



January 2, 2023

The Gold Standard: Market Review – Week Ending December 30

In this publication, we review detailed changes within global equity, fixed income, commodity, and currency markets.





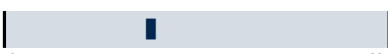


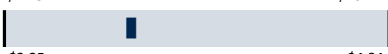
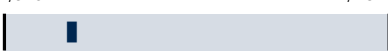
- 2022 in review:** Gold closed at \$1,824/oz (-0.3%) and averaged \$1,803/oz for 2022, a modest 0.2% increase yoy and the 8th consecutive year of average price gains. Gold ETFs recorded their third largest annual outflow totaling 3.7moz. Silver closed at \$23.96/oz, a 2.8% increase yoy, and averaged \$21.79/oz, a 13% decline yoy. Silver ETFs recorded their largest outflows on record, totaling 136moz, and SLV short interest closed the year at a near-record 9.9%. Gold equity ETFs declined by 9.8%. The S&P declined by 19.4%. 10Y treasuries closed at 3.88%, a significant +236bps increase, consisting of +267bps in real yields to 1.58%, partially offset by -31bps in inflation expectations to 2.30%. The US dollar strengthened by 8.2% to 103.5.
- For the week, the S&P500 decreased by 0.1% and the VIX index increased to 21.7 (+0.8). 10Y yields increased by 13bps to 3.88%, explained by a +5bps change in real yields to 1.58% and a +7bps change in inflation expectations to 2.30%. The 2–10Y yield curve increased by 2bps to -0.56%. The DXY dollar index decreased by 0.8% to 103.5.
- Gold increased by 1.4% to \$1,824/oz and physical gold ETFs recorded inflows totaling 140koz. Silver increased by 0.9% to \$23.96/oz, while physical silver ETFs recorded inflows of 1moz. CFTC net long gold positions increased by 11k to 153k contracts and net long silver positions were flat at 33k contracts.
- Gold equities decreased by 0.7%. Larger weekly price changes for companies under coverage vs. the index include Equinox (-8%), Marathon (-7%), and IAMGOLD (+5%). Short positions were reported for the U.S., with a notable position increase in Pan American Silver.

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Weekly changes		Price	52 week range	Gold correlations	3-month	1-year
S&P 500	-0.1%	3,840		S&P 500	0.48	0.17
US 10Y (bps)	+13	3.87%		US 10Y Yield	-0.44	-0.22
US 10Y TIPS (bps)	+6	1.57%		US 10Y TIPS	-0.40	-0.34
US Dollar	-0.8%	103.5		USD Index	-0.72	-0.45
XAU Index	-0.8%	121		XAU Index	0.78	0.84
Gold (\$/oz)	1.4%	\$1,824		Gold	1.00	1.00
Silver (\$/oz)	0.9%	\$23.96		Silver	0.79	0.78
Copper (\$/lb)	0.3%	\$3.80		Copper	0.65	0.62
WTI (\$/bbl)	0.9%	\$80.26		WTI	0.40	0.47

Source: RBC Capital Markets, Bloomberg

Note: correlations are calculated on a weekly basis



Table of Contents

Global index performance	3
Commodity and currency performance	4
Commodity and currency trends	5
Gold macroeconomic charts	6
Fixed income charts	7
Fixed income charts (continued)	8
Global physical gold ETF positions	9
Gold equity ETF positions	10
Global physical silver ETF positions	11
Gold and silver net speculative CFTC positioning	12
CFTC net speculative positioning	13
Fixed income mining securities	14
Gold equity short interest	15
Gold equity performance	16-19



Index performance

Priced as of December 30, 2022

Description	Ticker	Price	Performance							
			1w	1m	3m	Qtd	Ytd	1y	2y	5y
Gold indices										
Gold price-related										
Gold spot (US\$/oz)	XAU Curncy	1,824	1.4%	3.1%	9.8%	9.8%	-0.3%	0.5%	-3.7%	40.0%
SPDR Gold Shares ETF	GLD US Equity	169.64	1.4%	2.9%	9.7%	9.7%	-0.8%	-0.1%	-4.5%	37.2%
CBOE Gold ETF Volatility Index	GVZ Index	16.3	1.4%	0.8%	-3.3%	-3.3%	1.6%	1.5%	-3.8%	5.3%
Global Gold ETF Holdings (Moz)	ETFGTOTL Index	94.1	0.1	-0.2	-2.9	-2.9	-3.7	-3.7	-12.8	25.6
CFTC Net Long Non-Comm. (000's)	CMXOGNCN Index	153.1	10.7	33.7	107.2	107.2	-74.8	-74.8	-111.2	14.2
Gold equities-related										
Philadelphia Gold and Silver Index	XAU Index	120.9	-0.8%	0.1%	19.8%	19.8%	-8.8%	-8.2%	-17.9%	41.7%
S&P/TSX Global Gold Index	SPTSGD Index	277.8	-1.4%	0.6%	14.9%	14.9%	-4.9%	-5.0%	-13.8%	42.1%
NYSE ARCA Gold Bugs Index	HUI Index	229.8	-0.9%	0.2%	18.2%	18.2%	-11.2%	-10.7%	-24.9%	19.5%
VanEck Vectors Gold Miners ETF	GDX US Equity	28.66	-0.7%	-1.3%	18.8%	18.8%	-10.5%	-9.8%	-21.6%	23.3%
VanEck Vectors Jr Gold Miners ETF	GDXJ US Equity	35.65	-1.3%	-0.2%	21.0%	21.0%	-15.0%	-14.2%	-35.0%	4.5%
United States										
Equity indices										
S&P 500 Index	SPX Index	3,840	-0.1%	-5.9%	7.1%	7.1%	-19.4%	-19.7%	2.9%	43.6%
Dow Jones Industrial Average	INDU Index	33,147	-0.2%	-4.2%	15.4%	15.4%	-8.8%	-8.9%	9.0%	34.1%
NASDAQ Composite Index	CCMP Index	10,466	-0.3%	-8.7%	-1.0%	-1.0%	-33.1%	-33.5%	-18.7%	51.6%
CBOE SPX Volatility Index	VIX Index	21.7	0.8%	1.1%	-10.0%	-10.0%	4.5%	4.3%	-1.1%	10.6%
US Dollar Index	DXU Index	103.5	-0.8%	-2.3%	-7.7%	-7.7%	8.2%	7.8%	15.4%	12.3%
US Treasury yields										
3- month	GB3 Govt	4.37	7	2	110	110	433	433	429	299
12-month	GB12 Govt	4.71	6	0	72	72	433	434	460	297
2-year	GT2 Govt	4.43	11	12	15	15	369	370	430	254
10-year	GT10 Govt	3.88	13	27	5	5	236	237	295	147
30-year	GT30 Govt	3.97	14	23	19	19	206	205	231	123
5-year TIPS	GTII5 Govt	1.65	9	35	-34	-34	330	330	323	137
10-year TIPS	GTII10 Govt	1.58	5	33	-10	-10	267	269	263	115
30-year TIPS	GTII30 Govt	1.66	6	28	-7	-7	213	214	202	94
2-10-year spread	USYC2Y10 Index	-0.56	2	15	-10	-10	-133	-134	-135	-108
10-year inflation expectations	USGGBE10 Index	2.30	7	-6	15	15	-31	-33	32	32
Fixed income indices										
USD High Yield OAS	LF98OAS Index	469	21	21	-83	-83	186	188	111	126
USD Investment Grade OAS	LUACOAS Index	130	0	-3	-29	-29	38	37	34	37
US 3-month LIBOR	US0003M Index	475	3	-2	100	100	454	454	452	306
US 12-month LIBOR	US0012M Index	544	0	-13	66	66	486	485	510	334
Note: Fixed income performance measured in bps. A negative change in yield implies a rise in the bond price while a positive change implies a decline in the bond price										
S&P 500 sector performance										
Consumer discretionary	SSECON Index	1,005	-0.3%	-11.3%	-10.4%	-10.4%	-37.6%	-37.8%	-22.8%	28.0%
Consumer staples	SSECONS Index	779	-0.9%	-3.1%	12.0%	12.0%	-3.2%	-2.5%	12.8%	32.6%
Energy	SSENRIS Index	672	0.6%	-3.2%	21.7%	21.7%	59.0%	59.4%	133.1%	26.0%
Financials	SSEFINL Index	570	0.7%	-5.4%	13.0%	13.0%	-12.4%	-12.5%	17.7%	22.8%
Health care	SSEHLTH Index	1,586	-0.2%	-2.0%	12.3%	12.3%	-3.6%	-3.9%	21.1%	65.8%
Industrials	SSEINDU Index	831	-0.2%	-3.1%	18.7%	18.7%	-7.1%	-6.7%	11.6%	30.4%
Information technology	SSEINFT Index	2,172	-0.2%	-8.4%	4.4%	4.4%	-28.9%	-29.3%	-4.9%	96.4%
Materials	SSEMATR Index	490	-1.2%	-5.8%	14.4%	14.4%	-14.1%	-13.7%	7.9%	29.2%
Telecommunication services	SSETELS Index	159	-0.1%	-7.8%	-1.6%	-1.6%	-40.4%	-41.1%	-27.5%	-4.0%
Utilities	SSEUTIL Index	358	-0.6%	-0.8%	7.8%	7.8%	-1.4%	-1.1%	14.1%	34.1%
Global indices										
Americas										
S&P/TSX Composite Index	SPTSX Index	19,385	-0.6%	-5.2%	5.1%	5.1%	-8.7%	-9.0%	10.5%	19.6%
Mexico IPC Index	MEXBOL Index	48,464	-4.2%	-6.2%	8.6%	8.6%	-9.0%	-8.9%	8.4%	-1.8%
Brazil Bovespa Index	IBOV Index	109,735	0.0%	-2.4%	-0.3%	-0.3%	4.7%	4.7%	-7.8%	43.6%
Europe										
EURO STOXX 50 Index	SXSE Index	3,794	-0.6%	-4.3%	14.3%	14.3%	-11.7%	-11.9%	6.2%	8.3%
FTSE 100 Index	UKX Index	7,452	-0.3%	-1.6%	8.1%	8.1%	0.9%	0.7%	13.7%	-3.1%
Germany DAX Index	DAX Index	13,924	-0.1%	-3.3%	14.9%	14.9%	-12.3%	-12.3%	1.5%	7.8%
France CAC 40 Index	CAC Index	6,474	-0.5%	-3.9%	12.3%	12.3%	-9.5%	-9.8%	15.6%	21.9%
Switzerland SMI Index	SMI Index	10,729	-0.7%	-3.6%	4.5%	4.5%	-16.7%	-16.7%	0.2%	14.4%
Asia										
Nikkei 225 Index	NKY Index	26,095	-0.5%	-6.7%	0.6%	0.6%	-9.4%	-9.4%	-4.9%	14.6%
Hang Seng Index	HSI Index	19,781	1.0%	6.4%	14.9%	14.9%	-15.5%	-14.4%	-27.1%	-33.9%
S&P/ASX 200 Index	AS51 Index	7,039	-1.0%	-3.4%	8.7%	8.7%	-5.5%	-6.3%	5.3%	16.1%

Source: RBC Capital Markets, Bloomberg



Commodity and currency performance

Priced as of December 30, 2022

Description	Ticker	Price	Performance							
			1w	1m	3m	Qtd	Ytd	1y	2y	5y
Commodities										
Precious metals										
Gold spot (US\$/oz)	XAU	1,824	1.4%	3.1%	9.8%	9.8%	-0.3%	0.5%	-3.7%	40.0%
Silver spot (US\$/oz)	XAG	23.95	0.9%	7.9%	25.9%	25.9%	2.8%	4.0%	-10.2%	41.4%
Platinum spot (US\$/oz)	XPT	1,074	4.6%	3.6%	24.3%	24.3%	10.9%	11.3%	0.2%	15.7%
Palladium spot (US\$/oz)	XPD	1,793	2.2%	-4.8%	-17.3%	-17.3%	-5.9%	-8.9%	-24.2%	68.6%
Base and industrial metals										
Comex copper futures (US\$/lb)	HGA	3.81	0.0%	1.9%	12.3%	12.3%	-13.2%	-12.0%	7.5%	21.6%
LME 3-month lead (US\$/lb)	LMPBDS03	1.04	0.9%	4.6%	20.2%	20.2%	-0.5%	-0.2%	14.9%	-7.8%
LME 3-month zinc (US\$/lb)	LMZSDS03	1.35	0.3%	-2.1%	0.2%	0.2%	-15.9%	-15.9%	6.8%	-10.4%
LME 3-month nickel (US\$/lb)	LMNIDS03	13.63	1.7%	11.3%	42.4%	42.4%	44.8%	46.0%	79.1%	135.5%
NYME coil steel (US\$/tonne)	HRCA	744	-2.5%	6.3%	-4.0%	-4.0%	-14.0%	-16.4%	-21.7%	-21.7%
LME 3-month aluminum (US\$/tonne)	LMAHDS03	2,378	-0.5%	-4.0%	10.0%	10.0%	-15.3%	-15.6%	18.9%	4.9%
Energy										
WTI (US\$/bbl)	CL1	80.26	0.9%	-0.4%	1.0%	1.0%	6.7%	4.2%	65.8%	32.8%
ICE Brent futures (US\$/bbl)	COA	85.91	1.7%	-1.2%	6.4%	6.4%	19.2%	16.7%	72.5%	49.5%
Diesel (US\$/gal)	AEAA	4.83	0.6%	0.5%	12.3%	12.3%	36.8%	34.9%	56.6%	56.6%
Natural gas (US\$/mmcf)	NGA	4.48	-10.1%	-34.4%	-35.5%	-35.5%	12.4%	14.8%	63.8%	42.7%
Other										
Baltic Dry Index (US\$/tonne/day)	BDIY	1,515	0.0%	11.8%	-13.9%	-13.9%	-31.7%	-31.7%	10.9%	10.9%
CBT corn futures (US\$/bu)	C	679	1.8%	1.7%	-0.8%	-0.8%	22.6%	22.7%	66.3%	71.7%
CBT wheat futures (US\$/bu)	W	792	2.1%	-0.4%	-15.0%	-15.0%	2.6%	1.4%	25.2%	41.6%
CBOT soybean futures (US\$/bu)	S	1,524	2.7%	3.3%	10.2%	10.2%	21.7%	22.0%	50.2%	56.1%
Lumber futures (US\$/1,000 bf)	LB1	374	-2.7%	-13.0%	-11.6%	-11.6%	-67.4%	-67.7%	-57.2%	-16.6%
Bitcoin-USD Cross Rate (US\$)	XBTUSD	16,584	-1.4%	-3.1%	-14.7%	-14.7%	-64.2%	-64.9%	-42.6%	15.8%
Global Currencies										
Gold Prices										
Gold spot (US\$/oz)	XAU	1,824	1.4%	3.1%	9.8%	9.8%	-0.3%	0.5%	-3.7%	40.0%
Gold (C\$/oz)	XAUCAD	2,472	1.1%	4.2%	7.6%	7.6%	6.8%	6.9%	2.3%	50.3%
Gold (A\$/oz)	XAUAUD	2,676	-0.1%	2.7%	3.2%	3.2%	6.4%	6.9%	8.6%	60.4%
Gold (EUR/oz)	XAUEUR	1,704	0.6%	0.2%	0.6%	0.6%	5.9%	6.3%	10.6%	57.1%
Gold (GBP/oz)	XAUGBP	1,508	1.1%	2.8%	1.4%	1.4%	11.5%	12.2%	8.4%	55.8%
Gold (YEN/oz)	XAUJPY	239,198	0.2%	-2.0%	-0.5%	-0.5%	13.6%	14.6%	22.4%	62.3%
Gold (INR/oz)	XAUINR	150,574	1.1%	5.0%	11.1%	11.1%	11.3%	12.1%	8.5%	81.0%
Gold (CNY/oz)	XAUCNY	12,544	-0.2%	1.0%	5.3%	5.3%	8.3%	8.9%	2.0%	47.9%
Foreign exchange ratios (US\$ cross)										
US Dollar Index	DXI Index	103.49	-0.8%	-2.3%	-7.7%	-7.7%	8.2%	7.8%	15.4%	12.3%
Euro	USD:EUR	0.93	-0.8%	-2.8%	-8.4%	-8.4%	6.2%	5.8%	14.9%	12.1%
British pound	USD:GBP	0.83	-0.3%	-0.2%	-7.6%	-7.6%	12.0%	11.7%	12.8%	11.8%
Japanese yen	USD:JPY	131.12	-1.3%	-5.0%	-9.4%	-9.4%	13.9%	13.9%	27.1%	16.4%
Canadian dollar	USD:CAD	1.36	-0.3%	1.1%	-2.0%	-2.0%	7.3%	6.4%	6.2%	7.8%
Australian dollar	USD:AUD	1.47	-1.4%	-0.4%	-6.1%	-6.1%	6.6%	6.4%	12.8%	14.6%
Chinese yuan	USD:CNY	6.90	-1.3%	-2.7%	-3.1%	-3.1%	8.5%	8.2%	5.8%	6.0%
Mexican peso	USD:MXN	19.50	0.6%	1.2%	-3.2%	-3.2%	-5.0%	-4.7%	-2.0%	-0.8%
Chilean peso	USD:CLP	850.58	-3.0%	-4.8%	-12.2%	-12.2%	-0.1%	0.0%	19.5%	38.2%
Brazilian real	USD:BRL	5.29	2.4%	1.8%	-2.4%	-2.4%	-5.1%	-5.1%	1.8%	59.6%
Argentine peso	USD:ARS	177.13	1.3%	5.9%	20.2%	20.2%	72.4%	72.4%	110.5%	851.1%
Swiss franc	USD:CHF	0.92	-0.9%	-2.2%	-6.3%	-6.3%	1.3%	1.2%	4.9%	-5.1%
West African CFA franc	USD:XOF	612.76	-0.8%	-2.8%	-8.4%	-8.4%	6.2%	5.8%	14.7%	8.6%
Turkish lira	USD:TRY	18.71	0.3%	0.5%	1.0%	1.0%	40.6%	42.3%	153.4%	392.6%
South African rand	USD:ZAR	17.04	0.1%	-1.0%	-5.8%	-5.8%	6.9%	7.0%	16.6%	37.6%
Indian rupee	USD:INR	82.74	-0.2%	1.6%	1.7%	1.7%	11.3%	11.2%	12.9%	29.5%

Note: A negative change implies a strengthening relative to the US dollar while a positive change implies a weakening

Source: RBC Capital Markets, Bloomberg

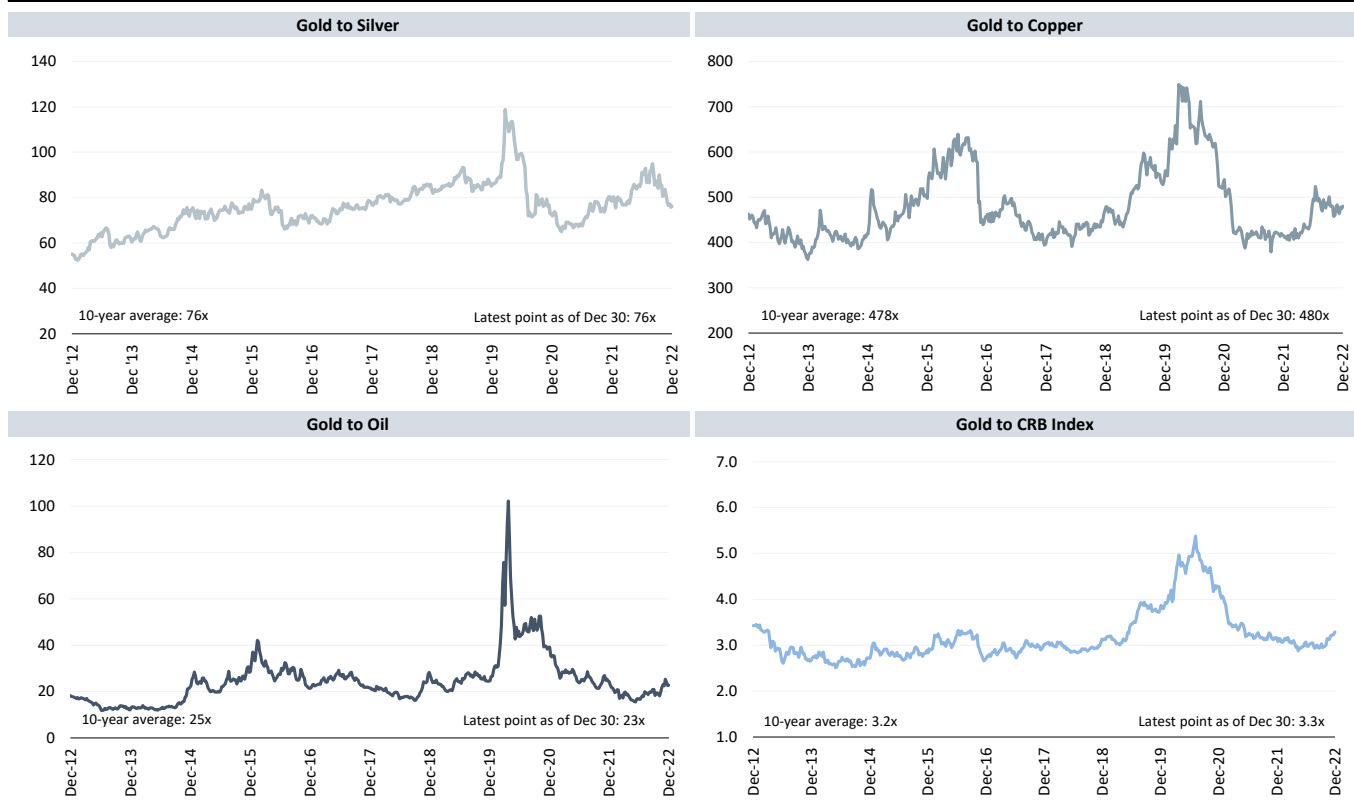
Commodity and currency trends

Priced as of December 30, 2022

Description	Ticker	Average price						Average qtd vs		Average ytd vs	
		Qtd	Ytd	3Q22	4Q21	2021	2020	3Q22	4Q21	2021	2020
Commodities											
Gold spot (US\$/oz)	XAU	1,730	1,803	1,728	1,796	1,799	1,771	0%	-4%	0%	2%
Silver spot (US\$/oz)	XAG	21.26	21.79	19.24	23.35	25.13	20.54	10%	-9%	-13%	6%
Platinum spot (US\$/oz)	XPT	974	963	888	1,000	1,092	887	10%	-3%	-12%	9%
Palladium spot (US\$/oz)	XPD	1,943	2,109	2,081	1,947	2,398	2,202	-7%	0%	-12%	-4%
Comex copper futures (US\$/lb)	HGA	3.63	3.99	3.49	4.30	4.18	2.87	4%	-16%	-5%	39%
LME 3-month lead (US\$/lb)	LMPBDS03	0.95	0.97	0.90	1.04	0.99	0.83	6%	-9%	-2%	17%
LME 3-month zinc (US\$/lb)	LMZSDS03	1.35	1.56	1.46	1.51	1.36	1.03	-7%	-10%	14%	51%
LME 3-month nickel (US\$/lb)	LMNIDS03	11.58	11.61	10.06	8.92	8.38	6.29	15%	30%	39%	85%
WTI (US\$/bbl)	CL1	82.60	94.26	91.43	77.10	68.11	39.34	-10%	7%	38%	140%
ICE Brent futures (US\$/bbl)	COA	86.42	89.77	89.91	72.18	63.92	48.58	-4%	20%	40%	85%
Diesel (US\$/gal)	AEAA	4.63	4.43	4.57	3.53	3.37	NA	1%	31%	31%	-
Natural gas (US\$/mmcf)	NGA	6.23	6.59	7.83	4.19	3.39	2.74	-20%	49%	94%	140%
Currencies											
US Dollar Index	USD Index	108.23	103.97	108.26	95.18	92.50	95.82	0%	14%	12%	9%
Euro	USD:EUR	0.98	0.95	0.99	0.87	0.85	0.88	-1%	12%	12%	8%
Canadian dollar	USD:CAD	1.36	1.30	1.31	1.26	1.25	1.34	4%	8%	4%	-3%
Australian dollar	USD:AUD	1.52	1.44	1.46	1.37	1.33	1.45	4%	11%	8%	-1%
Mexican peso	USD:MXN	19.68	20.11	20.23	20.75	20.29	21.48	-3%	-5%	-1%	-6%
Chilean peso	USD:CLP	914.13	873.49	926.45	826.70	760.35	791.59	-1%	11%	15%	10%
Brazilian real	USD:BRL	5.26	5.17	5.25	5.59	5.40	5.16	0%	-6%	-4%	0%
Argentine peso	USD:ARS	162.44	130.85	135.84	100.50	95.13	70.57	20%	62%	38%	85%
Turkish lira	USD:TRY	18.61	16.57	17.94	11.18	8.90	7.02	4%	66%	86%	136%
South African rand	USD:ZAR	17.62	16.37	17.05	15.44	14.79	16.46	3%	14%	11%	-1%

Note: A negative change implies a strengthening relative to the US dollar while a positive change implies a weakening

Gold - commodity ratios

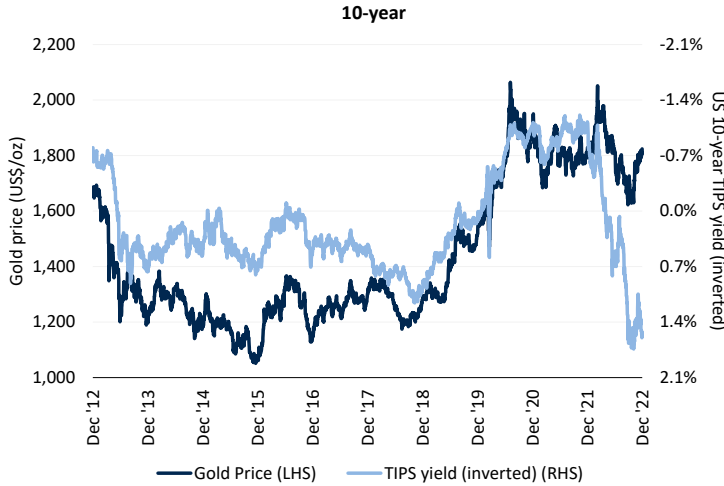


Source: RBC Capital Markets, Bloomberg

Gold macroeconomic charts

Priced as of December 30, 2022

Gold vs US 10-year TIPS Index yield



US Dollar Currency Index



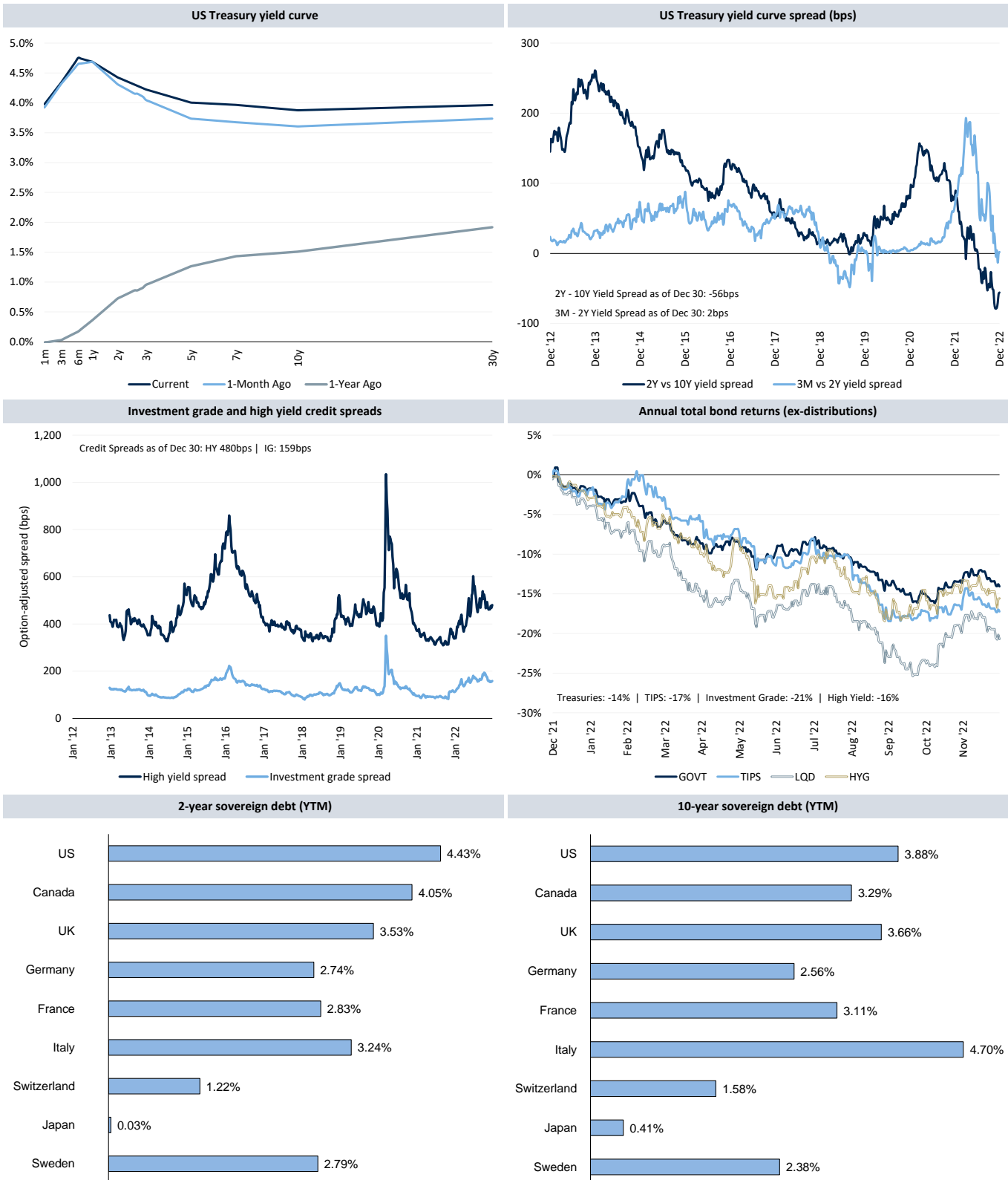
Gold equity index to SPDR GOLD ETF ratio



Source: RBC Capital Markets, Bloomberg

Fixed income charts

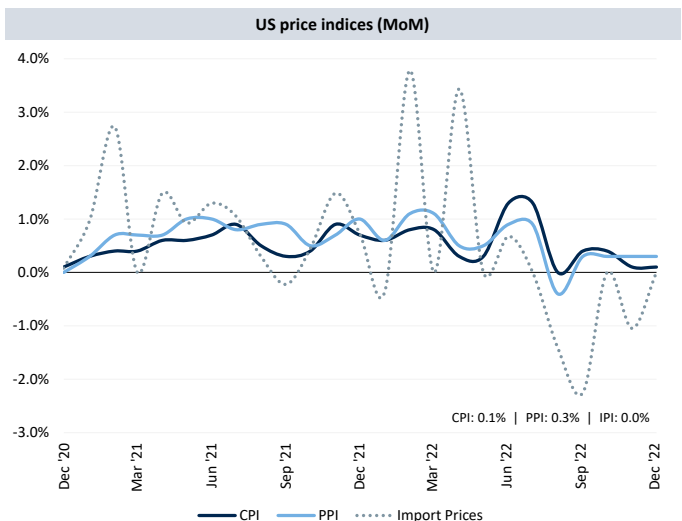
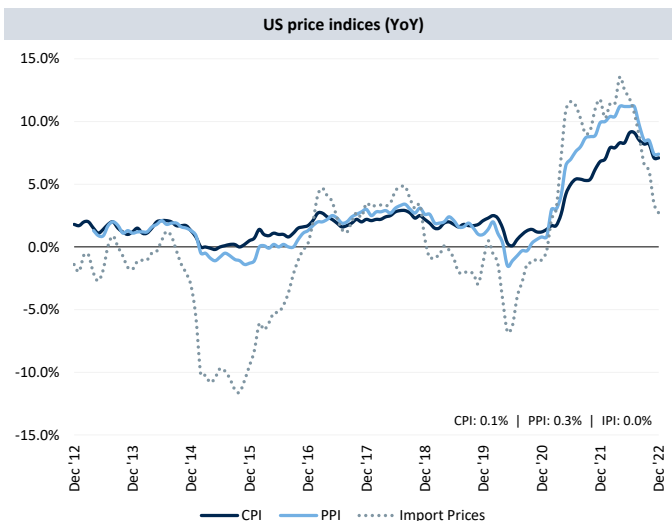
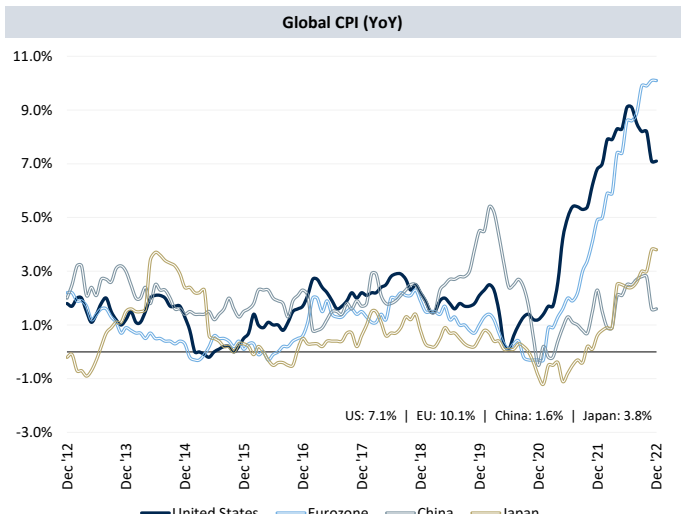
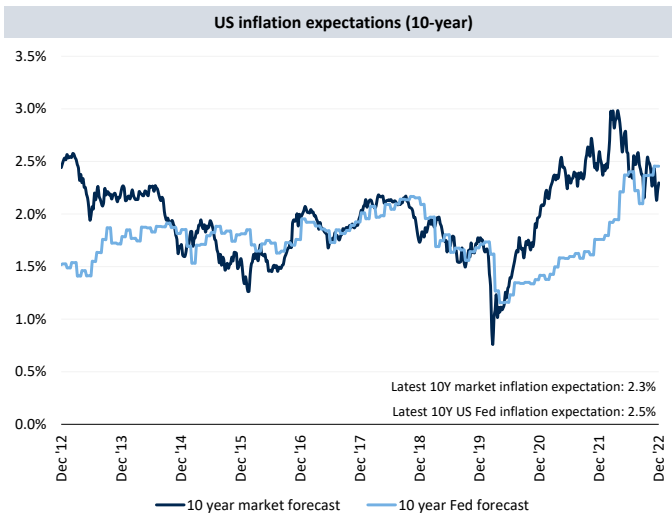
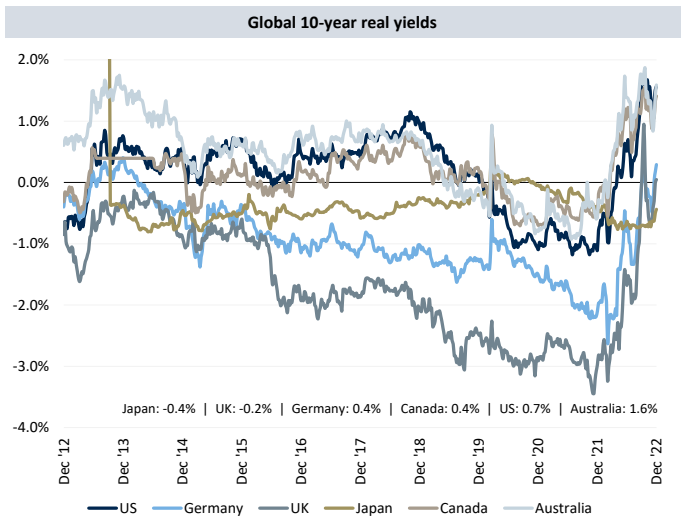
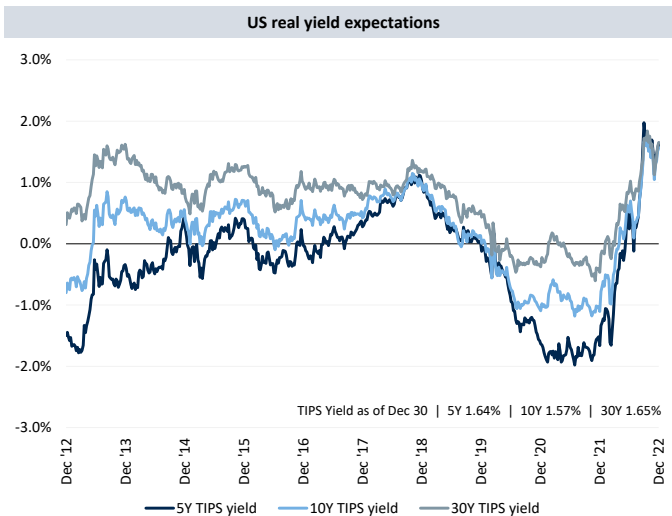
Priced as of December 30, 2022



Source: RBC Capital Markets, Bloomberg

Fixed income charts (continued)

Priced as of December 30, 2022

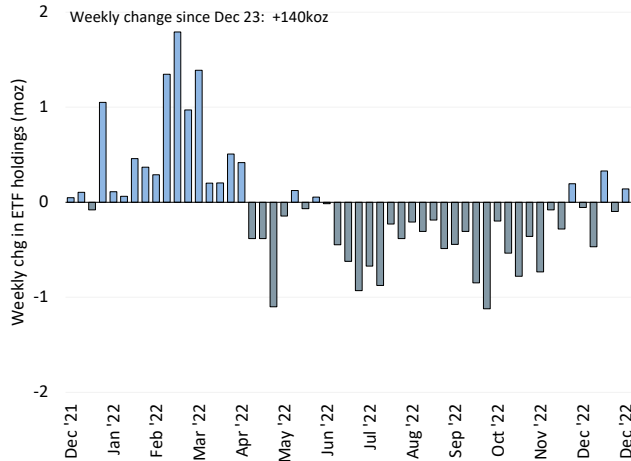


Source: RBC Capital Markets, Bloomberg

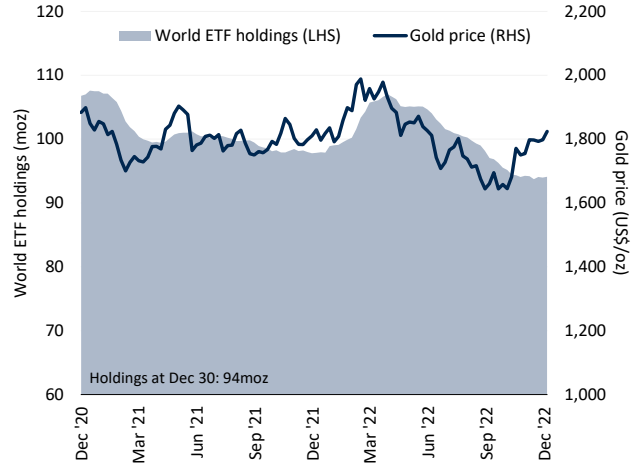
Global physical gold ETF positions

Priced as of December 30, 2022

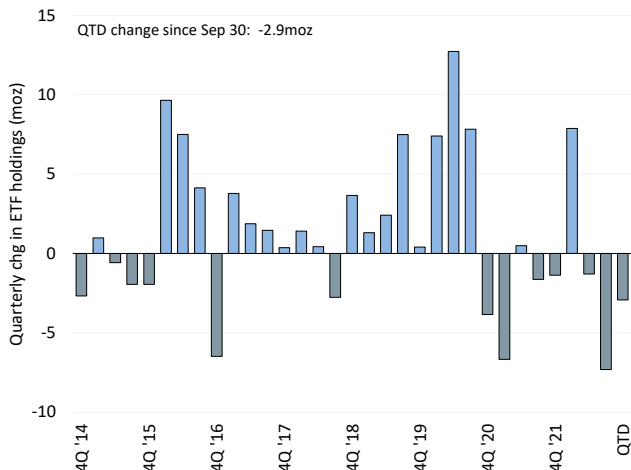
Weekly gold ETF position changes (1-year)



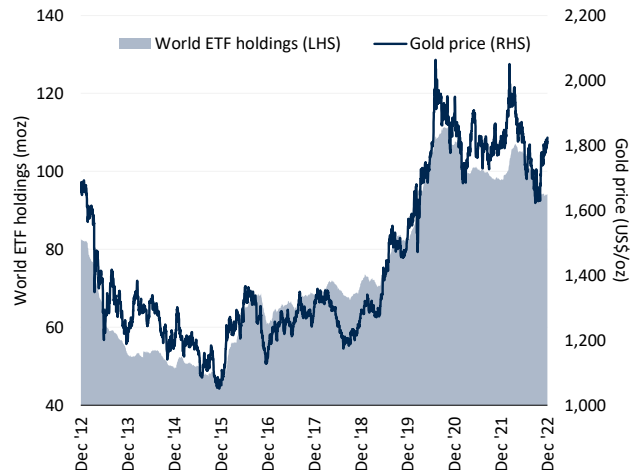
Gold ETF positions (2-year)



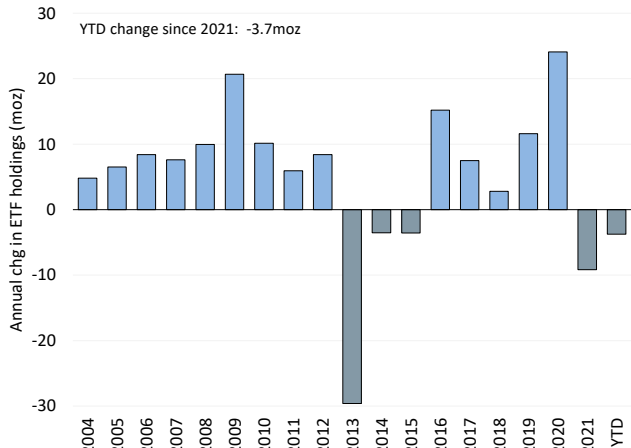
Quarterly gold ETF position changes (10-year)



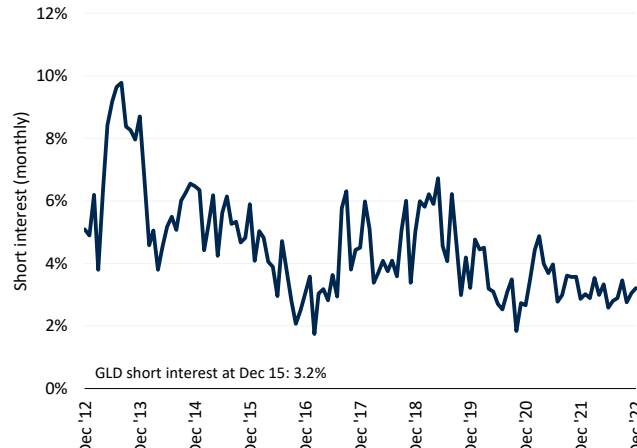
Gold ETF positions (10-year)



Annual gold ETF position changes (long-term)



GLD short interest (10-year)



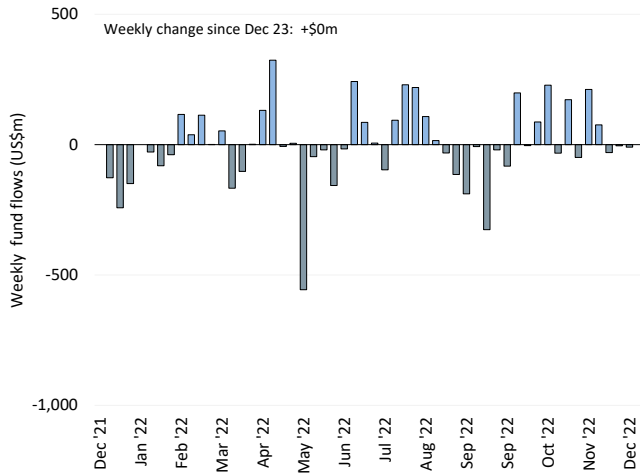
Note: known gold holdings for ETF funds tracked include SPDR, ETF Securities, ZKB, iShares, Swiss & Global, Central Fund, Credit Suisse (excluded from June 28, 2013), Source, New Gold, Sprott Gold, Deutsche Bank, Central Goldtrust, Claymore (excluded from May 1, 2015), Goldist and Merk Gold Trust. Graphs represent known ETF holdings at 5pm ET.

Source: RBC Capital Markets, Bloomberg

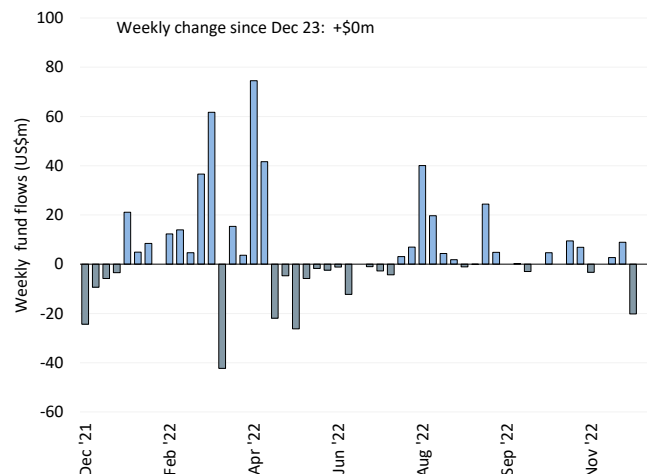
Gold equity ETF positions

Priced as of December 30, 2022

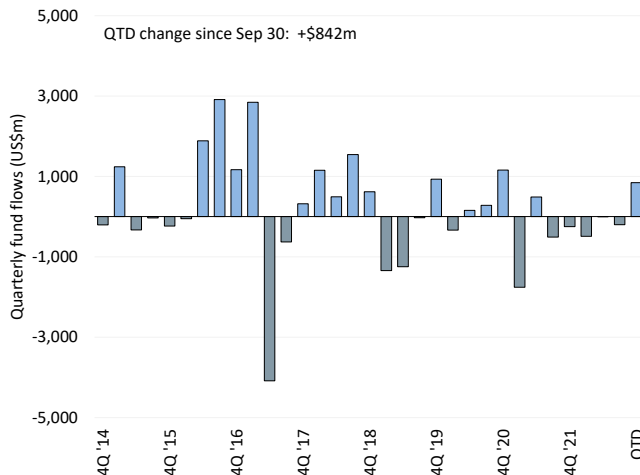
Weekly GDX & GDXJ fund flows (1-year)



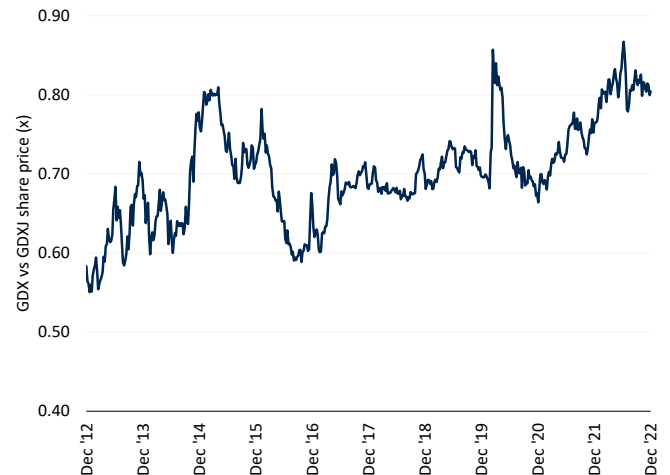
Weekly SIL & SILJ fund flows (1-year)



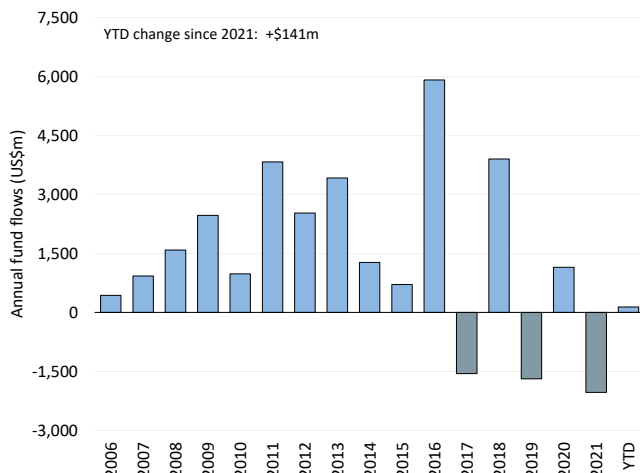
Quarterly GDX & GDXJ fund flows (10-year)



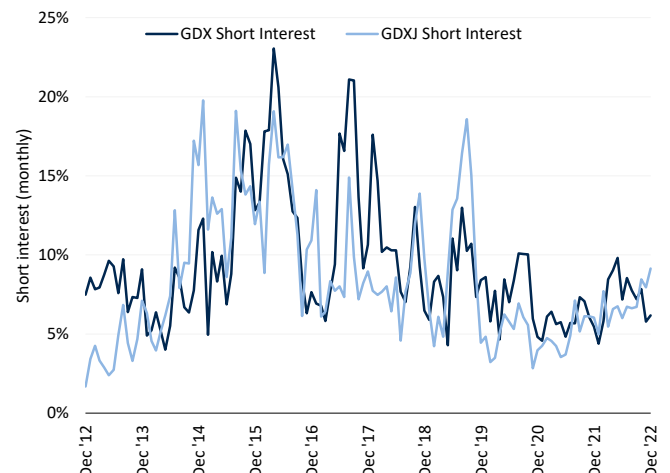
GDX / GDXJ price ratio (10-year)



Annual GDX & GDXJ fund flows (long-term)



GDX and GDXJ short interest (10-year)

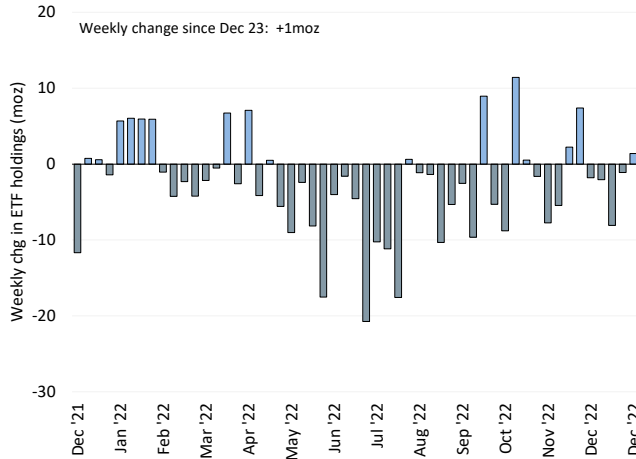


Source: RBC Capital Markets, Bloomberg

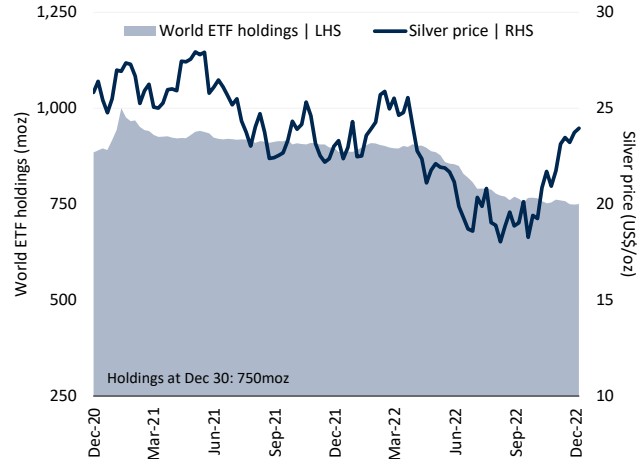
Global physical silver ETF positions

Priced as of December 30, 2022

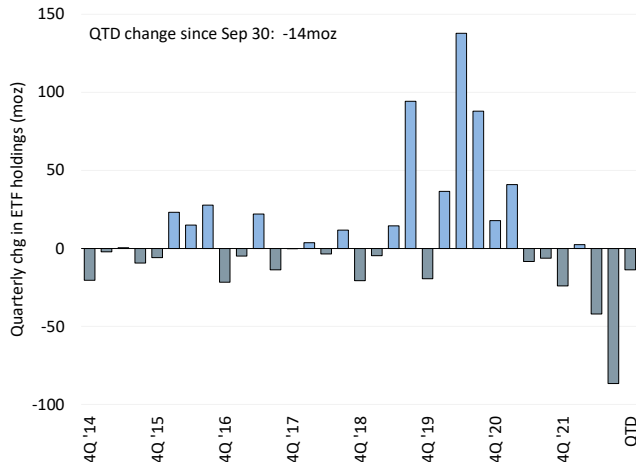
Weekly silver ETF position changes (1-year)



Silver ETF positions (2-year)



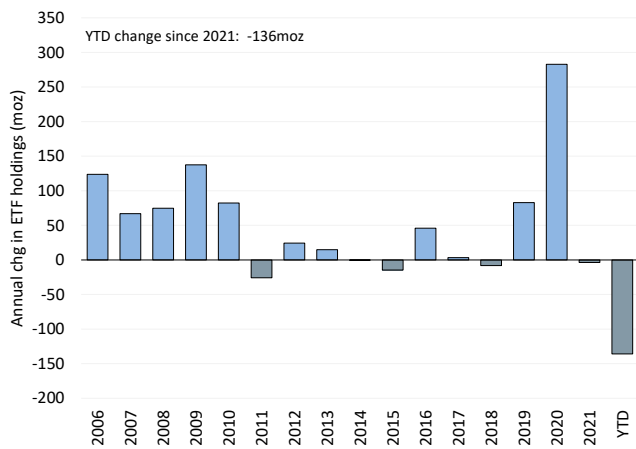
Quarterly silver ETF position changes (10-year)



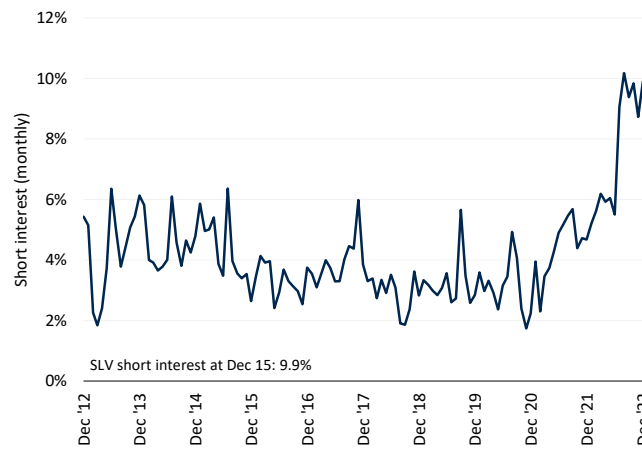
Silver ETF positions (10-year)



Annual silver ETF position changes (long-term)



SLV short interest (10-year)

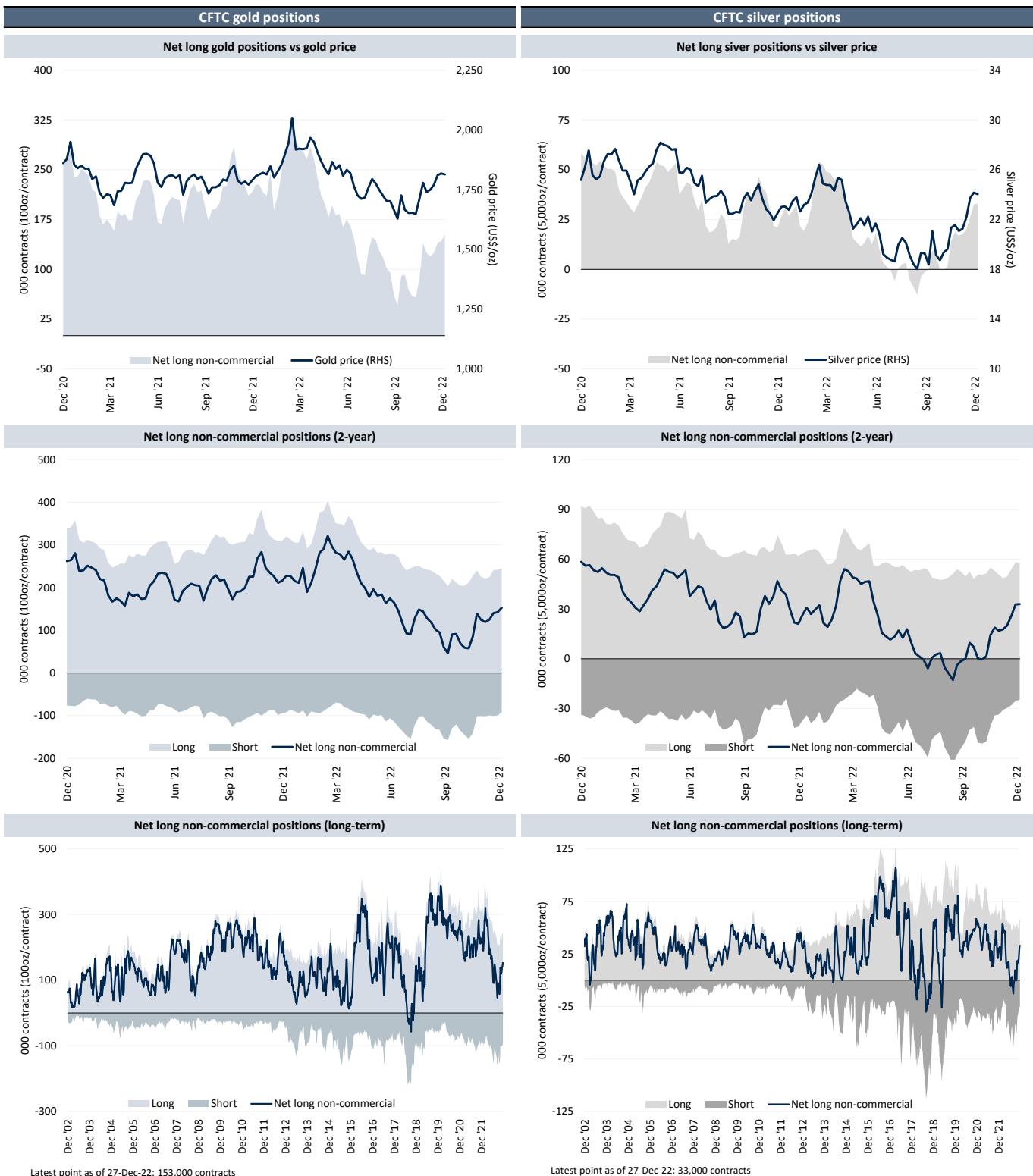


Note: known gold holdings for ETF funds tracked include UBS, Blackrock, Central Fund of Canada, Deutsche Bank, ETF Securities, Finans, GAM, Source, and ZBK. Graphs represent known ETF holdings at 5pm ET.

Source: RBC Capital Markets, Bloomberg

Gold and silver net speculative CFTC positioning

Priced as of December 30, 2022

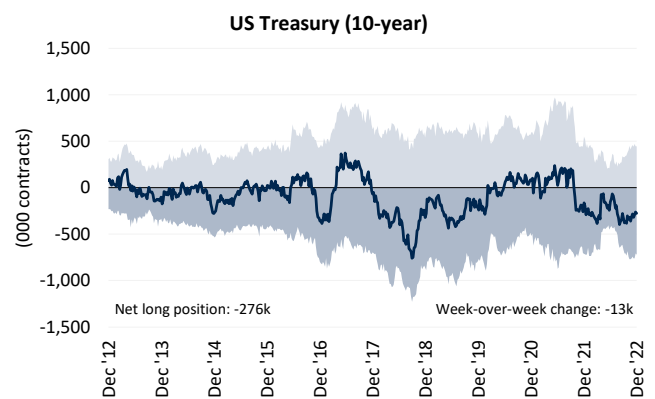
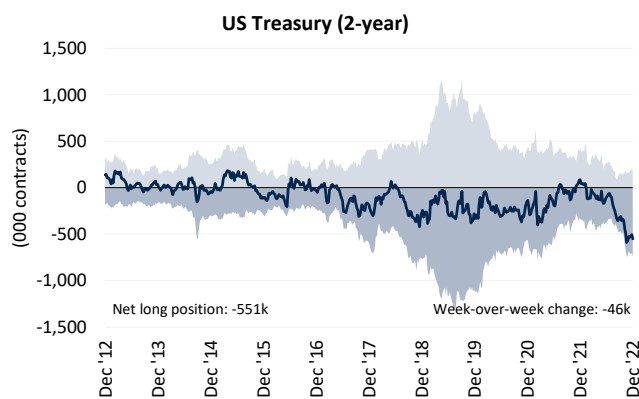
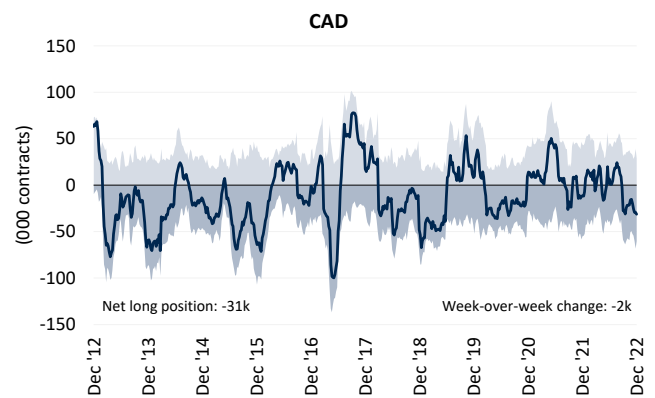
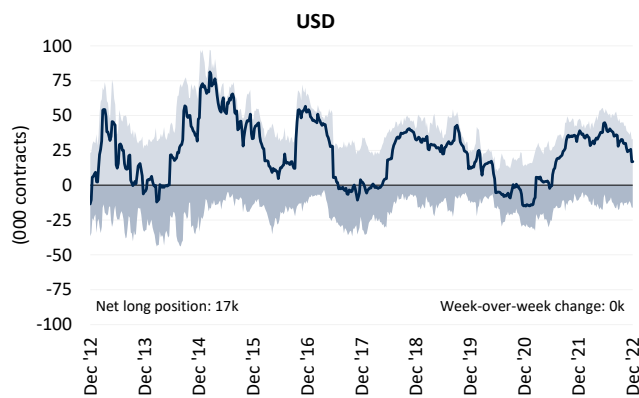
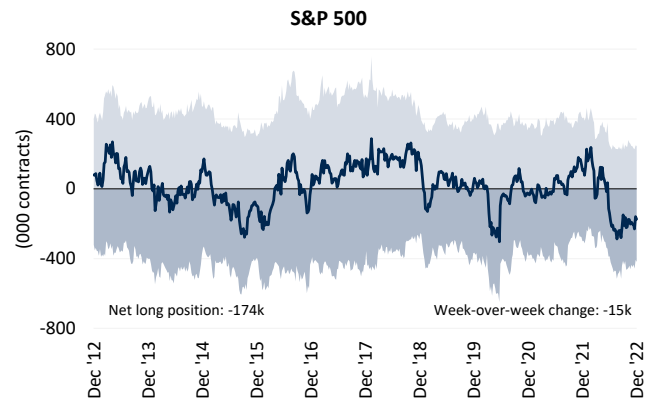
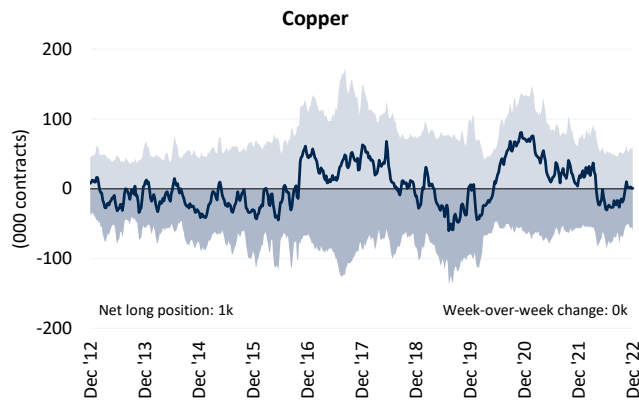
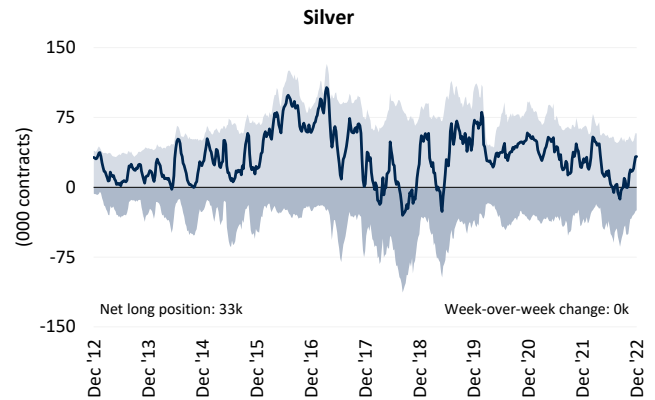
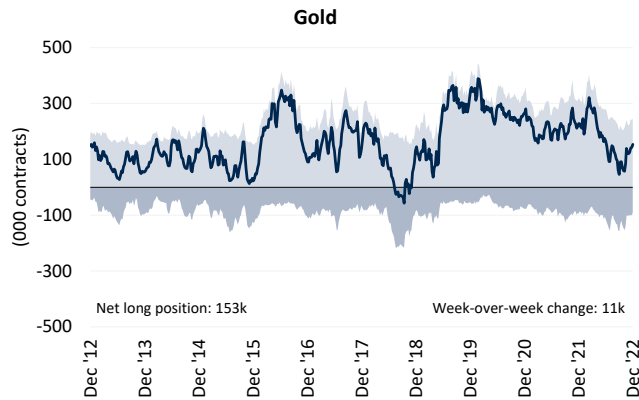


Source: RBC Capital Markets, Bloomberg



CFTC net speculative positioning

Priced as of December 30, 2022



Source: RBC Capital Markets, Bloomberg



Fixed income mining securities

Priced as of December 30, 2022

Parent company	Ticker	Price	YTW	Coupon	OAS	Amount	Maturity	Type	S&P rating	Change in YTW (bps)		
					(bps)	(\$m)				1w	1m	1y
Precious Metals												
Option-free Bonds												
ANGLOGOLD HOLDS	EI2312102	96.86	6.82%	6.50%	270	300	Apr '40	AT MATURITY	BB+	4	-69	-84
BARRICK GOLD COR	ED0611068	103.82	5.87%	6.38%	195	200	Mar '33	AT MATURITY	BBB+	11	4	0
BARRICK GOLD COR	ED6889106	99.34	5.88%	5.80%	192	200	Nov '34	AT MATURITY	BBB+	10	-1	-18
BARRICK GOLD COR	EJ2030967	96.57	5.54%	5.25%	141	375	Apr '42	AT MATURITY	BBB+	13	0	-43
BARRICK GOLD COR	ED4821341	105.04	5.88%	6.45%	190	300	Oct '35	AT MATURITY	BBB+	13	-1	-14
BARRICK NA FIN	EH5461262	114.24	6.08%	7.50%	193	250	Sep '38	AT MATURITY	BBB+	15	2	-21
BARRICK NA FIN	EI7766054	101.15	5.60%	5.70%	148	850	May '41	AT MATURITY	BBB+	10	-8	-47
BARRICK NA FIN	EJ8001996	101.80	5.60%	5.75%	146	849	May '43	AT MATURITY	BBB+	12	-5	-49
BARRICK PD AU FI	EI0631859	103.40	5.63%	5.95%	153	834	Oct '39	AT MATURITY	BBB+	15	-7	-55
FRESNILLO PLC	EJ9267968	100.27	5.17%	5.50%	28	318	Nov '23	AT MATURITY	BBB	2	-10	16
NEWMONT GOLDCORP	ZR4014414	101.76	5.67%	5.88%	172	575	Apr '35	AT MATURITY	BBB+	15	-1	-50
NEWMONT GOLDCORP	EH9763168	105.28	5.75%	6.25%	167	874	Oct '39	AT MATURITY	BBB+	6	-9	-48
Callable Bonds												
ANGLOGOLD HOLDS	BS0105137	88.00	5.83%	3.38%	179	750	Nov '28	CALLABLE	BB+	0	-28	-128
ANGLOGOLD HOLDS	ZO6844450	87.41	5.79%	3.75%	181	700	Oct '30	CALLABLE	BB+	-2	-34	-144
ELDORADO CORP	BQ9582850	88.02	8.66%	6.25%	456	500	Sep '29	CALLABLE	BB-	-6	-111	-247
ENDEAVOUR PLC	BR8463340	85.22	9.77%	5.00%	556	500	Oct '26	CALLABLE	BB-	-6	-99	-150
FRESNILLO PLC	358070AB6	79.17	5.76%	4.25%	172	850	Oct '50	CALLABLE	BBB	-3	-39	-81
HECLA MINING CO	ZP9964229	99.18	7.45%	7.25%	282	475	Feb '28	CALLABLE	B+	4	-19	-128
HYCROFT MINING	BQ5740601	93.83	11.66%	10.00%	75	96	Dec '27	CALLABLE	-	-39	-67	-132
IAMGOLD CORP	ZO3952447	73.51	12.28%	5.75%	804	450	Oct '28	CALLABLE	CCC+	1	-80	-936
KINROSS GOLD	AT0418547	94.90	5.80%	4.50%	165	498	Jul '27	CALLABLE	BBB-	20	0	-18
KINROSS GOLD	EJ2145179	97.47	7.13%	6.88%	297	250	Sep '41	CALLABLE	BBB-	15	11	0
KINROSS GOLD	EK7058200	100.54	5.48%	5.95%	59	500	Mar '24	CALLABLE	BBB-	15	-5	25
NEW GOLD INC	BJ9871051	87.95	10.96%	7.50%	672	400	Jul '27	CALLABLE	B	12	62	-308
NEWMONT CORP	BG5496834	80.46	5.37%	2.25%	142	1,000	Oct '30	CALLABLE	BBB+	11	1	-42
NEWMONT CORP	651639A29	79.87	5.32%	2.60%	142	1,000	Jul '32	CALLABLE	BBB+	13	-2	-53
GOLD FIELDS OROG	ZS5391074	99.20	5.74%	5.13%	114	500	May '24	CALLABLE	BBB-	-2	-9	-102
GOLD FIELDS OROG	ZS5391090	101.77	5.79%	6.13%	172	500	May '29	CALLABLE	BBB-	1	-36	-134
NEWMONT GOLDCORP	ZR4880574	85.41	5.41%	2.80%	142	700	Oct '29	CALLABLE	BBB+	16	7	-33
NEWMONT GOLDCORP	AZ5927738	95.40	5.83%	5.45%	167	444	Jun '44	CALLABLE	BBB+	13	-3	-25
NEWMONT GOLDCORP	EJ0528459	91.58	5.59%	4.88%	143	1,000	Mar '42	CALLABLE	BBB+	8	-6	-44
YAMANA GOLD INC	AS4995609	94.07	6.03%	4.63%	196	283	Dec '27	CALLABLE	BBB-	14	14	-20
YAMANA GOLD INC	BT6686526	75.26	6.41%	2.63%	-37	500	Aug '31	CALLABLE	BBB-	11	21	3
Convertible Bonds												
ARGONAUT GOLD IN	ZO9767625	81.00	13.00%	4.63%	0	58	Nov '25	CONVERTIBLE	-	4	68	233
SSR MINING INC	AX6626599	112.75	1.61%	2.50%	-	230	Apr '39	CONV/PUT/CALL	-	0	-37	-185
Option-free Bonds												
FREEMONT-MCMORAN	DD1141769	106.40	5.59%	7.13%	152	115	Nov '27	AT MATURITY	BB+	-7	10	-15
FREEMONT-MCMORAN	EC3963252	121.81	6.14%	9.50%	207	107	Jun '31	AT MATURITY	BB+	17	-11	55
FREEMONT TERMIN	CP5064052	110.16	5.06%	7.25%	99	250	May '28	AT MATURITY	A-	7	9	26
TECK RESOURC	EF1096843	99.11	6.23%	6.13%	225	360	Oct '35	AT MATURITY	BBB-	10	-8	-47
Callable Bonds												
FIRST QUANTUM	AR4135208	98.22	8.14%	6.50%	142	850	Mar '24	CALLABLE	B+ *	-2	24	5
FIRST QUANTUM	AM8365950	97.76	8.62%	7.50%	392	1,350	Apr '25	CALLABLE	B+ *	-10	54	-75
FIRST QUANTUM	AM9018020	97.77	8.61%	7.50%	386	1,350	Apr '25	CALLABLE	B+ *	-11	57	-79
FIRST QUANTUM	AR4164364	95.03	8.71%	6.88%	433	1,000	Mar '26	CALLABLE	B+ *	-17	44	-66
FIRST QUANTUM	ZO5310024	93.95	8.43%	6.88%	415	1,500	Oct '27	CALLABLE	B+ *	-19	39	-98
FREEMONT INDONES	BV7716632	96.20	5.78%	4.76%	164	750	Apr '27	CALLABLE	-	-2	-7	-130
FREEMONT-MCMORAN	BG1673766	92.67	5.78%	4.13%	161	547	Mar '28	CALLABLE	BB+	14	-20	-48
FREEMONT-MCMORAN	AZ9096621	95.73	6.03%	5.25%	155	600	Sep '29	CALLABLE	BB+	12	-2	-61
FREEMONT-MCMORAN	BG1673774	91.11	5.78%	4.25%	158	499	Mar '30	CALLABLE	BB+	9	-26	-87
Convertible Bonds												
IVANHOE MINES	BO5445198	121.06	-3.50%	2.50%	-	575	Apr '26	CONVERTIBLE	-	0	277	-344

Note: Fixed income performance measured in bps. A negative change in yield implies a rise in the bond price while a positive change implies a decline in the bond price; yield to worst is calculated using an issue's open price.

Source: RBC Capital Markets, Bloomberg



Gold equity short interest

Priced as of December 30, 2022

Share price in local currency unless otherwise noted

Share price in local currency unless otherwise noted											
Description	Ticker	Price (local)	Short interest shares (m)			Short int ↓ ratio ↓	% of equity float short			Combined variance	
			CN	US	Total		Current	Last Period	Δ SI %	Shares (m)	(%)
Global ETFs											
GLOBAL X SILVER	SIL US	28.17	-	1.6	1.6	2.61	4.7%	2.4%	2.3%	0.8	94%
ISHARES SILVER T	SLV US	22.02	-	50.4	50.4	2.33	9.7%	8.8%	1.0%	5.0	11%
SPDR GOLD SHARES	GLD US	169.64	-	10.2	10.2	1.85	3.2%	3.1%	0.2%	0.6	6%
V/E JR GLD MINER	GDXJ US	35.65	-	9.6	9.6	1.49	9.2%	7.9%	1.2%	1.3	15%
VANECK GOLD MINE	GDX US	28.66	-	25.7	25.7	0.84	6.2%	5.8%	0.4%	1.6	7%
ETFMG PRIME JUNI	SILJ US	10.55	-	0.7	0.7	0.48	1.0%	1.2%	-0.1%	-0.1	-11%
Global Gold Equities											
Royalty Companies											
WHEATON PRECIOUS	WPM US	39.08	8.2	15.5	23.7	10.55	5.2%	5.2%	0.1%	0.3	1%
OSISKO GOLD ROYA	OR US	12.07	2.6	3.9	6.5	9.34	3.6%	4.1%	-0.5%	-0.9	-13%
FRANCO-NEVADA CO	FNV US	136.48	1.2	3.8	5.0	6.51	2.6%	2.7%	-0.1%	-0.2	-5%
ROYAL GOLD INC	RGLD US	112.72	-	2.7	2.7	3.86	4.2%	3.8%	0.4%	0.3	10%
SANDSTORM GOLD	SAND US	5.26	2.4	3.9	6.3	3.39	2.1%	2.2%	-0.1%	-0.2	-3%
Senior Producers											
AGNICO EAGLE MIN	AEM US	51.99	3.7	15.7	19.4	9.02	4.3%	4.4%	-0.1%	-0.4	-2%
KINROSS GOLD	KGC US	4.09	14.4	40.5	54.9	3.44	4.4%	5.3%	-0.9%	-10.9	-17%
ANGLOGOLD AS-ADR	AU US	19.42	-	7.6	7.6	2.01	1.8%	1.7%	0.1%	0.4	6%
BARRICK GOLD CRP	GOLD US	17.18	19.2	33.7	53.0	1.89	3.0%	3.5%	-0.5%	-8.8	-14%
NEWMONT CORP	NEM US	47.20	0.9	11.7	12.6	1.50	1.6%	1.5%	0.1%	0.6	5%
GOLD FIELDS-ADR	GFI US	10.35	-	6.0	6.0	1.00	0.7%	1.3%	-0.6%	-5.5	-48%
Intermediate Producers											
BUENAVENTURA-ADR	BVN US	7.45	-	10.5	10.5	12.68	3.8%	3.8%	0.0%	0.0	0%
EQUINOX GOLD COR	EQX CN	4.43	10.1	11.5	21.6	12.10	8.2%	8.0%	0.1%	0.4	2%
SSR MINING INC	SSRM US	15.67	1.8	7.6	9.4	4.19	4.6%	4.1%	0.5%	1.1	13%
B2GOLD CORP	BTG US	3.57	4.7	12.0	16.7	2.50	1.6%	1.8%	-0.2%	-2.2	-12%
ALAMOS GOLD INC	AGI US	10.11	2.5	5.7	8.2	2.47	2.1%	2.1%	0.0%	0.2	2%
CENTERRA GOLD IN	CG CN	7.01	2.5	-	2.5	2.45	1.7%	1.8%	-0.1%	-0.1	-4%
IAMGOLD CORP	IAG US	2.58	7.0	7.4	14.5	2.17	3.2%	6.4%	-3.2%	-14.4	-50%
HARMONY GOLD-ADR	HMY US	3.40	-	10.5	10.5	1.82	1.7%	2.0%	-0.3%	-1.8	-15%
YAMANA GOLD INC	AUY US	5.55	4.6	19.6	24.2	1.63	2.5%	3.1%	-0.5%	-5.0	-17%
ENDEAVOUR MINING	EDV CN	28.98	1.8	1.1	2.8	1.04	1.6%	1.6%	0.0%	-0.1	-2%
Growth Producers											
MCEWEN MINING IN	MUX US	5.86	1.0	1.6	2.6	10.62	6.6%	6.6%	0.0%	0.0	0%
CALIBRE MINING C	CXB CN	0.90	5.7	-	5.7	9.70	1.8%	1.7%	0.1%	0.2	4%
ELDORADO GOLD	EGO US	8.36	1.8	4.9	6.6	5.13	3.6%	3.8%	-0.1%	-0.3	-4%
TOREX GOLD RESOU	TXG CN	15.55	1.9	-	1.9	4.70	2.2%	1.4%	0.8%	0.7	59%
WESDOME GOLD MIN	WDO CN	7.48	1.7	-	1.7	3.01	1.2%	1.9%	-0.7%	-0.9	-35%
GALIANO GOLD INC	GAU US	0.52	2.7	0.9	3.6	2.94	1.8%	1.6%	0.1%	0.3	9%
VICTORIA GOLD	VITFF US	5.29	0.8	0.2	1.0	2.32	2.8%	3.7%	-0.9%	-0.3	-24%
ARGONAUT GOLD IN	AR CN	0.52	5.4	-	5.4	2.07	0.9%	0.9%	0.0%	0.1	2%
LUNDIN GOLD INC	LUG CN	13.23	0.7	-	0.7	1.71	0.9%	2.0%	-1.1%	-0.9	-56%
NEW GOLD INC	NGD US	0.98	8.5	3.3	11.8	1.53	1.9%	2.5%	-0.6%	-4.0	-25%
OCEANAGOLD CORP	OGC CN	2.58	3.9	-	3.9	0.80	0.6%	0.6%	0.0%	-0.2	-5%
Silver Producers											
MAG SILVER CORP	MAG US	15.63	1.3	2.9	4.1	8.87	4.7%	4.5%	0.2%	0.2	4%
SILVERCREST META	SILV US	6.00	3.8	5.5	9.3	6.84	6.6%	6.4%	0.2%	0.3	3%
FIRST MAJESTIC S	AG US	8.34	4.6	13.7	18.4	4.45	8.0%	8.0%	0.0%	0.0	0%
PAN AMER SILVER	PAAS US	16.34	-	25.0	25.0	14.48	11.9%	10.1%	1.8%	3.8	18%
COEUR MINING INC	CDE US	3.36	-	12.8	12.8	2.57	5.0%	5.7%	-0.6%	-1.6	-11%
GATOS SILVER INC	GATO US	4.09	0.1	1.6	1.7	2.38	3.7%	3.6%	0.1%	0.0	2%
ENDEAVOUR SILVER	EXK US	3.24	2.3	3.8	6.1	1.53	3.3%	4.0%	-0.7%	-1.3	-18%
HECLA MINING CO	HL US	5.56	-	15.4	15.4	1.39	2.7%	2.2%	0.6%	3.3	27%
SILVERCORP METAL	SVM US	2.96	0.4	0.6	1.0	0.90	0.6%	0.3%	0.2%	0.4	63%

Short interest ratio is derived by dividing the short interest (in shares) by the average daily volume for a stock across the US and Canada

Last reported period for US-listed equities is December 15, 2022, and for Canadian-listed equities is December 15, 2022

Source: RBC Capital Markets, Bloomberg



Gold equity performance

Priced as of December 30, 2022

Share price in US\$ unless otherwise noted; *Denotes RBC coverage

		Current	Mkt cap	30-day avg	30-day avg	Performance							
Company	Ticker	price (\$)	(US\$b)	vol (m)	val (US\$m)	1w	1m	3m	Qtd	Ytd	1y	2y	5y
North America													
Royalty Companies													
FRANCO-NEVADA CO*	FNV US	136.48	26.1	0.7	96	0%	-7%	14%	14%	-1%	-1%	8%	71%
OSISKO GOLD ROYA*	OR US	12.07	2.2	0.7	8	-1%	-4%	19%	19%	-1%	0%	-6%	4%
ROYAL GOLD INC*	RGD US	112.72	7.4	0.5	55	0%	0%	20%	20%	7%	8%	4%	37%
SANDSTORM GOLD*	SAND US	5.26	1.6	2.4	13	-1%	1%	2%	2%	-15%	-16%	-28%	5%
TRIPLE FLAG*	TFPM CN	18.75	2.2	0.1	1	-2%	10%	7%	7%	24%	23%	20%	20%
WHEATON PRECIOUS*	WPM US	39.08	17.7	2.3	88	-3%	0%	21%	21%	-9%	-9%	-9%	77%
Equal-weighted average						-1%	0%	14%	14%	1%	1%	-2%	36%
Market cap-weighted average						-1%	-3%	17%	17%	-2%	-2%	1%	62%
Senior Producers													
AGNICO EAGLE MIN*	AEM US	51.99	23.7	2.7	136	-1%	3%	23%	23%	-2%	-1%	-28%	13%
ANGLOGOLD AS-ADR*	AU US	19.42	8.1	2.6	48	0%	6%	41%	41%	-7%	-7%	-18%	91%
GOLD FIELDS-ADR*	GFI US	10.35	9.2	5.7	62	-1%	-7%	28%	28%	-6%	-6%	7%	141%
BARRICK GOLD CRP*	GOLD US	17.18	30.3	18.8	315	-1%	5%	11%	11%	-10%	-9%	-26%	19%
KINROSS GOLD*	KGC US	4.09	5.1	14.1	59	-2%	-1%	9%	9%	-30%	-29%	-46%	-5%
NEWCREST MINING*	NCM AU	20.64	12.6	4.8	66	-1%	4%	22%	22%	-16%	-15%	-20%	-10%
NEWMONT CORP*	NEM US	47.20	37.5	7.0	329	-1%	-1%	12%	12%	-24%	-23%	-22%	26%
Equal-weighted average						-1%	1%	21%	21%	-13%	-12%	-20%	53%
Market cap-weighted average						-1%	2%	18%	18%	-13%	-13%	-22%	29%
Intermediate Producers													
ALAMOS GOLD INC*	AGI US	10.11	4.0	3.4	33	1%	4%	36%	36%	31%	33%	12%	55%
YAMANA GOLD INC*	AUY US	5.55	5.3	13.8	75	-2%	2%	23%	23%	32%	32%	-5%	78%
B2GOLD CORP*	BTG US	3.57	3.8	9.2	32	0%	3%	11%	11%	-9%	-8%	-38%	15%
BUENAVENTURA-ADR	BVN US	7.45	2.1	1.4	11	0%	-9%	11%	11%	2%	1%	-39%	-47%
CENTERRA GOLD IN*	CG CN	7.01	1.1	1.5	8	-2%	-3%	15%	15%	-28%	-28%	-53%	9%
ENDEAVOUR MINING*	EDV CN	28.98	5.3	0.8	18	0%	2%	14%	14%	5%	4%	-4%	13%
EQUINOX GOLD COR*	EQX CN	4.43	1.0	1.3	5	-8%	-7%	-12%	-12%	-48%	-48%	-67%	-21%
HARMONY GOLD-ADR	HMV US	3.40	2.1	4.7	16	0%	-3%	40%	40%	-17%	-17%	-30%	82%
IAMGOLD CORP*	IAG US	2.58	1.2	7.0	15	5%	26%	141%	141%	-18%	-18%	-30%	-56%
SIBANYE-STI-ADR*	SBSW US	10.66	7.5	2.6	28	0%	-5%	14%	14%	-15%	-16%	-35%	120%
SSR MINING INC*	SSRM US	15.67	3.2	1.5	22	-2%	3%	7%	7%	-11%	-11%	-23%	78%
Equal-weighted average						-1%	1%	27%	27%	-7%	-7%	-28%	30%
Market cap-weighted average						0%	0%	22%	22%	0%	0%	-21%	52%
Growth Producers													
ARGONAUT GOLD IN*	AR CN	0.52	0.3	9.1	3	0%	35%	24%	24%	-78%	-78%	-81%	-78%
CALIBRE MINING C	CXB CN	0.90	0.3	1.2	1	7%	0%	-5%	-5%	-33%	-32%	-63%	-31%
DUNDEE PRECIOUS*	DPM CN	6.51	0.9	0.8	4	-5%	3%	6%	6%	-17%	-15%	-30%	117%
ELDORADO GOLD*	EGO US	8.36	1.5	1.7	14	0%	9%	39%	39%	-11%	-11%	-39%	17%
GALIANO GOLD INC	GAU US	0.52	0.1	0.8	0	1%	-7%	7%	7%	-26%	-25%	-56%	-26%
GOLD RESOURCE CO	GORO US	1.53	0.1	0.7	1	-1%	-6%	-7%	-7%	-2%	-3%	-50%	-62%
K92 MINING*	KNT CN	7.67	1.3	0.8	5	-1%	-1%	-3%	-3%	7%	8%	-1%	1295%
KARORA RESOURCES	KRR CN	4.65	0.6	1.3	4	0%	5%	63%	63%	9%	9%	21%	490%
LUNDIN GOLD INC	LUG CN	13.23	2.3	1.2	11	2%	0%	38%	38%	27%	32%	19%	192%
MCEWEN MINING IN	MUX US	5.86	0.3	0.4	2	1%	8%	80%	80%	-34%	-35%	-41%	-74%
NEW GOLD INC*	NGD US	0.98	0.7	3.8	4	-4%	-12%	11%	11%	-35%	-36%	-57%	-70%
OCEANAGOLD CORP*	OGC CN	2.58	1.3	3.3	6	-2%	13%	15%	15%	17%	18%	3%	-20%
PURE GOLD MINING	PGM/H CN	0.02	0.0	1.9	0	33%	0%	-85%	-85%	-97%	-97%	-99%	-96%
VICTORIA GOLD	VGX CN	7.15	0.3	0.4	2	0%	-12%	-13%	-13%	-50%	-49%	-43%	10%
WESDOME GOLD MIN*	WDO CN	7.48	0.8	1.4	9	1%	-18%	-20%	-20%	-35%	-34%	-32%	255%
Equal-weighted average						2%	1%	10%	10%	-20%	-20%	-30%	114%
Market cap-weighted average						0%	2%	20%	20%	-4%	-3%	-16%	237%

Source: RBC Capital Markets, Bloomberg



Gold equity performance

Priced as of December 30, 2022

Share price in US\$ unless otherwise noted; *Denotes RBC coverage

Price in US\$ unless otherwise noted. * Denotes N/A coverage						Performance							
Company	Ticker	Current price (\$)	Mkt cap (US\$b)	30-day avg vol (m)	30-day avg val (US\$m)	1w	1m	3m	Qtd	Ytd	1y	2y	5y
Australia and London													
Australia													
AURELIA METALS L	AMI AU	0.13	0.1	9.9	1	-7%	-19%	-38%	-38%	-70%	-70%	-71%	-51%
DACIAN GOLD LTD	DCN AU	0.10	0.1	1.7	0	0%	-17%	10%	10%	-47%	-47%	-74%	-94%
EVOLUTION MINING*	EVN AU	2.98	3.7	28.2	53	0%	11%	45%	45%	-27%	-26%	-41%	12%
GOLD ROAD RESOUR*	GOR AU	1.69	1.2	4.6	5	-1%	-3%	32%	32%	8%	7%	33%	141%
NEWCREST MINING*	NCM AU	20.64	12.6	4.8	66	-1%	4%	22%	22%	-16%	-15%	-20%	-10%
NORTHERN STAR RE*	NST AU	10.91	8.6	6.9	50	-1%	3%	39%	39%	16%	17%	-13%	79%
PERSEUS MINING	PRU AU	2.11	2.0	5.7	8	-3%	-5%	39%	39%	30%	31%	67%	463%
RAMELIUS RESOURC*	RMS AU	0.93	0.6	6.1	4	0%	9%	30%	30%	-41%	-39%	-43%	142%
REGIS RESOURCES*	RRL AU	2.06	1.1	3.7	5	-1%	7%	32%	32%	6%	10%	-43%	-50%
RESOLUTE MINING	RSG AU	0.20	0.3	16.6	2	0%	25%	6%	6%	-43%	-39%	-72%	-80%
SILVER LAKE RESO*	SLR AU	1.19	0.8	6.9	6	-4%	-2%	0%	0%	-33%	-31%	-33%	212%
ST BARBARA LTD*	SBM AU	0.78	0.4	20.3	9	1%	28%	5%	5%	-47%	-45%	-67%	-79%
Equal-weighted average						-1%	4%	18%	18%	-25%	-23%	-34%	49%
Market cap-weighted average						-1%	4%	30%	30%	-6%	-5%	-17%	57%
London													
CENTAMIN PLC*	CEY LN	112.90	1.6	4.5	6	1%	7%	25%	25%	27%	29%	-9%	-29%
POLYMETAL	POLY LN	245.50	1.4	0.2	1	0%	4%	26%	26%	-81%	-81%	-86%	-73%
Equal-weighted average						0%	5%	26%	26%	-27%	-26%	-47%	-51%
Market cap-weighted average						0%	6%	26%	26%	-24%	-23%	-45%	-50%
Other													
Silver Producers													
COEUR MINING INC*	CDE US	3.36	0.9	6.1	21	-2%	-4%	-2%	-2%	-33%	-33%	-68%	-55%
ENDEAVOUR SILVER	EXK US	3.24	0.6	2.3	8	-3%	-4%	7%	7%	-23%	-23%	-36%	36%
FIRST MAJESTIC S	AG US	8.34	2.2	5.8	52	-4%	-10%	9%	9%	-25%	-24%	-39%	24%
FORTUNA SILVER	FSM US	3.75	1.1	5.1	19	-2%	1%	49%	49%	-4%	-4%	-55%	-28%
GATOS SILVER INC*	GATO US	4.09	0.3	0.4	1	-5%	7%	53%	53%	-61%	-60%	-66%	-42%
HECLA MINING CO*	HL US	5.56	3.4	9.8	53	1%	2%	41%	41%	7%	8%	-16%	40%
HOCHSCHILD MININ*	HOC LN	70.25	0.4	2.1	2	1%	1%	19%	19%	-46%	-46%	-66%	-73%
MAG SILVER CORP	MAG US	15.63	1.5	0.4	7	-2%	-1%	25%	25%	0%	1%	-24%	26%
PAN AMER SILVER*	PAAS US	16.34	3.4	3.8	62	-3%	0%	3%	3%	-35%	-35%	-53%	5%
SILVERCORP METAL	SVM US	2.96	0.5	1.4	4	-3%	6%	27%	27%	-21%	-21%	-56%	13%
SILVERCREST META*	SIL CN	8.10	0.88	0.8	5.5	-3%	-9%	6%	6%	-19%	-19%	-43%	353%
Equal-weighted average						-2%	0%	23%	23%	-24%	-24%	-48%	-5%
Market cap-weighted average						-2%	-2%	20%	20%	-17%	-17%	-41%	30%
Royalty Companies—Small cap													
DETERRA ROYALTIES LTD	DRR AU	4.58	1.7	1.4	4	-2%	-1%	15%	15%	7%	5%	-5%	0%
EMPRESS ROYALTY CORP	EMPR CN	0.40	0.0	0.1	0	0%	-5%	72%	72%	30%	30%	-27%	-29%
EMX ROYALTY CORP	EMX US	1.89	0.2	0.1	0	4%	5%	2%	2%	-17%	-14%	-40%	127%
GOLDEN STAR RESOURCES	GSS CN	0.06	0.0	0.1	0	-8%	10%	-8%	-8%	-73%	-70%	-35%	-31%
MAVERIX METALS I	MMX CN	6.32	0.7	0.1	0	-3%	7%	38%	38%	14%	13%	-10%	71%
METALLA ROYALTY	MTA CN	6.59	0.2	0.1	0	-5%	-12%	23%	23%	-25%	-26%	-56%	150%
OROGEN ROAYLTIES INC	OGN CN	0.53	0.1	0.1	0	4%	29%	32%	32%	9%	18%	51%	112%
Equal-weighted average						-1%	5%	25%	25%	-8%	-6%	-17%	57%
Market cap-weighted average						-2%	1%	21%	21%	4%	4%	-12%	41%
International Companies													
CHINA GOLD INTER	CGG CN	3.94	1.2	0.0	0	3%	4%	13%	13%	16%	20%	113%	68%
ZHAOJIN MINING-H	PE&OLES MM	8.68	3.6	8.1	9	4%	0%	62%	62%	30%	36%	-4%	43%
ZIJIN MINING-H	2899 HK	10.58	37.6	27.0	36	1%	4%	38%	38%	14%	15%	23%	259%
Equal-weighted average						1%	15%	81%	81%	112%	115%	153%	437%
Market cap-weighted average						1%	9%	56%	56%	52%	53%	68%	347%

Source: RBC Capital Markets, Bloomberg



Gold equity performance

Priced as of December 30, 2022

Share price in US\$ unless otherwise noted; *Denotes RBC coverage

Share price in US\$ unless otherwise noted; * Denotes wide coverage													
Company	Ticker	Current price (\$)	Mkt cap (US\$b)	30-day avg vol (m)	30-day avg val (US\$m)	Performance							
						1w	1m	3m	Qtd	Ytd	1y	2y	5y
Emerging Companies													
ALMADEN MINERA-B	AMM CN	0.33	0.03	0.1	0.0	-1%	3%	6%	6%	-15%	-13%	-47%	-74%
ASCOT RESOURCES	AOT CN	0.52	0.17	0.8	0.3	-7%	33%	33%	33%	-57%	-56%	-65%	-66%
ARTEMIS GOLD INC*	ARTG CN	4.39	0.63	0.3	1.1	0%	-6%	3%	3%	-37%	-34%	-31%	339%
BELLEVUE GOLD LT*	BGL AU	1.13	0.85	7.0	5.1	-1%	3%	51%	51%	34%	33%	1%	326%
BREAKER RESOURCE	BRB AU	0.32	0.07	0.4	0.1	0%	3%	52%	52%	10%	12%	64%	-47%
BLUESTONE RESOUR	BSR CN	0.45	0.05	0.3	0.1	-6%	-25%	-1%	-1%	-79%	-80%	-77%	-59%
BELO SUN MINING	BSX CN	0.09	0.03	1.7	0.1	-15%	-63%	-64%	-64%	-86%	-86%	-91%	-78%
BONTERRA RESOURC	BTR CN	0.30	0.03	0.7	0.1	7%	23%	-40%	-40%	-77%	-77%	-77%	-95%
CALIDUS RESOURCE	CAI AU	0.27	0.08	1.4	0.3	0%	-19%	-50%	-50%	-57%	-56%	-45%	-29%
CHESAPEAKE GOLD	CKG CN	1.93	0.10	0.0	0.0	2%	-4%	-5%	-5%	-37%	-35%	-63%	-41%
CAPRICORN METALS	CMM AU	4.60	1.18	1.5	4.5	0%	10%	53%	53%	35%	41%	156%	1286%
FIRST MINING GOL	FF CN	0.20	0.12	0.7	0.1	-5%	-2%	-5%	-5%	-33%	-34%	-47%	-66%
FALCO RESOURCES	FPC CN	0.11	0.02	0.6	0.1	-5%	-22%	-48%	-48%	-64%	-63%	-74%	-88%
FURY GOLD MINES	FURY CN	0.58	0.06	0.1	0.1	0%	17%	7%	7%	-28%	-30%	-68%	-81%
GOLDMINING INC	GOLD CN	1.54	0.18	0.7	0.9	-1%	-17%	32%	32%	1%	2%	-47%	16%
INTEGRA RESOURCE	ITR CN	0.85	0.05	0.1	0.1	-4%	-4%	13%	13%	-69%	-69%	-83%	-69%
KIN MINING NL	KIN AU	0.07	0.05	0.4	0.0	3%	-12%	-11%	-11%	-41%	-38%	-59%	-74%
LIBERTY GOLD COR	LGD CN	0.57	0.13	0.8	0.3	-12%	39%	41%	41%	-41%	-41%	-66%	30%
LION ONE METALS	LIO CN	1.01	0.13	0.5	0.3	15%	28%	31%	31%	-5%	-5%	-34%	60%
LUMINEX RES CORP	LR CN	0.29	0.03	0.1	0.0	-2%	6%	36%	36%	-32%	-30%	-59%	-68%
LUMINA GOLD CORP	LUM CN	0.36	0.10	0.1	0.0	-7%	-9%	39%	39%	-45%	-42%	-61%	-52%
MINERA ALAMOS IN	MAI CN	0.44	0.15	0.6	0.2	1%	-1%	-8%	-8%	-19%	-15%	-35%	144%
MARATHON GOLD*	MOZ CN	1.06	0.31	2.9	2.0	-7%	6%	0%	0%	-67%	-67%	-64%	-8%
NORTHERN DYN MNL	NDM CN	0.30	0.12	0.2	0.1	-2%	-9%	-9%	-9%	-27%	-29%	-28%	-87%
NOVAGOLD RES*	NG US	5.98	1.99	1.1	6.7	-3%	4%	28%	28%	-13%	-11%	-40%	52%
NIGHTHAWK GOLD C	NHK CN	0.37	0.03	0.2	0.1	0%	6%	28%	28%	-54%	-54%	-73%	-90%
NOVO RESOURCES C	NVO CN	0.29	0.05	1.7	0.3	2%	8%	-39%	-39%	-80%	-80%	-88%	-92%
O3 MINING INC	OIII CN	1.51	0.08	0.0	0.1	-10%	-1%	6%	6%	-27%	-27%	-51%	-62%
ORLA MINING LTD	OLA CN	5.48	1.22	0.6	2.3	-3%	10%	22%	22%	13%	18%	-21%	208%
OREZONE GOLD COR	ORE CN	1.27	0.31	0.2	0.2	2%	1%	-8%	-8%	6%	7%	12%	72%
OSISKO MINING IN*	OSK CN	3.50	0.90	0.9	2.3	3%	-3%	13%	13%	-8%	-8%	-6%	3%
PERPETUA RESOURC	PPTA CN	3.95	0.18	0.0	0.1	3%	40%	40%	40%	-34%	-30%	-68%	-33%
PROBE METALS INC	PRB CN	1.27	0.14	0.1	0.1	9%	3%	9%	9%	-34%	-33%	-25%	-15%
REUNION GOLD COR	RGD CN	0.42	0.34	0.4	0.1	9%	-2%	6%	6%	200%	211%	282%	171%
RIO2 LTD/NEW	RIO CN	0.20	0.04	0.3	0.0	0%	38%	67%	67%	-69%	-69%	-79%	-85%
REVIVAL GOLD INC	RVG CN	0.62	0.04	0.1	0.0	2%	5%	0%	0%	0%	2%	-22%	-11%
SABINA GOLD & SI*	SBB CN	1.33	0.55	1.5	1.4	3%	3%	22%	22%	-8%	-6%	-61%	-41%
SEABRIDGE GOLD	SEA CN	17.00	1.01	0.1	1.5	2%	1%	3%	3%	-19%	-19%	-37%	19%
SKEENA RESOURCES*	SKE CN	7.21	0.41	0.4	2.3	3%	-2%	12%	12%	-45%	-44%	-48%	158%
TROILUS GOLD COR	TLG CN	0.47	0.08	0.3	0.1	-6%	-11%	15%	15%	-36%	-37%	-62%	-71%
TREASURY METALS	TML CN	0.32	0.03	0.1	0.0	-6%	-6%	8%	8%	-57%	-56%	-76%	-83%
WEST AFRICAN RES	WAF AU	1.18	0.82	4.2	3.3	1%	2%	12%	12%	-11%	-10%	18%	187%
WHITE GOLD CORP	WGO CN	0.44	0.05	0.1	0.0	14%	32%	23%	23%	-42%	-41%	-45%	-67%
GOLD TERRA RESOU	YGT CN	0.16	0.02	0.2	0.0	7%	-6%	7%	7%	-32%	-30%	-54%	-70%
Equal-weighted average						0%	2%	8%	8%	-25%	-23%	-33%	28%
Market cap-weighted average						0%	4%	20%	20%	-4%	-3%	-5%	198%

Source: RBC Capital Markets, Bloomberg



Gold equity performance

Priced as of December 30, 2022

Share price in US\$ unless otherwise noted; *Denotes RBC coverage

Share price in US\$ unless otherwise noted, * Denotes KOC coverage													
Company	Ticker	Current price (\$)	Mkt cap (US\$m)	30-day avg vol (m)	30-day avg val (US\$m)	Performance							
						1w	1m	3m	Qtd	Ytd	1y	2y	5y
Microcap Companies													
EURO SUN MINING	ESM CN	0.08	13	0.4	0.0	0%	0%	-29%	-29%	-71%	-70%	-77%	-94%
GOLDQUEST MINING	GQC CN	0.15	29	0.1	0.0	0%	3%	-29%	-29%	11%	11%	-48%	-59%
MAPLE GOLD MINES	MGM CN	0.18	45	0.4	0.0	0%	20%	9%	9%	-51%	-50%	-50%	-29%
OREA MINING CORP	OREA CN	0.10	15	0.2	0.0	12%	36%	19%	19%	12%	6%	-32%	-87%
ORECORP LTD	ORR AU	0.47	127	0.2	0.1	13%	26%	27%	27%	-42%	-43%	-32%	75%
PARAMOUNT GOLD N	PZG US	0.35	16	0.1	0.1	-11%	-6%	12%	12%	-51%	-51%	-71%	-73%
UNIGOLD INC	UGD CN	0.06	8	0.1	0.0	-15%	-15%	-8%	-8%	-42%	-42%	-86%	-74%
Equal-weighted average						2%	4%	-3%	-3%	-32%	-32%	-51%	-48%
Market cap-weighted average						5%	12%	7%	7%	-34%	-35%	-47%	-7%

Source: RBC Capital Markets, Bloomberg



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