

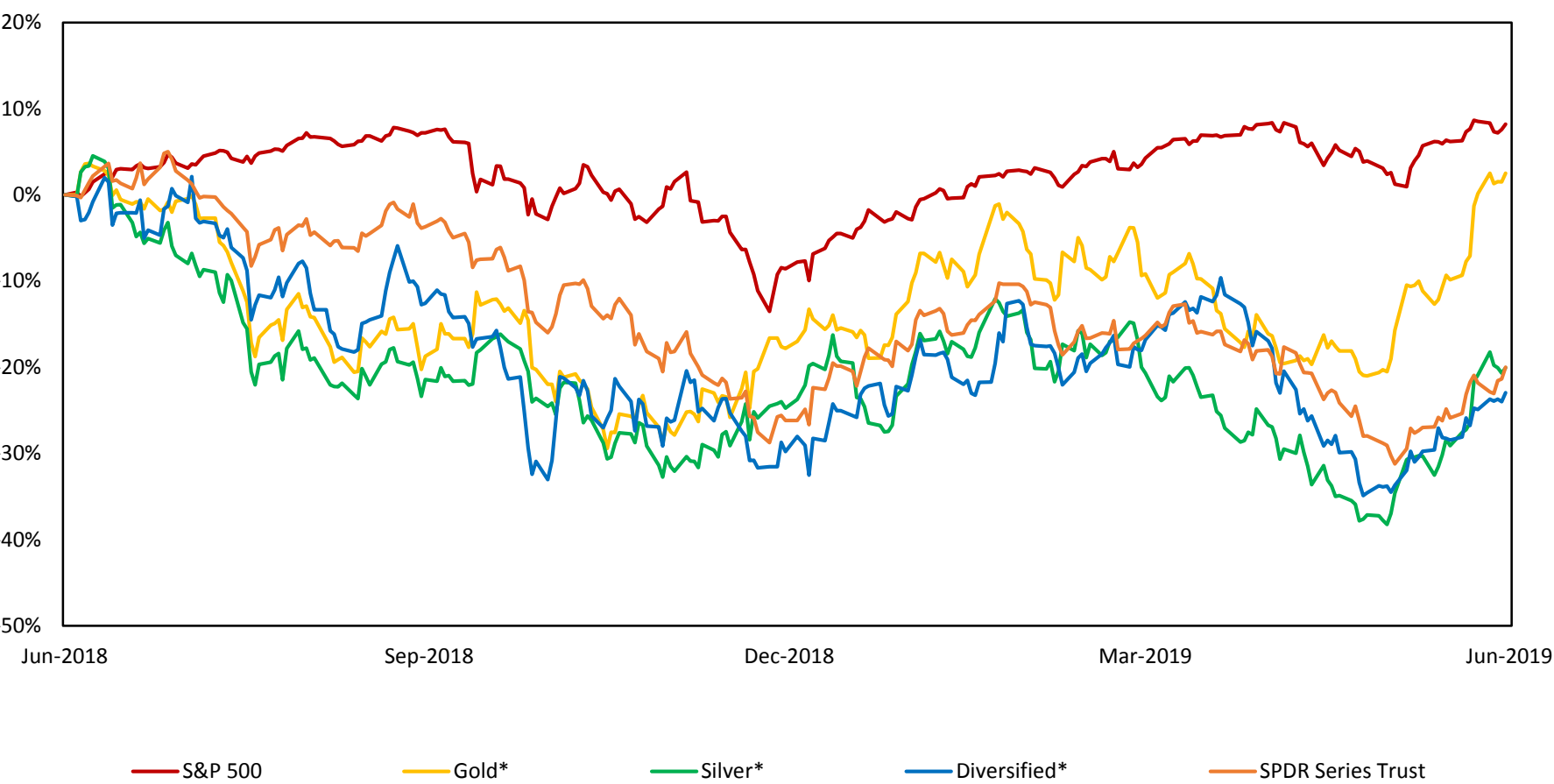


NOBLE CAPITAL MARKETS NEWSLETTER
METALS AND MINING
QUARTERLY REVIEW Q2 2019



MINING SECTOR NEWSLETTER

MINING SECTOR LTM EQUITY PERFORMANCE



* Noble Proprietary Sector (index composed of companies in the comparable table)
** MINING Select Sector SPDR ETF (refer to disclosure section for more information)

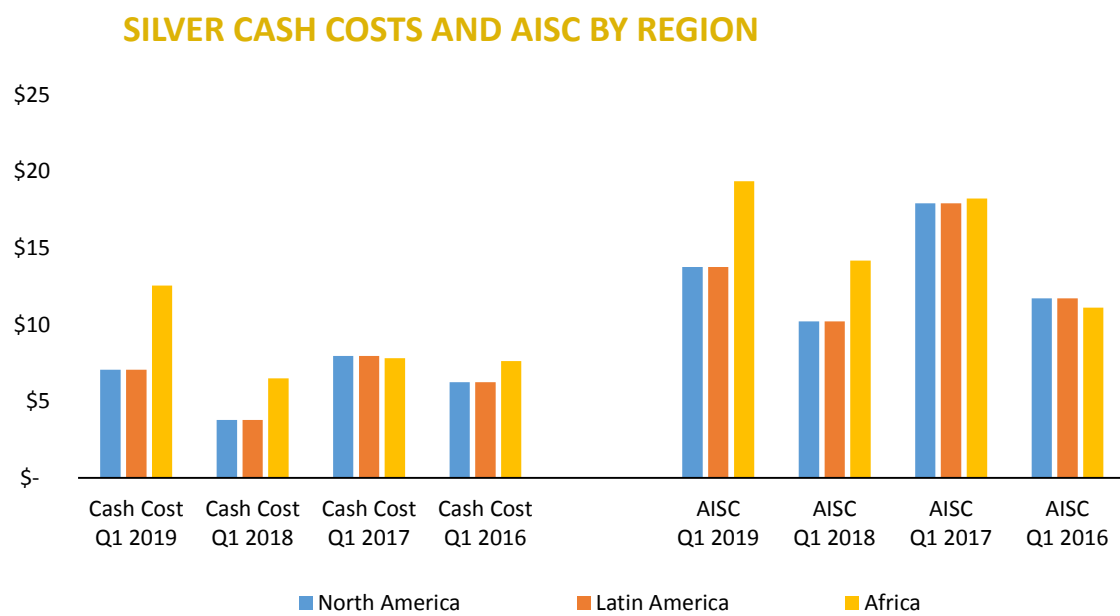
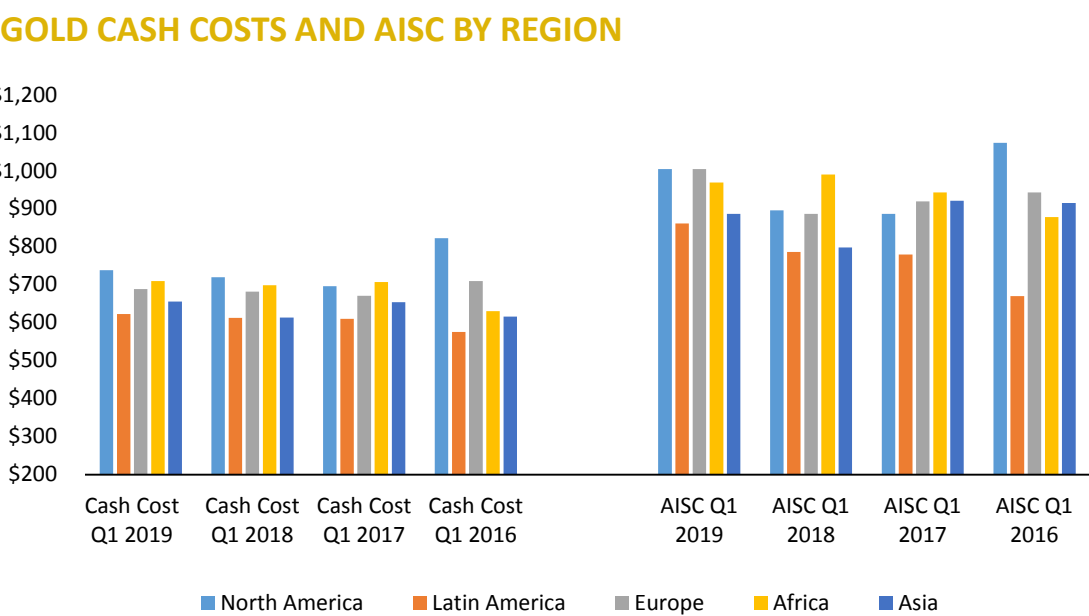
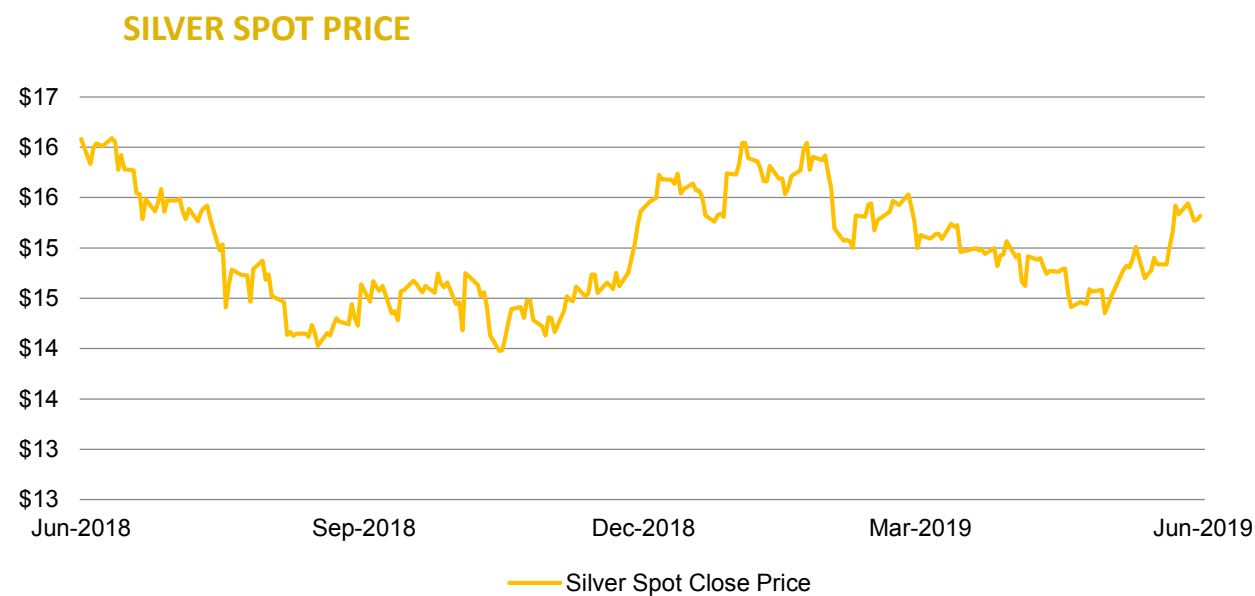
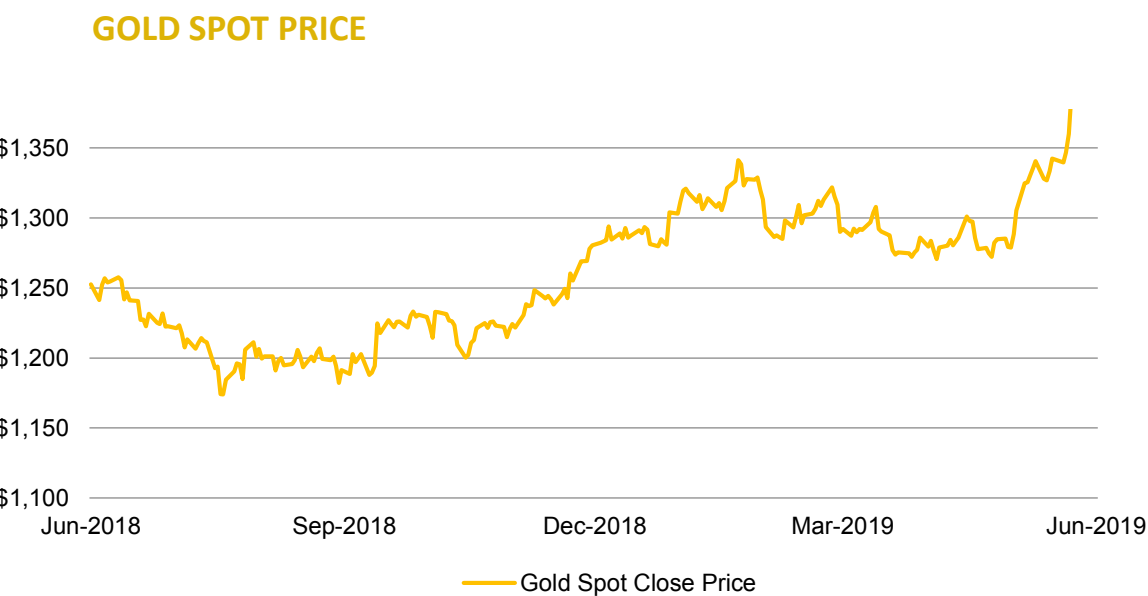
Source: Capital IQ as of 06/28/2019

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MINING – FUNDAMENTAL DATA





METALS AND MINING INDUSTRY OUTLOOK

METALS AND MINING INDUSTRY OUTLOOK

Mining companies (as measured by the XME) declined 4.4% during the June quarter versus a 3.8% increase in the S&P 500 Index. Notably, after posting 2.9% and 15.4% declines in April and May, the XME rose 16.3% in June on the back of higher gold prices which rose 8.0%. During the first half of 2019, the XME was up 8.4% but still lagged the S&P 500 Index which appreciated 17.4%. During the second quarter, the price of gold increased 9.1%, while silver increased 1.3%. Futures suggest gold above \$1,400 an ounce in 2020, with silver prices in the mid- \$15 range. The gold/silver ratio was 92.0x at the close of the quarter and we still maintain our view that silver is undervalued relative to gold and thus could represent greater long-term price appreciation potential.

Among base metals, copper and lead fell 7.8% and 5.3% during the second quarter, while zinc eked out a 1.3% gain. During the first half of 2019, gold was up 9.9%, silver declined 0.9%, copper rose 3.0%, lead fell 4.7% and zinc was down 0.9%. What can investors expect for the remainder of 2019?

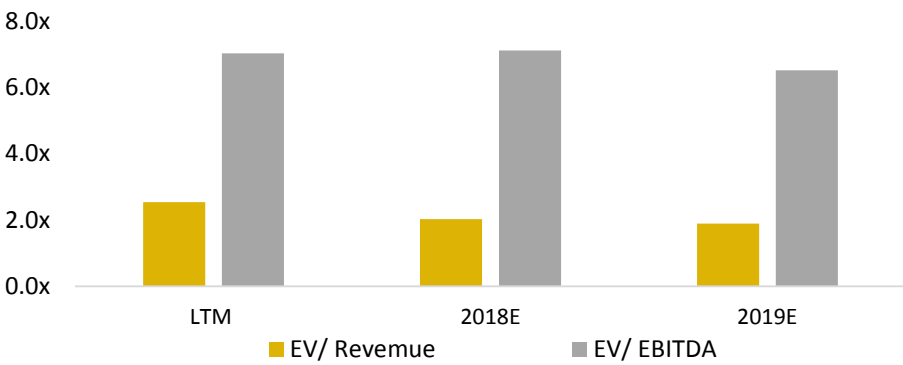
A few of the key contributors to gold’s strength in June included a rather dovish posture from the Federal Reserve Open Markets Committee when it decided to maintain the target range for federal funds rate and suggested the potential for the future rate cuts by mentioning in its release that it could “act as appropriate to sustain the expansion.” Accommodation by the Fed could send the dollar lower which would be supportive of precious metals. Second, trade concerns, particularly with China, helped sustain gold’s rally along with increasing geopolitical tensions, most notably with Iran. Interestingly though, second quarter sales of gold bullion by the U.S. Mint totaled a modest 19,000 ounces, compared to 90,000 ounces during the first quarter and 77,000 ounces during the prior year period, which implies that the June rally was likely driven by the purchase of gold-backed exchange-traded products rather than physical coin investment. We generally view physical buying as an indicator of the breadth of such rallies. For example, the U.S. Mint has been challenged in past years to keep up with demand when prices were rising.

In our view, monetary policy, geopolitical risk and trade will most likely drive movements in gold for the remainder of the year. While fears of a global or U.S. recession appear to have been deferred for the moment, they have not faded, in our view. Underscoring concerns about economic growth, a more dovish posture by the U.S. Federal Reserve and other Central Banks, including the European Central Bank and Bank of Japan, may strengthen gold’s appeal, especially when one considers that real interest rates are negative in some countries. We note that, according to the World Gold Council, first quarter global gold demand increased 7% on a year over-year basis with Central Bank purchases representing the largest since the first quarter of 2013, China and Russia have been buyers as they have sought to diversify away from the U.S. dollar.

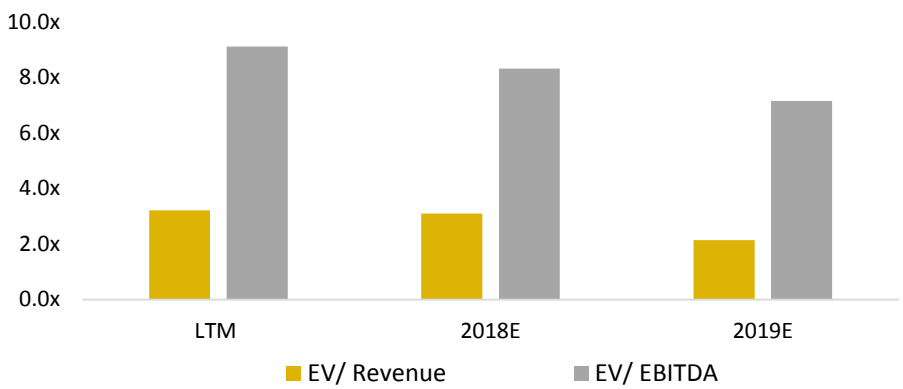
With respect to base metals, issues around trade and economic growth will continue to influence demand expectations. While these will influence near and intermediate prices for copper, we are very constructive on the long-term outlook due to growing sources of demand that include components for electric vehicles, charging stations and electronics and support investment in new sources of supply.

Source: Capital IQ as of 06/28/2019; Mark Reichman

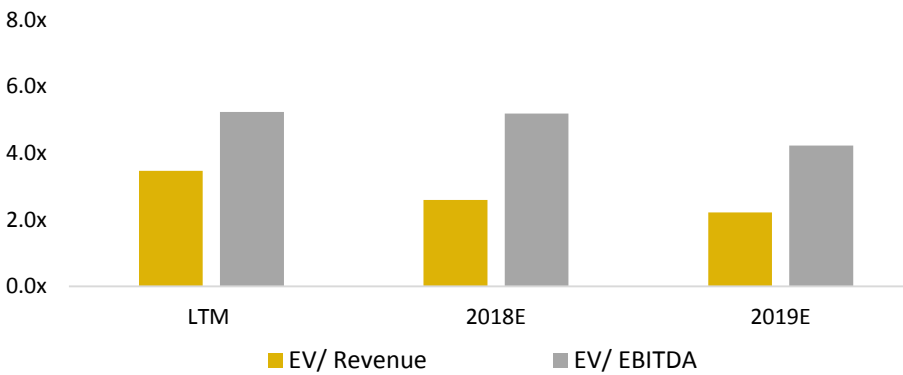
GOLD



SILVER



DIVERSIFIED



Source: Capital IQ as of 06/28/2019

GOLD MINING

COMPARABLE TABLES

Major Gold Miner Index

	TICKER	CHANGE IN STOCK PRICE		SHARE PRICE	% OF 52 WEEK HIGH	MARKET CAP (\$M)	TOTAL DEBT (\$M)	ENT. VALUE (\$M)	LTM		EV / REVENUE			EV / EBITDA			EBITDA MARGIN
		3-MONTH	12-MONTH						REVENUES (\$M)	EBITDA (\$M)	LTM	2018E	2019E	LTM	2018E	2019E	
Kinross Gold Corporation	TSX:K	(67%)	3%	\$3.87	73%	4,844	1,923	6,407	3,102	891	2.1x	2.0x	1.9x	7.2x	6.3x	5.4x	29%
B2Gold Corp.	TSX:BTO	3%	19%	\$3.04	69%	3,067	483	3,462	1,182	541	2.9x	2.8x	2.7x	6.4x	5.8x	5.7x	46%
Yamana Gold Inc.	TSX:YRI	19%	(14%)	\$2.54	60%	2,412	1,920	4,291	1,751	634	2.5x	2.4x	2.8x	6.8x	7.0x	6.6x	36%
Alamos Gold Inc.	TSX:AGI	(43%)	7%	\$6.04	73%	2,356	3	2,163	635	206	3.4x	3.3x	3.3x	10.5x	10.5x	8.5x	32%
Detour Gold Corporation	TSX:DGC	84%	47%	\$12.63	75%	2,225	261	2,285	781	280	2.9x	3.0x	2.9x	8.2x	8.1x	8.2x	36%
Eldorado Gold Corporation	TSX:ELD	(29%)	10%	\$5.82	76%	921	617	1,381	407	32	3.4x	2.9x	2.2x	NM	12.4x	6.2x	8%

Mean	2.9x	2.7x	2.6x	7.8x	8.3x	6.8x	31%
Median	2.9x	2.9x	2.7x	7.2x	7.6x	6.4x	34%

Intermediate Gold Miner Index

	TICKER	CHANGE IN STOCK PRICE		SHARE PRICE	% OF 52 WEEK HIGH	MARKET CAP (\$M)	TOTAL DEBT (\$M)	ENT. VALUE (\$M)	LTM		EV / REVENUE			EV / EBITDA			EBITDA MARGIN
		3-MONTH	12-MONTH						REVENUES (\$M)	EBITDA (\$M)	LTM	2018E	2019E	LTM	2018E	2019E	
Wesdome Gold Mines Ltd.	TSX:WDO	23%	79%	\$4.12	72%	562	8	549	92	35	6.0x	4.7x	4.0x	NM	12.1x	9.1x	38%
Golden Star Resources Ltd.	TSX:GSC	(8%)	24%	\$4.05	65%	441	99	384	269	51	1.4x	1.4x	1.4x	7.6x	8.2x	3.9x	19%
Teranga Gold Corporation	TSX:TGZ	(2%)	(22%)	\$3.07	61%	330	127	430	319	110	1.3x	NM	1.3x	3.9x	NM	3.6x	35%
Premier Gold Mines Limited	TSX:PG	24%	(22%)	\$1.56	55%	328	19	303	98	(1)	3.1x	1.9x	2.5x	NM	NM	NM	NM
Argonaut Gold Inc.	TSX:AR	(5%)	(17%)	\$1.36	56%	243	14	228	217	32	1.1x	1.1x	0.8x	7.1x	3.2x	2.8x	15%
Corvus Gold Inc.	TSX:KOR	2%	5%	\$1.67	49%	187	-	184	-	(7)	NM	NM	NM	NM	NM	NM	NM

Mean	2.6x	2.3x	2.0x	6.2x	7.8x	4.9x	27%
Median	1.4x	1.6x	1.4x	7.1x	8.2x	3.8x	27%

Source: Capital IQ as of 06/28/2019



GOLD MINING

COMPARABLE TABLES

Junior Gold Miner Index

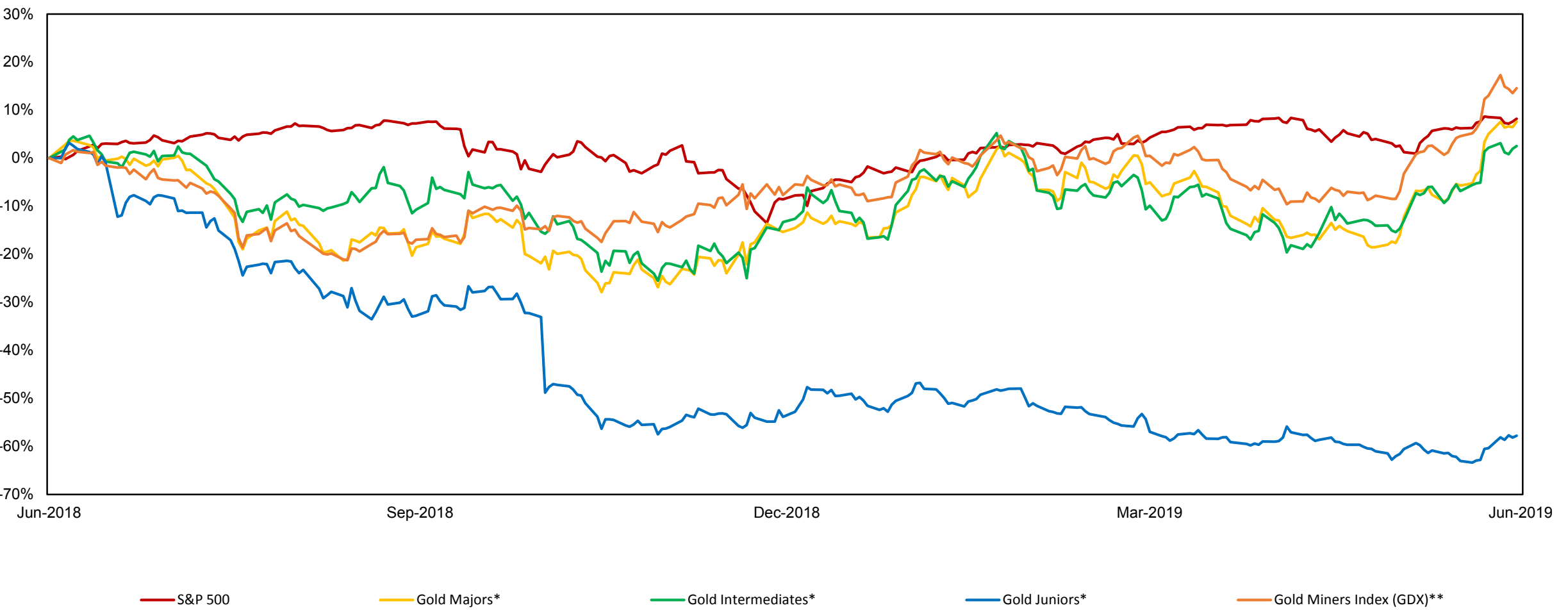
	TICKER	CHANGE IN STOCK PRICE		SHARE PRICE	% OF 52 WEEK HIGH	MARKET CAP (\$M)	TOTAL DEBT (\$M)	ENT. VALUE (\$M)	LTM		EV / REVENUE			EV / EBITDA			EBITDA MARGIN
		3-MONTH	12-MONTH						REVENUES (\$M)	EBITDA (\$M)	LTM	2018E	2019E	LTM	2018E	2019E	
Asanko Gold Inc.	TSX:AKG	(2%)	(41%)	\$0.63	41%	143	-	134	97	25	1.4x	0.7x	0.6x	5.4x	1.8x	NM	25%
Guyana Goldfields Inc.	TSX:GUY	(20%)	(78%)	\$0.79	15%	137	39	101	187	38	0.5x	0.5x	0.5x	2.6x	2.1x	2.0x	20%
Contango Ore, Inc.	OTCPK:CTGO	(13%)	(27%)	\$17.50	70%	111	-	101	-	-	NM	NM	NM	NM	NM	NM	NM
Alio Gold Inc.	TSX:ALO	3%	(47%)	\$0.77	36%	65	9	55	113	5	0.5x	0.5x	0.5x	11.6x	7.9x	4.1x	4%
GoGold Resources Inc.	TSX:GGD	25%	(7%)	\$0.29	65%	51	-	34	21	(26)	1.7x	1.1x	0.9x	NM	NM	NM	NM
Mako Mining Corp.	TSXV:MKO	(16%)	(42%)	\$0.09	40%	28	-	26	4	(4)	6.5x	NM	NM	NM	NM	NM	NM
										Mean	2.1x	0.7x	0.6x	6.6x	3.9x	3.0x	17%
										Median	1.4x	0.6x	0.6x	5.4x	2.1x	3.0x	20%

Source: Capital IQ as of 06/28/2019



GOLD MINING LTM EQUITY PERFORMANCE

(NOBLE INDEX SELECTION)



* Noble Proprietary Sector (index composed of companies in the comparable table)
** SPDR Gold Shares (refer to disclosure section for more information)

Source: Capital IQ as of 06/28/2019



SILVER MINING

COMPARABLE TABLES

Major Silver Miner Index

	TICKER	CHANGE IN		SHARE PRICE	% OF 52 WEEK HIGH	MARKET CAP (\$M)	TOTAL DEBT (\$M)	ENT. VALUE (\$M)	LTM		EV / REVENUE			EV / EBITDA			EBITDA MARGIN
		STOCK PRICE							REVENUES (\$M)	EBITDA (\$M)	LTM	2018E	2019E	LTM	2018E	2019E	
		3-MONTH	12-MONTH														
Pan American Silver Corp.	TSX:PAAS	(6%)	(26%)	\$12.94	54%	2,711	384	2,985	810	195	3.7x	3.7x	2.3x	NM	12.7x	8.0x	24%
SSR Mining Inc.	TSX:SSRM	1%	40%	\$13.70	68%	1,661	277	1,475	449	139	3.3x	2.7x	2.2x	10.6x	8.5x	5.8x	31%
First Majestic Silver Corp.	TSX:FR	11%	5%	\$7.90	71%	1,597	159	1,659	329	59	5.0x	4.0x	3.3x	NM	NM	12.8x	18%
Coeur Mining, Inc.	NYSE:CDE	(5%)	(43%)	\$4.34	51%	962	518	1,412	618	85	2.3x	2.2x	2.0x	NM	11.7x	10.6x	14%
Hecla Mining Company	NYSE:HL	(27%)	(51%)	\$1.80	47%	875	570	1,433	580	144	2.5x	2.5x	2.2x	9.9x	10.0x	11.1x	25%
										Mean	3.4x	3.0x	2.4x	10.3x	10.7x	9.7x	22%
										Median	3.3x	2.7x	2.2x	10.3x	10.8x	10.6x	24%

Intermediate Silver Miner Index

	TICKER	CHANGE IN		SHARE PRICE	% OF 52 WEEK HIGH	MARKET CAP (\$M)	TOTAL DEBT (\$M)	ENT. VALUE (\$M)	LTM		EV / REVENUE			EV / EBITDA			EBITDA MARGIN	
		STOCK PRICE							REVENUES (\$M)	EBITDA (\$M)	LTM	2018E	2019E	LTM	2018E	2019E		
		3-MONTH	12-MONTH															
MAG Silver Corp.	TSX:MAG	(7%)	(4%)	\$10.57	67%	909	1	779	-	(8)	NM	NM	NM	NM	NM	NM	NM	
Fortuna Silver Mines Inc.	TSX:FVI	(22%)	(50%)	\$2.85	37%	457	86	429	252	103	1.7x	1.7x	1.7x	4.2x	3.9x	4.7x	41%	
Silvercorp Metals Inc.	TSX:SVM	(9%)	(12%)	\$2.48	66%	421	4	375	171	82	2.2x	2.1x	2.2x	NM	NM	4.6x	48%	
Endeavour Silver Corp.	TSX:EDR	(27%)	(35%)	\$2.06	47%	271	2	251	139	8	1.8x	1.3x	1.4x	NM	7.3x	NM	5%	
Great Panther Mining Limited	TSX:GPR	(17%)	(28%)	\$0.86	54%	239	90	288	59	(10)	4.9x	3.5x	0.9x	NM	NM	4.3x	NM	
											Mean	2.6x	2.1x	1.6x	4.2x	5.6x	4.5x	31%
											Median	2.0x	1.9x	1.6x	4.2x	5.6x	4.6x	41%

Source: Capital IQ as of 06/28/2019

SILVER MINING

COMPARABLE TABLES

Junior Silver Miner Index

	TICKER	CHANGE IN STOCK PRICE		SHARE PRICE	% OF 52 WEEK HIGH	MARKET CAP (\$M)	TOTAL DEBT (\$M)	ENT. VALUE (\$M)	LTM		EV / REVENUE			EV / EBITDA			EBITDA MARGIN	
		3-MONTH	12-MONTH						REVENUES (\$M)	EBITDA (\$M)	LTM	2018E	2019E	LTM	2018E	2019E		
Americas Silver Corporation	TSX:USA	45%	(22%)	\$2.32	55%	182	17	196	66	4	3.0x	2.1x	1.7x	NM	NM	5.5x	5%	
Alexco Resource Corp.	TSX:AXR	(13%)	(11%)	\$1.15	59%	134	1	130	18	(5)	7.2x	11.5x	6.1x	NM	NM	NM	NM	
Bear Creek Mining Corporation	TSXV:BCM	9%	(9%)	\$1.27	62%	131	1	96	-	(13)	NM	NM	NM	NM	NM	NM	NM	
Excellon Resources Inc.	TSX:EXN	10%	(30%)	\$0.76	52%	75	-	72	24	(5)	3.1x	2.2x	1.1x	NM	NM	NM	NM	
Avino Silver & Gold Mines Ltd.	TSX:ASM	(8%)	(53%)	\$0.57	33%	37	9	44	33	4	1.3x	1.0x	0.9x	11.7x	4.4x	4.0x	11%	
Kootenay Silver Inc	TSXV:KTN	(5%)	(17%)	\$0.10	62%	24	-	18	-	(2)	NM	NM	NM	NM	NM	NM	NM	
											Mean	3.6x	4.2x	2.4x	11.7x	4.4x	4.8x	11%
											Median	3.0x	2.1x	1.4x	11.7x	4.4x	4.8x	11%

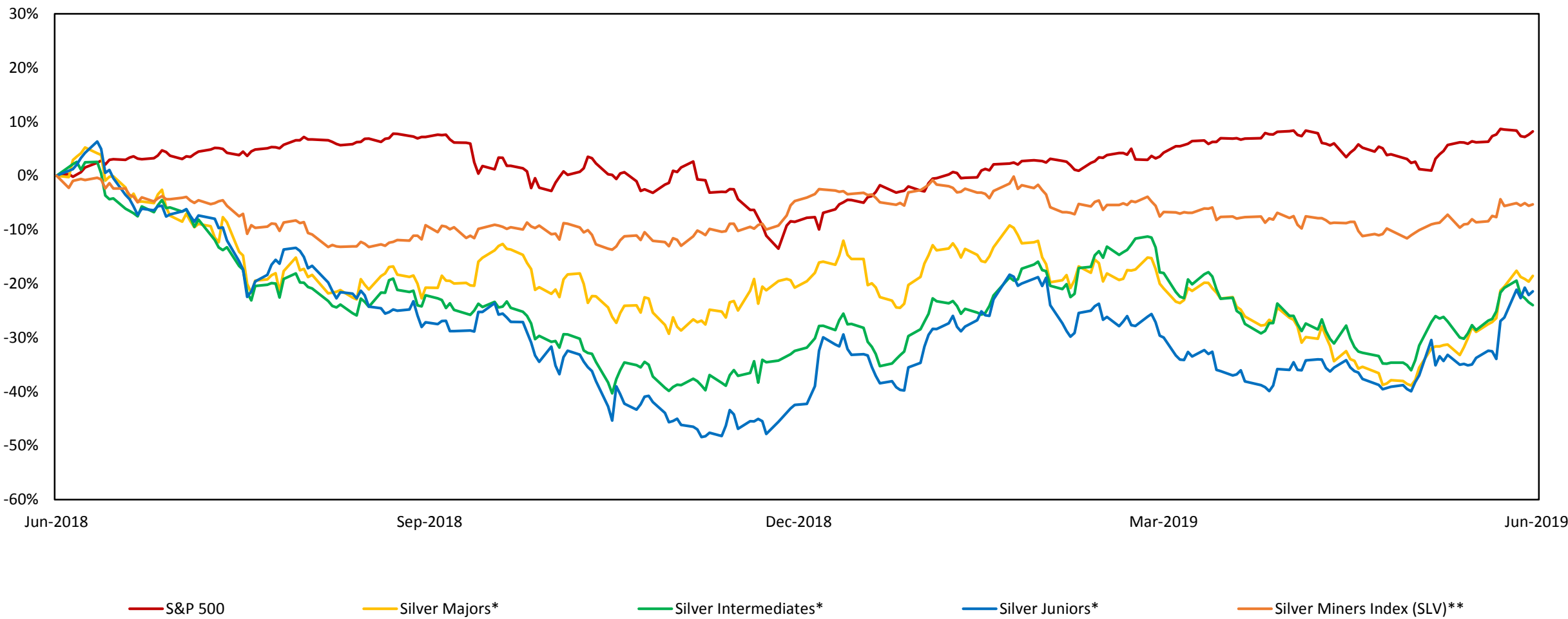
Source: Capital IQ as of 06/28/2019



SILVER MINING

LTM EQUITY PERFORMANCE

(NOBLE INDEX SELECTION)



* Noble Proprietary Sector (index composed of companies in the comparable table)
** SPDR Gold Shares (refer to disclosure section for more information)

Source: Capital IQ as of 06/28/2019

GOLD & SILVER LTM GLOBAL M&A ACTIVITY

Date	Buyer	Target	Transaction Value	EV/Revenue	EV/EBITDA
06/03/2019	Pembridge Resources Plc	Minto Explorations Ltd.	20.0	-	-
03/05/2019	Jiangxi Copper Company Limited (SEHK:358)	Shandong Humon Smelting Co., Ltd. (SZSE:002237)	443.7	0.6x	11.0x
02/25/2019	Evolution Mining Limited (ASX:EVN)	Tribune Resources Limited (ASX:TBR)	29.6	0.4x	0.9x
02/11/2019	SEMAFO Inc. (TSX:SMF)	SEMAFO (Holding) Limited (TSXV:SCA)	17.1	-	-
02/01/2019	Tsayta Resources Corporation	Lorraine Copper Corp.	10.0	-	-
01/14/2019	Newmont Goldcorp Corporation (NYSE:NEM)	Goldcorp Inc.	13,084.5	4.3x	-
01/11/2019	Endeavour Mining Corporation (TSX:EDV)	Société des Mines d'Ity S.A.	17.6	-	-
01/07/2019	Ascot Resources Ltd. (TSXV:AOT)	IDM Mining Ltd.	33.5	-	-
01/01/2019	Cobalt 27 Capital Corp. (TSXV:KBLT)	Highlands Pacific Limited	201.37	-	-
12/11/2018	Intermin Resources Ltd (ASX:IRC)	MacPhersons Resources Limited	20.1	-	-
12/04/2018	Combined Success Investments Limited	Tongguan Tongjin Mining Company Limited/Shaanxi Dujin Mining Company Limited	45.5	-	-
12/04/2018	Taseko Mines Limited (TSX:TKO)	Yellowhead Mining Inc. (TSXV:YMI)	11.9	-	-
11/22/2018	A.V.O.D. Kurutulumus Gida ve Tarim Urunleri A.S. (IBSE:AVOD)	Avod Altin Madencilik Enerji Ins.San.ve Tic. A.S.	10.4	-	-
11/14/2018	Pan American Silver Corp. (TSX:PAAS)	Tahoe Resources Inc.	1,390.9	2.7x	13.2x
11/14/2018	Silver Lake Resources Limited (ASX:SLR)	Doray Minerals Limited	123.6	1.0x	2.6x
10/31/2018	Hudbay Minerals Inc. (TSX:HBM)	Mason Resources Corp. (TSX:MNR)	22.1	-	-
10/27/2018	PT Renuka Coalindo Tbk (IDX:SQMI)	PT Wilton Investment	248.0	-	-
10/25/2018	KG Mining (Bald Mountain) Inc.	The Bald Mountain Exploration Joint Venture	15.5	-	-
10/12/2018	OZD Asia Pte Ltd.	Boroo Gold LLC/Centerra Gold Mongolia LLC	35.0	-	-
10/02/2018	Chunda International Technology Development Co., Limited	China Billion Resources Limited (SEHK:274)	17.7	11.3x	-
09/30/2018	Americas Silver Corporation (TSX:USA)	Pershing Gold Corporation	65.9	-	-
09/24/2018	Barrick Gold Corporation (TSX:ABX)	Barrick Gold (Holdings) Limited	6,515.5	5.0x	10.3x
09/24/2018	Great Panther Mining Limited (TSX:GPR)	Great Panther Mining Limited	182.7	1.1x	-
09/19/2018	Osisko Gold Royalties Ltd (TSX:OR)	Osisko Mining Inc. (TSX:OSK)	13.9	-	-
09/10/2018	Ramelius Resources Limited (ASX:RMS)	Explaurum Limited	47.4	-	-
09/05/2018	Zijin Mining Group Company Limited (SEHK:2899)	Nevsun Resources Ltd.	1,516.7	4.2x	-
09/04/2018	BHP Group (ASX:BHP)	SolGold plc (LSE:SOLG)	35.2	-	-
08/28/2018	Virtus Mining Ltd.	Aldridge Minerals Inc. (TSXV:AGM)	45.1	-	-
08/09/2018	PT Danusa Tambang Nusantara	PT Agincourt Resources	1,140.0	-	-
08/04/2018	Shengda Mining Co.Ltd. (SZSE:000603)	Inner Mongolia Jinshan Mining Co., Ltd.	181.7	-	-
08/02/2018	Coeur Mining, Inc. (NYSE:CDE)	Northern Empire Resources Corp. (TSXV:NM)	80.8	-	-
		MEAN		3.4x	7.6x
		MEDIAN		2.7x	10.3x

Source: Capital IQ as of 06/28/2019



DIVERSIFIED MINING

COMPARABLE TABLES

Major Diversified Miner Index

	TICKER	CHANGE IN STOCK PRICE		SHARE PRICE	% OF 52 WEEK HIGH	MARKET CAP (\$M)	TOTAL DEBT (\$M)	ENT. VALUE (\$M)	LTM		EV / REVENUE			EV / EBITDA			EBITDA MARGIN
		3-MONTH	12-MONTH						REVENUES (\$M)	EBITDA (\$M)	LTM	2018E	2019E	LTM	2018E	2019E	
Teck Resources Limited	TSX:TECK.B	0%	(7%)	\$23.10	67%	12,998	4,977	16,837	9,411	3,439	1.8x	1.3x	1.3x	4.9x	3.0x	3.2x	37%
First Quantum Minerals Ltd.	TSX:FM	(13%)	(36%)	\$9.51	46%	6,517	9,439	16,041	3,938	1,686	4.1x	4.1x	3.7x	9.5x	9.2x	8.7x	43%
Lundin Mining Corporation	TSX:LUN	20%	(3%)	\$5.51	69%	4,055	76	3,904	1,671	599	2.3x	2.2x	2.0x	6.5x	6.2x	5.0x	36%
Turquoise Hill Resources Ltd.	TSX:TRQ	(26%)	(53%)	\$1.25	32%	2,508	4,209	4,293	1,287	448	3.3x	3.7x	4.0x	9.6x	10.9x	NM	35%
Hudbay Minerals Inc.	TSX:HBM	(24%)	(5%)	\$5.42	52%	1,416	1,063	2,006	1,378	543	1.5x	1.4x	1.5x	3.7x	3.4x	3.8x	39%
Nexa Resources S.A.	NYSE:NEXA	(22%)	(24%)	\$9.59	67%	1,271	1,472	2,235	2,385	526	0.9x	0.9x	0.9x	4.3x	3.7x	4.2x	22%

Mean	2.3x	2.3x	2.3x	6.4x	6.1x	5.0x	35%
Median	2.1x	1.8x	1.8x	5.7x	4.9x	4.2x	36%

Intermediate Diversified Miner Index

	TICKER	CHANGE IN STOCK PRICE		SHARE PRICE	% OF 52 WEEK HIGH	MARKET CAP (\$M)	TOTAL DEBT (\$M)	ENT. VALUE (\$M)	LTM		EV / REVENUE			EV / EBITDA			EBITDA MARGIN
		3-MONTH	12-MONTH						REVENUES (\$M)	EBITDA (\$M)	LTM	2018E	2019E	LTM	2018E	2019E	
Energy Fuels Inc.	TSX:EFR	(6%)	59%	\$3.11	58%	291	19	281	32	(15)	8.7x	6.1x	6.7x	NM	NM	NM	NM
Imperial Metals Corporation	TSX:III	(13%)	39%	\$1.94	55%	247	654	910	253	17	3.6x	2.5x	NM	NM	NM	NM	7%
Sierra Metals Inc.	AMEX:SMTS	(13%)	(47%)	\$1.41	52%	227	69	305	220	73	1.4x	1.0x	0.9x	4.2x	2.5x	2.2x	33%
Capstone Mining Corp.	TSX:CS	(3%)	(42%)	\$0.45	43%	180	223	454	421	126	1.1x	1.1x	1.1x	3.6x	3.5x	3.6x	30%
Panoramic Resources Limited	ASX:PAN	(24%)	(50%)	\$0.21	32%	113	30	132	1	(5)	NM	5.6x	1.1x	NM	NM	3.5x	NM

Mean	3.7x	3.3x	2.4x	3.9x	3.0x	3.1x	23%
Median	2.5x	2.5x	1.1x	3.9x	3.0x	3.5x	30%

Source: Capital IQ as of 06/28/2019

DIVERSIFIED MINING

COMPARABLE TABLES

Junior Diversified Miner Index

	TICKER	CHANGE IN STOCK PRICE		SHARE PRICE	% OF 52 WEEK HIGH	MARKET CAP (\$M)	TOTAL DEBT (\$M)	ENT. VALUE (\$M)	LTM		EV / REVENUE			EV / EBITDA			EBITDA MARGIN
		3-MONTH	12-MONTH						REVENUES (\$M)	EBITDA (\$M)	LTM	2018E	2019E	LTM	2018E	2019E	
Taseko Mines Limited	TSX:TKO	(9%)	(53%)	\$0.53	36%	130	264	373	262	68	1.4x	1.1x	1.1x	5.5x	4.2x	4.1x	26%
Western Copper and Gold Corporation	TSX:WRN	12%	(24%)	\$0.65	57%	68	-	65	-	-	NM	NM	NM	NM	NM	NM	NM
Tinka Resources Limited	TSXV:TK	(8%)	(44%)	\$0.24	44%	65	-	56	-	(2)	NM	NM	NM	NM	NM	NM	NM
Falco Resources Ltd.	TSXV:FPC	(15%)	(45%)	\$0.21	36%	44	7	49	-	(4)	NM	NM	NM	NM	NM	NM	NM
Atico Mining Corporation	TSXV:ATY	(12%)	(46%)	\$0.21	39%	21	3	16	68	26	0.2x	NM	NM	0.6x	NM	NM	38%
Tasman Resources Ltd	ASX:TAS	(9%)	(27%)	\$0.03	24%	13	1	20	1	(6)	14.7x	NM	NM	NM	NM	NM	NM

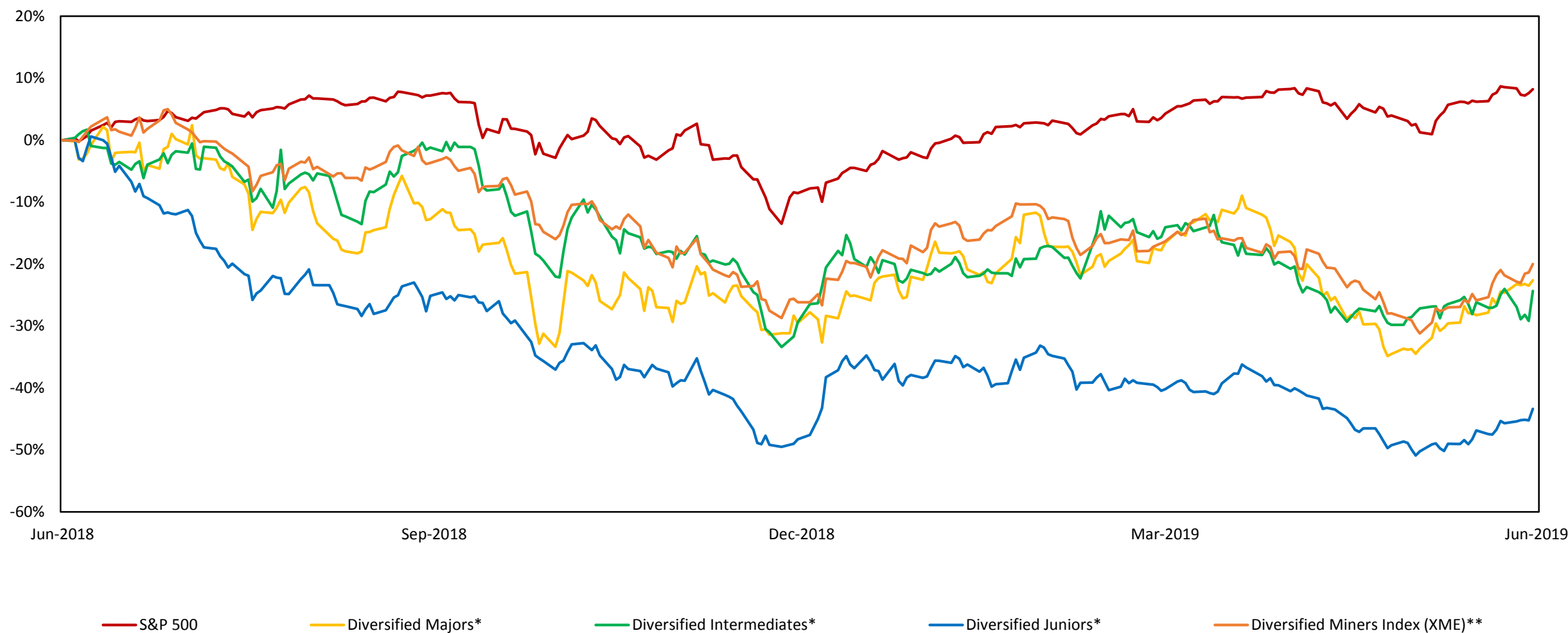
Mean	5.5x	1.1x	1.1x	3.1x	4.2x	4.1x	32%
Median	1.4x	1.1x	1.1x	3.1x	4.2x	4.1x	32%

Source: Capital IQ as of 06/28/2019



DIVERSIFIED MINING LTM EQUITY PERFORMANCE

(NOBLE INDEX SELECTION)



* Noble Proprietary Sector (index composed of companies in the comparable table)
** SPDR Gold Shares (refer to disclosure section for more information)

Source: Capital IQ as of 06/28/2019

DIVERSIFIED MINING LTM GLOBAL M&A ACTIVITY

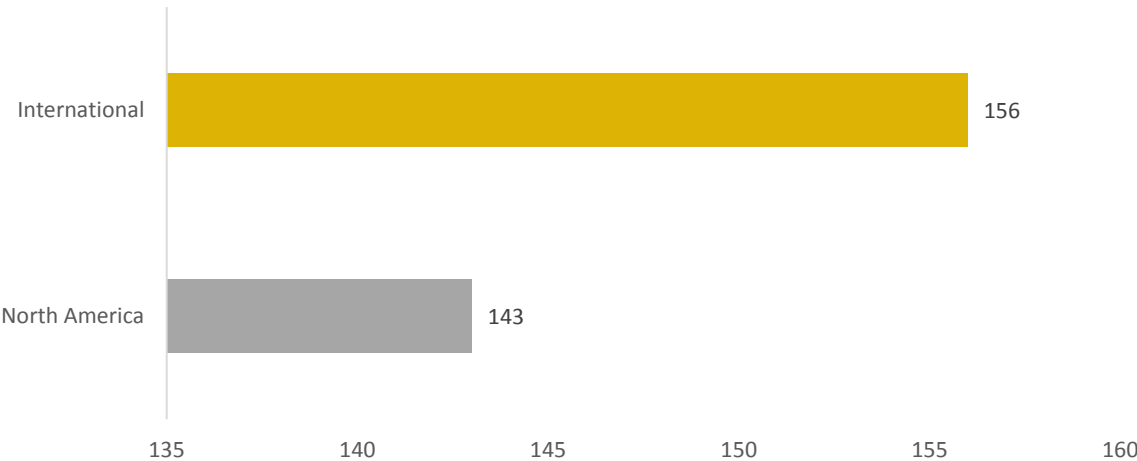
Date	Buyer	Target	Transaction Value	EV/Revenue	EV/EBITDA
06/25/2019	Yongshan International Co., Ltd.	Altura Mining Limited (ASX:AJM)	17.5	-	-
06/18/2019	Pala Investments Limited	Cobalt 27 Capital Corp. (TSXV:KBLT)	301.4	-	-
06/13/2019	Agnico Eagle Mines Limited (NYSE:AEM)	Alexandria Minerals Corporation (TSXV:AZX)	18.5	-	-
06/10/2019	Zhejiang Jiuli Hi-Tech Metals Co., Ltd. (SZSE:002318)	Yongxing Special Stainless Steel Co., Ltd. (SZSE:002756)	86.6	0.5x	6.1x
06/03/2019	TPG Sixth Street Partners	Grupo FerroAtlántica, S.A.U.	190.5	-	-
05/29/2019	Hunan Caixin Changqin No. 1 Fund Partnership Enterprise (Limited Partnership)	Chenzhou City Jingui Silver Industry Co., Ltd. (SZSE:002716)	45.1	0.8x	13.8x
05/22/2019	Shanghai Haitong Securities Asset Management Company Ltd	Tibet Huayu Mining Co., Ltd. (SHSE:601020)	39.6	6.1x	-
05/02/2019	Wesfarmers Limited (ASX:WES)	Kidman Resources Limited (ASX:KDR)	538.9	-	-
04/15/2019	AMCI Euro-Holdings BV	Jupiter Mines Limited (ASX:JMS)	31.7	-	2.7x
04/01/2019	Jervois Mining Limited (ASX:JRV)	eCobalt Solutions Inc. (TSX:ECS)	41.5	-	-
03/29/2019	Certain Non-Core Assets of Osisko Mining Inc.	Alexandria Minerals Corporation (TSXV:AZX)	27.6	-	-
03/26/2019	Wesfarmers Limited (ASX:WES)	Lynas Corporation Limited (ASX:LYC)	1,304.3	5.0x	-
03/11/2019	CD Capital Asset Management Ltd.	Verdant Minerals Ltd	16.2	-	-
03/09/2019	Puyang Refractories Group Co., Ltd. (SZSE:002225)	Tibet Changdu Xiangchen Magnesium Industry Co., Ltd.	89.4	-	-
03/05/2019	Jiangxi Copper Company Limited (SEHK:358)	Shandong Humon Smelting Co., Ltd. (SZSE:002237)	443.7	0.6x	11.0x
02/27/2019	Xuchen International Co., Ltd.	Nzuri Copper Limited (ASX:NZC)	82.8	-	-
02/24/2019	Rinsoco Trading Co Limited	Public Joint Stock Company Uralkali (MISX:URKA)	535.0	3.3x	6.2x
01/29/2019	Chengyu Vanadium Titano Technology Ltd	Huili County Caitong Iron and Titanium Co., Ltd.	81.7	-	-
01/15/2019	Pluspetrol Resources Corporation B.V.	LSC Lithium Corporation (TSXV:LSC)	85.1	-	-
01/14/2019	Newmont Goldcorp Corporation (NYSE:NEM)	Goldcorp Inc.	13,084.5	4.3x	-
01/01/2019	Cobalt 27 Capital Corp. (TSXV:KBLT)	Highlands Pacific Limited	201.4	-	-
12/11/2018	Intermin Resources Ltd (ASX:IRC)	MacPhersons Resources Limited	20.1	-	-
11/14/2018	Pan American Silver Corp. (TSX:PAAS)	Tahoe Resources Inc.	1,390.9	2.7x	13.2x
11/08/2018	Yongxing Special Stainless Steel Co., Ltd. (SZSE:002756)	Jiangxi Xuli Mining Co., Ltd.	28.4	7.0x	-
09/26/2018	Chengtun Mining Group Co., Ltd. (SHSE:600711)	Sihuan Zinc & Germanium Technology Co., Ltd.	446.8	1.3x	-
09/24/2018	Great Panther Mining Limited (TSX:GPR)	Great Panther Mining Limited	182.7	1.1x	-
09/13/2018	Bushveld Minerals Limited (AIM:BMN)	Strategic Minerals Corporation	17.5	-	-
09/05/2018	Zijin Mining Group Company Limited (SEHK:2899)	Nevsun Resources Ltd.	1,516.7	4.2x	-
08/28/2018	Virtus Mining Ltd.	Aldridge Minerals Inc. (TSXV:AGM)	45.1	-	-
07/23/2018	SDIC Mining Investment Co. Ltd.	Arab Potash Company (ASE:APOT)	502.0	2.4x	5.9x
07/05/2018	Tuochuan Capital Limited	Hanking (Indonesia) Mining Limited	52.7	-	-
06/29/2018	Sims Metal Management Limited (ASX:SGM)	Sims Pacific Metals Limited	28.5	-	-
MEAN				3.0x	8.4x
MEDIAN				2.7x	6.2x

Source: Capital IQ as of 06/28/2019

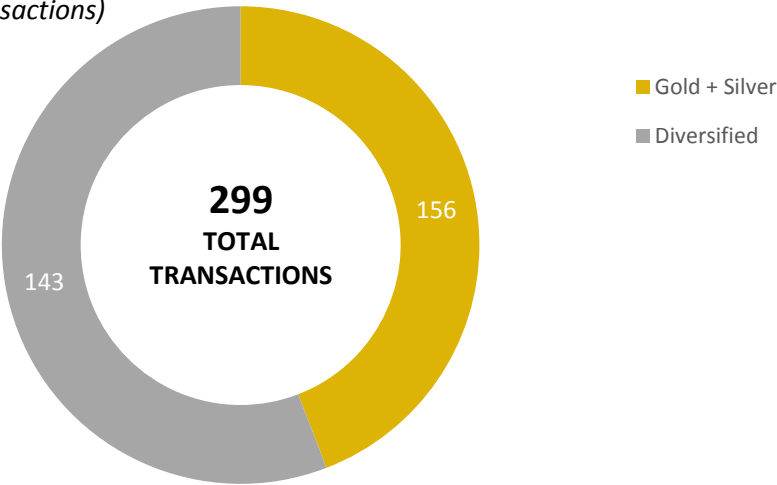


LTM MINING INDUSTRY M&A SUMMARY

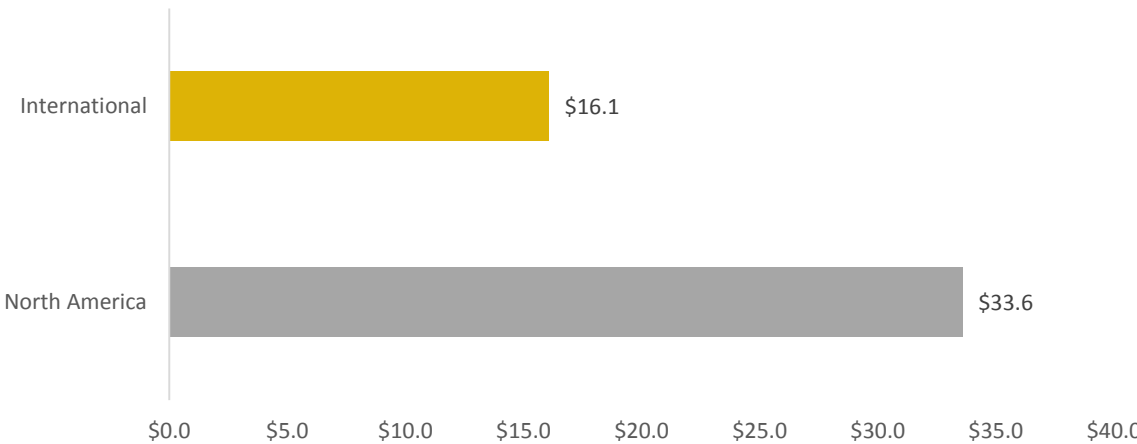
NORTH AMERICA VS INTERNATIONAL
TOTAL TRANSACTIONS *(Number of transactions)*



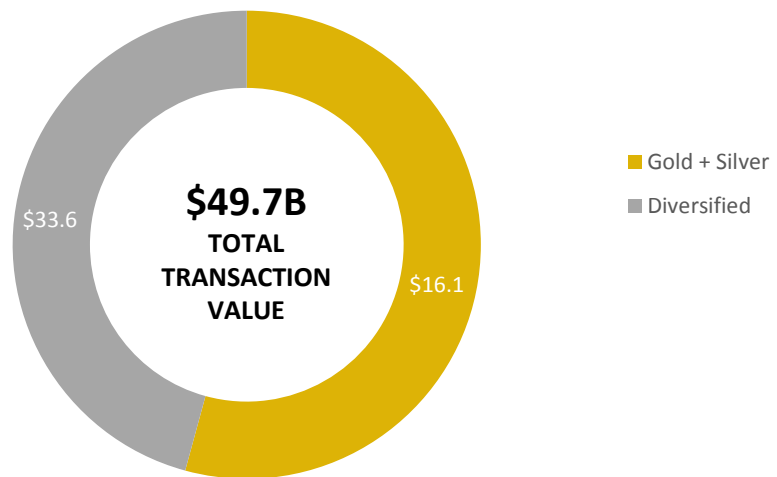
DEAL VALUE PER SECTOR
(Number of transactions)



NORTH AMERICA VS INTERNATIONAL
TOTAL TRANSACTIONS *(Values in \$B)*



TOTAL TRANSACTION VALUE
(Values in \$B)



Source: Capital IQ as of 06/28/2019



NOBLE QUARTERLY HIGHLIGHTS

Brazil Minerals Inc. (OTC: BMIX)

Industry: Metals and Mining – Precious Metals and Minerals

Brazil Minerals is a diversified mining company with a portfolio of projects focusing on gold, diamond, cobalt, copper, iron, lithium, manganese and nickel in Brazil. The company owns 6 mining projects, 11 mineral rights and about 98,000 acres across Brazil. The company owns a fully operational gold and diamond recovery plant in Brazil. The plant utilizes centrifugation for recovery of particulate gold and diamond. Additionally, Brazil Minerals owns Jupiter Gold Corporation (OTCPK:JUPGF) an exploration stage mining company with a focus on gold projects in Brazil.

2nd Quarter News Highlight:

On June 4, 2019 Brazil Minerals announced the acquisition of the last necessary approval to allow mining for gold and diamonds in one of its many Jequitinhonha River Valley mineral rights. As announced previously, a drilling campaign within this project area indicated that 35 out of 35 drills holes were positive for gold. Additionally, in a majority of such drill holes, satellite markers that indicate the likely presence of diamonds were recovered.



New Range Gold Corp. (TSXV:NRG)

Industry: Metals and Mining – Gold

New Range Gold Corp. is a gold production company focused on the development and operation of a gold base project in Nevada. The asset is the Pamlico gold project a high-grade epithermal gold system hosted in Jurassic to Tertiary age volcanic and sedimentary rocks. Located in promising Mineral County, Nevada, Pamlico is situated in the western Great Basin within the NW trending Walker Lane structural zone along the intersecting EW trending Pancake Range Lineament. These areas in Nevada have had no modern exploration done but gold bearing structures that have been found by the company show promise of large potential of the areas.

2nd Quarter News Highlight:

On May 14, 2019, New Range Gold announced that the underground mapping and analysis of the Pamlico Project identified high-grade gold and silver in the Good Hope Mine. Underground channel sampling of the exposed part of the mineralized zone yielded a weighted average of 13.89 grams gold per metric tonne (g/t Au) and 71.19 grams silver per metric tonne (g/t Ag) over 40 meters in the 5690 level of the mine.



Paramount Gold Nevada Corp. (NYSE:PZG)

Industry: Metals and Mining – Precious Metals

Paramount is an emerging growth company in the business of acquiring, exploring and developing precious metals projects in the United States of America. The company acquires known, mid to advanced-stage deposits that they believe can be expanded by targeted, cost-effective exploration or by unlocking a hidden value contained in the exploration data and not yet realized in the project. The current projects of Paramount Gold are the Grassy Mountain Gold Project and Sleeper Gold Project which have been projected to hold significant unexplored gold potential.

2nd Quarter News Highlight:

On June 25, 2019, Paramount Gold Nevada announced that it has entered into an agreement with Ausenco Engineering Canada Inc. (“Ausenco”) to complete a National Instrument 43-101 Feasibility Study (“FS”) for its proposed Grassy Mountain gold mine in eastern Oregon. Ausenco is a global diversified engineering, construction and project management company.



Source: Company Press Releases

$$R + (e^2 + p^2) = \text{NF}$$

NOBLE CAPITAL MARKETS

NOBLE CAPITAL MARKETS

NOBLE CAPITAL MARKETS is a research-driven investment and merchant bank focused on small cap, emerging growth companies in the healthcare, technology, media and natural resources sectors. That's what we are. Who we are is what makes us different.

Our people are talented, dedicated, experienced professionals who come together with a common cause; advising on long-term client solutions by employing innovative, collaborative and responsive strategies. We're passionate and personable. We approach things from our clients' perspective.

We know that developing lasting relationships is reliant upon putting our clients' interests before ours. We understand the impact of our services. Insightful advisory and effective capital procurement can change lives. Empowering our clients to create employment, engineer technological and medical breakthroughs, producing products and services that lay the foundation for the future. For more than 30 years these have been our guiding principles. While much has changed over the three decades since we began, these core values and our reputation have not. Our clients must know what to expect from us. Then we can strive to exceed expectations.

A SIMPLE FORMULA

OUR VALUE PROPOSITION.

It starts with research with a fundamental belief that information guides the management process, NOBLE understands that there is no short-path to success. With this as a solid foundation, apply experience and execution delivered by people with passion. This is our formula to add value to your creation.

Research + Experience & Execution + People with Passion = Value

FULL-SERVICE INVESTMENT BANK

- Established 1984.
- Private firm, employee owned.
- Built on commitment to provide value and support for our clients.

FOCUSED INSTITUTIONAL SALES AND TRADING

- Seasoned sales and sales trading team.
- Long standing relationships with premier growth- focused investors.

INVESTMENT BANKING COMMITMENT

- Proven track record.
- Senior level attention to every client and transaction.
- Ability to deliver complete "mind share" of NOBLE on all transactions.

RESEARCH DRIVEN CAPITAL MARKETS PLATFORM

- Experience team of Research Analysts covering approximately 100 companies.
- Focus on Technology, Media, Healthcare and Natural Resources.
- Strong Institutional Sponsorship.

$$R + (e^2 + p^2) = \pi$$

INVESTMENT BANKING

Our investment banking team, together with our well-recognized equity research analysts and the equity capital markets group, provide our clients with fundamental capital markets advisory and support - prior, during and most importantly, after a transaction. NOBLE's investment banking team works closely with the management and Board of our corporate clients in order to fully understand operational and financial objectives. With this knowledge our banking team will develop an efficient and effective advisory program which offers a variety of services including:

EQUITY CAPITAL MARKETS

- Secondary and Follow-on Offerings
- Registered Direct Offerings
- Initial Public Offerings
- At the market Offerings (ATM's)
- PIPEs/Private Sale Offerings

DEBT CAPITAL MARKETS

- Senior Debt
- Mezzanine
- Convertible Debt
- Bridge Financings

ADVISORY SERVICES

- Merger & Acquisitions
- Fairness Opinions
- Valuation Services

SELECT NATURAL RESOURCES TRANSACTIONS

 <p>Gravitas Resources Corporation (PRIVATE)</p> <p>\$4,200,000</p> <p>Private Placement Placement Agent</p>  <p>February 2019</p>	 <p>SAILFISH ROYALTY CORP. (TSX-V: FISH)</p> <p>Restructuring Advisory</p> <p>Fairness Opinion</p>  <p>August 2018</p>	 <p>ORCHLIGHT ENERGY (TRCH)</p> <p>Advisory</p> <p>Corporate Advisory</p>  <p>March 2018</p>	 <p>SIERRA METALS</p> <p>\$55,000,000</p> <p>At-The-Market Offering (ATM) Agent</p>  <p>October 2017</p>	 <p>MARLIN GOLD MINING LTD. (MLN)</p> <p>Advisory</p> <p>Corporate Advisory</p>  <p>February 2017</p>	 <p>SES SYNTHESIS ENERGY SYSTEMS (SYMx)</p> <p>Advisory</p> <p>Corporate Advisory</p>  <p>January 2017</p>	 <p>AVINO SILVER & GOLD MINES LTD. (ASM)</p> <p>\$800,000</p> <p>Private Placement of Registered Securities Sole Placement Agent</p>  <p>March 2016</p>
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$$R + (e^2 + p^2) = \pi$$

VALUATION SERVICES

NOBLE's Valuation and Advisory Services team specializes in providing business and intangible asset valuations, fairness opinions, financial and strategic analysis, and transaction support services covering a broad spectrum of industries and situations from early stage, middle market and Fortune 500 companies and capital market constituents. NOBLE's team is made up of professionals with numerous accreditations and bring excellence in accounting, taxation, and financial due diligence to provide companies with valuation advice for a multitude of purposes.

Valuation – NOBLE's professionals have significant experience in the valuation of privately owned and public businesses across a wide range of industries. We perform an extensive analysis of the business as well as evaluate industry trends and various other factors in order to inform our clients as to the likely range of value they can expect. Our services are characterized by intellectual and analytical rigor and our conclusions are backed by thorough documentation.

Chief Accounting Officers, Corporate Controllers, CFOs, and Corporate Boards rely on Noble's experienced valuation professionals to produce sophisticated, supportable, and timely valuations to assist in complying with financial reporting requirements, including:

- Purchase price allocation and fresh start accounting
- Goodwill and long-lived asset impairment testing
- Tangible asset valuation
- Fair Value measurement of financial assets & liabilities

Opinions - Whether our clients are looking to fulfill their fiduciary duties, mitigate risk or determine corporate value, we are there throughout the transaction process to offer objective advice based on rigorous analysis. We work on behalf of boards of directors, investors, trustees and other corporate leaders to advise and provide opinions on a wide range of transactions.

We have advised Corporate Boards, special transaction committees, independent trustees, management and other fiduciaries of middle market public and private companies on the financial aspects of a transaction. Our independent advice withstands scrutiny from shareholders, bondholders, the SEC, IRS, or counterparties to a transaction

MERCHANT BANKING

Our Principal Investment focus is primarily on private and small-cap public (\$10mill to \$50mill market caps) companies in industries within NOBLE's research verticals. Investments are made directly by NOBLE and its affiliates and may also involve syndicate participants. We work to identify those companies with game-changing or superior products and technologies that have management teams with proven track-records of success. NOBLE structures investments to meet a company's capital needs whether its growth capital, liquidity or debt repayment. Capital commitment ranges from \$200k to \$2million principal and \$2million above with syndicate.

The scope of our Merchant Banking activities includes:

- Targeting domestic companies within our areas of focus and expertise
- Analyzing a company's opportunities and assessing its risks within their respective industry
- Structuring, negotiating and executing the transaction
- Work in assessing the appropriate time and manner in which to harvest the investment

NOBLE's Merchant Banking Team works continuously with our portfolio companies to assist the management team and Board of Directors to create value and grow their businesses to facilitate long-term shareholder value. Through our extensive sector research coverage, institutional investor non-deal road shows, equity conferences and market making, we blend a powerful mix of capital markets acumen to procure success.

$$R + (e^2 + p^2) = \pi$$

INVESTMENT BANKING TEAM

Richard Giles, Managing Director

rgiles@noblecapitalmarkets.com – 617.692.9346

- Joined NOBLE in 2010 as Head of the Technology, Media & Telecommunications Investment Banking Group
- 25 years of investment banking experience.
- Executed more than 100 M&A and capital raising transactions totaling \$10+ billion
- Former head of Stifel Nicolaus' Technology Group.
- Former head of A.G. Edwards' Emerging Growth Group and member of Investment Committee for A.G. Edwards Capital
- A.B. Harvard College; M.B.A., Harvard Business School

Francisco Penafiel, Managing Director

fpenafiel@noblecapitalmarkets.com – 561.994.5740

- Executed M&A and capital raising transactions totaling over \$1 billion dollars in value
- 7 years of sell side equity research experience, covering enterprise & infrastructure software, business services, media, communications, and banks
- 6 years of portfolio managing experience
- Manage the business development efforts in LATAM for NOBLE
- Engineering, IT & Statistics, Escuela Superior Politecnica (Guayaquil, Ecuador); M.S. Economics, Florida Atlantic University

Juan Arvelo, Director

jarvelo@noblecapitalmarkets.com – 561.994.5731

- More than 18 years of corporate finance and capital markets experience, with a special focus on M&A, restructuring and capital raising transactions.
- Previous Director at Enkeros Investments and Activa Capital Markets
- Former CFO of LS Energia
- Main focus in the QSR, financial institutions and energy sectors
- Managed corporate finance and recoveries division at PricewaterhouseCoopers (PwC)
- B.S. Economics UCAB; M.S. Finance IESA; MBA Babson College

Mark Suarez, Managing Director

msuarez@noblecapitalmarkets.com – 646.790.5875

- Prior experience holding senior positions at McQuilling Partners and Euro Pacific Capital
- Main focus in marine shipping and surface transportation
- B.Com McGill University with concentrations in Economics and Finance; M.S. in Economics University of Toronto
- Holds a CFA and various FINRA licenses

Brittnee Fatigate, Analyst

bfatigate@noblecapitalmarkets.com – 561.999.2264

- Joined Noble Capital Markets in January 2017
- Has completed multiple M&A and capital raising assignments, accounting for nearly \$150 million+ of transaction value
- Held previous position as an accounting assistant at a privately held manufacturing company
- B.S. Finance, Florida Atlantic University

Adam Carey, Analyst

acarey@noblecapitalmarkets.com – 561.998.5482

- Joined Noble Capital Markets in October 2018
- Previously worked as a private equity analyst at Northern Capital Partners
- B.S. Finance and Applied Economics, University of Minnesota, Twin Cities

$$R + (e^2 + p^2) = \pi$$

SALES & TRADING

Vincent Gioeni

Director of Institutional Sales

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