

## **Caledonia Mining**

Q3 results

### Record production and 14% increase in grade

Caledonia's Q3 results indicate record gold production with moderate unit cost decreases. The company is now firmly on target for its FY17 full-year guidance of 54-56koz of gold. We also consider the marked increase in gold grade mined compared with the previous quarter, as a major positive for the company. Following a marked increase in higher confidence category gold resources situated at depth, the central shaft development has been extended to add further long-term mining flexibility.

Year end	Revenue (US\$m)	PBT* (US\$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
12/15	49.0	5.1	40.0	23.7	17.3	3.4
12/16	62.0	19.6	106.9	28.4	6.5	4.1
12/17e	68.0	21.0	129.3	27.6	5.4	4.0
12/18e	78.7	24.9	148.4	27.6	4.7	4.0

Note: \*PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items, share-based payments and deferred tax. Historical earnings reflect share consolidation.

#### FY17e: Production target narrowed further

As a result of Blanket's improving operational performance over FY17 (Q3 gold grades up 14% q-o-q and tonnages milled up 10% from end Q117), Caledonia has narrowed its previous 52-56koz production target to 54-56koz of gold produced. We maintain our forecast for 54koz produced from Blanket in FY17.

### Going deeper for good reason

Caledonia has viewed its recent drilling results and resource upgrade very positively and factored the results into its understanding of future mining potential below a depth of 750m. Partly as a result of this new data, the company has decided to extend the central shaft depth by 250m from 1,080m to 1,330m. The cost of this additional development is US\$18m and is to be funded entirely via Blanket's internal cash flow generation.

# Valuation: Adjusted for Q317 results and new gold prices

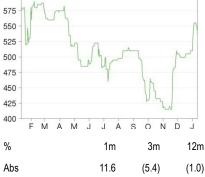
We adjust our base case valuation for Caledonia's Q317 results, driven by an improved gold grade providing record gold production for the quarter of 14,936oz at cash operating costs of US\$663/oz and all in sustaining cost (AISC) of US\$827/oz. The average gold price realised fell slightly by 2% q-o-q from US\$1,265/oz to US\$1,238/oz. We have also included US\$18m in total additional capex required for the central shaft's depth extension. We assume that US\$12m is spent over FY18 with the remaining US\$6m spent during FY19 as the central shaft completes. Of most significance to our valuation is the adoption of our new gold price forecasts, as set out on page 89 of our mining overview, *Unlocking the price to NPV discount:* A new world order, published on 16 November. Factoring in all these adjustments reduces our previous 933p base case valuation by 7% to 869p. We use a 10% discount rate to reflect general equity risk. Applying a spot gold price of US\$1,280/oz over LOM results in an 838p value. The company's current dividend yield of 4% compares to the average for the FTSE mining index of 3.5% and its FY17e P/E of 5.4x to the index's P/E of 17x.

#### Metals & mining

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Price	537.5p
Market cap	£57m
	US\$/£:1.29
Net cash (US\$m) at end September 2017	11.8
Shares in issue	10.6m
Free float	95%
Code	CMCL
Primary exchange	AIM (CMCL), TSX (CAL)
Secondary exchange	NYSE American (CMCL)

#### Share price performance



Abs 11.6 (5.4) (1.0)
Rel (local) 13.1 (5.7) (9.7)
52-week high/low 143.0p 69.0p

#### **Business description**

Caledonia Mining mines gold at, and maintains management control over, its main operating asset, and the 49%-owned Blanket gold mine in southern Zimbabwe. It is also progressing its understanding of a number of promising satellite projects close to Blanket.

#### **Next events**

FY17 results 20/03/2018

#### **Analysts**

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### **Quarterly results**

Q317 saw record gold production of 14,936oz at Blanket at an AISC of US\$827/oz, a 15% decrease compared to Q316, driven by a reduction in G&A arising from lower sustaining capital and recognition of the export incentive credit in 2017. However q-o-q G&A is up 8% (36% above our forecast) driven largely by, inter alia, an increase in employee costs resulting from Caledonia appointing its own in-house legal counsel and a strengthening of the South African rand.

Exhibit 1 shows our forecasts compared with actual Q317 results. Caledonia's Q317 revenues came in 2% above our forecasts, almost entirely as a result of the company's record production. We have marginally adjusted our FY17 gold price upwards on a pro rata basis from US\$1,256/oz (used in our last note) to US\$1,258/oz now. Other income of US\$663k is the receipt of an export credit incentive from the government of Zimbabwe. Blanket receives an export credit incentive to the value of 3.5% of its gold sales. This is factored into our valuation for the entire forecast period from FY18 to FY26.

As a result of revenues slightly exceeding our estimates and recognition of credit incentive, partly offset by higher than expected G&A coupled with moderately higher royalty payments (up 9% cf our estimate driven by Q3's record production) and depreciation (6% above), the company's Q317 PAT was flat at US\$3.88m versus our estimate of US\$3.93m.

(US\$000s)	Q317e	Q317	% change
Revenue (incl of refining costs and rebate)	17,813	18,230	2%
Royalty	(834)	(913)	9%
Operating costs	(9,263)	(9,080)	(2%)
Depreciation	(953)	(1,008)	6%
Gross profit	6,763	7,229	7%
G&A	(1,183)	(1,607)	36%
Share based payments	-	(73)	-
Foreign exchange gain/(loss)	-	(3)	-
Other income	-	663	-
Operating profit	5,580	6,209	11%
Net interest	135	(7)	N/A
PBT (FRS 3)	5,715	6,202	9%
Tax	(1,783)	(2,326)	57%
PAT (FRS 3)	3,932	3,876	(1%)
Minority interest	(891)	(756)	(15%)
Attributable profit	3,041	3,120	3%
EPS (IFRS), (c)	29	29	1%

In terms of earnings, our forecast for Q317 IFRS earnings per share came broadly in level with that reported by Caledonia, with only EPS on a normalised basis coming in 7% lower (41c vs 44c) than our estimate, driven by an adjustment to deferred tax which is governed by the company's timing of capital expenditures. The other adjustment to normalised earnings is FX, which was immaterial during the quarter at US\$3k. The following exhibit details Caledonia's ytd quarterly income statement and our estimates for Q417 earnings are largely in line with our previous estimates. Normalised EPS has decreased on an FY17 basis by just under 4%.

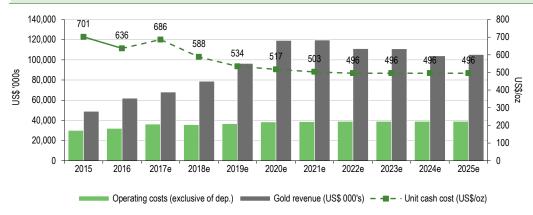


Exhibit 2: Ytd quarterly figures						
US\$000s	Q117	Q217	H117	Q317	Q417e	FY17e
Revenue (incl. refining costs and rebate)	16,449	15,484	31,933	18,230	17,830	67,993
Royalty	(823)	(776)	(1,599)	(913)	(834)	(3,346)
Operating costs	(9,098)	(8,814)	(17,912)	(9,080)	(9,263)	(36,255)
Depreciation	(882)	(859)	(1,741)	(1,008)	(953)	(3,702)
Gross profit	5,646	5,035	10,681	7,229	6,779	24,689
G&A	(1,441)	(1,493)	(2,934)	(1,607)	(1,183)	(5,724)
Share-based payments	(410)	(959)	(1,369)	(73)	-	(1,442)
Foreign exchange gain/(loss)	(64)	83	19	(3)	-	16
Other income	644	557	1,201	663	-	1,864
Operating profit	4,375	3,223	7,598	6,209	5,596	19,403
Net interest	(7)	(10)	(17)	(7)	135	111
PBT	4,368	3,213	7,581	6,202	5,731	19,514
Tax (excludes deferred tax charge)	(1,460)	(2,090)	(3,550)	(1,127)	(14)	(4,691)
Deferred tax	-	-	-	(1,199)	(1,683)	(2,882)
PAT	2,908	1,123	4,031	3,876	4,034	11,941
Minority interest	(570)	(429)	(999)	(756)	(891)	(2,646)
Forex translation differences	73	60	133	-	-	133
Attributable profit	2,411	754	3,165	3,120	3,143	9,428

Source: Caledonia Mining and Edison Investment Plan

We maintain our previous forecast of 54koz produced for FY17, this being the lower end of Caledonia's recently narrowed production target of 54-56koz gold produced. We estimate that this production will incur unit cash operating costs of US\$686/oz, before drifting lower as higher production in subsequent years decreases the effect of Blanket's fixed cost base. The ability to mine more gold while maintaining a stable fixed cost base is a key reason for expanding Blanket's production and, as shown in Exhibit 3 below, will have a material positive effect on decreasing unit costs going forward.

Exhibit 3: Actual and forecast revenue and costs, 2015-2025e



Source: Edison Investment Research and Caledonia Mining

## Improving gold grades

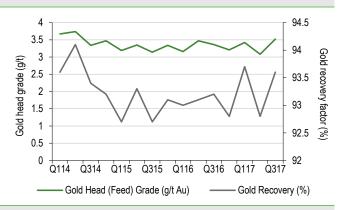
Third quarter production was also bolstered by a slight increase in the mined gold grade at Blanket. A q-o-q increase of 14% from 3.08g/t (Q217) to 3.52g/t (Q317) was recorded and supports management's view that gold grades will return from recent lows and back up towards the long-term average for Blanket of c 3.8g/t. Of all the operational data announced to market in the company's third quarter release, this grade increase is the most reassuring and we look forward to seeing it maintained at similar levels during subsequent quarters.



Allied to the increase in gold grade mined is a very slight increase in gold recoveries (see right-hand chart below). Tonnages mined and milled for the quarter remained flat compared to Q217.

Exhibit 4: Quarterly operational data Q114 to Q317





Source: Caledonia Mining and Edison Investment Research

### New resource data to underpin central shaft extension

Along with the improved geological confidence that underpins the company's increase in NI43-101 resources, management has taken the view that it is prudent and in the best interests of Blanket's future longevity that an extension to the central shaft's depth, from 1,080m to 1,330m, should be made. Importantly, the US\$18m of additional capital expenditure required for this extension is to be funded entirely via Blanket's internal cash flow generation. We note that the depth extension to the central shaft has been calculated using a long-term gold price of US\$1,260/oz.

Caledonia states that the central shaft depth extension is not expected to affect payment of its dividend. We have maintained our forecast for a FY18 dividend equal to that paid out in FY17.

### Beyond extending Blanket's mine life - why extend now?

Development down to a depth of 1,080m underpinned the company's 2014 investment plan. With the development of a brand-new, single nine-metre shaft in a central position to Blanket's main orebearing lodes and providing an additional 330m of vertical access below the 750m level, Caledonia envisioned production at Blanket well into the 2020s. This original plan had enough measured and indicated resources and reserves to pay back 97% of the original US\$70m cost of the investment plan's development. However, future mining at that time had been pinned to mining far lower confidence inferred resources. This situation has since changed with the ongoing drilling being undertaken to target the deeper reaches of Blanket's orebodies. The following section explains how Caledonia has successfully evolved its NI43-101 compliant resource base over time (Exhibit 5).

The extension to the central shaft's planned depth will also be significantly cheaper to develop now, rather than in the future when all construction equipment and services have been removed. Furthermore, as production commences, it would be highly undesirably to have to stop production intermittently to allow additional waste haulage from the central shaft, which will, on completion, become Blanket's main production ore and waste haulage route to surface.

#### Resource upgrade drives depth increase

Caledonia released a resource update on 2 November 2017, which, among other things, detailed a 6% increase in measured ounces from 671koz (December 2016) to 714koz and a 47% increase in inferred ounces to 887koz. The improvement to Caledonia's Blanket resource base has, however, been far more impressive when viewed over time, and indicates a high level of background activity



in improving its geological processes. During our site visit in October 2016, we saw a meaningful push towards digitisation of existing paper-based geological information, which is an important factor in visualising in 3D the viabilities in Blanket's orebody structures and grade variations. The improvements to Blanket's resource base (and, by extension, reserves) should indicate to the investor a far more confident view of the quantum of gold available to mine, its gold grade and grade variability – all important factors for the consistent running of any mine.

1000 5. 600 4.4 5 500 4.2 800 400 koz Au 600 koz 5. 300 3 8 400 200 3.6 200 4 100 34 0 3.2 2016 2012 2013 2014 2015 2017 2011 2013 2017 2011 2012 2014 2015 2016 Inferred Grade (g/t Au) Indicated Grade (g/t Au) Measured 250 4.1 14% 4.05 200 150 3.95 ≧ koz Au 100 3.9 Inferred Indicated 55% 50 3.85 31% 0 3.8 2017 2012 2013 2014 2015 2016

Exhibit 5: Caledonia's resource base evolution over time (2011-2017); pie chart is 2017 resource-split (koz)

Source: Caledonia Mining and Edison Investment Research

Grade (g/t Au)

Measured

As shown by the above graphs and pie chart, the evolution over time of Caledonia's resource base at Blanket has been positive and material. The lack of a measured resource category before 2015 was a hindrance on the company's ability to scope out the future potential viability of expanding Blanket's production, both above and below the 750m level – the historical depth limit to Blanket's gold production before the advent of the investment plan.

Inferred

■ Indicated

Measured

The long-term average mined gold grade assumption for Blanket is just under 4.00g/t gold at 3.84g/t. The support for this grade level is given by the grade of Blanket's 2017 measured resource category of 3.90g/t. While the average resource grade has modestly declined from the previous estimate given in 2016 (with respect to the indicated and measured categories only), this is as a result of greater geological confidence derived from more infill drilling, and should allow the company to better target, and most importantly, mine and blend various ore streams from Blanket's numerous orebodies with far better confidence and accuracy. In providing a more accurate estimate of grade and its variability across each orebody, Blanket should be able to provide improved operational performance and greater consistency over IFRS earnings forecasts.

Exhibit 6	6: Blanket	NI43-101 res	ource ba	ase (2017)				
	Inferred			Indicated	į		Measure	d
Tonnes (Mt)	Grade (g/t Au)	Contained ounces (koz)	Tonnes (Mt)	Grade (g/t Au)	Contained ounces (koz)	Tonnes (Mt)	Grade (g/t Au)	Contained ounces (koz)
5.53	4.99	887.0	3.81	3.98	488.0	1.81	3.90	227.0
Source: C	aledonia Mi	ining						



### Valuation - gold price revisions

We have adjusted our valuation for Q317 results, but also for our recently revised gold price forecasts and other factors given in the following sections.

#### New gold price forecasts

Following the release on 16 November 2017 of our annual mining overview, *Unlocking the price to NPV discount, a new world order*, we have revised our long-term gold price forecasts. For background to the changes made, please refer to the aforementioned report (pages 79 onwards).

Exhibit 7: Edison's new 2018-2026 gold prices											
Year	2018	2019	2020	2021	2022	2023	2024	2025	2026		
New forecast (US\$/oz)	1,220	1,263	1,482	1,437	1,304	1,303	1,264	1,235	1,319		
Old forecast (US\$/oz)	1,220	1,284	1,362	1,344	1,281	1,274	1,257	1,245	1,264		
Change (%)	0.0%	-1.6%	8.8%	6.9%	1.8%	2.3%	0.6%	-0.8%	4.4%		
Source: Edison Inve	stment Res	search									

### **Central shaft extension capex**

As advised by the company, the deepening of the central shaft development by 250m from 1,080m to 1,330m will cost an estimated US\$18m. The development has been costed using a gold price of US\$1,260/oz (well below our forecasts in Exhibit 7). The additional capital expenditures required for the depth extension is to be funded purely by Blanket's internal cash flow. We factor this additional capex into our valuation, with US\$12m allocated to FY18, and the remaining US\$6m spent in FY19. Note that the additional capex is not being made to support the existing Investment Plan's planned mining schedule. The central shaft depth extension is supported by production in addition to our base case valuation scenario, which we have not yet been able to update as we await more details from the company.

We have also adjusted our US\$/£ exchange rate up 4% from 1.29 to 1.34.

#### Base case down on additional capex

On this basis and largely as a result of the aforementioned additional capex requirement, our base case valuation for Caledonia's shares decreases 7% from 933p to 869p per share. Our valuation uses a 10% discount rate to reflect general equity risk.

Forcing our model to reflect Caledonia's current share price of 500p results in an implied discount rate of 21%. Furthermore, on applying a spot gold price of US\$1,280/oz across all forecast years results in a valuation of 838p.

### **Financials**

Caledonia finished Q317 with a cash balance of US\$11.8m, a q-o-q increase of 8%. This follows ytd cash generated from operating activities of US\$16.6m, net cash used in investing activities of US\$15.6m, US\$3.6m in net cash from financing activities (including US\$2.4m in dividends paid on a quarterly basis and a US\$1.1m loan repayment in connection with Caledonia's small-term loan facility). We now forecast Caledonia finishing FY17 with a cash balance of US\$11.5m (compared to our previous forecast following Q217 results of US\$10.5m). As a result of the additional capex spend associated with the central shaft over the next couple of years, we see Caledonia's cash pile decreasing in FY18 to US\$8.7m, before a substantial increase, under our assumptions, in FY19 to US\$36.9m.



US\$000s	2015	2016	2017e	2018e	2019e	2020
Year end 31 December	IFRS	IFRS	IFRS	IFRS	IFRS	IFR
PROFIT & LOSS						
Revenue	48,977	61,992	67,993	78,678	96,382	119,17
Cost of Sales	(35,796)	(38,500)	(43,303)	(47,484)	(51,433)	(54,47
Gross Profit	13,181	23,492	24,689	31,194	44,949	64,70
EBITDA	8,967	23,257	24,547	29,847	54,562	76,29
Operating Profit (before amort. and except.)	5,645	19,766	20,845	24,647	48,062	69,79
Intangible Amortisation	0	(700)	0 (4.440)	0 (4.000)	0	
Exceptionals	2,850	(788)	(1,442)	(1,000)	(2,966)	CO 70
Operating Profit Net Interest	8,495	18,978 (176)	19,403 111	23,647 231	45,096 173	69,79 73
Other financial items	(535)	(176)	111	231	173	- / \
Profit Before Tax (norm)	5,110	19,590	20,956	24,878	48,235	70,53
Profit Before Tax (FRS 3)	7,960	18,802	19,514	23,878	45,270	70,53
Tax	(2,370)	(7,717)	(7,573)	(6,121)	(10,610)	(15,89
Profit After Tax (norm)	2,740	11,873	13,383	18,757	37,625	54,63
Profit After Tax (FRS 3)	5,590	11,085	11,941	17,757	34,660	54,63
Minority interests	(811)	(2,797)	(2,646)	(3,217)	(4,667)	(7,07
Net income (norm)	4,220	11,276	13,635	15,540	32,958	47,5
Net income (FRS3)	4,779	8,288	9,295	14,540	29,992	47,5
Average Number of Shares	10.5	10.5		10.5	10.5	10
Average Number of Snares Outstanding (m)	10.5	10.5	10.5	10.5	10.5	10
Outstanding (m)  EPS - normalised (c)	40.0	106.9	129.3	148.4	312.5	450
EPS - normalised (c) EPS - normalised and fully diluted	34.6	92.4	129.3	146.4	309.6	450
c)	34.0	92.4	120.1	140.0	309.0	440
EPS - (IFRS) (c)	8.9	79.5	88.1	137.8	284.3	450
Dividend per share (c)	23.7	28.4	27.6	27.6	0.0	430
·						
Gross Margin (%)	26.9	37.9	36.3	39.6	46.6	54
EBITDA Margin (%)	18.3	37.5	36.1	37.9	56.6	64
Operating Margin (before GW and	11.5	31.9	30.7	31.3	49.9	58
except.) (%)						
BALANCE SHEET						
Fixed Assets	49,276	64,917	81,215	96,215	101,165	100,20
Intangible Assets	0	0	0	0	0	
Tangible Assets	49,276	64,917	81,215	96,215	101,165	100,2
nvestments	0	0	0	0	0	
Indigenisation receivable	0	0	0	0	0	
Current Assets	23,562	25,792	22,415	23,364	53,163	108,8
Stocks	6,091	7,222	4,470	4,623	4,757	4,9
Debtors	4,236	3,425	2,794	6,467	7,922	9,7
Cash	12,568	14,335	11,540	8,663	36,873	90,5
Other	667	810	3,611	3,611	3,611	3,6
Current Liabilities	(8,397)	(9,832)	(11,190)	(13,970)	(18,705)	(25,45
Creditors	(6,709)	(9,832)	(11,190)	(13,970)	(18,705)	(25,45
Short term borrowings `	(1,688)	0	0 (40.205)	(40.305)	(19,365)	(40.00
Long Term Liabilities	(14,080)	(19,365)	(19,365)	(19,365)		(19,36
Long term borrowings	(14.090)	(10.365)	(10.305)	(10.305)	(10.365)	(40.20
Other long term liabilities	(14,080)	(19,365)	(19,365)	(19,365)	(19,365)	(19,36
Net Assets	50,361	61,512	73,076	86,243	116,258	164,2
Minority interests	(1,504) 48,857	(3,708)	(5,882) 67,193	(8,628)	(13,296) 102,963	(20,37
Shareholder equity	40,007	57,804	07,195	77,615	102,903	143,8
CASH FLOW						
Operating Cash Flow	8,331	25,631	23,707	26,123	50,097	74,3
Net Interest	0	(194)	111	231	173	7
[ax	(1,462)	(2,466)	(3,702)	(6,121)	(10,610)	(15,89
Capex	(16,567)	(19,885)	(20,000)	(20,200)	(11,450)	(5,54
Acquisitions/disposals	0	3	0	0	0	
Term loan facility and equity	0	3,360	0	0	0	
		(0.004)	(0.044)	/0.044°	•	
ssuance	(0 =0.1)	(2) day)	(2,911)	(2,911)	0	
ssuance Dividends	(2,504)	(2,994)	(0.70-)			53,6
ssuance Dividends Net Cash Flow	(12,202)	3,455	(2,795)	(2,878)	28,210	
ssuance Dividends Net Cash Flow Opening net debt/(cash)	(12,202) (23,082)	3,455 (10,880)	(14,335)	(11,540)	(8,663)	(36,87
ssuance Dividends Net Cash Flow Opening net debt/(cash) HP finance leases initiated	(12,202) (23,082) 0	3,455 (10,880) 0	(14,335) 0	(11,540) 0	(8,663) 0	
ssuance Dividends Net Cash Flow Opening net debt/(cash)	(12,202) (23,082)	3,455 (10,880)	(14,335)	(11,540)	(8,663)	



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