

Wheaton Precious Metals

Q322 results

Results closely in line with prior expectations

Wheaton Precious Metals produced 159,852 gold equivalent ounces (GEOs) in Q322, of which it sold 138,824 GEOs, representing a positive variance of 2.8% and a negative variance of 0.7% relative to our prior estimates, respectively. Its adjusted net earnings were US\$1.4m, or 1.6%, above our prior forecast at US\$93.9m and the fourth quarterly dividend for the year was maintained at US\$0.15/share. In the wake of Q3 results we have revised our forecasts for Q422 and FY22 only very fractionally.

Year end	Revenue (US\$m)	PBT* (US\$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
12/20	1,096.2	503.2	112	42	30.0	1.3
12/21	1,201.7	592.1	132	57	25.4	1.7
12/22e	1,094.6	505.6	113	60	29.7	1.8
12/23e	1,354.2	662.8	147	62	22.9	1.8

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

A rising production profile

After producing c 663k GEOs in FY22, WPM now expects its production to increase to an average of 835k pa GEOs in the four years from FY23–26 and then to an average 850k pa GEOs in the period from FY22–31 (implying production of c 900k pa GEOs in the period FY27–31).

US\$494.6m (US\$1.09/share) in cash and rising

Wheaton had US\$492.5m (US\$1.09/share) in net cash as at end-Q322. Depending on the timing of investments relating to its newly acquired streams, and the timing of its receipt of US\$150m relating to its Yauliyacu stream sale, we estimate that it is possible that it will accumulate as much as US\$892.6m in net cash by end-FY22.

Valuation: Trending higher with production

Using a CAPM-type method to value WPM and applying a nominal discount rate of 9.0% to cash flows implies a 'terminal' valuation for WPM at end-FY26 of US\$55.35 (C\$74.87) per share assuming zero subsequent long-term growth in real cash flows and 4% inflation. Stated alternatively, we calculate that WPM's current share price of C\$45.41 discounts a long-term compound annual average growth rate in nominal cash flows per share of just 2.8% pa, which is lower than the average rate of US inflation since 1981. Otherwise, assuming no purchases of additional streams in the foreseeable future (which we think unlikely), we forecast a value per share for WPM of US\$34.11, or C\$46.13 or £30.20 in FY22, based on a 30.1x historical multiple of contemporary earnings and US\$56.43, or C\$76.34 or £49.96, in FY26. In the meantime, WPM's shares are trading on near-term financial ratios that are lower than those of its peers on at least 63% of common valuation measures regardless of whether Edison or consensus forecasts are used. If WPM's shares were instead to trade at the average level of its peers, then we calculate that its FY22 share price would be US\$36.33, or C\$49.14 or £32.16 (based on Edison forecasts).

Alternatively, if precious metals return to favour, then we believe that a near-term US\$43.63 (C\$59.02 or £38.63) per share valuation is possible.

Metals and mining

8 November 2022

Price **C\$45.41**

Market cap **C\$20,512m**

C\$1.3527/US\$, US\$1.1295/£

Cash (US\$m) at end-September 494.6
(excluding US\$2.2m in lease liabilities)

Shares in issue 451.7m

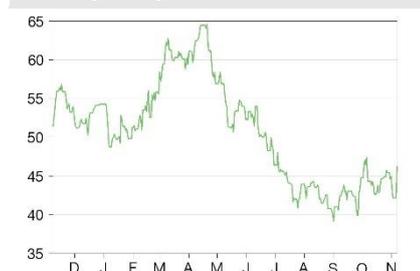
Free float 100.0%

Code WPM

Primary exchange TSX

Secondary exchanges LSE, NYSE

Share price performance



% 1m 3m 12m

Abs 4.2 5.9 (9.5)

Rel (local) (1.0) 6.3 (0.7)

52-week high/low C\$64.70 C\$39.11

Business description

Wheaton Precious Metals (WPM) is the world's pre-eminent ostensibly precious metals streaming company, with over 30 high-quality precious metals streams and early deposit agreements over mines in Mexico, Canada, Brazil, Chile, the US, Argentina, Peru, Sweden, Greece, Portugal and Colombia.

Next events

Ex-dividend date 18 November

Dividend payment date c 1 December

Q422/FY22 results March 2023

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**Wheaton Precious Metals is a
research client of Edison
Investment Research Limited**

Q322 results

Wheaton produced 159,852 GEOs in Q322, of which it sold 138,824 GEOs, representing a positive variance of 2.8% and a negative variance of 0.7% relative to our prior estimates, respectively. Notably strong performances were recorded at Zinkgruvan, Minto and Antamina for at least the second quarter in succession, while gold production at Salobo and silver production at Constancia both outperformed our expectations. In financial terms, the resulting small negative variance in revenues was more than offset by general and administrative expenses that were US\$5.9m lower than our prior expectations to result in adjusted net earnings that were US\$1.4m, or 1.6%, above our estimate. The fourth quarterly dividend for the year was maintained at US\$0.15/share. A summary of WPM's underlying financial and operating results relative to both Q222 and Edison's prior expectations is provided in the exhibit below:

Exhibit 1: WPM underlying Q322 results cf Q222 and Q322e, by quarter*

US\$000s (unless otherwise stated)	Q320	Q420	Q121	Q221	Q321	Q421	Q122	Q222	Q322e	Q322a	Chg **(%)	Variance ***(%)
Silver production (koz)	6,028	6,509	6,754	6,720	6,394	6,356	6,206	6,537	5,532	5,883	-10.0	+6.3
Gold production (oz)	91,770	93,137	77,733	90,290	85,941	88,321	79,087	68,365	72,286	73,508	7.5	+1.7
Palladium production (koz)	5,444	5,672	5,769	5,301	5,105	4,733	4,488	3,899	4,325	3,229	-17.2	-25.3
Cobalt production (klbs)			1,161	380	370.5	381	234	136	241	226	66.2	-6.2
Silver sales (koz)	4,999	4,576	6,657	5,600	5,487	5,116	5,553	5,848	4,868	5,234	-10.5	+7.5
Gold sales (oz)	90,101	86,243	75,104	90,090	67,649	79,622	77,901	84,337	67,057	62,000	-26.5	-7.5
Palladium sales (koz)	5,546	4,591	5,131	3,869	5,703	4,641	4,075	3,378	3,515	4,227	25.1	+20.3
Cobalt sales (klb)			132.3	395	131.2	228	511	225	207	115	-48.9	-44.4
Avg realised Ag price (US\$/oz)	24.69	24.72	26.12	26.69	23.80	23.36	24.19	22.27	19.24	19.16	-14.0	-0.4
Avg realised Au price (US\$/oz)	1,906	1,882	1,798	1,801	1,795	1,798	1,870	1,872	1,727	1,728	-7.7	+0.1
Avg realised Pd price (US\$/oz)	2,182	2,348	2,392	2,797	2,426	1,918	2,339	2,132	2,080	2,091	-1.9	+0.5
Avg realised Co price (US\$/lb)			22.19	19.82	23.78	28.94	34.61	34.01	23.62	22.68	-33.3	-4.0
Avg Ag cash cost (US\$/oz)	5.89	5.51	6.33	6.11	5.06	5.47	5.10	5.61	5.40	5.59	-0.4	+3.5
Avg Au cash cost (US\$/oz)	428	433	450	450	464	472	477	465	454	474	1.9	+4.4
Avg Pd cash cost (US\$/oz)	383	423	427	503	468	340	394	408	374	353	-13.5	-5.6
Avg Co cash cost (US\$/lb)			4.98	4.41	5.15	4.68	5.76	6.86	4.25	7.21	5.1	+69.6
Sales	307,268	286,213	324,119	330,393	268,957	278,197	307,244	302,922	221,664	218,836	-27.8	-1.3
Cost of sales												
Cost of sales, excluding depletion	70,119	64,524	78,783	78,445	62,529	68,190	69,994	74,943	58,923	60,955	-18.7	+3.4
Depletion	60,601	59,786	70,173	70,308	54,976	59,335	57,402	65,682	53,455	55,728	-15.2	+4.3
Total cost of sales	130,720	124,310	148,956	148,753	117,505	127,525	127,396	140,625	112,378	116,683	-17.0	+3.8
Earnings from operations	176,548	161,902	175,164	181,640	151,452	150,672	179,848	162,297	109,286	102,153	-37.1	-6.5
Expenses and other income												
- General and administrative	21,326	9,391	11,971	18,465	13,595	16,954	20,118	12,453	15,772	9,843	-21.0	-37.6
- Foreign exchange (gain)/loss	0	0	0	0	0	0	0	0	0	0	N/A	N/A
- Interest paid	2,766	2,196	1,573	1,357	1,379	1,508	1,422	1,389	1,357	1,398	0.6	+3.0
- Other (income)/expense	391	850	420	136	(684)	(58)	229	(974)	(527)	(3,003)	208.3	+469.8
Total expenses and other income	24,483	12,437	13,964	19,958	14,290	18,404	21,769	12,868	16,602	8,238	-36.0	-50.4
Earnings before income taxes	152,065	149,465	161,199	161,682	137,162	132,268	158,079	149,429	92,684	93,915	-37.2	+1.3
Income tax expense/(recovery)	58	24	67	56	75	36	72	144	250	37	-74.3	-85.2
Marginal tax rate (%)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.3	0.0	-100.0	-100.0
Net earnings	152,007	149,441	161,132	161,626	137,087	132,232	158,007	149,285	92,434	93,878	-37.1	+1.6
Average no. shares in issue (000s)	449,125	449,320	449,509	450,088	450,326	450,614	450,915	451,524	451,524	451,757	0.1	+0.1
Adjusted basic EPS (US\$)	0.338	0.333	0.358	0.359	0.304	0.293	0.350	0.331	0.205	0.208	-37.2	+1.5
Adjusted diluted EPS (US\$)	0.336	0.331	0.358	0.358	0.303	0.293	0.350	0.330	0.199	0.208	-37.0	+4.5
DPS (US\$)	0.10	0.12	0.13	0.14	0.15	0.15	0.15	0.15	0.15	0.15	0.0	0.0

Source: WPM, Edison Investment Research. Note: *As reported by WPM, excluding exceptional items. **Q322 versus Q222. ***Q322 actual versus Q322 estimate.

From an operational perspective, Sudbury's operator, Vale, reported that the first phase of the Copper Cliff Complex South Mine Project was opened, including the development of more than 12km of tunnels to reunite the south and north shafts of the mine, which is expected to nearly double ore production at the Copper Cliff Mine (which has historically represented approximately 20% of production attributable to Wheaton from Sudbury). At the same time, production of gold and palladium at Sibanye-Stillwater's Stillwater mine was adversely affected by floods for the second quarter in succession, which resulted in it being suspended for seven weeks until 29 July (although access to the East Boulder mine and the Columbus metallurgical facility was maintained and both facilities continued to operate throughout the flooding). Meanwhile, production of cobalt at Voisey's Bay was down 39% relative to Q321, owing to lower grades during the transition from the depleted Ovoid open-pit mine and the ramp-up to full production of the Voisey's Bay underground mine. However, relative to Q222 production was up 77.2%. As per Vale's Q322 Performance Report, physical completion of the Voisey's Bay underground mine extension is now 78% (cf 74% at the end of Q222), with production from the Eastern Deeps anticipated to start in the near future.

Production at WPM's flagship asset, Salobo in Brazil (also operated by Vale), increased by 29.5% relative to Q222 (cf a 17.2% increase in copper production) as it ramped up after planned and corrective maintenance to the plant's mill liners (which was the subject of our note, [Incorporating Salobo Q222 operating results](#), published on 27 July). However, sales lagged the recovery in production, with the result that Salobo sold 12,394 (or 28.0%) fewer ounces than it produced during the quarter. In the meantime, according to Vale's most recent performance report, physical completion of the Salobo III mine expansion was 98% at end-Q322, with the commissioning of the primary crushing circuit, hot commissioning of the conveyor system and the start of wet commissioning of the flotation circuit. The degree of advancement of the project over successive quarters is shown in the table below:

Exhibit 2: Physical completion of Salobo III, by quarter, Q219–Q322

	Q219	Q319	Q419	Q120	Q220	Q320	Q420	Q121	Q221	Q321	Q421	Q122	Q222	Q322
Physical completion (%)	15	27	40	47	54	62	68	73	77	81	85	90	95	98
Implied quarterly completion (%)	8	12	13	7	7	8	6	5	4	4	4	5	5	3

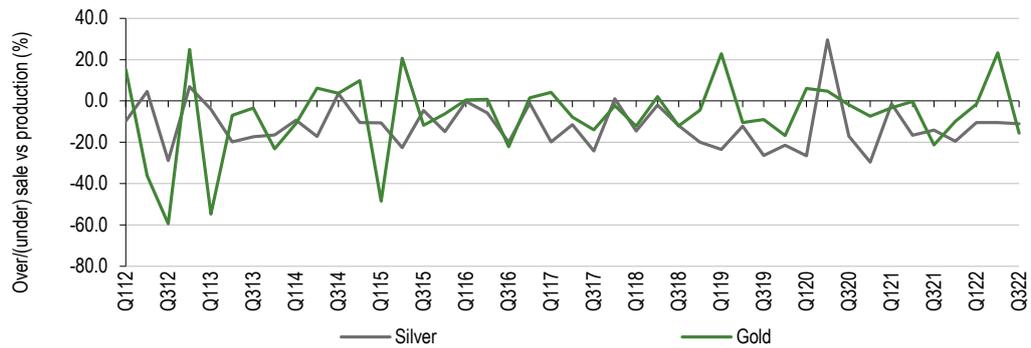
Source: Vale, Edison Investment Research

As such, Salobo III is expected to be fully commissioned in the near future followed by a 15-month ramp-up to full capacity.

Ounces produced but not yet delivered

At 11.0% the degree of under-sale of silver during the quarter, relative to production, was in line with the long-run average of 11.9% since Q112 and closely in line with the previous two quarters. By contrast, the 15.7% under-sale of gold relative to production was noticeably above the long-run average of 6.5% (albeit all of the under-sale could be attributable to Salobo).

Exhibit 3: Over/(under) sale of silver and gold as a percentage of production, Q112–Q322



Source: Edison Investment Research, WPM. Note: As reported.

Gold and silver ounces produced but not yet delivered as at 30 September amounted to 67,247oz and 3.6Moz respectively (cf 59,331oz and 3.7Moz at end-Q222). At the period end, we estimate that ounces produced but not yet delivered equated to 2.63 months and 1.77 months of gold and silver production for FY22, respectively (cf 2.34 months and 1.86 months as at end-Q222) and compare with WPM's target of two to three months of gold and palladium production and two months of silver production.

Exhibit 4: WPM ounces produced but not yet delivered, Q316–Q322 (months of production)



Source: Edison Investment Research, WPM. Note: As reported.

General and administrative expenses

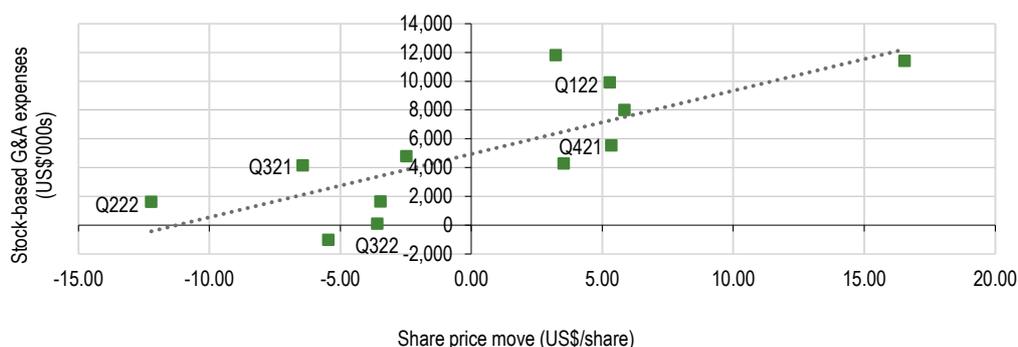
At the time of its Q122 results, WPM provided guidance for non-stock general and administrative (G&A) expenses of US\$47–49m or US\$11.75–12.25m per quarter (cf US\$42–44m or US\$10.5–11.0m per quarter for FY21 and US\$40–43m in FY20), including all employee-related expenses, charitable contributions, etc, but excluding performance share units (PSU) and equity settled stock-based compensation. In the event, at US\$9.8m, non-stock G&A expenses in Q322 were 16.9% below the bottom of the range implied by guidance and below guidance for the seventh quarter in succession.

Exhibit 5: WPM general and administrative expenses, Q320–Q322 (US\$000s)

Item	Q320	Q420	FY20	Q121	Q221	Q321	Q421	FY21	Q122	Q222	Q322
G&A salaries excluding PSU* and equity settled stock-based compensation	4,037	4,466	16,733	4,709	4,634	4,283	4,618	18,244	5,345	5,061	4,629
Other (inc. depreciation, donations and professional fees)	5,488	5,957	22,013	5,632	5,852	5,173	6,818	23,475	4,871	5,784	5,137
Non-stock based G&A	9,525	10,423	38,746	10,341	10,486	9,456	11,436	41,719	10,216	10,845	9,766
Guidance	10,000–10,750	10,000–10,750	40,000–43,000	10,500–11,250	10,500–11,250	10,500–11,250	11,717–13,717	42,000–44,000	11,750–12,250	11,750–12,250	11,750–12,250
PSU* accrual	10,482	(2,336)	21,520	305	6,672	2,824	4,203	14,004	8,560	110	(1,491)
Equity settled stock-based compensation	1,319	1,305	5,432	1,325	1,307	1,315	1,315	5,262	1,342	1,498	1,568
Stock-based G&A	11,801	(1,031)	26,952	1,630	7,979	4,139	5,518	19,266	9,902	1,608	77
Total general & administrative	21,326	9,392	65,698	11,971	18,465	13,595	16,954	60,985	20,118	12,453	9,843
Total/Non-stock based G&A (%)	+123.9	-9.9	+69.6	+15.8	+76.1	+43.6	+48.3	+46.2	+96.9	+14.8	+0.8

Source: WPM, Edison Investment Research. Note: *Performance share units.

Given the performance of WPM's shares during the quarter, stock-based G&A expenses in Q322 were approximately US\$3.7m below our prior estimate for the quarter (as shown in Exhibit 6, below):

Exhibit 6: Graph of historical share price move (US\$/share) versus quarterly stock-based G&A expenses, Q419–Q222


Source: Edison Investment Research (underlying data: Bloomberg and Wheaton Precious Metals)

The analysis of stock-based G&A expenses over the past 12 quarters relative to the change in WPM's share price (also in US dollars) continues to exhibit a relatively close Pearson product-moment (correlation) coefficient between the two of 0.78, which remains statistically significant at the 5% level for a directional hypothesis (ie there is less than a 5% probability that this relationship occurred by random chance) and this therefore continues to form the basis of our quarterly and full-year forecasts for G&A expenses in Exhibit 8.

FY22 and five-year and 10-year guidance

In the light of Q322 results (as well as the Keno Hill and Yauliyacu stream sales), Edison's short-, medium- and long-term production forecasts relative to Wheaton's official guidance are now as follows (including the Marathon, Curipamba and Goose streams, but not yet the Fenix stream):

Exhibit 7: WPM precious metals production – Edison forecasts of guidance

	FY22e	Implied *FY23–26 average	FY22–31 average
Prior Edison forecast			
Silver production (Moz)	23.8		
Gold production (koz)	305.1		
Cobalt production (klb)	958		
Palladium production (koz)	17.5		
Gold equivalent (koz)	669.3	854	853
Current Edison forecast			
Silver production (Moz)	24.0		
Gold production (koz)	306.4		
Cobalt production (klb)	943		
Palladium production (koz)	16.4		
Gold equivalent (koz)	663.0	824	825
WPM updated guidance			
Silver production (Moz)	22.5–24.0		
Gold production (koz)	300–320		
Cobalt & palladium production (koz AuE)	35–40		
Gold equivalent (koz)	640–680	835	850
WPM prior guidance			
Silver production (Moz)	22.5–24.0		
Gold production (koz)	300–320		
Cobalt & palladium production (koz AuE)	35–40		
Gold equivalent (koz)	640–680	860	870

Source: WPM, Edison Investment Research forecasts. Note: *Edison forecasts include Salobo III from FY23e, Rosemont/Copper World from FY27e and Antamina extension from FY28.

WPM's updated five-year and 10-year guidance is based on standardised pricing assumptions of US\$1,800/oz gold, US\$24.00/oz silver, US\$2,100/oz palladium and US\$33.00/lb cobalt. Of note in this context is an implied gold/silver ratio of 75x, which compares with its current ratio of 81.0x and a long-term average of 61.5x (since gold was demonetised in August 1971). Self-evidently, at the standardised prices indicated, our gold equivalent production forecast of 663.0koz gold equivalent (AuE) for FY22e lies well within WPM's guidance range of 640–680koz AuE.

Otherwise, readers will note that Edison's medium-term production forecasts are within 1.5% of WPM's (implied) guidance for the period FY23–26 and within 3.0% of its longer-term guidance for FY22–31 (albeit this estimate necessarily excludes potential future stream acquisitions).

Short-term organic growth opportunities

In the short term, First Majestic is in the process of increasing production at San Dimas by restarting mining operations at the past-producing Tayoltita mine to add another 300tpd (12%) to throughput. In addition, it is investigating installing a 3,000tpd high-intensity grinding mill circuit and an autogenous grinding mill to improve recoveries and reduce operating costs. Production of palladium and gold at Stillwater (operated by Sibanye-Stillwater) will increase under the influence of the Fill-the-Mill project at East Boulder (although the Blitz project has now been delayed by two years, to 2024, following the suspension of growth capital activities owing to COVID-19). Similarly, the Voisey's Bay underground project is in the process of ramping up to full production.

Medium-term growth opportunities

In the medium term, Wheaton has four projects that are progressing on their route to production:

- Sabina Gold & Silver Corp has announced a formal construction decision for the Goose project and noted that it will be in a position to commence full construction in early 2023 with first production expected in 2025.
- Artemis Gold announced the commencement of site preparation work at the plant site at its Blackwater project including site clearing, bulk earthworks and sediment/erosion control. Artemis believes the Blackwater plant site will start major construction works in Q123.

- Generation Mining has delivered the environmental assessment report for its Marathon project to federal and provincial ministers and announced the purchasing of an unused, surplus SAG mill and ball mill ahead of the start of construction late in Q123.
- Adventus Mining announced an Investment Protection Agreement commitment declaration by the government of Ecuador indicating a significant milestone in the development of the Curipamba Project. In this context, the company is planning for the start of formal construction of the project in Q223.

Longer-term outlook

Salobo

On 24 October 2018, Vale announced the approval of the Salobo III brownfields mine expansion, intended to increase processing capacity at Salobo from 24Mtpa to 36Mtpa, with start-up at that point scheduled for H222 and an estimated ramp-up time of 15 months. According to its agreement with Vale, depending on the grade of the material processed, WPM will be required to make a payment to Vale for this expansion, which WPM estimates will be in the range US\$550–670m in FY23, in return for which it will be entitled to its full 75% attributable share of expanded gold production. Note, however, that the timing of this payment is dependent upon Salobo III successfully navigating a 90-day completion test, based largely on throughput, the start of which is at Vale's discretion. The payment also compares to WPM's purchase of a 25% stream from Salobo in August 2016 for a consideration of US\$800m (see our note [Going for gold](#), published on 30 August 2016), the US\$900m it paid for a similar stream in March 2015 (when the gold price averaged US\$1,179/oz) and the US\$1.33bn it paid for its original 25% stream in February 2013.

According to Vale's Q222 performance report, the Salobo III mine expansion is now 98% complete (see Exhibit 2) with start-up now imminent. Once Salobo III has been completed, however, WPM believes reserves and resources could support a further 33% capacity increase at Salobo, from 90ktpd to 120ktpd (denoted Salobo IV). In addition to its long-term underground potential, WPM believes such an expansion could nevertheless still be supported by open-pit mining alone. Under the terms of its agreement with Vale, there would be no additional payment due from WPM in respect of the Salobo IV expansion, although Vale could exercise a right to alter the timing of the incremental payment due for Salobo III.

Rosemont/Copper World

Another major project with which WPM has a streaming agreement for attributable gold and silver production is Rosemont in Arizona (now part of the wider Copper World complex).

Rosemont/Copper World is near a number of large porphyry-type producing copper mines and will be one of the largest copper mines in the United States, with initial output of c 86,000t copper per year from mined sources, accounting for c 8% of total US copper production, rising to c 101,000tpa after 16 years. Total by-product production of silver attributable to WPM is estimated to be c 1.7Moz Ag pa for Phase I, followed by c 2.4Moz Ag pa for Phase II.

Rosemont/Copper World's operator, Hudbay, received both a Mine Plan of Operations from the US Forest Service and a Section 404 Water Permit from the US Army Corps of Engineers in March 2019, which was effectively the final material administrative step before the Rosemont mine could start development. Subsequently, Hudbay indicated it would seek board approval to start construction work by the end of CY19, which would have enabled first production 'by the end of 2022'. In the meantime, it started early works to run concurrently with financing activities (including a potential joint venture partner).

A legal challenge, lunched in July 2019, has since stalled the project. In the meantime, however, Hudbay has continued to explore in and around the area of the mine and, on 22 September 2021,

announced the intersection of additional high-grade copper sulphide and oxide mineralisation predominantly located on its wholly owned patented mining claims (denoted Copper World). To date, seven deposits have been identified at Copper World with a combined strike length of over 7km and, on 15 December 2021, Hudbay announced a maiden mineral resource at Copper World of 272Mt in the indicated category and 142Mt in the inferred category, both at an average grade of 0.36% copper. The mineralisation consists of both skarn and porphyry copper sulphides with a significant oxidised component along a regional fault along the west side of the Rosemont, Bolsa and Broad Top Butte deposits known as the Backbone Fault. As a consequence of this exploration, it was determined that approximately 33Mt of inferred mineral resources at the Bolsa deposit, which were previously considered to be waste in the resource pit shell used for Rosemont's NI 43-101 feasibility study, could now potentially be converted into reserves, which would result in less waste being mined at Rosemont, thereby reducing costs and energy consumption per tonne of ore mined. In addition, the Rosemont deposit also contains oxide mineralisation that was previously classified as waste, which could be processed with the oxide mineralisation at Copper World, and it is expected that further synergies will be identified as Hudbay explores the gap between Bolsa and Rosemont. Note, the Copper World discovery is included in WPM's area of interest under its precious metals purchase agreement (PMPA) with Hudbay.

As a result of these discoveries, Hudbay has adjusted its plan to develop the district. Among other things, it has now acquired a private land package totalling approximately 4,500 acres to support an operation on private lands. The initial technical studies for Copper World were incorporated into a preliminary economic assessment (PEA) investigating the development of the Copper World deposits in conjunction with an alternative plan for the Rosemont deposit, which was announced to the market on 8 June, and proposed a two-phase mine development plan. The first phase of the mine plan requires only state and local permits and reflects an approximate 16-year mine life. The second phase then extends the mine life to 44 years and incorporates an expansion onto federal lands to mine the entire Rosemont and Copper World deposits. The second phase of the mine plan would be subject to the federal permitting process and the company expects that it will be able to pursue the federal permits within the constraints imposed by the courts' most recent legal decisions if any subsequent appeals are not successful.

Within this context, on 24 May, Hudbay received a favourable decision from the US District Court for the District of Arizona on all issues relating to the development of Copper World, including that Copper World and Rosemont are not connected under the National Environmental Policy Act (NEPA) and, therefore, that the Army Corps of Engineers (ACOE) does not have an obligation to include Copper World as part of its NEPA review of Rosemont. The District Court also granted Hudbay's motion to dismiss the Copper World preliminary injunction request filed by the plaintiffs in the two lawsuits challenging the Section 404 Clean Water Act permit for Rosemont on the basis that the lawsuits were moot after the company surrendered its 404 permit back to the ACOE in April 2022. The ACOE has never determined that there are jurisdictional waters of the United States on the Copper World site and Hudbay has independently concluded through its own scientific analysis that there are no such waters in the area. In this respect, Hudbay believes the District Court's decision, together with the 12 May decision, clarifies the permitting path for Copper World, including the requirements to receive federal permits for the second phase only (ie years 16 to 44 of the project) under existing mining regulations.

Resources were reported to have expanded materially to 792Mt in the measured category, 381Mt in the indicated category and 262Mt in the inferred category at the time of Hudbay's PEA at an average grade of 0.40% copper. In April 2022, the company commenced early works at Copper World with initial grading and clearing activities at site. It expects to advance a pre-feasibility study for Phase I of the Copper World project by the end of this year, which will focus on converting the remaining inferred mineral resources to measured and indicated status and the evaluation of many of the project's optimisation and upside opportunities. It will then complete a definitive feasibility

study as well as receiving all required state and local permits during 2023, while simultaneously evaluating a variety of financing options, including a potential minority joint venture partner, prior to project sanction potentially as early as 2024. As a consequence, Edison is now forecasting production from Rosemont/Copper World attributable to WPM in FY27 (cf FY26 previously). However, readers should note that any acceleration in the process of being granted federal permits could allow Hudbay earlier access to higher-grade areas of the orebody, especially at Rosemont. In the meantime, it is continuing exploration and technical work at site with seven drill rigs conducting infill drilling to support its feasibility studies.

Antamina

In April, Antamina announced a US\$1.6bn investment that will lengthen the mine's useful life from 2028 to 2036. Currently, the mine is carrying out a third and final 'public participation' with residents of the northern Andean region of Ancash, where the mine is located, and is awaiting a response from the local authority, Senace, regarding the company's request to modify its environmental impact assessment to allow the mine to extend its operating life by eight years. Production and the mine's operational footprint would remain the same. The mine, which is co-owned by Glencore, BHP, Teck and Mitsubishi Corp and which is Peru's largest, and the world's second-largest, copper mine, anticipates being granted approval for the extension from the country's environmental authority either later this, or early next, year.

Pascua-Lama

WPM's contract with Barrick provided for a completion test that, if unfulfilled by 30 June 2020, would result in WPM being entitled to the return of its upfront cash consideration of US\$625m less a credit for any silver delivered up to that date from three other Barrick mines (at which point it would have no further streaming interest in the mine). Given the test was unfulfilled, WPM had the right to an estimated US\$252.3m (the carrying value of Pascua-Lama in WPM's accounts) repayment from Barrick in FY20. Given the long-term optionality provided by the Pascua-Lama project, however, WPM instead opted not to enforce the repayment of its entitlement and to instead maintain its streaming interest in the project (which was originally expected to deliver an attributable 1.7–12.0Moz silver pa, averaging 5.2Moz Ag pa, to WPM at a cost of US\$3.90/oz inflating at 1% per year). A Chilean court ordered Pascua-Lama to close in 2020, but Barrick has raised the possibility that the orebody could be developed in a different manner, with an investment decision anticipated in 2024.

Other potential future growth opportunities

In general, WPM expects to be conducting due diligence processes on approximately 10–12 projects at any one time, which it expects to narrow to three to four target projects over the course of c 12 months. Most of the opportunities currently being evaluated by WPM are reported to be the precious metal by-product streams of base metal mines, although there are also reported to be some high-margin, purely precious metals mines included as well. In the first instance, WPM would fund any such transactions via the US\$2bn available under its revolving credit facility, plus the US\$494.6m in cash that it has on its balance sheet (at end-Q322) and, potentially, its US\$300m at-the-market equity programme.

While it is difficult, or impossible, to predict potential future stream acquisition targets with any degree of certainty, it is possible to highlight two that may be of interest to WPM in due course for which it already has strong, existing counterparty relationships:

- the platinum group metal by-product stream at Sudbury (operated by Vale); and
- the 30% of the gold output at Constancia that is not currently subject to any streaming arrangement.

FY22 guidance and forecasts

In the light of WPM's Q322 results, and recent moves in metals prices, forex rates and WPM's share price, Edison has updated its quarterly estimates for WPM for FY22 as follows:

Exhibit 8: WPM FY22 forecast, by quarter*

US\$000s (unless otherwise stated)	Q122	Q222	Q322	Q422e (prior)	Q422e	FY22e (current)	FY22e (prior)
Silver production (koz)	6,206	6,537	5,883	5,532	5,392	24,018	23,806
Gold production (oz)	79,087	68,365	73,508	85,393	85,393	306,353	305,131
Palladium production (koz)	4,488	3,899	3,229	4,750	4,750	16,366	17,462
Cobalt production (klb)	234	136	226	347	347	943	958
Silver sales (koz)	5,553	5,848	5,234	5,392	5,252	21,887	21,661
Gold sales (oz)	77,901	84,337	62,000	85,361	85,361	309,599	314,656
Palladium sales (oz)	4,075	3,378	4,227	4,731	4,731	16,411	15,699
Cobalt sales (klb)	511	225	115	347	347	1,198	1,289
Avg realised Ag price (US\$/oz)	24.19	22.27	19.16	19.63	20.19	21.51	21.42
Avg realised Au price (US\$/oz)	1,870	1,872	1,728	1,659	1,668	1,786	1,783
Avg realised Pd price (US\$/oz)	2,339	2,132	2,091	2,045	1,922	2,112	2,148
Avg realised Co price (US\$/lb)	34.61	34.01	22.68	23.36	23.36	30.10	29.73
Avg Ag cash cost (US\$/oz)	5.10	5.61	5.59	5.46	5.45	5.44	5.39
Avg Au cash cost (US\$/oz)	477	465	474	446	446	464	460
Avg Pd cash cost (US\$/oz)	394	408	353	368	300	372	385
Avg Co cash cost (US\$/lb)	5.76	6.86	7.21	4.20	4.20	5.66	5.29
Sales	307,244	302,922	218,836	265,220	265,582	1,094,584	1,097,050
Cost of sales							
Cost of sales, excluding depletion	69,994	74,943	60,955	70,699	69,801	275,692	274,558
Depletion	57,402	65,682	55,728	66,953	69,095	247,907	243,492
Total cost of sales	127,396	140,625	116,683	137,652	138,895	523,598	518,050
Earnings from operations	179,848	162,297	102,153	127,568	126,686	570,985	579,000
Expenses and other income							
– General and administrative**	20,118	12,453	9,843	17,255	17,438	59,852	65,598
– Foreign exchange (gain)/loss			0			0	0
– Net interest paid/(received)	1,422	1,389	1,398	1,357	1,357	5,566	5,525
– Other (income)/expense	229	-974	(3,003)	-547	(2,069)	-5,817	-1,819
Total expenses and other income	21,769	12,868	8,238	18,064	16,726	59,601	69,304
Earnings before income taxes	158,079	149,429	93,915	109,504	109,960	511,384	509,697
Income tax expense/(recovery)	72	144	37	250	250	503	716
Marginal tax rate (%)	0.0	0.1	0.0	0.2	0.2	0.1	0.1
Net earnings	158,007	149,285	93,878	109,254	109,710	510,881	508,981
Average no. shares in issue (000s)	450,915	451,524	451,757	451,524	451,757	451,488	451,372
Basic EPS (US\$)	0.350	0.331	0.208	0.242	0.243	1.13	1.13
Diluted EPS (US\$)	0.350	0.330	0.208	0.235	0.243	1.10	1.10
DPS (US\$)	0.15	0.15	0.15	0.15	0.15	0.60	0.60

Source: WPM accounts, Edison Investment Research. Note: *Excluding impairments, impairment reversals and exceptional items.

**Forecasts now include stock-based compensation costs. Totals may not add up owing to rounding.

Our basic EPS forecast of US\$1.13/share for FY22 is 4.2% below the consensus forecast of US\$1.18/share (source: Refinitiv, 4 November 2022). In this context, it is worth noting that our gold and silver price forecasts for the remainder of the year are now US\$1,671/oz and US\$20.62/oz, respectively, which are those prevailing at the time of writing (cf US\$1,653/oz and US\$19.87/oz previously).

Exhibit 9: WPM FY22 consensus EPS forecasts (US\$/share), by quarter

	Q122	Q222	Q322	Q422e	Sum Q1–Q422e	FY22e
Edison forecasts	0.350	0.331	0.208	0.243	1.132	1.13
Mean consensus	0.350	0.331	0.208	0.280	1.169	1.18
High consensus	0.350	0.331	0.208	0.360	1.249	1.47
Low consensus	0.350	0.331	0.208	0.220	1.109	1.07

Source: Refinitiv, Edison Investment Research. Note: As at 4 November 2022.

We note that our EPS forecast of US\$1.47/share for FY23 is based upon expected gold and silver prices of US\$1,749/oz and US\$24.55/oz, respectively. In the event of precious metals prices remaining at current levels for the whole of FY23, then we estimate that this figure would instead moderate to approximately US\$1.19/share.

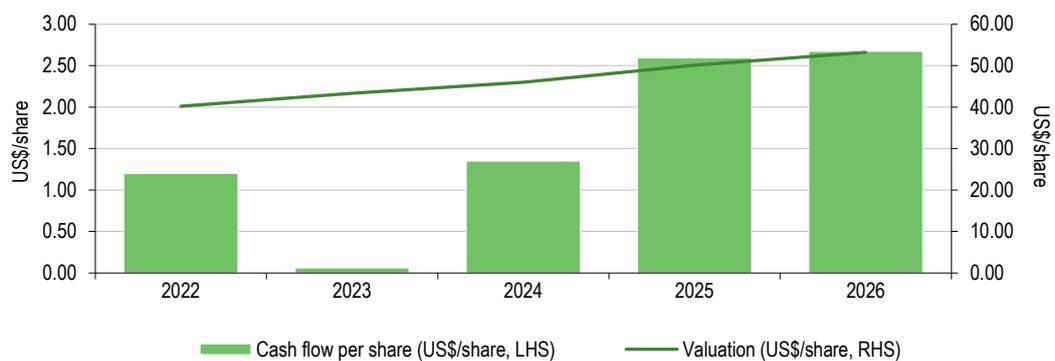
Valuation

Absolute

WPM is a multi-asset company that has shown a willingness and desire to buy streams in the past to maintain production and maximise shareholder returns. As a result, rather than our customary method of discounting maximum potential dividends over the life of operations back to FY22, in the case of WPM (as with Newmont and Endeavour), we discount forecast cash flows back over five years from the start of FY22 and then apply an ex-growth terminal multiple to forecast cash flows in that year (ie FY26) based on an appropriate discount rate.

In this case, in the wake of Q322 results, our estimate of WPM's 'terminal' pre-financing cash flow in FY26 is ostensibly unchanged at US\$2.67/share, as shown below:

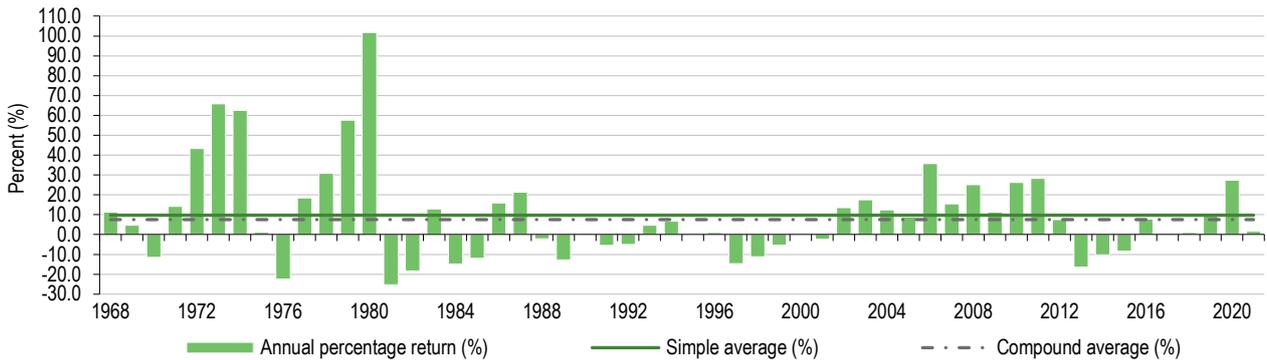
Exhibit 10: WPM cash flow per share and related valuation (US\$/share), FY22–26



Source: Edison Investment Research. Note: Valuation line assumes ex-growth cash flow per share growth rate of 4.0% pa post-FY26 in nominal terms, which equals the average US rate of CPI inflation since 1972 (ie 0% per annum growth in real terms).

Assuming 4% growth in nominal cash flows beyond FY26 (ie 0% growth in real cash flows) and applying a discount rate of 9.0% (being the expected long-term required nominal equity return), our terminal valuation of the company at end-FY26 is US\$55.35/share, which, when discounted back to FY22 in combination with intervening cash flows, results in a valuation at the start of FY22 of US\$40.24/share, or C\$54.43/share (cf US\$40.20/share previously). However, this valuation is inherently conservative in that it is based on the assumption of zero growth in (real) cash flows beyond FY26. This is inconsistent with the gold price, which has risen at a compound average annual growth rate of 7.6% per annum since 1968 and at a simple average annual growth rate of 9.7% per annum (as depicted below).

Exhibit 11: Gold price annual performance, 1968–2021

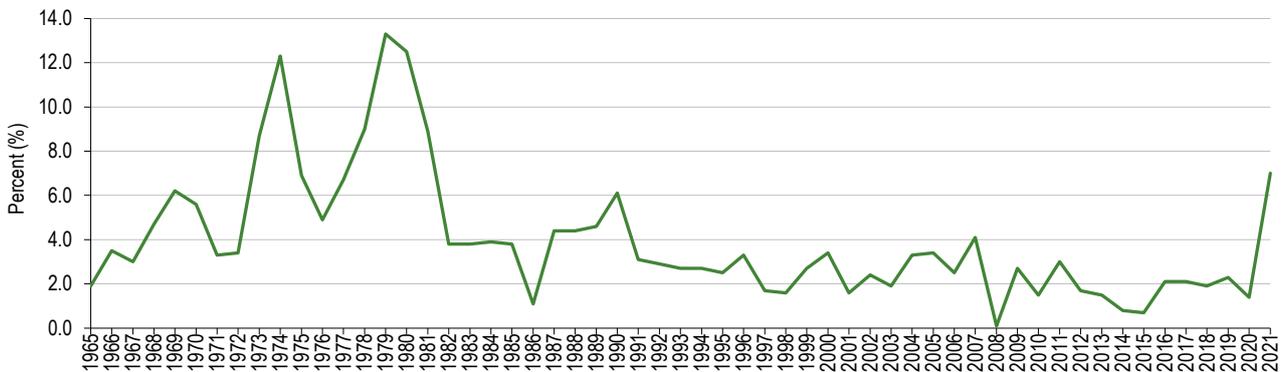


Source: Edison Investment Research (underlying data: US Bureau of Labor Statistics, Bloomberg, kitco.com, South African Chamber of Mines).

It is also inconsistent with WPM's longer-term historical performance, wherein operational cash flows have increased at a compound average annual growth rate of 23.2% pa for the 16 years between FY05 and FY21, while its operational cash flows per share have increased at compound average annual growth rate of 15.8% pa.

Stated alternatively, we can say that WPM's current share price of C\$45.41 discounts a long-term compound annual average growth rate in cash flows per share of 2.8%, which is less than the compound average annual increase in US consumer prices from 1981 to the end of 2021.

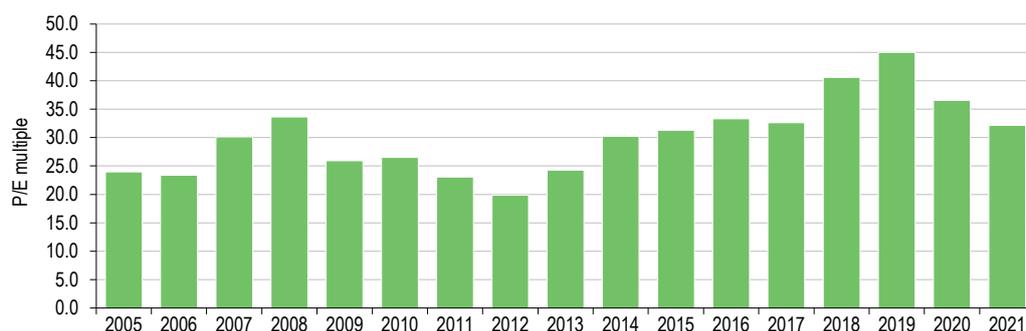
Exhibit 12: US consumer price inflation, 1965–2021 (%)



Source: US Bureau of Labor Statistics

Historical

Excluding FY04 (part-year), WPM's shares have historically traded on an average P/E multiple of 30.1x current year basic underlying EPS, excluding impairments (cf 29.7x Edison or 25.8x Refinitiv consensus FY22e – see Exhibit 14).

Exhibit 13: WPM's historical current year P/E multiples, 2005–21


Source: Average share price data Bloomberg, Edison Investment Research calculations

Applying this 30.1x multiple to our (unchanged) EPS forecast of US\$1.88 in FY26 implies a potential value per share for WPM of US\$56.43 or C\$76.34 in that year. However, the graph above suggests that the investing environment post-2017 has been able to support an enhanced WPM multiple relative to earlier years. We would ascribe this observation to macro-economic uncertainty and loose monetary policy combining to create a supportive environment for precious metals prices. As such, we believe that a multiple of 38.6x (the average of FY18–21) may still be supported in the event of a return to favour of precious metals and precious metals stocks. In this case, applying a 38.6x earnings multiple to our unchanged EPS forecast of US\$1.47 in FY23 implies a potential value per share for WPM in that year of US\$43.63 or C\$59.02.

Relative

In the meantime, from a relative perspective, it is notable that WPM is cheaper than its peers on 63% (23 out of 36) of the valuation measures observed in Exhibit 14 if Edison estimates are used or 63% (23 out of 36) of the same valuation measures if consensus forecasts are used.

Exhibit 14: WPM comparative valuation versus a sample of operating and royalty/streaming companies

	P/E (x)			Yield (%)			P/CF (x)		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Royalty companies									
Franco-Nevada	31.8	32.7	31.7	1.1	1.1	1.1	22.8	22.4	22.4
Royal Gold	25.6	22.7	22.3	1.6	1.7	1.7	14.1	12.3	12.1
Sandstorm Gold	23.4	36.0	31.8	1.3	0.0	0.0	10.6	11.9	11.5
Osisko	39.6	29.2	23.9	1.2	1.5	1.5	19.0	14.3	13.7
Average	30.1	30.2	27.4	1.3	1.1	1.1	16.6	15.2	14.9
WPM (Edison forecasts)	29.7	22.9	22.7	1.8	1.8	2.0	19.3	15.6	15.0
WPM (consensus)	25.8	25.4	24.6	2.2	2.0	2.2	18.5	17.2	16.4
Implied WPM share price (US\$)*	34.03	44.20	40.49	45.95	57.39	60.79	29.01	32.77	33.30

Source: Refinitiv, Edison Investment Research. Note: Peers priced on 4 November 2022. *Derived using Edison forecasts and average consensus multiples.

Financials: US\$492.5m (US\$1.09/share) in net cash

At 30 September, WPM had US\$494.6m in cash on its balance sheet and no debt outstanding under its US\$2bn revolving credit facility. As such (including a modest US\$2.2m in leases), it had US\$492.5m in net cash overall after generating US\$154.5m in operating cash flow during the quarter, consuming US\$47.5m in investing activities and paying out US\$59.5m in dividends.

Exhibit 15: WPM cash, net cash and operating cash flow, by quarter, Q420–Q322

(US\$m)	Q420	Q121	Q221	Q321	Q421	Q122	Q222	Q322
Cash/(debt)	192.7	191.2	235.4	372.5	226.0	376.2	448.6	494.6
Net cash/(debt)	6.0	187.7	232.1	369.4	223.2	373.5	446.2	492.5
Operating cash flow	208.0	232.2	216.3	201.3	195.3	210.5	206.4	154.5

Source: Wheaton Precious Metals

In FY22 we estimate that WPM will generate US\$787.2m from operating activities, before consuming US\$379.5m in investing activities and paying out up to US\$270.9m in forecast dividends to leave the company with net cash of US\$494.9m on its balance sheet as at end-FY22. However, investors should note that the timing of disbursements relating to the Santo Domingo, Blackwater, Goose, Curipamba and Marathon streams is uncertain and only US\$131.8m has been invested in the year to date (cf US\$379.5m forecast) and that the timing of receipts is also uncertain, with Wheaton having the potential to receive payment of US\$150m relating to its sale of the Yauliyacu stream similarly before the end of the year. In as much as receipts are received early and investments are delayed therefore, we calculate that it is possible that Wheaton could accumulate as much as US\$892.6m in net cash on its balance sheet by the year's end.

Subject to the same caveats relating to timing, in FY23, we forecast that Wheaton will generate US\$973.5m from operating activities, before consuming US\$945.7m in investing activities, including significant instalments relating to Salobo III (although readers should note that the timing of this payment is dependent on a successful completion test and could therefore easily slip into FY24), Rosemont/Copper World and also Kutcho and, potentially, Fenix. On this basis, we estimate that WPM will end FY23 with net cash on its balance sheet of US\$244.6m (after US\$278.1m in dividend payments), before reverting to its upward trend once more thereafter.

Exhibit 16: Financial summary

	\$000s	2020	2021	2022e	2023e	2024e
Year end 31 December		IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS						
Revenue		1,096,224	1,201,665	1,094,584	1,354,192	1,390,239
Cost of Sales		(266,763)	(287,947)	(275,692)	(323,402)	(320,285)
Gross Profit		829,461	913,718	818,892	1,030,790	1,069,954
EBITDA		763,763	852,733	759,040	970,938	1,010,102
Operating profit (before amort. and excepts.)		519,874	597,940	511,133	661,938	667,385
Intangible Amortisation		0	0	0	0	0
Exceptionals		4,469	162,806	103,333	0	0
Other		387	190	5,817	0	0
Operating Profit		524,730	760,936	620,283	661,938	667,385
Net Interest		(16,715)	(5,817)	(5,566)	891	440
Profit Before Tax (norm)		503,159	592,123	505,567	662,828	667,826
Profit Before Tax (FRS 3)		508,015	755,119	614,717	662,828	667,826
Tax		(211)	(234)	(503)	(1,000)	(1,000)
Profit After Tax (norm)		503,335	592,079	510,881	661,828	666,826
Profit After Tax (FRS 3)		507,804	754,885	614,214	661,828	666,826
Average Number of Shares Outstanding (m)		448.7	450.1	451.5	451.8	451.8
EPS - normalised (c)		112	132	113	147	148
EPS - normalised and fully diluted (c)		112	131	110	143	144
EPS - (IFRS) (c)		113	168	136	147	148
Dividend per share (c)		42	57	60	62	66
Gross Margin (%)		75.7	76.0	74.8	76.1	77.0
EBITDA Margin (%)		69.7	71.0	69.3	71.7	72.7
Operating Margin (before GW and except.) (%)		47.4	49.8	46.7	48.9	48.0
BALANCE SHEET						
Fixed Assets		5,755,441	6,046,427	6,043,054	6,679,730	6,736,726
Intangible Assets		5,521,632	5,940,538	5,937,165	6,573,841	6,630,837
Tangible Assets		33,931	44,412	44,412	44,412	44,412
Investments		199,878	61,477	61,477	61,477	61,477
Current Assets		201,831	249,724	506,342	258,126	567,621
Stocks		3,265	12,102	2,575	3,186	3,271
Debtors		5,883	11,577	5,998	7,420	7,618
Cash		192,683	226,045	497,768	247,519	556,732
Other		0	0	0	0	0
Current Liabilities		(31,169)	(29,691)	(42,948)	(47,653)	(47,346)
Creditors		(30,396)	(28,878)	(42,135)	(46,840)	(46,533)
Short term borrowings		(773)	(813)	(813)	(813)	(813)
Long Term Liabilities		(211,532)	(16,343)	(16,343)	(16,343)	(16,343)
Long term borrowings		(197,864)	(2,060)	(2,060)	(2,060)	(2,060)
Other long term liabilities		(13,668)	(14,283)	(14,283)	(14,283)	(14,283)
Net Assets		5,714,571	6,250,117	6,490,105	6,873,860	7,240,658
CASH FLOW						
Operating Cash Flow		784,843	851,686	793,219	973,610	1,009,512
Net Interest		(16,715)	(5,817)	(5,566)	891	440
Tax		(2,686)	(503)	(503)	(1,000)	(1,000)
Capex		149,648	(404,437)	(244,534)	(945,676)	(399,713)
Acquisitions/disposals		0	0	0	0	0
Financing		22,396	7,992	0	0	0
Dividends		(167,212)	(218,052)	(270,893)	(278,074)	(300,027)
Net Cash Flow		770,274	230,869	271,723	(250,249)	309,213
Opening net debt/(cash)		774,766	5,954	(223,172)	(494,895)	(244,646)
HP finance leases initiated		0	0	0	0	0
Other		(1,462)	(1,743)	0	0	0
Closing net debt/(cash)		5,954	(223,172)	(494,895)	(244,646)	(553,859)

Source: Company sources, Edison Investment Research

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