.8
Market Cap Weighted Average										1.31		
Royalty Companies												
Franco-Nevada	FNV	145.80	192	27,929	26,747	B-1-7	48.75	6.50	55.25	2.86	NA	NA
Royal Gold	RGLD	129.71	66	8,515	8,839	B-2-7	60.00	1.40	61.40	2.14	NA	NA
Triple Flag	TFPM	14.95	201	3,002	2,141	B-1-7	9.65	(0.05)	9.60	1.55	NA	NA
Wheaton Precious Metals	WPM	48.16	452	21,769	20,954	B-1-7	19.72	1.54	21.26	2.27	NA	NA
Market Cap Weighted Average										2.36		
Primary Silver Producers												
Fresnillo ⁽⁵⁾	FNLPF	746.00	737	6,776	7,317	B-2-8	358.75	0.00	358.75	2.08	397.8	1,265.5
Hochschild Mining ⁽⁵⁾	HCHDF	84.50	514	535	710	C-1-8	134.76	0.00	135	0.63	41.2	288.8
Pan American Silver	PAAS	18.20	211	3,834	3,925	C-1-8	17.20	0.90	18.10	1.01	529.3	1,807.6
Market Cap Weighted Average										1.57		

Source: (1) stock price in CAD; NAV in USD (2) CAD (3) AUD (4)ZAR (5) stock price in pence; NAV in USD, (6) NAV in CAD; (7) silver reserves, silver resources and silver mined in model (8) palladium reserves, palladium resources and palladium mined in model; (9) Reserves and resources on a GEO basis; (10) stock price in CAD, NAV in GBP, (11) stock price and NAV in TRY; (12) June 30th year end; (13) Forecasts based on management guidance; (14) Reserves and resources on an SEO basis (15) Reserves and resources on a Platinum Equivalent (4E->Palladium + Rhodium + Gold) basis; (16) stock price in ZAR, NAV in GBP; (17) stock price in ZAR, NAV in CAD; (18) stock price and NAV in HKD; (19) stock price and NAV in GBP. Adjusted P/NAV = (share price - net cash and investments) / DCF of mining assets using a 5% discount rate. (20) stock price in RUB

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Exhibit 12: EV/ EBIT and EV/EBITDA ratios for North American Gold and Precious Metal Producers and Royalty Companies

Valuation metrics for the North American precious metals sector

Priced as of 31-Mar-2023		Share	Shares	MC	Debt	Cash	Enterprise		EBIT (\$mn)		EV/EBIT (x)		EBITDA (\$mn)		EV/EBITDA (x)	
	BofA															
	Sym	Price	Outstanding	(USDmn)	(USDmn)	(USDmn)	Value (EV) (USDmn)	Rating	2023E	2024E	2023E	2024E	2023E	2024E	2023E	2024E
Senior Gold Producers																
Agnico Eagle Mines	AEM	50.97	457	23,295	1,493	659	24,026	BUY	1,655	2,093	14.5	11.5	2,910	3,615	8.3	6.6
Barrick Gold	GOLD	18.57	1,755	32,597	4,782	4,440	41,896	BUY	3,437	5,570	12.2	7.5	5,667	7,546	7.4	5.6
Kinross Gold	KGC	4.71	1,222	5,755	2,641	428	8,040	BUY	594	986	13.5	8.2	1,498	1,671	5.4	4.8
Newmont Corporation	NEM	49.02	794	38,909	6,132	3,757	41,284	BUY	2,829	3,925	14.6	10.5	5,088	6,378	8.1	6.5
Market Cap Weighted Average											13.6	9.5			7.7	6.1
Mid-Tier Gold Producers																
B2Gold	BTG	3.94	1,075	4,234	57	652	3,552	BUY	569	651	6.2	5.5	918	893	3.9	4.0
Centerra Gold ⁽¹⁾	YCG	8.73	218	1,411	14	532	893	UNDE	65	191	13.8	4.7	181	328	4.9	2.7
Eldorado Gold	EGO	10.36	185	1,915	511	315	2,108	UNDE	145	224	14.6	9.4	358	469	5.9	4.5
Endeavour Mining ⁽¹⁾	YEDV	32.57	247	8,032	872	951	6,298	BUY	789	1,332	8.0	4.7	1,308	1,832	4.8	3.4
IAMGOLD	IAG	2.71	479	1,298	993	408	1,953	BUY	(8)	170	NA	11.5	266	455	7.3	4.3
SSR Mining	SSRM	15.12	207	3,125	405	696	3,458	BUY	315	373	11.0	9.3	523	586	6.6	5.9
Yamana Gold	AUY	5.85	961	5,622	774	539	6,666	NO R	466	597	14.3	11.2	953	1,087	7.0	6.1
Market Cap Weighted Average											10.5	8.0			5.8	4.7
Intermediate/Junior Gold Producers																
Alamos Gold	AGI	12.23	394	4,816	0	132	4,686	NEUT	232	382	20.2	12.3	431	602	10.9	7.8
New Gold	NGD	1.10	682	751	399	280	868	UNDE	74	332	11.7	2.6	249	568	3.5	1.5
Market Cap Weighted Average											18.9	10.8			9.7	6.8
Royalty Companies																
Franco-Nevada	FNV	145.80	192	27,929	0	1,057	26,747	BUY	743	1,078	36.0	24.8	1,033	1,388	25.9	19.3
Royal Gold	RGLD	129.71	66	8,515	446	122	8,839	NEUT	326	361	27.1	24.5	502	574	17.6	15.4
Triple Flag	TFFM	14.95	201	2,174	2	81	2,093	BUY	106	179	19.7	11.7	178	254	11.8	8.2
Wheaton Precious Metals	WPM	48.16	452	21,769	2	696	20,954	BUY	539	743	38.9	28.2	800	1,059	26.2	19.8
Market Cap Weighted Average											34.4	25.1			23.8	18.2
Primary Silver Producers																
Fresnillo	FNLPF	746.00	737	6,776	1,279	969	7,317	NEUT	471	816	15.5	9.0	993	1,354	7.4	5.4
Hochschild Mining	HCHDF	84.50	514	535	314	204	710	BUY	121	284	5.9	2.5	259	450	2.7	1.6
Pan American Silver	PAAS	18.20	211	3,834	314	142	3,925	BUY	194	175	20.2	22.4	424	420	9.3	9.3
Market Cap Weighted Average											16.5	13.0			7.7	6.5

Source: Bloomberg, Company reports, BofA Global Research estimates (1) stock price in CAD; EPS, CFPS, NAV in USD (2) CAD (3) stock price in AUD (4) 2021 metrics actual

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Exhibit 13: Valuation Comparables for Global Gold and Precious Metal Producers and Royalty Companies Cont'd

Valuation metrics for international precious metals producers

Priced as of 31-Mar-2023	BofA	Share	Shares	MC		EPS		P/E (x)		CFPS		P/CFPS (x)					
	Sym	Price	Outstanding	(USDmn)	Rating	2023E	2024E	2023E	2024E	2023E	2024E	2023E	2024E	DCF	NC	NAV	P/NAV
South African Gold Producers ⁽¹⁹⁾																	
AngloGold Ashanti ⁽¹³⁾	AULGF	431.40	419	10,144	BUY	1.38	2.37	17.6	10.2	2.52	3.80	9.6	6.4	256.34	0.00	256.34	1.68
Gold Fields ⁽¹³⁾	GFIOF	237.00	891	11,867	NEUT	0.92	1.61	14.5	8.3	2.16	n/a	6.2	NA	191.57	0.00	191.57	1.24
Harmony Gold ^(14,18)	HGMCF	73.18	618	2,541	UNDE	7.82	13.44	9.4	5.4	16.12	15.29	4.5	4.8	40.90	0.00	40.90	1.79
Sibanye ⁽⁵⁾	SBSW	8.32	713	5,935	BUY	2.30	2.11	3.6	3.9	2.81	2.68	3.0	3.1	11.68	0.00	11.68	0.71
Market Cap Weighted Average								13.0	7.9			6.6	5.1				
PGM Producers ⁽⁵⁾																	
Anglo American Platinum	AGPPF	954.00	265	14,217	BUY	174.54	161.46	5.5	5.9	190.44	178.50	5.0	5.3	1,097.32	0.00	1,097.32	0.87
Market Cap Weighted Average								5.5	5.9			5.0	5.3				

Source: (1) stock price in CAD; EPS, CFPS, NAV in USD; (2) CAD; (3) AUD; (4) ZAR; (5) stock price, NAV in pence; market cap in GBP; EPS, CFPS in USD; (6) stock price, market cap and NAV in CAD; EPS and CFPS in USD; (7) share price and NAV in HKD; EPS and CFPS in CNY, market cap in USD; (8) stock price, NAV in pence; market cap in USD; EPS, CFPS in GBP; (9) stock price, market cap, NAV in AUD, EPS, and CFPS in USD; (10) stock price and market cap in CAD; NAV in GBP, EPS and CFPS in USD; (11) stock price, market cap, EPS, CFPS and NAV in TRY; (12) Estimates are based on Bloomberg consensus; (13) stock price, market cap and NAV in ZAR; EPS and CFPS in USD, (14) stock price, market cap in ZAR; NAV, EPS and CFPS in AUD (15) stock price and market cap in ZAR; EPS and CFPS in USD, NAV in GBP (16) stock price and market cap in ZAR; EPS, CFPS and NAV in CAD; (17) June 30th year end; (18) Adjusted P/NAV = (share price - net cash and investments) / DCF of mining assets using a 5% discount rate. (21) stock price listed in RUB

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Operating Comparables

Exhibit 14: Operating Forecasts for Global Gold and Precious Metal Producers

Senior golds have 2+ Moz of annual output. Mid-tiers are between 0.5-1.5 Moz of annual output. Intermediates have <0.5 Moz of annual output

Priced as of 31-Mar-2023	Production	EV	EV	EV
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Exhibit 14: Operating Forecasts for Global Gold and Precious Metal Producers

Senior golds have 2+ Moz of annual output. Mid-tiers are between 0.5-1.5 Moz of annual output. Intermediates have <0.5 Moz of annual output

	BofA Sym	Share Price	Shares O/S	Market Cap	Enterprise Value	P&P Gold Reserves (moz)	2023E ('000 oz)	2024E ('000 oz)	Per Oz of Prod. (USD)		Per Oz of Reserves	Per Oz of Resources
Senior Gold Producers									2023E	2024E	YE 2021	YE 2021
Agnico-Eagle Mines	AEM	50.97	457	23,295	24,026	44.6	3,343	3,473	7,187	6,918	539	209
Barrick Gold	GOLD	18.57	1,755	32,597	41,896	69.0	4,417	4,559	9,485	9,189	607	155
Kinross Gold	KGC	4.71	1,222	5,755	8,040	32.6	2,057	1,860	3,908	4,321	247	114
Newmont Corporation	NEM	49.02	794	38,909	41,466	95.5	5,981	6,007	6,933	6,903	434	199
Market Cap Weighted Average									7,701	7,556	506	179
Mid-Tier Gold Producers												
B2Gold	BTG	3.94	1,075	4,234	3,552	6.3	1,040	819	3,415	4,336	567	161
Centerra Gold ⁽¹⁾	YCG	8.73	218	1,411	893	4.8	274	287	3,253	3,113	184	69
Eldorado Gold	EGO	10.36	185	1,915	2,108	17.7	502	546	4,199	3,863	119	36
Endeavour Mining ⁽¹⁾	YEDV	32.57	247	8,032	6,298	17.8	1,375	1,560	4,580	4,036	355	117
IAMGOLD	IAG	2.71	479	1,298	1,953	12.4	458	537	4,267	3,638	158	43
SSR Mining	SSRM	15.12	207	3,125	3,458	9.2	636	606	5,440	5,703	378	164
Yamana Gold ⁽⁶⁾	AUY	5.85	961	5,622	6,666	13.7	872	789	7,642	8,445	488	117
Market Cap Weighted Average									4,374	4,302	344	115
Intermediate/Junior Gold Producers												
Alamos Gold	AGI	12.23	394	4,816	4,686	10.3	495	492	9,468	9,533	455	215
New Gold	NGD	1.10	682	751	868	3.7	296	383	2,935	2,265	235	128
Market Cap Weighted Average									8,448	8,398	421	201
Royalty Companies							Attributable Production					
Franco-Nevada	FNV	145.80	192	27,929	26,747	NA	697	813	38,397	32,894	NA	NA
Royal Gold	RGLD	129.71	66	8,515	8,839	NA	348	355	25,432	24,879	NA	NA
Triple Flag	TFPM	14.95	201	3,002	2,141	NA	113	150	18,943	14,317	NA	NA
Wheaton Precious Metals	WPM	48.16	452	21,769	20,954	NA	636	789	32,922	26,551	NA	NA
									33,779	28,744		
Primary Silver Producers												
Fresnillo ^(5,7)	FNLPF	746.00	737	6,747	7,317	397.8	56,107	59,841	130	122	18.39	5.78
Hochschild Mining ^(5,7)	HCHDF	84.50	514	533	710	41.2	25,604	33,456	28	21	17.24	2.46
Pan American Silver	PAAS	18.20	211	3,834	3,925	529.3	15,149	14,975	259	262	7.42	2.17
Market Cap Weighted Average									167	162	14.72	4.40

Source: BofA Global Research estimates. Company reports.

Note: All tickers represent BofA Global Research covered companies. (1) stock price in CAD; NAV in USD (2) CAD (3) AUD (4) ZAR (5) stock price in pence; NAV in USD, (6) NAV in CAD; (7) silver reserves, silver resources and silver mined in model (8) palladium reserves, palladium resources and palladium mined in model; (9) Reserves and resources on a GEO basis; (10) stock price in CAD, NAV in GBP, (11) stock price and NAV in TRY; (12) June 30th year end; (13) Forecasts based on management guidance; (14) Reserves and resources on an SEO basis (15) Reserves and resources on a Platinum Equivalent (4E->Platinum + Palladium + Rhodium + Gold) basis; (16) stock price in ZAR, NAV in GBP; (17) stock price in ZAR, NAV in CAD; (18) stock price and NAV in HKD; (19) stock price and NAV in GBP. Adjusted P/NAV = (share price - net cash and investments) / DCF of mining assets using a 5% discount rate. (20) stock price in RUB

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Exhibit 15: Operating Forecasts for Global Gold and Precious Metal Producers (Cont'd)

International gold producers operating forecasts

Priced as of 31-Mar-2023		Shares				Production		EV		EV	EV	
	BofA Sym	Share Price	O/S	Market Cap	Enterprise Value	P&P Gold Reserves	2023E	2024E	Per Oz of Prod. (USD)	Per Oz of Reserves	Per Oz of Resources	
South African Gold Producers ⁽⁴⁾												
AngloGold Ashanti	AULGF	431.40	419	9,865	11,253	29.7	2,623	2,779	4,289	4,049	379	73
Gold Fields	GFIOF	237.00	891	11,541	12,728	52.1	2,360	2,829	5,393	4,499	244	131
Harmony Gold ⁽¹²⁾	HGMCF	73.18	618	2,471	2,816	42.5	1,456	1,457	1,935	1,932	66	42
Sibanye	SBSW	8.32	708	322	321	16.6	864	754	372	426	19	3
Market Cap Weighted Average									4,517	3,998	279	96

Source: BofA Global Research estimates. Company reports.

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