Endeavour Mining

Maiden fully consolidated valuation (EDV+SFO)

Q220 refinements

Metals & mining

29 June 2020

Endeavour's Q1 results were characterised by record revenue, record adjusted EBITDA and record operating cash flow. At least as importantly, all operations were reported to be operating near normal. While Q120 was, to all intents and purposes, unaffected by the effects of COVID-19; however, it is clear there have been some consequences in Q2. In the main, these have arisen as a result of travel restrictions on technical and engineering consultants and have particularly affected maintenance schedules. As a result, we have updated our Q2–Q420 forecasts to reflect changes in mine scheduling. Offsetting this, we have decreased our expectations of unit working costs. We have also refined our forecasts for SEMAFO's Mana and Boungou mines to reflect operational detail on a quarter by quarter basis provided by management.

Year end	Revenue (US$m)	EBITDA (US$m)	PBT* (US$m)	Operating cash flow per share (US$)	Capex (US$m)	Net debt** (US$m)
12/18	1,048.6	378.9	75.8	2.31	689.5	***518.6
12/19	1,362.1	618.4	220.4	3.30	401.2	525.2
12/20e	1,669.3	805.6	418.4	4.43	256.6	36.3
12/21e	2,050.2	1,071.4	703.4	5.28	195.2	(498.1)

Note: Pro-forma basis. *PBT is normalised, excluding amortisation of acquired intangibles and exceptional items. **Excludes restricted cash. ***Pre-acquisition basis.

SEMAFO acquisition at a propitious moment

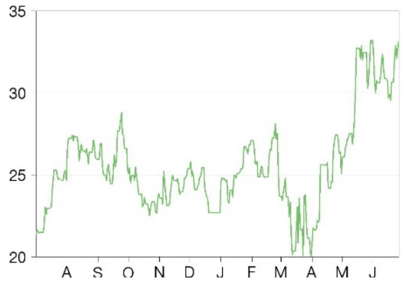
After a period of relatively heavy investment, both Endeavour and SEMAFO are now entering 'harvest' mode at a propitious time. In our recent note on the gold price (see A golden future, published on 11 June 2020), Edison argued that the recent, sharp increases in the total US monetary base might be expected to support a (nominal) gold price of US$1,892/oz and potentially as high as US$3,000/oz. Moreover, the current rate of expansion of the total monetary base of c US$110bn per month may be expected to increase that gold price at a rate of c US$500/oz per annum. In the meantime, the deadline for a review of the merger by the Canadian authorities has come and gone with the result that we expect the transaction to close, as planned, either at the end of June or the beginning of July.

Valuation: EDV+SFO worth US$44.90/share

We have now updated our forecasts and valuation to reflect Endeavour's imminent completion of its acquisition of SEMAFO. Within this context, our terminal valuation of the combined entity at end-FY22 is now US$53.89/share (cf US$40.49/share previously on a pre-acquisition basis), which (in conjunction with forecast intervening cash flows) discounts back to a value of US$44.90/share in FY20 (cf US$33.46/share previously). At its current price, Endeavour's acquisition of SEMAFO remains accretive to shareholders on a relative valuation basis. In addition, the combined entity remains materially cheaper than the majors (the ranks of which it is destined to join upon closure) on at least 75% (27 out of 36) of common valuation measures and potentially as much as on 86% of common valuation measures (see Exhibit 8 on page 8).

Price	**C$33.12**
Market cap	**C$3,676m**
	C$1.3662/US$
Net debt (US$m) at end March 2020	476.6
Shares in issue	111.0m
Free float	67.4%
Code	EDV
Primary exchange	TSX
Secondary exchange	US OTC

Share price performance



%	1m	3m	12m
Abs	9.5	48.3	53.9
Rel (local)	9.2	30.6	65.3
52-week high/low		C$33.18	C$20.01

Business description

After its acquisition of SEMAFO, Endeavour will join the ranks of the major gold producers, with two mines in Côte d'Ivoire (Agbaou and Ity) and four in Burkina Faso (Houndé, Karma, Mana and Boungou) plus three major development projects, all in the West African Birimian greenstone belt.

Next events

Kari West and Center maiden reserve	Mid-2020
Houndé and Ity updated mine plans	Mid-2020
Fetekro PEA	Q320
Kalana updated feasibility study	H220

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Edison profile page

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EDV Q220 estimates (pre-acquisition and pro forma)

Q120 recap

Results in Q120 were characterised by record revenue, record adjusted EBITDA and record operating cash flow. At least as importantly, all operations were reported to be operating near normal (albeit with a revised roster to counteract local quarantine requirements) and all of Endeavour's employees who had contracted COVID-19 were reported to have recovered.

Overall gold production in Q120 was 10.5koz in excess of our forecasts, driven mainly by output at Houndé and Agbaou, while gold sales were 13.2koz in excess of our forecasts. All four mines recorded lower than expected unit costs. Better grades were recorded at Karma, but worse grades at Ity (although these were offset by better recoveries and higher throughput). Royalties were higher at all four mines (not least as a result of the higher gold price) and taxes were higher at three out of the four mines (the exception being Ity). There was also a higher than expected minority charge at Karma. A full explanation and description of the factors and forces affecting operations in Q120 vs Q419 is provided in Endeavour's press release on 13 May 2020 accompanying its results and also its management discussion and analysis (MD&A). In conclusion however, at 30.3c/share, adjusted net earnings per share were materially ahead of both Edison's and the market's forecasts at the time.

Q220e refinements

While Q120 was, to all intents and purposes, unaffected by the early effects of COVID-19, it is clear that there have been some consequences in Q2. In the main, these have arisen due to travel restrictions on technical and engineering consultants and have particularly affected maintenance schedules. As a result, Endeavour has adjusted some of its mine scheduling. In general, therefore, the refinements that we have made to our Q220e forecasts relative to our last note (see Starting strong, published on 27 May 2020) involve the following:

- A one-off cost of US$6.0m in Q220 to reflect additional costs incurred on account of the COVID-19 crisis (NB these are included under 'corporate costs' in the table below, which are automatically excluded from the calculation of adjusted net EPS from continuing operations)
- An estimated US$10m in acquisition costs in Q220, related to Endeavour's acquisition of SEMAFO
- Increases in waste mined (especially capitalised waste) at all four mines
- Decreases in mill throughput (up to 12.5%) at Ity and Karma
- Decreases in grade (up to 19%) at Agbaou and Houndé and a small increase (4.2%) at Ity
- Decreases in unit working costs of up to 27% (eg Houndé general & administrative costs) at all four mines
- Increases in sustaining capital expenditure at all four mines (eg Ity from US$2.0m to US$4.0m) and also non-sustaining capital expenditure (eg from zero to US$0.5m at Agbaou)
- A US$100m equity investment into the enlarged company by La Mancha, which is assumed to occur early in Q320 at Endeavour's prevailing share price.

In general, we have then re-scheduled the balance of ore and waste mining at all four mines for the remainder of the year such that, in many cases, there is little change to the aggregate and average values for each operating parameter for the full year. We have also refined our forecasts for SEMAFO's Mana and Boungou mines to reflect operational detail on a quarter by quarter basis provided by management.

In the light of these changes, our updated forecasts for Endeavour (on both a pre-acquisition and a pro-forma basis) for Q220–Q420e for the remainder of the year are as follows in Exhibit 1, overleaf. Readers wishing to compare the updated forecasts, for Q220e in particular, with our prior forecasts may do so by comparing the numbers in Exhibit 1 with those in Exhibit 5 of our last note (see Starting strong, published on 27 May 2020). Note that, for the moment, we have left our gold price forecasts unchanged for the remainder of the year, despite the fact that the spot price of gold is trading near US$1,760/oz at the time of writing, compared to our forecasts for Q320 and Q420 of US$1,720/oz (NB an indication of the effect of the gold price remaining at current levels for the remainder of the year on adjusted net EPS from continuing operations is provided in Exhibit 2). This reflects, among other things, the recent nature of the move in the gold price (from US$1,720/oz to US$1,760/oz) and will be reviewed on the announcement of EDV's Q2 results around 2 August.

Exhibit 1: Endeavour Mining FY20 earnings forecasts, by quarter

US$000s (unless otherwise indicated)	Pre-acquisition basis				Pro forma (EDV+SFO) basis				
	Q120	Q220e	Q320e	Q420e	Est Q120	Q220e	Q320e	Q420e	FY20e
Houndé production (koz)	55.9	50.6	56.2	81.3	55.9	50.6	56.2	81.3	244.0
Agbaou production (koz)	27.5	23.5	26.6	35.5	27.5	23.5	26.6	35.5	113.1
Karma production (koz)	27.6	24.0	20.2	32.2	27.6	24.0	20.2	32.2	103.9
Ity production (koz)	61.0	50.2	52.7	67.4	61.0	50.2	52.7	67.4	231.3
Boungou production (koz)					32.0	27.2	19.3	43.8	122.3
Mana production (koz)					49.9	40.4	52.1	52.5	194.9
Total gold produced (koz)	171.9	148.3	155.7	216.4	253.8	215.9	227.1	312.7	1,009.5
Total gold sold (koz)	174.6	148.3	155.7	216.4	251.4	215.9	227.1	312.7	1,007.0
Gold price (US$/oz)	1,581	1,706	1,720	1,720	*1,644	1,706	1,720	1,720	*1,658
Mine level cash costs (US$/oz)	661	725	760	636	661	764	726	589	676
Mine level AISC (US$/oz)	870	1,076	965	821	867	1,083	984	775	911
Revenue									
– Gold revenue	269,902	246,211	260,953	365,268	393,113	361,442	383,735	530,973	1,669,264
Cost of sales									
– Operating expenses	114,403	107,512	118,388	137,520	160,064	164,949	164,835	184,335	674,182
– Royalties	17,452	16,105	16,915	24,198	23,956	22,792	23,716	33,989	104,453
Gross profit	138,047	122,593	125,650	203,550	209,093	173,701	195,184	312,650	890,628
Depreciation	(52,529)	(51,328)	(52,551)	(55,764)	(84,061)	(83,348)	(84,571)	(87,784)	(339,764)
Expenses									
– Corporate costs	(5,231)	(11,957)	(5,957)	(7,943)	(9,954)	(16,680)	(10,680)	(14,240)	(51,554)
– Impairments	0	0	0	0	0	0	0	0	0
– Acquisition etc costs	(4,330)	(10,000)	0	0	(4,330)	(10,000)	0	0	(14,330)
– Share based compensation	(1,623)	(5,333)	(5,333)	(5,333)	(3,197)	(6,907)	(6,907)	(6,907)	(23,918)
– Exploration costs	(1,333)	(2,750)	(2,750)	(2,750)	(1,333)	(2,750)	(2,750)	(2,750)	(9,583)
Total expenses	(12,517)	(30,040)	(14,040)	(16,026)	(18,814)	(36,337)	(20,337)	(23,897)	(99,385)
Earnings from operations	73.001	41,225	59,059	131,760	106,218	54,016	90,276	200,969	451,479
Interest income	0				452	452	452	452	1,808
Interest expense	(11,662)	(9,056)	(9,885)	(7,229)	(14,458)	(11,852)	(12,681)	(10,025)	(49,016)
Net interest	(11,662)	(9,056)	(9,885)	(7,229)	(14,006)	(11,400)	(12,229)	(9,573)	(47,208)
Loss on financial instruments	(3,492)				(3,492)	0	0	0	(3,492)
Other expenses	1,935		0	0	(231)	0	0	0	(231)
Profit before tax	59,782	32,169	49,174	124,531	88,489	42,616	78,047	191,396	400,548
Current income tax	23,699	16,008	16,581	30,826	27,040	19,458	23,256	44,425	114,179
Deferred income tax	620	0	0	0	9,323	0	0	0	9,323
Total tax	24,319	16,008	16,581	30,826	36,363	19,458	23,256	44,425	123,502
Marginal tax rate (%)	40.7	49.8	33.7	24.8	41.1	45.7	29.8	23.2	30.8
Profit after tax	35,463	16,161	32,593	93,705	52,126	23,158	54,791	146,971	277,046
Net profit from discontinued ops.	0	0	0	0	0	0	0	0	0
Total net and comprehensive loss	35,463	16,161	32,593	93,705	52,126	23,158	54,791	146,971	277,046
Minority interest	9,465	7,307	7,559	14,191	12,062	9,196	13,299	23,749	58,306
Minority interest (%)	26.7	45.2	23.2	15.1	23.1	39.7	24.3	16.2	21.0
Profit attributable to shareholders	25,998	8,855	25,034	79,513	40,064	13,962	41,492	123,222	218,740
Basic EPS from continuing ops (US$)	0.235	0.080	0.226	0.716	0.253	0.088	0.255	0.757	1.362
Diluted EPS from continuing ops (US$)	0.235	0.076	0.215	0.682	0.243	0.085	0.252	0.748	1.311
Basic EPS (US$)	0.235	0.080	0.226	0.716	0.253	0.088	0.255	0.757	1.362
Diluted EPS (US$)	0.235	0.076	0.215	0.682	0.243	0.085	0.252	0.748	1.311
Norm. basic EPS from continuing ops (US$)	0.306	0.170	0.226	0.716	0.302	0.151	0.255	0.757	1.473
Norm. diluted EPS from continuing ops (US$)	0.306	0.162	0.215	0.682	0.291	0.145	0.252	0.748	1.418
Adj net earnings attributable (US$000s)	33,517	17,256	29,130	84,039	54,310	23,513	46,755	129,039	253,616
Adj net EPS from continuing ops (US$)	0.303	0.155	0.262	0.757	0.343	0.148	0.287	0.793	1.579

Source: Endeavour Mining, Edison Investment Research. Note: Company reported basis. *Includes adjustment for Karma stream.

Items included in the reconciliation between adjusted net earnings attributable and total net and comprehensive earnings are losses from discontinued operations, deferred income tax effects, gains/losses on financial instruments, other expenses, share-based compensation and acquisition costs (all shown independently in the table above), plus the tax impact of adjusting items, non-cash and other adjustments and the minority interest attributable to the adjusting items (not shown independently).

With the exception of Q220, readers' attention is drawn to the general uplift of pro-forma per share estimates relative to pre-acquisition ones – indicating, among other things, the accretive nature of the acquisition. However, they are also cautioned that forecasting on a quarterly basis is prone to large variations between actual and forecast numbers. To this end, it is worth noting that the top end of Endeavour's (pre-acquisition) production guidance is 47.7koz gold (6.9%) above our forecast for the year, which is worth a material US$76.9m in additional revenue to the company (net of royalties) and therefore has the ability to increase our (pro-forma) estimate of Endeavour's FY20 profit before tax by a material 11.9% (all other things being equal). As such, the exhibit above should be regarded as indicative, rather than prescriptive, particularly with respect to individual quarters. Within that context a comparison between Edison's FY20 adjusted net EPS from continuing operations estimates and consensus estimates, by quarter, is as follows:

Exhibit 2: Edison adjusted net EPS from continuing operations estimates vs consensus, FY20, by quarter (US$)

(US$/share)	Q1	Q2e	Q3e	Q4e	Sum Q1–Q4e	FY20e
Edison forecast*	0.343	0.148	0.287	0.793	1.571	1.579
Ditto at US$1,760/oz Au for Q3 and Q4	0.343	0.148	0.323	0.843	1.657	1.666
Mean consensus forecast	0.343	0.350	0.470	0.650	1.813	1.720
High	0.343	0.490	0.600	0.880	2.313	1.960
Low	0.343	0.260	0.380	0.440	1.423	1.430

Source: Refinitiv, Edison Investment Research. Note: *As per Exhibit 1 on the pro-forma basis. Consensus priced 25 June 2020.

FY20 guidance vs forecasts

Historically, Endeavour has a good record of meeting its production and cost guidance targets and FY19 was the seventh year in succession in which the company achieved its production cost and all-in sustaining cost (AISC) targets.

In general, the first half of FY20 is expected to be an extension of circumstances in Q419. Ity will continue to mine into harder fresh ore at Daapleu, which will restrain recoveries before a degree of improvement in H220. However, its CIL plant should naturally be less affected by the uncertainties of the Q3 rainy season than its historical heap leach operation. In addition, the second lift of its tailings storage facility has now been completed, with the result that management believes that the mine, which is located in an area of acknowledged high rainfall, is now better prepared for the FY20 wet season than at any time in the past. Performance at Houndé will depend largely on its ability to mine Kari Pump in H220, for which a permit is expected to be received in Q3. In the meantime, it will continue to mine predominantly hard ore at a relatively high stripping ratio in H120, although this will be somewhat mitigated by its plant continuing to operate at or above nameplate capacity. Whereas, Edison has, up until now, declined to assume a contribution from Kari Pump's materially higher grade ore in H220, we have now started to do so from Q420 onwards. At Agbaou, harder ore is expected to be mined, while the overall stripping ratio is anticipated to decrease slightly and throughput and recovery rates to decrease marginally owing to the harder ore blend. In the meantime, tonnes stacked at Karma are projected to increase as a result of the installation of the new stacker system and grades and recoveries to remain consistent with Q419 (albeit to improve upon FY19 generally, which was adversely affected by maintenance downtime related to the installation and commissioning of the tripper conveyor in addition to the heavy rains, which resulted in an increase in unit mining costs among other things).

In the wake of our updated operational and cost assumptions for the remainder of the year, a summary of our outlook for each of Endeavour's operations is now as follows:

Exhibit 3: Endeavour Mining's operations' outlook, Q2–Q420

Mine	Outlook
Ity	Plant feed will continue to be sourced from the Daapleu and Bakatouo pits supplemented by material from the old heap leach dumps. In general, more fresh ore will be mined as the pits deepen. Mined and processed ore grades are anticipated to be approximately flat for the remainder of the year. Metallurgical recoveries are expected to decline in Q2 and Q3 before recovering in Q4.
Houndé	The focus of mining operations at Houndé in FY20 will be waste mining and removal. Low-grade stockpiles are expected to continue to contribute to processed ore into Q220. Thereafter, both mined tonnages and grades are expected to improve, although waste extraction will remain high in H2 in order to access high-grade material. The process to be granted a permit at Kari Pump is underway and (subject to bureaucratic delays) a mining permit is expected to be granted in Q3. Sustaining capex is anticipated to increase in Q2, as sums deferred from Q1 relating to waste removal are expended, but is expected to remain approximately unchanged for the full year (relative to our prior expectations).
Agbaou	Mining at Agbaou in 2020 will continue from the North and South pits but will come to a halt at the West pit in H2. Throughput and recovery will decline in H2 as a greater proportion of hard, fresh ore is mined and processed. However, grades are now expected to improve in H220 relative to our prior forecasts.
Karma	Mining at Karma in 2020 will continue from the Kao North and GG1 pits. Overall grades are expected to decline in Q2 and Q3 as the grade in the Kao North pit declines, but are anticipated to recover back up to Q419 and Q120 levels once again in Q420.

Source: Endeavour Mining, Edison Investment Research

In the wake of Q120 results, Endeavour's production and cost guidance for FY20, compared with Edison's forecasts, is now as follows:

Exhibit 4: Endeavour production cost and AISC guidance, by mine, FY20 vs Edison forecast

	Production (koz)			AISC (US$/oz)		
Mine	FY20e guidance (koz)	Current Edison FY20e forecast (koz)	Previous Edison FY20e forecast (koz)	FY20e guidance (US$/oz)	Current Edison FY20e forecast (US$/oz)	Previous Edison FY20e forecast (US$/oz)
Houndé	230–250	244.0	239.4	865–895	936	956
Agbaou	115–125	113.1	115.3	940–990	1,021	993
Karma	100–110	103.9	105.4	980–1,050	1,027	1,018
Ity CIL	235–255	231.3	244.7	630–675	808	687
Group total	**680–740**	**692.3**	**713.1**	***845–895**	**965**	***913**

Source: Endeavour Mining, Edison Investment Research. Note: *Includes corporate general and administrative costs.

Gold price

In our last note on the gold price (see A golden future, published on 11 June 2020), Edison argued that the recent, sharp increases in the total US monetary base might be expected to support a (nominal) gold price of US$1,892/oz and potentially as high as US$3,000/oz. While there is a historically strong and statistically significant correlation of 0.909 between the gold price and the total US monetary base from 1967 to 2018 however, there is very little visibility as to how, or to what extent, the total US monetary base may be expected to evolve. Currently, we know that it is expanding at a rate of approximately US$110bn per month, which equates to an expected increase in the gold price (using the historical correlation) of approximately US$500/oz per annum. Anecdotally, the total US monetary base may probably be expected to continue to increase for a time until the COVID-19 crisis has been managed and then to flatten off for a discrete period until a period of tapering is attempted by the Federal Reserve (in a similar fashion to the aftermath of the global financial crisis). However, neither the extent of any increases nor the extent of any subsequent tapering nor the timing of either is easy to judge. In consequence, Edison's strategy now is to maintain a flat, nominal gold price of US$1,892/oz into the future from FY21. Note that this may be contrasted with our previous approach to gold price forecasts (see Portents of economic weakness: Gold – doves in the ascendant, published on 14 August 2019), the results of which were as set out in the table below:

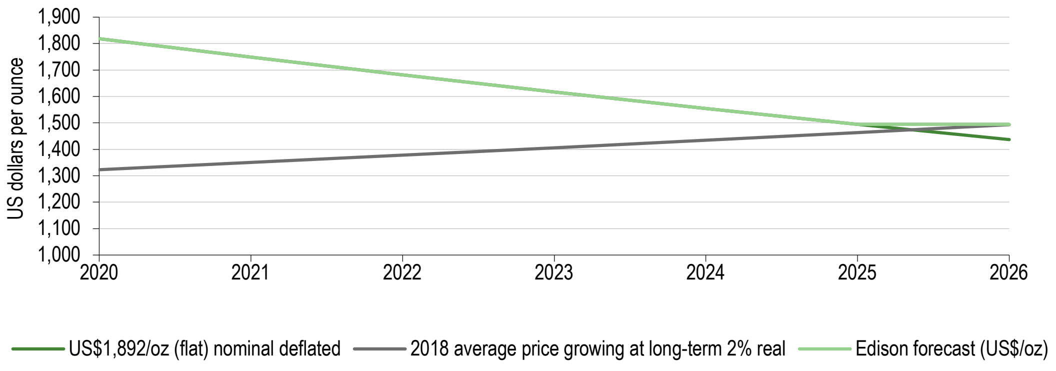
Exhibit 5: Previous Edison gold price forecasts* (US$/oz)

US$/oz	2021e	2022e	2023e
Nominal gold price forecast (US$/oz)	1,509	1,560	1,421
Real gold price forecast (US$/oz)	1,395	1,387	1,350

Source: Edison Investment Research. Note: *See Portents of economic weakness: Gold – doves in the ascendant.

In the absence of more general deflation, a flat, nominal gold price of US$1,892/oz is, self-evidently, a declining gold price in real terms, which is an unlikely long-term scenario, given that the gold price has historically increased by 2.0% per annum in real terms from 1914 to 2018 (see Portents of economic weakness, Gold: Doves in the ascendant, published in August 2019). Moreover, during the period 2013–18, the gold price was relatively flat, averaging US$1,270/oz. Its average price in 2018 was also US$1,271/oz and this therefore might be considered an appropriate floor price from which to grow the gold price in real terms. Both of these scenarios may be plotted into the future as follows:

Exhibit 6: Edison updated real gold price pricing scenarios and forecast (US$/oz)



Source: Edison Investment Research

As may be seen from the chart above, the two lines cross between 2025 and 2026 at a level fractionally below US$1,500/oz. All Edison's gold company valuations are conducted in real terms. Consequently, and in the absence of much immediate visibility as to the evolution of the total US monetary base, Edison's new gold price scenario for valuation purposes is for the gold price to remain at US$1,892/oz in flat nominal terms (ie declining in real terms) until the price (in real terms) crosses with the increased US$1,271/oz 2018 price. At that point we assume that the price will flatten out (in real terms) at US$1,494/oz (note that this may be contrasted with our prior methodologies for gold price forecasting, which were set out in our report, Portents of economic weakness, Gold: Doves in the ascendant, published in August 2019).

Absolute Endeavour valuation (pro-forma)

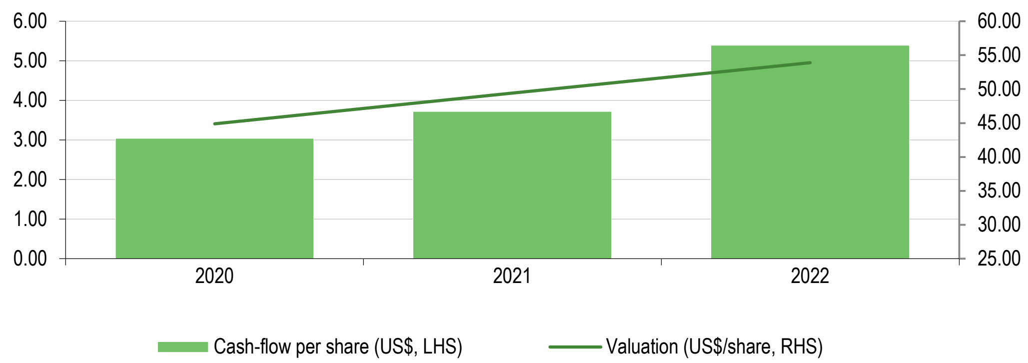
Endeavour is a multi-asset company that has shown a willingness and desire to trade assets to maintain production, reduce costs and maximise returns to shareholders (eg the sale of Youga in FY16, Nzema in FY17 and Tabakoto in FY18). Rather than our customary method of discounting maximum potential dividends over the life of operations back to FY20, therefore, we have opted to discount potential cash flows back over three years from FY20 and then to apply an ex-growth terminal multiple of 10x (consistent with using a standardised discount rate of 10%) to forecast cash flows in that year (ie FY22). In the normal course of events, exploration expenditure would be excluded from such a calculation on the basis that it is an investment. In the case of Endeavour, however, we have included it in our estimate of FY22 cash flows on the grounds that it may be a critical component of ongoing business performance in its ability to continually expand and extend the lives of the company's assets. Note that, in the aftermath of the acquisition, the combined entity's immediate strategic imperatives will be the continuation of exploration at Ity and Houndé plus investigating the potential to extend the mine lives of Mana and Boungou.

Aside from our updated FY20 operational and cost expectations (which form the majority of the content of this report), readers are cautioned that this updated valuation of Endeavour is not comparable to previous Edison valuations on account of three other factors:

- It is the first time that we have conducted a valuation including the SEMAFO assets (and with the attendant dilution of the c 47.6m new Endeavour shares issued to SEMAFO shareholders)
- Our updated gold price forecasts from FY21 onwards (as discussed above)
- A number of additional (but relatively) small refinements to our production expectations for Houndé and Ity, in particular, in the years FY21–24, to reflect updated mine plans in the aftermath of recent exploration success.

With that caveat, our estimate of Endeavour's cash flow in FY22 on the above basis has increased to US$5.39 per share (cf US$4.05/share in our last note on a pre-acquisition basis). On this basis, our terminal valuation of the company at end-FY22 is US$53.89/share (cf US$40.49/share previously on a pre-acquisition basis), which (in conjunction with forecast intervening cash flows) discounts back to a value of US$44.90/share at the start of FY20 (cf US$33.46/share previously).

Exhibit 7: Endeavour forecast valuation and cash flow per share, FY20–22e (US$/share)



Source: Edison Investment Research

Relative Endeavour valuation

Endeavour's valuation on a pre-acquisition basis on a series of commonly used measures, relative to a selection of gold mining majors (the ranks of which it will soon be joining once its takeover of SEMAFO is complete), is as follows:

Exhibit 8: Endeavour valuation relative to peers

Company	Ticker	Price/cash flow (x)			EV/EBITDA (x)		
		Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Endeavour (Edison)*	EDV	**5.6**	**4.9**	**4.2**	**5.4**	**3.7**	**3.1**
Endeavour (consensus)	EDV	**5.9**	**4.9**	**5.2**	**5.7**	**4.7**	**5.2**
Majors							
Barrick	ABX	10.3	9.5	10.0	9.9	9.0	9.9
Newmont	NEM	11.7	9.5	10.5	9.7	7.9	9.0
Newcrest	NCM AU	13.3	9.8	9.9	11.1	9.3	9.1
Kinross	K	5.5	5.2	5.0	5.4	4.8	4.8
Agnico-Eagle	AEM	13.9	9.9	10.0	12.9	9.0	9.1
Eldorado	ELD	4.1	4.8	4.7	3.9	4.7	5.0
Average		**9.8**	**8.1**	**8.3**	**8.8**	**7.5**	**7.8**

Source: Edison Investment Research, Refinitiv. Note: *Pro-forma basis. Consensus and peers priced at 25 June 2020.

Of note is the fact that Endeavour's valuation is materially cheaper than the averages of the majors on all six measures shown in Exhibit 8, regardless of whether Edison or consensus forecasts are used. On an individual basis, it is cheaper than the majors on at least 86% (31 out of 36) valuation measures if Edison forecasts are used and 75% (27 out of 36) of valuation measures if consensus forecasts are used.

Financials

Endeavour had US$476.6m in net debt on its balance sheet at end-Q120 cf US$535.9m at end-Q419 and US$515.3m on a pro-forma basis, including restricted cash held by SEMAFO. This (pre-acquisition) level of net debt equated to a gearing (net debt/equity) ratio of 63.9% (cf 74.7% at end-Q419) and a leverage (net debt/[net debt + equity]) ratio of 39.0% (cf 42.7% at end-Q419). Note that US$476.6m reconciles with Endeavour's Q120 balance sheet; it differs from the figure of US$472.7m quoted in some of the company's other materials because the latter is calculated on the basis of the value of the minimum equipment finance obligations discounted back to present value rather than being presented on an undiscounted basis.

With capital expenditure relating to the Ity CIL project now having been, to all intents and purposes, completed, Endeavour has no major capex commitments in the future until the development of its next project. In the new gold price environment, cash flows were strongly positive in Q120 and we expect them to remain strongly positive into the foreseeable future, such that (including the merger with SEMAFO) we are forecasting that the company will have net debt of just c US$26.3m as end end-FY20 (cf US$367.2m previously), after La Mancha's US$100m investment into the enlarged company, which will equate to a gearing ratio of just 1.4% (cf 40.2% previously) and a leverage ratio similarly of just 1.4% (cf 28.7% previously). Thereafter, net debt would decline rapidly such that, all other things being equal, we estimate that the company should be net debt-free early in FY21 (cf early in FY22 previously). Hence, we believe that Endeavour could make a dividend distribution to shareholders as early as FY21.

SEMAFO acquisition

On 23 March, Endeavour announced that it had entered into a joint, definitive agreement with SEMAFO, whereby it will acquire all of the issued and outstanding securities of SEMAFO by way of a Plan of Arrangement under the Business Corporations Act (Québec). Under the terms of the agreement, Endeavour will pay 0.1422 shares for each SEMAFO common share, resulting in its issuing an additional 47.6m shares (cf 111.0m currently in issue). Based on the 20-day volume weighted average prices of each company until 20 March, these terms represented a 27.2% price premium for SEMAFO shareholders. Based on the closing prices of each company's shares on 20 March, they represented a 54.7% premium for SEMAFO shareholders and implied an equity value for SEMAFO of c C$1.0bn (NB now c C$1.5bn). In the aftermath of the transaction, existing Endeavour and SEMAFO shareholders will own approximately 70% and 30%, respectively, of an entity producing c 1Moz gold per year and which generated an estimated US$121.6m in pre-financing cash flows in FY19 (see our note EndAFO a good thing, published on 1 May 2020).

Endeavour's principal investor, La Mancha, has committed to invest US$100m into the combined entity in order to provide for a larger free float and greater stock liquidity which, for the purposes of our forecasts in Exhibits 1 and 11 is assumed to occur at the prevailing share price early in Q320.

Pursuant to the rules of the TSX, the transaction has been approved by an overwhelming majority of both sets of shareholders. In addition, Endeavour shareholders have also approved the issuance of US$100m in Endeavour ordinary shares to La Mancha.

In addition to shareholder and court approvals, the transaction is subject to applicable regulatory approvals including TSX approval and the satisfaction of certain other customary closing conditions.

At the same time, the deadline of 25 June, by which time the minister of innovation, science & economic development was required to decide whether to order a national security review of the transaction, has now passed, with the result that it is anticipated that the transaction will close towards the end of June 2020 or the beginning of July.

Risks and sensitivities

Gains or losses on financial instruments

During the year ended 31 December 2019, Endeavour put in place a gold revenue protection programme in order to maximise cash flow certainty during its debt reimbursement phase. Similar to the strategy it put in place during its recent construction phases, this comprises a deferred premium collar strategy using written (sold) call options and bought put options to (effectively) create a synthetic short position. The programme began on 1 July 2019 and will end on 30 June 2020 and covers a total of 360,000oz (approximately 50% of Endeavour's pre-acquisition total estimated production over the period), with a floor price of US$1,358/oz and a ceiling price of US$1,500/oz. As at 31 March, 120,000oz remained outstanding under the collar derivative liability, implying (among other things) that contracts over 90,000oz of gold were exercised in Q120.

While it is tempting to assume that a gold price above US$1,500/oz will automatically result in losses on Endeavour's gold revenue protection programme, recent history would suggest that this is not a foregone conclusion. Exhibit 9, in particular, details Edison's estimates of the losses and gains incurred by the programme during the past three quarters within the context of the gold price movement during the quarters and the extent of potential losses in Q220, assuming that all remaining ounces covered by the revenue protection programme are exercised during those periods:

Exhibit 9: Gain/loss on gold revenue protection programme (US$000s)

US$000s (unless otherwise indicated)	Q220e	Q120	Q419	Q319	Q219
Realised gain/(loss) on gold revenue protection strategy programme			(4,426)	(1,633)	
Unrealised gain/(loss) on gold price protection strategy			7,229	(6,505)	
Gain/(loss) on gold revenue protection programme		(10,985)	2,803	(8,138)	
Gold price at end of period (US$/oz)	1,764	1,608	1,514	1,485	1,409
Gold price change during period (%)	+9.7	+6.2	+2.0	+5.4	
Maximum gold price during period (US$/oz)	1,768	1,683	1,517	1,546	
Gold price difference relative to US$1,500/oz (US$/oz)	*268	*183	*17	*46	
Estimated ounces in programme exercised (oz)	120,000	90,000	75,000	75,000	
Estimated potential realised gain/(loss)	(32,160)	(16,470)	(1,275)	(3,450)	

Source: Endeavour Mining, Edison Investment Research. Note: *Based on maximum gold price during period.

Self-evidently, the extent of actual losses realised depends on, among other things, the timing and the exact price of gold when the contracts are exercised. Nevertheless, while the extent of the potential realised losses on the gold revenue protection programme in Q220 could not be considered trivial, it is worth noting that, historically, gains (or losses) on the gold revenue protection programme have not always been the largest constituent part of total gains (or losses) on financial instruments, as in Q419 and Q319, as cases in point, below, and have also, on occasion, been counteracted by offsetting factors (eg Q120, below):

Exhibit 10: Endeavour gain/(loss) on financial instruments, Q319–Q120 (US$000s)

Item	Q120	Q419	Q319
Gain/(loss) on other financial instruments	55	(982)	(1,307)
Change in value of receivable relating to sales of Tabakoto and Nzema	(132)	35	(22,389)
Realised gain on forward contract	6,686	0	0
Gain/(loss) on gold revenue protection programme	(10,985)	2,803	(8,138)
Unrealised gain/(loss) on convertible senior bond derivative	2,675	3,930	(14,168)
Gain/(loss) on foreign exchange	(1,751)	(3,592)	(3,526)
Total gain/(loss) on financial instruments	**(3,492)**	**2,194**	**(49,528)**

Source: Endeavour Mining. Note: Totals may not add up owing to rounding.

As a result of the inherent uncertainties surrounding gains (or losses) from financial instruments, they have been excluded from our forecasts in Exhibits 1 and 11. While the gold price protection strategy programme is a limited one therefore, investors should nevertheless be aware that the remaining contracts outstanding potentially represent an up to US$32.16m (US$0.290 per share gross of tax) risk to our (pre-acquisition) Q220 earnings forecasts (albeit not our normalised or adjusted earnings forecasts).

COVID-19

Since the onset of the pandemic, governments in West Africa have acted decisively to implement appropriate response measures, using (where appropriate) their recent experience in dealing with Ebola in the region as a precedent. Out of three states of alert, West Africa is currently at a 'Level 1' state of readiness (ie that the virus remains predominantly outside West Africa), with the potential to escalate this to 'Level 2'. In practice, this means that both Burkina Faso and the Ivory Coast have closed their borders and commercial flights both into and out of the countries have been suspended. Within this framework however, 'key industries' are allowed to remain operating and, in both countries, ministers are reported to be very keen that gold mining should continue. For their own protection therefore, mines have been isolated from the rest of the country.

Whether as a direct result of these measures or not, of all of the (populated) continents in the world, Africa to date has been the least affected by COVID-19. Endeavour has been supporting the national response in close collaboration with the health authorities in its host countries. In addition, it has mobilised and dispatched an expert medical response team to the region to provide it with an on-hand unit to respond rapidly to any infections that might arise at its mines.

At the asset level, each of the company's operations are continuing to manage and respond to COVID-19 within the framework of the company's incident management and response plan, which was activated at the outbreak of pandemic and has been validated by an epidemiologist special advisor to the company. As part of the response, a business continuity program has been put in place to protect employees while ensuring the safe operation of the company and its mines. Since early March, access to all mine sites has been strictly controlled with health screening in place for visitors, employees and contractors, and all non-essential travel has been cancelled. Endeavour has also asked any employee or contractor who is feeling unwell to stay at home and office workers are required to work from home. Subsequently, it further augmented its preventive measures by introducing a mandatory 14-day quarantine period for any employees or contractors arriving in West Africa.

Consequently, Endeavour states that it has not witnessed any impact to production or operations at any of its mines or exploration activities as a result of COVID-19. It also states that it has sufficient inventory of supplies and equipment until at least the end of July 2020, while suppliers have confirmed that placed and forecast orders are intact. In the meantime, Endeavour has stated a readiness, if necessary, to charter its own planes to keep its operations supplied with necessary supplies and equipment.

From a financial perspective, Endeavour calculates its current cash-burn rate to be of the order of c US$70m per month, with the potential to reduce to US$25–30m per month (including paying all salaries) in the event that all mines are put on care and maintenance. As such, its current access to c US$300m of liquidity equates to approximately four months' worth of costs at current rates of operation or 10 months at reduced rates.

Simultaneously, Endeavour's president and CEO Sébastien de Montessus has said that he will donate 30% of his base salary, and members of the leadership team and the board of directors have also volunteered to donate a portion of their salaries or fees for three months to combating the outbreak. As a company, Endeavour has said that it will match these funds to result in a total donation of approximately US$1m. The funds will be deployed by Endeavour's community relations and medical teams to source much needed medical equipment for local community health centres and also to provide financial support to families and schools that have been affected by a loss of income as a result of the disease. These donations, combined with the amount already spent at the mines and supporting national and local efforts in Cote d'Ivoire, Burkina Faso, and Mali, will bring Endeavour's total contribution to c US$6m (which has now been included in 'corporate costs' in our Q220e financial forecasts, as discussed above).

Exhibit 11: Financial summary

	US$'000s	2018	2019	2020e	2021e	2022e
December		IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS						
Revenue		1,048,636	1,362,121	1,669,264	2,050,180	1,975,389
Cost of Sales		(669,719)	(884,869)	(878,021)	(993,148)	(876,198)
Gross Profit		378,917	477,252	791,243	1,057,032	1,099,191
EBITDA		378,917	618,443	805,573	1,071,362	1,099,191
Operating Profit (before amort. and except.)		106,090	281,400	465,809	706,011	834,415
Intangible Amortisation		0	0	0	0	0
Exceptionals		8,035	(199,159)	(17,822)	(14,330)	0
Other		(3,171)	(9,392)	(231)	0	0
Operating Profit		110,954	72,849	447,756	691,681	834,415
Net Interest		(27,110)	(51,607)	(47,208)	(2,629)	5,081
Profit Before Tax (norm)		75,809	220,401	418,370	703,382	839,496
Profit Before Tax (FRS 3)		83,844	21,242	400,548	689,052	839,496
Tax		(73,637)	(97,253)	(123,502)	(166,552)	(160,306)
Profit After Tax (norm)		2,172	123,148	294,868	536,830	679,190
Profit After Tax (FRS 3)		10,207	(76,011)	277,046	522,500	679,190
Net loss from discontinued operations		(154,795)	(4,394)	0	0	0
Minority interests		8,460	33,126	58,306	94,121	112,347
Net profit		(144,588)	(80,405)	277,046	522,500	679,190
Net attrib. to shareholders contg. businesses (norm)		(16,292)	90,022	236,562	442,709	566,843
Net attrib.to shareholders contg. businesses		(8,257)	(109,137)	218,740	428,379	566,843
Average Number of Shares Outstanding (m)		155.3	157.4	160.6	162.7	162.7
EPS - normalised ($)		(0.10)	0.57	1.47	2.72	3.48
EPS - normalised and fully diluted ($)		(0.10)	0.57	1.42	2.62	3.36
EPS - (IFRS) ($)		(0.99)	(0.72)	1.36	2.63	3.48
Dividend per share (p)		0.0	0.0	0.0	35.8	138.9
Gross Margin (%)		36.1	35.0	47.4	51.6	55.6
EBITDA Margin (%)		36.1	45.4	48.3	52.3	55.6
Operating Margin (before GW and except.) (%)		10.1	20.7	27.9	34.4	42.2
BALANCE SHEET						
Fixed Assets		1,594,202	2,330,033	2,246,914	2,076,777	1,869,026
Intangible Assets		4,186	5,498	5,498	5,498	5,498
Tangible Assets		1,543,842	2,254,476	2,171,357	2,001,220	1,793,469
Investments		46,174	70,059	70,059	70,059	70,059
Current Assets		327,841	652,871	1,211,806	1,905,193	2,490,525
Stocks		126,353	266,451	321,012	394,265	379,882
Debtors		74,757	83,836	102,740	188,471	182,324
Cash		124,022	288,186	777,147	1,311,551	1,917,412
Other		2,709	14,398	10,906	10,906	10,906
Current Liabilities		(248,420)	(354,931)	(429,782)	(477,739)	(446,949)
Creditors		(224,386)	(312,427)	(387,278)	(435,235)	(404,445)
Short term borrowings		(24,034)	(42,504)	(42,504)	(42,504)	(42,504)
Long Term Liabilities		(729,290)	(963,736)	(963,736)	(963,736)	(963,736)
Long term borrowings		(618,595)	(770,902)	(770,902)	(770,902)	(770,902)
Other long term liabilities		(110,695)	(192,834)	(192,834)	(192,834)	(192,834)
Net Assets		944,333	1,664,237	2,065,201	2,540,496	2,948,866
CASH FLOW						
Operating Cash Flow		394,984	628,617	806,993	969,923	1,088,930
Net Interest		(26,734)	(35,413)	(47,208)	(2,629)	5,081
Tax		(36,140)	(109,494)	(114,179)	(166,552)	(160,306)
Capex		(689,469)	(401,227)	(256,644)	(195,214)	(57,025)
Acquisitions/disposals		33,179	3,654	0	0	0
Financing		(7,820)	2,402	100,000	0	0
Dividends		(1,956)	(6,154)	0	(71,123)	(270,819)
Net Cash Flow		(333,956)	82,385	488,961	534,404	605,861
Opening net debt/(cash)		218,140	518,607	525,220	36,259	(498,145)
HP finance leases initiated		0	0	0	0	0
Other		33,489	(88,998)	0	0	0
Closing net debt/(cash)		518,607	525,220	36,259	(498,145)	(1,104,006)

Source: Company sources, Edison Investment Research. Note: Presented on pro-forma basis (except FY18 balance sheet). EPS normalised from 2018 to reflect continuing business only. *Excludes restricted cash.

United Kingdom

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