VESUVIUS PLC

27 July 2023

Half Year Results for the six months ended 30 June 2023

Resilient results ahead of our expectations, despite difficult market conditions

Modest increase to full year expectations

Vesuvius plc, a global leader in molten metal flow engineering and technology, announces its unaudited results for the six months ended 30 June 2023.

Financial summary	H1 2023 (£m)	H1 2022 (£m)	Year-on-year change	Underlying change[(1)]
Headline (non-statutory)				
Revenue	**995**	1,016	(2%)	(3%)
Trading Profit [(2)] (adjusted EBITA)	**105**	127	(18%)	(18%)
Return on Sales [(2)]	**10.5%**	12.5%	(200 bps)	(190 bps)
Headline basic EPS [(2)] (pence)	**24.5p**	31.4p	(22%)	
Adjusted operating cash-flow[(2)]	**71**	33	114%	
Net Debt [(2)]	**268**	328	(18%)	
Statutory				
Operating Profit	**100**	122	(18%)	
Profit Before Tax	**95**	117	(19%)	
Statutory basic EPS (pence)	**23.2p**	30.0p	(23%)	
Cash generated from operations	**107**	69	55%	
Dividend (pence per share)	**6.8p**	6.5p	5%	

[(1)] Underlying basis is at constant currency and excludes separately reported items and the impact of acquisitions and disposals.
[(2)] For definitions of non-GAAP measures, refer to Note 15 in the Condensed Group Financial Statements.
NB. The above table and other tables in this results statement contains amounts and percentages derived from source data which was then rounded. The margins and percentage change figures are based on source data, not the rounded figures.

Half Year 2023 Highlights

- Group trading profit down 18% v. H1 2022 but improved against H2 2022
  - Subdued market conditions in Steel have led to volume declines vs. H1 2022. This was partly mitigated by good pricing performance
- Steel business performed well, ahead of our expectations, due to pricing resilience in our technologically differentiated products and solutions
  - Pricing has partially offset the impact of lower volumes
  - Return on Sales down 310 bps vs. H1 2022 (underlying) due to volume declines, but improved by 160bps against H2 2022
- Good recovery of the Foundry business
  - Divisional trading profit up 18% and return on sales up 130bps (underlying) vs. H1 2022
  - Trading Profit and RoS have grown sequentially between H1 2022, H2 2022 and H1 2023
- All Strategic initiatives progressing and on track
  - Growth capex in India to support expansion of Steel businesses in this fast-growing region
  - 14 new product launches supported by sustained effort in R&D
- Strong progression in adjusted operating cash-flow despite significant growth capex
  - Cash conversion improving to 67%
- Strong balance sheet with net debt / EBITDA at 1.0x
- Dividend per share +5% reflecting confidence in the long-term prospects for the business

- Further progress in sustainability, reducing our CO_2 footprint and supporting our customers' sustainability efforts
- Lost-time injury rate down to 0.7 in the period, our best performance on record

Comment from Patrick André, CEO:

"Despite difficult market conditions, especially in the steel sector, we have performed well in the first half of the year, exceeding expectations, thanks, in particular, to a very resilient pricing performance.

The Foundry division has confirmed its recovery, which should continue in 2024 when the destocking movement in the Foundry sector will have come to an end.

We expect to maintain pricing discipline in the second half of the year, and we are progressing our efforts to gain market share through technological differentiation. As a consequence, noting typical seasonality and despite remaining macro-economic uncertainties, we feel confident to modestly increase our full year expectations."

Presentation of Half Year 2023 Results

Vesuvius management will make a presentation to analysts and investors on 27 July 2023 at 08:30 UK time at the London Stock Exchange, 10 Paternoster Square, London EC4M 7LS. For those unable to attend, the event will be livestreamed and can be accessed by clicking here. Participants can also join via an audio conference call. Please click here to register. Once registered, you will be provided with the information needed to join the conference, including dial-in numbers and passcodes. Be sure to save this information in your calendar.

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Save the date: Capital markets event – afternoon of Thursday 16 November 2023

About Vesuvius plc

Vesuvius is a global leader in molten metal flow engineering and technology principally serving process industries operating in challenging high-temperature conditions.

We develop innovative and customised solutions, often used in extremely demanding industrial environments, which enable our customers to make their manufacturing processes safer, more efficient and more sustainable. These include flow control solutions, advanced refractories and other consumable products and increasingly, related technical services including data capture.

We have a worldwide presence. We serve our customers through a network of cost-efficient manufacturing plants located close to their own facilities, and embed our industry experts within their operations, who are all supported by our global technology centres.

Our core competitive strengths are our market and technology leadership, strong customer relationships, well established presence in developing markets and our global reach, all of which facilitate the expansion of our addressable markets.

Our ultimate goal is to create value for our customers, and to deliver sustainable, profitable growth for our shareholders giving a superior return on their investment whilst providing each of our employees with a safe workplace where they are recognised, developed and properly rewarded.

We think beyond today to create solutions that will shape the future for everyone.

Forward looking statements

This announcement contains certain forward looking statements which may include reference to one or more of the following: the Group's financial condition, results of operations, cash flows, dividends, financing plans, business strategies, operating efficiencies or synergies, budgets, capital and other expenditures, competitive positions, growth opportunities for existing products, plans and objectives of management and other matters.

Statements in this announcement that are not historical facts are hereby identified as "forward looking statements". Such forward looking statements, including, without limitation, those relating to the future business prospects, revenue, working capital, liquidity, capital needs, interest costs and income, in each case relating to Vesuvius, wherever they occur in this announcement, are necessarily based on assumptions reflecting the views of Vesuvius and involve a number of known and unknown risks, uncertainties and other factors that could cause actual results, performance or achievements to differ materially from those expressed or implied by the forward looking statements. Such forward looking statements should, therefore, be considered in light of various important factors that could cause actual results to differ materially from estimates or projections contained in the forward looking statements. These include without limitation: economic and business cycles; the terms and conditions of Vesuvius' financing arrangements; foreign currency rate fluctuations; competition in Vesuvius' principal markets; acquisitions or disposals of businesses or assets; and trends in Vesuvius' principal industries.

The foregoing list of important factors is not exhaustive. When considering forward looking statements, careful consideration should be given to the foregoing factors and other uncertainties and events, as well as factors described in documents the Company files with the UK regulator from time to time including its annual reports and accounts.

You should not place undue reliance on such forward looking statements which speak only as of the date on which they are made. Except as required by the Rules of the UK Listing Authority and the London Stock Exchange and applicable law, Vesuvius undertakes no obligation to update publicly or revise any forward looking statements, whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward looking events discussed in this announcement might not occur.

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Vesuvius plc

Half Year Results for the six months ended 30 June 2023

Resilient results despite difficult market conditions, ahead of our expectations

£m	H1 2023 Reported	Acquisitions / Disposals	H1 2023 Underlying	H1 2022 Reported	Currency	Acquisitions / Disposals	H1 2022 Underlying	Reported % Change	Underlying % Change
Revenue	995	-	995	1,016	14	-	1030	(2%)	(3%)
Trading Profit	105	-	105	127	1	-	128	(18%)	(18%)
Return on Sales	10.5%		10.5%	12.5%			12.5%	(200 bps)	(190 bps)

Group trading performance ahead of our initial expectations

In H1 2023, the Group generated revenues of £995m, a slight decrease of 2% compared to H1 2022, on a reported basis and a 3% decrease on an underlying basis, reflecting the effects of currency translation. The negative impact of declining volumes (-8%, principally due to the declining steel production markets and to some destocking of refractories and foundry products) has been partially mitigated by sales price increases.

Trading profit (adjusted EBITA) was ahead of our expectations at £105m. It represents a drop of 18% on both a reported and underlying basis as compared with H1 2022, reflecting the drop-through impact of declining volumes, partially offset by a small positive balance between the increase in sales price and rising costs. Consequently, the Group achieved a return on sales of 10.5% in H1 2023, a decrease of 200 bps compared to H1 2022 on a reported basis but an increase of 130 bps versus H2 2022.

Adjusted operating cashflow has been good in the period and significantly ahead of that in H1 2022, up 114%, with cash conversion of 67% despite significant capex (£45m) including growth capex to support our expansion and development plans.

The pace of recovery of our end markets remains uncertain

Steel production in the world excluding China and Iran, which accounts for approximately 90% of Vesuvius' Steel division sales, has started to recover in Q2 2023 from the low levels of the previous 6 months but the pace of this recovery is uncertain, in particular in the long steel sector, affected by the general weakness of the construction sector. As compared with H1 2022, steel production in H1 2023 decreased by 4.5% year-on-year to the end of June (Source: the World Steel Association), with most major geographies recording volume declines in the period except for India and China.

Foundry end markets have started to recover, with year-on-year end market growth especially strong in India and China, low single digit end market growth in NAFTA and EMEA more than offsetting declines in South America. The Foundry division hasn't however fully benefited yet from this end market recovery due to a destocking movement of casting products in some important regions. We expect this destocking movement to come to an end towards the end of the year.

Selling price increases have fully offset inflationary pressures

Our active management of selling prices has successfully offset continued cost inflation, continuing the pattern of 2022. The success of our sales price management reflects the importance that customers attribute to the technological differentiation that we offer alongside on-site support which ensures the consistent performance of our products in practice.

Technological differentiation at the heart of our strategy

Technological differentiation is at the heart of our strategy to grow market share and margin. We have launched 14 new products in the period and delivered a new product sales ratio (defined as the percentage of sales derived from products launched in the previous 5 years) of 16%. Examples of new products having been launched include, in the Steel division, "LTC34", a flow-control product that integrates with our robotics solutions to minimise contact between molten steel and atmospheric gases, to maximise the quality and purity of steel produced and the Tundish Dry Vibratable Robot, an Advanced Refractory product which is a new automated system to layer refractories in the tundish. In the Foundry Division, we have also launched several new products in the period, including Wasco, for high pressure die casting (HPDC) processes, used by aluminium foundries. It enables HPDC foundries to manufacture castings with complex internal structures – facilitating weight saving, assembly cost reduction and the formation of larger and more complex shapes.

Capital investment projects continue at pace, to support growth

Capex, excluding leases, in FY23 is expected to be c. £100 - 110m of which approximately half is allocated to growth projects and customer installations, which drive the use of our refractories. This is part of a larger growth capex programme which was initiated in H2 2021 and will be largely completed by June 2024. It will support our long-term growth in the fastest growing regions of the world in the coming years, especially in India South-East Asia and Middle East Africa.

Our strategic expansion in Flow Control is progressing well. The new VISO capacity in Kolkata, India was completed in Q1 as planned, adding 50% to original capacity, and is now operational, helping Vesuvius fulfil the strong demand in the region. The investment in VISO in Skawina, Poland, increasing capacity by 35%, has been completed and is now operational, and the Slide Gate investment at the same site, to double EMEA capacity, is on track to be completed by the end of this year as planned.

In Foundry, we are making good progress on our two major capex projects. The first is in China in non-ferrous flux production to support market share gains in Chinese aluminium foundries, and the second is in the US where we are upgrading our coatings production line to support market share gains in this important product where our technological differentiation is significant. Additionally, there are a number of smaller sustainability-related projects which will also generate attractive cost savings, such as adding solar panels at our Ramos Arizpe plant in Mexico, which will become Foundry's first fully carbon neutral plant.

In totality, the EBITDA benefit of this programme of expansion capex is expected to be c. £40m per annum, achieved in 2026 / 2027.

Working capital

Trade working capital at 30 June 2023 increased by £31m versus 31 December 2022 on a constant currency basis as the challenges of the cyber attack in the first quarter have slowed down our efforts to reduce inventories. However, working capital as a percentage of sales is now on a falling trajectory, having peaked in February on a three-month rolling average basis.

Further improvement in our health and safety performance

Health and safety is of paramount importance and we have an overall aim of zero accidents. In the half-year, we achieved a Lost Time Injury Frequency Rate (LTIFR) of 0.72, a substantial reduction compared to 1.07 in H1 2022 and the best result ever achieved by the Vesuvius Group.

Progress in our sustainability objectives

Vesuvius is focused on both improving our own sustainability performance and helping our customers reduce their environmental footprint. We are continuing to make strong progress in the reduction of our CO_2 footprint and are proud that our latest Sustainalytics score was upgraded for the third year in a row. We are now in the top 14th percentile of our peers.

We have also recently received the ecoMetals 2023 award for our SEMCO coatings products which offer our customers the benefits of at least 50% faster drying times, at least 20% reductions in formaldehyde emissions and at least a 90% saving in energy. This is one of the many products where improved environmental performance plays a key role in the value that we provide to our customers.

Interim Dividend

The Board has declared an interim dividend of 6.8 pence per share, which is a 5% increase on the interim dividend for 2022 of 6.5 pence per share.

The interim dividend will be paid on 15 September 2023 to shareholders on the register at the close of business on 4 August 2023. The ex-dividend date will be 3 August 2023. Any shareholder wishing to participate in the Vesuvius Dividend Reinvestment Plan needs to have submitted their election to do so by 24 August 2023.

Outlook

Despite difficult market conditions, especially in the steel sector, we have performed well in the first half of the year, exceeding expectations, thanks, in particular, to a very resilient pricing performance. We expect to continue to maintain pricing discipline in the second half of the year and we are progressing our efforts to gain market share through technological differentiation. As a consequence, noting typical seasonality and despite remaining macro-economic uncertainties, we feel confident to modestly increase our full year expectations.

Operating and Financial Review

Basis of Preparation

All references in this operating and financial review are to headline performance unless stated otherwise. See Note 15.1 to the Group Financial Statements for the definition of headline performance. We also look at underlying performance, adjusting for effects of currency translation, (restating the previous period's results at the same foreign exchange (FX) rates used in the current period), acquisitions and disposals (removing the results of acquired or disposed-of businesses in both the current and prior years). See Note 15.2 to the Group Financial Statements for the definition of underlying performance.

Operating review

Vesuvius comprises two Divisions, Steel and Foundry. The Steel Division operates as three business lines, Flow Control, Advanced Refractories and Sensors & Probes.

£m	**H1 2023 Revenue**			H1 2022 Revenue				% change	
	As reported	Acquisition/ Disposals	Underlying	As reported	Currency	Acquisition/ Disposals	Underlying	Reported	Underlying
Steel	**711**	-	**711**	744	11	-	755	(4%)	(6%)
Foundry	**284**	-	**284**	272	3	-	275	4%	3%
Total Group	**995**	-	**995**	1,016	14	-	1030	(2%)	(3%)

Group revenue has dropped 2% on a reported basis, reflecting growth of 4% within Foundry and a fall of 4% in the Steel business unit, both on a reported basis. Changes in FX, principally the USD relative strength to GBP, provided a £14m tailwind, resulting in a 3% underlying revenue decline year-on-year. This change comprises a £81m (c.-8%) impact from declining volumes, principally in Steel, in part due to the reduction in steel production volumes in the world excluding China and Iran of 4.5% in the half-year and some market share losses in Advanced Refractories. This has been partially offset by price rises to offset costs of £46m (c. +4%).

£m	**H1 2023 Trading profit**			H1 2022 Trading profit				% change	
	As reported	Acquisition/ Disposals	Underlying	As reported	Currency	Acquisition/ Disposals	Underlying	Reported	Underlying
Steel	**75**	**-**	**75**	102	1	-	103	(26%)	(27%)
Foundry	**30**	**-**	**30**	26	-	-	25	17%	18%
Total Group	**105**		**105**	127	1		128	(18%)	(18%)

Group trading profit has dropped 18% on both a reported and underlying basis, reflecting growth of 17% within Foundry and a fall of 26% in Steel, on a reported basis. The underlying year-on-year change comprises a £32m impact from declining volumes, as volume reductions had a drop-through impact of c.40% relative to revenue, reflecting the under-absorption of overhead. This was partially offset by a net gain of c. £11m as the increase in sales price and the benefit of positive mix modestly outweighed rising costs in the period. Cyber remediation costs of £3.5m were also included in trading profit in the period.

Return on sales, defined as trading profit divided by revenue, was 10.5% for the Group, a reduction of 200bps from 12.5% in H1 2022 and of 60 bps versus 11.1% reported for FY22, reflecting the impact of a 18% drop in trading profit relative to a 2% reduction in revenue.

Half-year comparison

Underlying on a constant currency basis	H1 2023 (£m)	H2 2022 (£m)	H1 2022 (£m)
Steel revenue	711	722	755
Foundry revenue	284	272	275
Total Group revenue	**995**	**995**	**1030**
Steel trading profit	75	64	103
Foundry trading profit	30	28	25
Total Group trading profit	**105**	**92**	**128**
Steel RoS	10.5%	8.9%	13.6%
Foundry RoS	10.6%	10.1%	9.3%
Group RoS	**10.5%**	**9.20%**	**12.5%**

The table above shows the current and past two half-year periods all at constant currency.

As shown above, on a sequential basis, Foundry has shown two successive half-year periods of improvement and Steel is also on an improving trend versus H2 2022.

Steel Division

Steel Division	**H1 2023 (£m)**	**H1 2022 (£m)**	**Change (%)**	**Underlying change (%)**
Flow Control Revenue	401	402	-	(2%)
Advanced Refractories Revenue	290	321	(10%)	(11%)
Steel Sensors & Probes Revenue	20	21	(2%)	(4%)
Total Steel Revenue	**711**	**744**	**(4%)**	**(6%)**
Total Steel Trading Profit	75	102	(26%)	(27%)
Total Steel Return on Sales	10.5%	13.7%	(320 bps)	(310 bps)

The Steel Division reported revenues of £711m in H1 2023, a decrease of 4% compared to H1 2022 on a reported basis and 6% on an underlying basis, reflecting the declining steel production market which was down 4.5% in H1 (Source: WSA), partially offset by the year-on-year increase in sales price.

Steel Division trading profit fell 26% to £75m driven by the declining volumes across both the Flow Control and Advanced Refractories business units. Return on sales compressed 320bps to 10.5% compared to H1 2022 and 100bps compared to the FY22 return on sales of 11.5%, with the margin impacted by the operational de-gearing of declining volumes. Compared to H2 2022, trading profit increased by £11m and return on sales increased 160bps.

Flow Control

Flow Control Revenue	H1 2023 (£m)	H1 2022 (£m)	Change (%)	Underlying change (%)
Americas	163	155	5%	2%
Europe, Middle East & Africa (EMEA)	127	142	(11%)	(12%)
Asia-Pacific	112	105	7%	8%
Total Flow Control Revenue	402	402	-	(2%)

Flow Control revenue was broadly flat with a small underlying decline in sales of 2%, reflecting volumes declines which were lower than the market declines in the Americas and Asia-Pacific, and modest under-performance in EMEA , due mostly to refractory destocking and payment difficulties of some customers.

In the Americas, underlying revenues grew modestly, reflecting some residual price rises, offset by reductions in volumes as steel production in both NAFTA and South America fell, albeit slightly outperforming the market.

In EMEA, revenue fell 12% year-on-year on an underlying basis. This resulted from a volume decline, principally driven by a contraction in steel production of c. 8% (EMEA excluding Iran) in the year to June compounded by some destocking and payment difficulties described above, and the impact of sharply reduced revenues from Russia and Ukraine, partially offset by residual year-on-year price increases.

In Asia Pacific, revenues grew 8% on an underlying basis. Revenue growth in China was ahead of the market reflecting customer wins, and India also continued to out-perform the market growth of c. 7%. Our underlying market share in both North Asia and South-East Asia was broadly stable. In North Asia, Q1 was impacted by customer end-product de-stocking, which normalised into Q2.

Advanced Refractories

Advanced Refractories Revenue	H1 2023 (£m)	H1 2022 (£m)	Change (%)	Underlying change (%)
Americas	113	120	(5%)	(9%)
Europe, Middle East & Africa (EMEA)	95	120	(21%)	(23%)
Asia-Pacific	82	81	1%	2%
Total Advanced Refractories Revenue	290	321	(10%)	(11%)

Advanced Refractories reported revenues of £290m in H1 2023, a decrease of 11% on an underlying basis, driven by reducing steel production volumes in all regions except India and some market share reduction, partially mitigated by a dynamic pricing performance.

Revenue fell 9% in the Americas on an underlying basis, driven by significant volume declines reflecting both a contracting market and some market share reduction, in both NAFTA and South America.

In EMEA, underlying revenues reduced by 23% during the period, driven by market volume declines of 8% and market share declines in the Middle East and in Africa.

In Asia Pacific, revenues were broadly flat on an underlying basis, with strong volume growth and market share gains in India.

Steel Sensors & Probes

Steel Sensors & Probes Revenue	H1 2023 (£m)	H1 2022 (£m)	Change (%)	Underlying change (%)
Americas	14	14	1%	(1%)
Europe, Middle East & Africa (EMEA)	6	7	(10%)	(13%)
Asia-Pacific	0.3	0.2	31%	30%
Total Steel Sensors & Probes Revenue	20	21	(2%)	(4%)

In H1 2023 Revenues in Steel Sensors & Probes were £20m, down c. 4% period-on-period on an underlying basis, due to a slow-down of steel production in our reference customers.

The revenues in EMEA fell 13% in a declining market while in the Americas the revenue was flat over the period despite particular challenges in the Mexican market, with an overall market decline of 4%.

Foundry Division

Foundry Division	H1 2023 (£m)	H1 2022 (£m)	Change (%)	Underlying change (%)
Foundry Revenue	284	272	4%	3%
Foundry Trading Profit	30	26	17%	18%
Foundry Return on Sales	10.6%	9.5%	110bps	130bps

The end markets for Foundry were positive in most regions, with year-on-year end market growth especially strong in the key Asian Pacific markets of India and China, low single-digit end market growth in NAFTA and EMEA and declines in South America. The impact of destocking in the end markets has adversely effected the demand from our customers, and hence our sales progression in the period is more muted.

Vesuvius' Foundry Division reported revenues of £284m in H1 2023, an increase of 4% compared to H1 2022 on a reported basis. On an underlying basis, Foundry Division revenue was up 3%. This increase in revenues was driven by price increases which primarily took place in 2022 to offset cost inflation, plus market share growth in key regions including India, China and NAFTA partially offset by volume decline in EMEA, South America and parts of Asia versus H1 2022.

The Foundry Division also achieved some margin recovery, with trading profit growing 17% to £30m, as Return on Sales increased 110bps to 10.6%, compared to H1 2022. The Foundry Division also grew trading profit and return on sales compared to H2 2022.

Foundry Revenue	**H1 2023 (£m)**	**H1 2022 (£m)**	**Change (%)**	**Underlying change (%)**
Americas	73	67	9%	4%
Europe, Middle East & Africa (EMEA)	120	117	3%	2%
Asia-Pacific	90	88	3%	5%
Total Foundry Revenue	284	272	4%	3%

Foundry revenues in the Americas grew 4% year-on-year on an underlying basis, which reflects the positive impact of price increases, which primarily took place in 2022 to offset cost inflation, plus market share gains in NAFTA, partially offset by volume declines in South America versus H1 2022. The challenges in South America are due to general economic weakness in Brazil, in addition to a decline of over 20% in truck volumes which were impacted by a change in emissions standards which came into effect in early 2023, resulting in a spike in purchases ahead of the change, followed by a steep decline.

In EMEA, underlying revenues were slightly up compared to 2022 (+2% underlying), reflecting successful commercial initiatives initiated towards the end of 2022 to regain volume lost in the region earlier that year, resulting in monthly volumes towards the end of H1 2023 returning to the level of the same period of 2022.

Foundry revenues in Asia Pacific grew 5% year-on-year on an underlying basis, which reflects strong end market growth and market share gains in India, as well as a partial recovery in key Chinese end markets after a challenging 2022. Our strong performance in these regions was partially offset by weakness in North Asia, especially in Taiwan.

Financial Review

H1 2023 performance overview

Income statement

Group revenue of £995m is down by 2% on a reported basis to (H1 22: £1016m) and trading profit fell 18% on a reported basis to £105m (H1 22: £127m), as set out in the operating review above.

Operating profit decreased 18% to £100m (H1 22: £122m), reflecting the changes in trading profit described above, net of amortisation of intangible assets of £5.2m (H1 22: £5.1m). In H1 2023, we spent £18m on R&D activities (H1 22: £18m), which represents 1.8% of our revenue (H1 22: 1.7%).

Headline PBT was £100m (H1 22: £122m), a reduction of 18%, reflecting the reduction in operating profit and a slight reduction in net finance cost. The lower net finance cost of £5.5m versus £6.6m in H1 22 is principally due to an increase in the finance income from deposits held in India and Argentina, offsetting the rise in finance costs from rising interest rates.

PBT including amortisation of acquired intangibles of £5m was £95m (H1 22: £117m), 19% lower than the comparable period.

Headline EPS from continuing operations fell 22% to 24.5p (H1 22: 31.4p), reflecting the lower profit described above and the increase in the minority interest, which principally relates to our growing business in India.

Taxation

The Group's effective tax rate is the income tax associated with headline performance of (H1 23: £27m, H1 22: £33m), divided by the headline profit before tax and before the Group's share of post-tax profit of joint ventures. The Group's headline effective tax rate was 27.5% in H1 2023 as guided (H1 22: 27.5%; full year 26.5%) . The increase in rate versus FY22 is due to a change in geographic mix of profit. We expect the Group's effective tax rate to be 27.5% for the full year 2023.

Cash flow

The Group generated adjusted operating cash flows of £71m, representing a 114% increase versus H1 2022 (£33m). This implies a cash conversion rate in H1 2023 of 67% (H1 22: 26%). H1 2023 cash conversion reflected continued higher levels of investment in capex of £45m (H1 22: £39m). Free cash flow from continuing operations was £42m in H1 2022 (H1 22: £2m).

Working capital

Trade working capital as a percentage of sales in H1 2023 was 24.1% (2022: half year 22.8%; full year 23.8%), measured on a 12-month moving average basis. On a 3-month moving average basis, this ratio has fallen from 24.7% at 31 December 2022 to 23.3% at 30 June 2023 reflecting the progress made in the half-year, where debtors which reduced from 80 days to 78 days, inventory days reduced by one day to 87 days, and creditor days increased by just under three days.

In absolute terms, on a constant currency basis, trade working capital increased by £31m in H1 2022 to £480m compared to the balance as at 31 December 2022. The increase was due to a rise in inventory (+£18m) and debtors (+£31m), partially offset by an increase in creditors (+£18m).

Capital expenditure

Capital expenditure in H1 2022 was £45m (H1 22: £39m) of which c. £34m was spent in the Steel division and the remainder in Foundry.

Balance sheet

Financial position

At 30 June 2023, Net Debt was £268m, (31 December 2022: £255m), as free cash flow of £42m was offset by payment of the 2022 full-year dividend (£42m), additional right-of-use assets (£11m) and other factors including FX (£2m).

The net debt to EBITDA ratio increased slightly to 1.0x versus 31 December 2022 (0.9x), principally reflecting the drop in last-12-month EBITDA. EBITDA to interest was 34.0x (2022: 30 June 29.2x; 31 December 29.8x). The Group had committed borrowing facilities of £710m as at 30th June 2023 (2022: 30 June £721m; 31 December £722m), of which £310m was undrawn (2022: 30 June £257m; 31 December £323m). Liquidity stood at £471m on 30 June 2023 (30 June 2022: £416m; 31 December 2022: £494m). We define liquidity as undrawn committed debt facilities plus our cash on balance sheet, less the cash in China which is used as collateral against an equivalent bi-lateral loan in the UK.

The Group's debt facilities have two financial covenants: the ratios of net debt to EBITDA (maximum 3.25x limit) and EBITDA to interest (minimum 4x limit). Certain adjustments are made to the net debt calculations for bank covenant purposes, the most significant of which is to exclude the impact of IFRS 16.

Return on Invested Capital

ROIC is calculated as trading profit less amortisation of acquired intangibles plus share of post-tax profit of joint ventures and associates for the previous 12 months after tax, divided by the average (being the average of the opening and closing balance sheet) invested capital (defined as: total assets excluding cash plus non-interest-bearing liabilities), at the average foreign exchange rate for the year. In the period, ROIC was 8.6%, down from 10.7% at 31 December 2022, reflecting the reduction in rolling 12-month trading profit.

Pensions

The Group has a limited number of historical defined benefit plans located mainly in the UK, USA, Germany and Belgium. The main plans in the UK and USA are largely closed to further benefits accrual. In the funded UK plan, an insurance asset from PIC matches the remaining pension liabilities of the UK

Plan, with the result that the Company no longer bears any investment, longevity, interest rate or inflation risks in respect of this UK Plan. The Group's net pension liability on 30 June 2023 was £50.8m (2022 full year: £56.1m deficit). The improvement is principally due to a £3.8m gain from changes to actuarial assumptions which was mainly due to an increase in bond yields.

Principal Risks and Uncertainties

Risk Management

The Board exercises oversight of the Group's principal risks, undertaking a specific review of the way in which the Group manages those risks. The Group undertakes a continuous process to identify and review risk. This assessment undergoes a formal review at half-year and at year end. The principal risks identified are actively managed in order to mitigate exposure. The risks are analysed in the context of our business structure which gives protection against a number of principal risks we face with diversified currencies, a widespread customer base, local production matching the diversity of our markets and intensive training of our employees. Additionally, we seek to mitigate risk through contractual measures. Where cost-effective, the risk is transferred to insurers. Our processes are not designed to eliminate risk, but to identify our principal risks and seek to reduce them to a reasonable level in the context of the delivery of the Group's strategy.

Principal risks

The Board believes that there has been no material change to the Group's principal risks and uncertainties during the year to date. The principal risks and uncertainties faced by the Group therefore remain those as set out on pages 27 to 33 of our 2022 Annual Report. The risks identified are those the Board considers to be the most relevant to the Group in relation to their potential impact on the achievement of its Strategic Objectives. All of the risks set out could materially affect the Group, its businesses, future operations and financial condition, and could cause actual results to differ materially from expected or historical results. The Group continues to focus on risk mitigation. These risks are not the only ones that the Group faces or will face. Some risks are not yet known and some currently not deemed to be material could become so.

Risk		
End market risks *Vesuvius suffers an unplanned drop in demand, revenue and/or margin because of market volatility beyond its control*	**Protectionism and globalisation** *The Vesuvius business model cannot adapt or respond quickly enough to threats from protectionism and globalisation*	**Product quality failure** *Vesuvius staff/contractors are injured at work or customers, staff or third parties suffer physical injury or financial loss because of failures in Vesuvius products*

Complex and changing regulatory environment *Vesuvius experiences a contracting customer base or increased transaction and administrative costs due to compliance with changing regulatory requirements*	**Failure to secure innovation** *Vesuvius fails to achieve continuous improvement in its products, systems and services*	**Business interruption** *Vesuvius loses production capacity or experiences supply chain disruption due to physical site damage (accident, fire, natural disaster, terrorism) or other events such as industrial action, cyber attack or global health crises*
People, culture and performance *Vesuvius is unable to attract and retain the right calibre of staff, fails to instil an appropriate culture or fails to embed the right systems to drive personal performance in pursuit of the Group's long-term growth*	**Health and safety** *Vesuvius staff or contractors are injured at work because of failures in Vesuvius' operations, equipment or processes*	**Environmental, Social and Governance (ESG) criteria** *Vesuvius fails to capitalise on the opportunity to help its customers significantly reduce their carbon emissions as environmental pressure grows on the steel industry or Vesuvius fails to meet the expectations of its various stakeholders including employees and investors*

With regard to the remainder of the year, the Board is particularly cognisant of the following areas of risk:

End market risk: The Board continues to monitor the implications of the changing global economic environment, with short term forecasts for steel volumes and automotive output still subdued (despite the longer term growth trend continuing). Ongoing inflationary pressures and interest rate levels also continue to be closely monitored. Whilst the geographic diversity of our business and our presence in both mature and developing markets provides robust mitigation to any regional disruptions or economic decline, the potential effects of this global economic uncertainty continue to be watched.

Protectionism and globalisation: The potential impacts of global political uncertainty are kept under close review, such as the effects of the Russia-Ukraine war and the international dialogue ongoing between China and the USA, which challenge the more recent historical trends towards greater globalisation. The Board continues to consider security of supply of raw materials and access to other resources, including energy, which could impact both our operations and those of our customers in this context.

Cyber Security

In February 2023, the Group was the subject of a cyber incident involving unauthorised access to our IT systems. This required the instigation of the Group's Cyber Incident Plan. Our systems were shut down to contain the incident on a precautionary basis, and our sites implemented their business continuity plans to maintain their operations. The results of the initial investigation have been considered by the Board and further mitigating actions are being executed to improve the Group's cyber resilience for the future. Going forward, consideration will be given to additional strategic and operational improvements for the Group's systems and processes, to reduce the potential for future attacks and further improve the Group's resilience for dealing with such incidents.

Climate Change

The Group's overall risk management processes also incorporate consideration of the potential impact of climate-related risks on the Group. The Group does not regard climate change itself to represent a material stand-alone risk for the Group's operations. Whilst a significant proportion of the Group's revenue is generated from Steel manufacture and automotive castings, industries that are under transition as a result of their focus on improving environmental performance, we believe these changes will be positive for the Group. The opportunities in the Group's business strategy, which is founded on helping our customers to improve their manufacturing efficiency and the quality of their products - and therefore reducing their climate impact - will play a critical part in the development of the Group going forward. We also see potential benefits for the Group from the acceleration of the energy transition, as this will create continued demand for the high quality steel that is produced using Vesuvius' products and solutions.

The Group continues to recognise that climate change could present further uncertainty for the Group in terms of increased regulation, evolution of the geographical distribution of our customer base and the costs of meeting more onerous disclosure requirements. The risks we associate with our sustainability performance and our end customers' sustainability transition - badged as ESG - are identified as a separate element of the Group risk register, recognising the work Vesuvius can do to mitigate the environmental impact of our customers' processes. Other elements of this risk are incorporated into the appropriate Principal Risk and Uncertainties that the Group has identified. In 2023, the Group has continued its focus on the identified environmental sustainability KPIs. Under the Group's Sustainability initiative we seek to drive a lower CO_2e emission intensity, reduce normalised energy usage, and take the steps necessary to meet the target set of being CO_2e emissions net zero by 2050 at the latest.

Half Year Results for the six months ended 30 June 2023
Directors' responsibility statement

The Directors confirm that these condensed interim financial statements have been prepared in accordance with UK adopted International Accounting Standard 34, 'Interim Financial Reporting' and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority and that the interim management report includes a fair review of the information required by DTR 4.2.7 and DTR 4.2.8, namely:

1) an indication of important events that have occurred during the first six months and their impact on the condensed set of financial statements, and a description of the principal risks and uncertainties for the remaining six months of the financial year; and
2) material related-party transactions in the first six months and any material changes in the related-party transactions described in the last annual report.

The names and functions of the Directors of Vesuvius plc are as follows:

Carl-Peter Forster	Chairman
Patrick André	Chief Executive
Mark Collis	Chief Financial Officer
Douglas Hurt	Non-executive Director, Senior Independent Director and Chair of the Audit Committee
Kath Durrant	Non-executive Director and Chair of the Remuneration Committee
Carla Bailo	Non-executive Director
Dinggui Gao	Non-executive Director
Friederike Helfer	Non-executive Director

On behalf of the Board

Mark Collis
Chief Financial Officer
26 July 2023

Independent review report to Vesuvius plc
Report on the condensed consolidated interim financial statements

Our conclusion

We have reviewed Vesuvius plc's condensed consolidated interim financial statements (the "interim financial statements") in the Half Year Results of Vesuvius plc for the 6-month period ended 30 June 2023 (the "period").

Based on our review, nothing has come to our attention that causes us to believe that the interim financial statements are not prepared, in all material respects, in accordance with UK adopted International Accounting Standard 34, 'Interim Financial Reporting' and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

The interim financial statements comprise:

- the Condensed Group Balance Sheet as at 30 June 2023;
- the Condensed Group Income Statement and Condensed Group Statement of Comprehensive Income for the period then ended;
- the Condensed Group Statement of Cash Flows for the period then ended;
- the Condensed Group Statement of Changes in Equity for the period then ended; and
- the explanatory notes to the interim financial statements.

The interim financial statements included in the Half Year Results of Vesuvius plc have been prepared in accordance with UK adopted International Accounting Standard 34, 'Interim Financial Reporting' and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

Basis for conclusion

We conducted our review in accordance with International Standard on Review Engagements (UK) 2410, 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the Financial Reporting Council for use in the United Kingdom ("ISRE (UK) 2410"). A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures.

A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and, consequently, does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

We have read the other information contained in the Half Year Results and considered whether it contains any apparent misstatements or material inconsistencies with the information in the interim financial statements.

Conclusions relating to going concern

Based on our review procedures, which are less extensive than those performed in an audit as described in the Basis for conclusion section of this report, nothing has come to our attention to suggest that the directors have inappropriately adopted the going concern basis of accounting or that the directors have identified material uncertainties relating to going concern that are not appropriately disclosed. This conclusion is based on the review procedures performed in accordance with ISRE (UK) 2410. However, future events or conditions may cause the group to cease to continue as a going concern.

Responsibilities for the interim financial statements and the review

Our responsibilities and those of the directors

The Half Year Results, including the interim financial statements, is the responsibility of, and has been approved by the directors. The directors are responsible for preparing the Half Year Results in accordance with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority. In preparing the Half Year Results, including the interim financial statements, the directors are responsible for assessing the group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or to cease operations, or have no realistic alternative but to do so.

Our responsibility is to express a conclusion on the interim financial statements in the Half Year Results based on our review. Our conclusion, including our Conclusion relating to going concern, is based on procedures that are less extensive than audit procedures, as described in the Basis for conclusion paragraph of this report. This report, including the conclusion, has been prepared for and only for the company for the purpose of complying with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority and for no other purpose. We do not, in giving this conclusion, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

PricewaterhouseCoopers LLP
Chartered Accountants
London
26 July 2023

VESUVIUS PLC

Condensed Group Income Statement

For the six months ended 30 June 2023

	Notes	**Half year 2023 (Unaudited)**			Half year 2022 (Unaudited)			Full year 2022		
		Headline performance[1]	**Separately reported items[1]**	**Total**	Headline performance[1]	Separately reported items[1]	Total	Headline performance[1]	Separately reported items[1]	Total
		£m	**£m**	**£m**	£m	£m	£m	£m	£m	£m
Revenue	2	**995.3**	**-**	**995.3**	1,015.9	-	1,015.9	2,047.4	-	2,047.4
Manufacturing costs		**(712.7)**	**-**	**(712.7)**	(718.0)	-	(718.0)	(1,475.9)	-	(1,475.9)
Administration, selling & distribution costs		**(177.7)**	**-**	**(177.7)**	(170.5)	-	(170.5)	(344.3)	-	(344.3)
Trading profit[2]	2	**104.9**	**-**	**104.9**	127.4	-	127.4	227.2	-	227.2
Amortisation of acquired intangible assets		**-**	**(5.2)**	**(5.2)**	-	(5.1)	(5.1)	-	(10.4)	(10.4)
Operating profit/(loss)	2	**104.9**	**(5.2)**	**99.7**	127.4	(5.1)	122.3	227.2	(10.4)	216.8
Finance expense		(12.7)	-	(12.7)	(9.2)	-	(9.2)	(20.8)	-	(20.8)
Finance income		7.2	-	7.2	2.6	-	2.6	9.4	-	9.4
Net finance costs	3	**(5.5)**	**-**	**(5.5)**	(6.6)	-	(6.6)	(11.4)	-	(11.4)
Share of post-tax profit of joint ventures and associates		**0.5**	**-**	**0.5**	1.0	-	1.0	1.2	-	1.2
Profit/(loss) before tax	2	**99.9**	**(5.2)**	**94.7**	121.8	(5.1)	116.7	217.0	(10.4)	206.6
Income tax (charge)/credits	4	**(27.3)**	**1.5**	**(25.8)**	(33.2)	1.4	(31.8)	(57.2)	39.1	(18.1)
Profit/(loss)		**72.6**	**(3.7)**	**68.9**	88.6	(3.7)	84.9	159.8	28.7	188.5
Profit/(loss) attributable to:										
Owners of the parent		**66.0**	**(3.7)**	**62.3**	84.7	(3.7)	81.0	152.4	28.7	181.1
Non-controlling interests		**6.6**	**-**	**6.6**	3.9	-	3.9	7.4	-	7.4
Profit/(loss)		**72.6**	**(3.7)**	**68.9**	88.6	(3.7)	84.9	159.8	28.7	188.5
Earnings per share — pence	5									
Total operations — basic		**24.5[1]**		**23.2**	31.4[1]		30.0	56.5[1]		67.2
— diluted		**24.3[1]**		**23.0**	31.2[1]		29.8	56.1[1]		66.7

(1) *Headline performance and separately reported items are non-GAAP measures. Headline performance is defined in Note 15.1 and separately reported items are defined in Note 1.5.*

(2) *Trading profit is a non-GAAP measure and is defined in Note 15.4.*

The above results were derived from continuing operations. Manufacturing costs are costs of goods sold. The pre-tax separately reported items would form part of Administration, selling & distribution costs if classified within headline performance, which including these amounts would total £182.9m (2022 half year: £175.6m, 2022 full year: £354.7m).

Condensed Group Statement of Comprehensive Income

For the six months ended 30 June 2023

	Notes	**Unaudited Half year 2023 £m**	Unaudited Half year 2022 £m	Full year 2022 £m
Profit		**68.9**	84.9	188.5
Items that will not subsequently be reclassified to income statement:				
Remeasurement of defined benefit assets/liabilities		**3.8**	27.9	27.4
Income tax relating to items not reclassified	4	**(1.1)**	(7.9)	(8.2)
Items that may subsequently be reclassified to income statement:				
Exchange differences on translation of the net assets of foreign Operations		**(82.6)**	100.4	96.7
Exchange differences arising on translation of net investment hedges		**10.4**	(11.6)	(20.7)
Net change in costs of hedging		**(1.2)**	-	-
Change in the fair value of the hedging instrument		**(2.0)**	6.8	8.3
Amounts reclassified from the income statement		**3.4**	(7.1)	(7.5)
Other comprehensive (loss)/ income, net of income tax		**(69.3)**	108.5	96.0
Total comprehensive (loss)/ income		**(0.4)**	193.4	284.5
Total comprehensive income attributable to:				
Owners of the parent		**(4.5)**	186.9	276.5
Non-controlling interests		**4.1**	6.5	8.0
Total comprehensive (loss)/ income		**(0.4)**	193.4	284.5

The above results were derived from continuing operations.

Condensed Group Statement of Cash Flows

For the six months ended 30 June 2023

	Notes	**Unaudited Half year 2023 £m**	Unaudited Half year 2022 £m	Full year 2022 £m
Cash flows from operating activities				
Cash generated from operations	8	**106.8**	69.0	268.3
Interest paid		**(8.4)**	(7.4)	(15.6)
Interest received		**6.0**	2.1	6.3
Income taxes paid		**(23.2)**	(23.6)	(47.9)
Net cash inflow from operating activities		**81.2**	40.1	211.1
Cash flows from investing activities				
Capital expenditure		**(41.9)**	(38.6)	(89.2)
Proceeds from the sale of property, plant and equipment		**4.2**	1.3	3.1
Acquisition of subsidiaries and joint ventures, net of cash acquired		**-**	0.5	(3.5)
Dividends received from joint ventures		**-**	-	1.3
Net cash outflow from investing activities		**(37.7)**	**(36.8)**	**(88.3)**
Net cash inflow before financing activities		**43.5**	**3.3**	**122.8**
Cash flows from financing activities				
Proceeds from borrowings	7	**16.0**	50.1	18.7
Repayment of borrowings	7	**(10.8)**	(9.1)	(55.7)
Purchase of ESOP Shares		**(1.1)**	(1.9)	(6.9)
Dividends paid to equity shareholders	6	**(42.4)**	(40.5)	(58.1)
Dividends paid to non-controlling shareholders		**(1.4)**	(1.3)	(3.2)
Net cash outflow from financing activities		**(39.7)**	(2.7)	(105.2)
Net increase in cash and cash equivalents	7	**3.8**	0.6	17.6
Cash and cash equivalents at 1 January		**179.8**	162.4	162.4
Effect of exchange rate fluctuations on cash and cash equivalents		**(13.3)**	9.2	(0.2)
Cash and cash equivalents at the end of the reporting period		**170.3**	172.2	179.8

Free cash flow	15.11			
Net cash inflow from operating activities		**81.2**	40.1	211.1
Capital expenditure		**(41.9)**	(38.6)	(89.2)
Proceeds from the sale of property, plant and equipment		**4.2**	1.3	3.1
Dividends received from joint ventures		**-**	-	1.3
Dividends paid to non-controlling shareholders		**(1.4)**	(1.3)	(3.2)
Free cash flow[1]	15.11	**42.1**	1.5	123.1

[(1)] *For definitions of alternative performance measures, refer to Note 15*

Condensed Group Balance Sheet

As at 30 June 2023

	Notes	**Unaudited Half year 2023 £m**	Unaudited Half year 2022 £m	Full year 2022 £m
Assets				
Property, plant and equipment		**414.1**	380.2	417.6
Intangible assets		**703.3**	732.6	737.5
Employee benefits – surpluses	9	**28.3**	24.5	26.2
Interests in joint ventures and associates		**12.3**	14.5	13.0
Investments		**0.7**	0.8	0.5
Deferred tax assets		**112.3**	94.8	110.6
Other receivables		**32.4**	18.8	33.7
Derivative financial instruments	14	**1.2**	3.1	2.7
Total non-current assets		**1,304.6**	1,269.3	1,341.8
Cash and short-term deposits	7	**173.2**	177.2	184.2
Inventories		**318.4**	360.7	316.0
Trade and other receivables		**485.3**	547.1	476.9
Income tax receivable		**8.7**	2.3	15.3
Derivative financial instruments	14	**0.1**	0.2	0.1
Total current assets		**985.7**	1,087.5	992.5
Total assets		**2,290.3**	2,356.8	2,334.3

Condensed Group Balance Sheet (continued)

As at 30 June 2023

	Notes	**Unaudited Half year 2023 £m**	Unaudited Half year 2022 £m	Full year 2022 £m
Equity				
Issued share capital		**27.8**	27.8	27.8
Retained earnings		**2,649.6**	2,545.5	2,623.8
Other reserves		**(1,460.9)**	(1,381.7)	(1,391.4)
Equity attributable to the owners of the parent		**1,216.5**	1,191.6	1,260.2
Non-controlling interests		**62.1**	59.8	59.4
Total equity		**1,278.6**	1,251.4	1,319.6
Liabilities				
Interest-bearing borrowings	7	**320.2**	348.2	327.2
Employee benefits - liabilities	9	**79.1**	78.5	82.3
Other payables		**10.5**	7.8	13.8
Provisions	13	**47.7**	36.0	49.3
Deferred tax liabilities		**21.9**	28.9	11.9
Total non-current liabilities		**479.4**	499.4	484.5
Interest-bearing borrowings	7	**122.1**	159.8	114.7
Trade and other payables		**383.8**	416.8	378.4
Income tax payable		**11.3**	11.9	19.6
Provisions	13	**14.9**	17.3	17.4
Derivative financial instruments	14	**0.2**	0.2	0.1
Total current liabilities		**532.3**	606.0	530.2
Total liabilities		**1,011.7**	1,105.4	1,014.7
Total equity and liabilities		**2,290.3**	2,356.8	2,334.3

Condensed Group Statement of Changes in Equity

For the six months ended 30 June 2023

	Issued share capital £m	Other reserves £m	Retained earnings £m	Owners of the parent £m	Non-controlling interests £m	Total equity £m
As at 1 January 2023	**27.8**	**(1,391.4)**	**2,623.8**	**1,260.2**	**59.4**	**1,319.6**
Profit	**-**	**-**	**62.3**	**62.3**	**6.6**	**68.9**
Remeasurement of defined benefit assets/liabilities	-	-	3.8	3.8	-	3.8
Income tax relating to items not reclassified	-	-	(1.1)	(1.1)	-	(1.1)
Exchange differences on translation of the net assets of foreign operations	-	(80.1)	-	(80.1)	(2.5)	(82.6)
Exchange differences arising on translation of net investment hedges	-	10.4	-	10.4	-	10.4
Net change in costs of hedging	-	(1.2)	-	(1.2)	-	(1.2)
Change in the fair value of the hedging instrument	-	(2.0)	-	(2.0)	-	(2.0)
Amounts reclassified from the income statement	-	3.4	-	3.4	-	3.4
Other comprehensive income/(loss), net of income tax	-	**(69.5)**	**2.7**	**(66.8)**	**(2.5)**	**(69.3)**
Total comprehensive income/(loss)	**-**	**(69.5)**	**65.0**	**(4.5)**	**4.1**	**(0.4)**
Recognition of share-based payments	-	-	4.3	4.3	-	4.3
Purchase of ESOP shares	-	-	(1.1)	(1.1)	-	(1.1)
Dividends paid (Note 6)	-	-	(42.4)	(42.4)	(1.4)	(43.8)
Total transactions with owners	-	-	**(39.2)**	**(39.2)**	**(1.4)**	**(40.6)**
As at 30 June 2023	**27.8**	**(1,460.9)**	**2,649.6**	**1,216.5**	**62.1**	**1,278.6**

Condensed Group Statement of Changes in Equity (continued)

For the six months ended 30 June 2023

	Issued share capital £m	Other reserves £m	Retained earnings £m	Owners of the parent £m	Non-controlling interests £m	Total equity £m
As at 1 January 2022	**27.8**	**(1,467.6)**	**2,483.4**	**1,043.6**	**54.6**	**1,098.2**
Profit	**-**	**-**	**81.0**	**81.0**	**3.9**	**84.9**
Remeasurement of defined benefit liabilities/assets	-	-	27.9	27.9	-	27.9
Income tax relating to items not reclassified	-	-	(7.9)	(7.9)	-	(7.9)
Exchange differences on translation of the net assets of foreign operations	-	97.8	-	97.8	2.6	100.4
Exchange differences arising on translation of net investment hedges	-	(11.6)	-	(11.6)	-	(11.6)
Net change in costs of hedging	-	-	-	-	-	-
Change in the fair value of the hedging instrument	-	6.8	-	6.8	-	6.8
Amounts reclassified from the Income Statement	-	(7.1)	-	(7.1)	-	(7.1)
Other comprehensive income/(loss), net of income tax	-	**85.9**	**20.0**	**105.9**	**2.6**	**108.5**
Total comprehensive income/(loss)	**-**	**85.9**	**101.0**	**186.9**	**6.5**	**193.4**
Recognition of share-based payments	-	-	3.5	3.5	-	3.5
Purchase of ESOP shares	-	-	(1.9)	(1.9)	-	(1.9)
Dividends paid (Note 6)	-	-	(40.5)	(40.5)	(1.3)	(41.8)
Total transactions with owners	-	-	**(38.9)**	**(38.9)**	**(1.3)**	**(40.2)**
As at 30 June 2022	**27.8**	**(1,381.7)**	**2,545.5**	**1,191.6**	**59.8**	**1,251.4**

Within other reserves as at 30 June 2023 is £1,499.0m (2022: 30 June and 31 December, £1,499.0m) arising from the demerger of Cookson Group plc, being the excess of the Vesuvius plc share capital of £1,777.9m over the total share capital and share premium of Cookson Group plc as at 14 December 2012 of £278.9m

Notes to the Condensed Group Financial Statements

1. Basis of preparation

1.1 Basis of accounting

These Condensed Group Financial Statements of Vesuvius plc ("Vesuvius" or the "Company") and its subsidiary and joint venture companies (the "Group") have been prepared in accordance with UK adopted International Accounting Standard 34, 'Interim Financial Reporting' and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

These Condensed Group Financial Statements have been prepared using the same accounting policies as used in the preparation of the Group's Annual financial statements for the year ended 31 December 2022, except for taxes on income in the interim period which are accrued using the tax rate that would be applicable to the expected total annual profit or loss. The assessment of the Group's critical accounting estimates and judgements remain consistent with the 2022 Annual Report and Financial Statements. The Group's Annual report and financial statements for the year ended 31 December 2022 were prepared in accordance with UK-adopted international accounting standards (IFRS) and the requirements of the Companies Act 2006.

The Condensed Group Financial Statements do not include all of the information required for full annual financial statements, and should be read in conjunction with the consolidated financial statements of the Group for the year-ended 31 December 2022. The financial information presented in this document is unaudited but has been reviewed by the Company's auditor.

The comparative figures for the financial year ended 31 December 2022 have been extracted from the Group's Annual Report and Financial Statements for that financial year. Those accounts have been reported on by the Company's auditor and delivered to Companies House. The report of the auditor was unqualified, did not include reference to any matters to which the auditor drew attention by way of emphasis without qualifying its report and did not contain a statement under section 498(2) or (3) of the Companies Act 2006. These sections address whether proper accounting records have been kept, whether the Company's accounts are in agreement with those records and whether the auditor has obtained all the information and explanations necessary for the purposes of its audit.

1.2 Basis of consolidation

The Condensed Group Financial Statements incorporate the financial statements of the Company and entities controlled by the Company (its "subsidiaries"). Control exists when the Company has the power to direct the relevant activities of an entity that significantly affect the entity's return so as to have rights to the variable return from its activities. In assessing whether control exists, potential voting rights that are currently exercisable are taken into account. The results of subsidiaries acquired or disposed of during the year are included in the Condensed Group Income Statement from the effective date of acquisition or up to the effective date of disposal, as appropriate.

The principal accounting policies applied in the preparation of these Condensed Group Financial Statements are set out in the Notes. These policies have been consistently applied to all of the years presented, unless otherwise stated. Where necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those detailed herein to ensure that the Condensed Group Financial Statements are prepared on a consistent basis. All intra-Group transactions, balances, income and expenses are eliminated on consolidation.

Non-controlling interests in the net assets of consolidated subsidiaries are identified separately from the Group's interest therein. Non-controlling interests consist of the amount of those interests at the date of the original business combination together with the non-controlling interests' share of profit or loss and each component of other comprehensive income less their dividends since the date of the combination. Their share of comprehensive income/(loss) is attributed to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

1.3 Going concern

The Directors have prepared cash flow scenarios for the Group for a period of at least 12 months from the date of approval of the 2023 Interim Condensed Financial Statements. These forecasts reflect an assessment of current and future end market conditions, and their impact on the Group's future trading performance.

The analysis undertaken includes a severe but plausible downside scenario which assumes a decline in business activity and profitability in H2 2023 (which it is assumed does not increase in 2024) to the level achieved in H2 2020, when the business performance was most impacted by COVID. This down-side scenario considered cost saving measures, in line with those implemented during the actual H2 2020 period. Debt maturing during the period is assumed to be re-financed and a normal continuation of dividend payments was assumed. H2 2020 considered for the down-side scenario simulation reflects the lowest half year performance in the last five years. Relative to H1 2023, this downside scenario implies a c.26% decline in sales and a c.46% decline in Trading Profit, with no improvement from this level assumed in 2024.

Even in this downside scenario, the forecasts show that the Group maintains considerable headroom against its covenants. Net debt / EBITDA (pre-IFRS 16 in-line with the covenant calculation) never exceeds 0.9x in the forecast period considered, compared to a maximum acceptable leverage per covenant of 3.25x. Equally, significant headroom is maintained in the down-side case for the interest coverage covenant (EBITDA / interest, pre-IFRS16 in line with covenant calculation): the lowest interest coverage in the period is 20.8x compared to the minimum required by the covenant of 4.0x.

Based on the exercise described above and the Group's available committed liquidity which currently stands at £471m, the Directors consider that the Group and the Company have adequate resources to continue in operational existence for a period of at least 12 months from the date of signing of these Interim Condensed Financial Statements. Accordingly, they continue to adopt a going concern basis in preparing the Condensed Financial statements of the Group and the Company.

1.4 Functional and presentational currency

The financial statements are presented in millions of pounds sterling, which is the functional currency of the Company, and rounded to one decimal place.

1.5 Disclosure of "separately reported items"

Columnar presentation

The Group has adopted a columnar presentation for its Condensed Group Income Statement, to separately identify headline performance results, as the Directors consider that this gives a useful view of the underlying results of the ongoing business. As part of this presentation format, the Group has adopted a policy of disclosing separately on the face of its Group Income Statement, within the column entitled 'Separately reported items', the effect of any components of financial performance for which the Directors consider separate disclosure would assist users both in a useful understanding of the financial performance achieved for a given year and in making projections of future results.

1.6 Disclosure of "separately reported items" (continued)

Separately reported items

Both materiality and the nature of the components of income and expense are considered in deciding upon such presentation. Such items may include, inter alia, the financial effect of exceptional items which occur infrequently, such as major restructuring activity (which may require more than one year to complete), significant movement in the Group's deferred tax balances, items reported separately for consistency, such as amortisation charges relating to acquired intangible assets, profits or losses arising on the disposal of continuing or discontinued operations and the taxation impact of the aforementioned items reported separately.

The amortisation charge in respect of intangible assets recognised on business combinations is excluded from the trading results of the Group since they are non-cash charges and are not considered reflective of the core trading performance of the Group.

In its adoption of this policy, the Company applies an even-handed approach to both gains and losses and aims to be both consistent and clear in its accounting and disclosure of such items.

1.7 New and revised IFRS

Certain new accounting standards and interpretations have been published that are applicable for periods commencing 1 January 2023 and others that are not mandatory for reporting periods commencing on 1 January 2023 and have not been early adopted by the Group.

The Group is finalising its assessment of the impact of IFRS 17 Insurance Contracts and other new standards applicable for periods commencing 1 January 2023 to ensure compliance. These are not expected to have a significant impact on the Group's financial position, performance, cash flows and disclosures.

Benchmark reform

The replacement of Libor with alternative interest rate benchmarks is now well progressed and the Group has reviewed the impact of this on its financial statements. The £385m central bank facility signed on 5 July 2021 provides for the use of SONIA and EURIBOR for GBP and EUR drawdowns respectively. As provided for within the terms of the facility, SOFR was agreed as a replacement reference rate for USD Libor in May 2023.

The Group's US Private Placement Notes, bilateral loan agreement and cross-currency interest rate swaps are not exposed to Libor rates and as a result are unaffected by the benchmark reform. The Group concludes that benchmark reform has no material impact on its financial statements. The Group also confirms it has made no changes to its risk management strategy as a result of benchmark reform.

OECD Pillar two model

The group is within the scope of the OECD Pillar two model rules. Pillar two legislation was recently substantively enacted in some of the territories in which the group operates and will come into effect in these territories from 1 January 2024. At the interim reporting date, none of the Pillar two legislation is effective and so the group has no related current tax exposure.

On 20 June 2023, Finance (No.2) Act 2023 was substantively enacted in the UK, introducing a global minimum effective tax rate of 15%. The legislation implements a domestic top-up tax and a multinational top-up tax, effective for accounting periods starting on or after 31 December 2023. The Group does not account for deferred tax on top-up taxes and therefore, there was no impact on the recognition and measurement of deferred tax balances as a result of the legislation being substantively enacted.

2 Segment information

Operating segments for continuing operations

The Group's operating segments are determined taking into consideration how the Group's components are reported to the Group's Chief Executive Officer, who makes the key operating decisions and is responsible for allocating resources and assessing performance of the components. Taking into account the Group's management and internal reporting structure, the operating segments are Steel Flow Control, Steel Advanced Refractories, Steel Sensors & Probes and the Foundry Division. The principal activities of each of these segments are described in the Operational Review.

Steel Flow Control, Steel Advanced Refractories and Steel Sensors & Probes operating segments are aggregated into the Steel reportable segment. In determining that aggregation is appropriate, judgement is applied which takes into account the economic characteristics of these operating segments which include a similar nature of products, customers, production processes and margins.

Revenue from contracts with customers

Revenue comprises the fair value of the consideration received or receivable for goods supplied and services rendered to customers after deducting rebates, discounts and value-added taxes, and after eliminating sales within the Group. Revenue from contracts with customers is recognised when control of the goods or services are transferred to the customer, upon the completion of specified performance obligations, at an amount that reflects the considerations to which the Group expects to be entitled to in exchange for these consumable products and associated services.

The revenue recognition policy applicable to the current and comparative periods and information about the Group's performance obligations was disclosed in Note 5 of the 2022 Annual Report and Financial Statements.

Segmental analysis

	Unaudited Half Year 2023					
	Flow Control	Advanced Refractories	Sensors & Probes	**Steel**	**Foundry**	**Total**
				£m	**£m**	**£m**
Segment revenue	401.8	289.6	20.1	711.5	283.8	995.3
at a point in time				710.7	283.8	994.5
Over time				0.8	-	0.8
Segment adjusted EBITDA *				94.3	38.6	132.9
Segment depreciation				(19.5)	(8.5)	(28.0)
Segment trading profit				74.8	30.1	104.9
Return on sales #				10.5%	10.6%	10.5%
Amortisation of acquired intangible assets						(5.2)
Operating profit						99.7
Net finance costs						(5.5)
Share of post-tax profit of joint ventures						0.5
Profit before tax						94.7
Capital expenditure additions				33.5	11.7	45.2
Inventory				259.5	58.9	318.4
Trade debtors				286.4	103.0	389.4
Trade creditors				(183.5)	(62.3)	(245.8)

2 Segment information (continued)

	Unaudited Half Year 2022					
	Flow Control	Advanced Refractories	Sensors & Probes	**Steel £m**	**Foundry £m**	**Total £m**
Segment revenue	402.6	320.8	20.6	744.0	271.9	1,015.9
at a point in time				743.3	271.9	1,015.2
Over time				0.7	-	0.7
Segment adjusted EBITDA *				119.5	34.1	153.6
Segment depreciation				(17.8)	(8.4)	(26.2)
Segment trading profit				101.7	25.7	127.4
Return on sales #				13.7%	9.5%	12.5%
Amortisation of acquired intangible assets						(5.1)
Operating profit						122.3
Net finance costs						(6.6)
Share of post-tax profit of joint ventures						1.0
Profit before tax						116.7
Capital expenditure additions				33.2	5.0	38.2
Inventory				296.7	64.0	360.7
Trade debtors				334.2	103.9	438.1
Trade creditors				(210.3)	(68.6)	(278.9)

	Full Year 2022					
	Flow Control	Advanced Refractories	Sensors & Probes	**Steel £m**	**Foundry £m**	**Total £m**
Segment revenue	810.9	645.3	40.2	1,496.4	551.0	2,047.4
at a point in time				1,493.7	551.0	2,044.7
Over time				2.7	-	2.7
Segment adjusted EBITDA *				210.6	72.1	282.7
Segment depreciation				(37.9)	(17.6)	(55.5)
Segment trading profit				172.7	54.5	227.2
Return on sales #				11.5%	9.9%	11.1%
Amortisation of acquired intangible assets						(10.4)
Operating profit						216.8
Net finance costs						(11.4)
Share of post-tax profit of joint ventures						1.2
Profit before tax						206.6
Capital expenditure additions				85.2	18.7	103.9
Inventory				259.6	56.4	316.0
Trade debtors				288.0	92.8	380.8
Trade creditors				(177.2)	(62.3)	(239.5)

Return on sales is defined in note 15.3
* Adjusted EBITDA is defined in note 15.13

2 Segment information (continued)

	External revenue			Non-current assets		
	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m	**Unaudited Half year 2023 £m**	Unaudited Half year 2022 £m	Full year 2022 £m
EMEA	**347.5**	385.8	741.6	**486.0**	467.6	500.0
Asia	**284.2**	273.6	565.2	**216.7**	231.4	237.0
North America	**277.9**	265.3	549.1	**410.0**	405.0	384.3
South America	**85.7**	91.2	191.5	**50.1**	42.8	44.3
Continuing operations	**995.3**	1,015.9	2,047.4	**1,162.8**	1,146.8	1,165.6

External revenue disclosed in the table above is based upon the geographical location from which the products and services are invoiced. Non-current assets exclude employee benefits net surpluses and deferred tax assets. Information relating to the Group's products and services is given in the Strategic Report as disclosed in the 2022 Annual Report and Financial Statements. The Group is not dependent on any single customer for its revenue and no single customer, for the years presented in the tables above, accounts for more than 10% of the Group's total external revenue. £34.8m (2022 half year £33.0m; 2022 full year £70.9m) of revenue was generated from the UK, and total non-current assets in the UK amounted to £76.4m (2022 half year £91.7m; 2022 full year £93.9m).

3 Net finance costs

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Interest payable on borrowings			
Loans and overdrafts	**8.9**	6.7	15.4
Interest on lease liabilities	**1.0**	0.8	1.9
Amortisation of capitalised arrangement costs	**0.5**	0.5	1.0
Total interest payable on borrowings	**10.4**	8.0	18.3
Interest on net retirement benefits obligations	**1.1**	0.7	1.4
Adjustments to discounts on provisions and other liabilities	**1.2**	0.5	1.1
Adjustments to discounts on receivables	**(0.7)**	(0.3)	(0.6)
Finance income	**(6.5)**	(2.3)	(8.8)
Total net finance costs	**5.5**	6.6	11.4

Within the table above, total finance costs are £12.7m (2022 half year: £9.2m, 2022 full year: £20.8m) and total finance income is £7.2m (2022 half year: £2.6m, 2022 full year: £9.4m).

4 Income tax

A key measure of the Group's tax burden is the headline effective tax rate, which the Group calculates on the income tax associated with headline performance, divided by the headline profit before tax excluding the Group's share of post-tax profit of joint ventures. The Group's headline effective tax rate was in-line with expectations at 27.5% in H1 2023 (2022 half year 27.5%; 2022 full year 26.5%) based on the income tax charge associated with headline performance of £27.3m (2022 half year £33.2m; 2022 full year £57.2m).

The Group's total net income tax charge reflected in the Condensed Group Income Statement include a credit of £1.5m (2022 half year £1.4m; 2022 full year £39.1m) relating to separately reported items comprising a credit of £1.5m (2022 half year £1.4m; 2022 full year £2.7m) relating to the amortisation of intangible assets and a credit of £nil (2022 half year £nil; 2022 full year £36.4m) mainly relating to the recognition of UK deferred tax assets.

The Group's total net income tax charge reflected in the Condensed Group Statement of Comprehensive Income was £1.1m (2022 half year £7.9m; 2022 full year: £8.2m). It was in respect of tax on net actuarial gains and losses on employee benefits.

5 Earnings per share ("EPS")

5.1 Earnings for EPS

Basic and diluted EPS from continuing operations are based upon the profit attributable to owners of the parent, as reported in the Condensed Group Income Statement. The table below reconciles these different profit measures.

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Profit attributable to owners of the parent	**62.3**	81.0	181.1
Adjustments for separately reported items:			
Amortisation of acquired intangible assets	**5.2**	5.1	10.4
Income tax (credit)/charge	**(1.5)**	(1.4)	(39.1)
Headline profit attributable to owners of the parent	**66.0**	84.7	152.4

5.2 Weighted average number of shares

	Unaudited Half year 2023 millions	Unaudited Half year 2022 millions	Full year 2022 millions
For calculating basic and headline EPS	**269.0**	270.1	269.6
Adjustment for potentially dilutive ordinary shares	**2.1**	1.4	1.9
For calculating diluted and diluted headline EPS	**271.1**	271.5	271.5

For the purposes of calculating diluted and diluted headline EPS, the weighted average number of ordinary shares is adjusted to include the weighted average number of ordinary shares that would be issued were all outstanding share options to vest in full, relating to the Company's share-based payment plans. Potential ordinary shares are only treated as dilutive when their conversion to ordinary shares would decrease EPS or increase loss per share.

5.3 Per share amounts

	Unaudited Half year 2023 Pence	Unaudited Half year 2022 Pence	Full year 2022 pence
Earnings per share - basic	**23.2**	30.0	67.2
- diluted	**23.0**	29.8	66.7
- headline [1]	**24.5**	31.4	56.5
- diluted headline	**24.3**	31.2	56.1

[1] *For definition of headline earnings per share, refer to Note 15.8*

6 Dividends

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Amounts recognised as dividends and paid to equity shareholders during the period			
Final dividend for the year-ended 31 December 2021 of 15.0p per ordinary share	**-**	40.5	40.5
Interim dividend for the year-ended 31 December 2022 of 6.5p per ordinary share	**-**	-	17.6
Final dividend for the year-ended 31 December 2022 of 15.75p per ordinary share	**42.4**	-	-
	42.4	40.5	58.1

The Directors have declared an interim dividend of 6.8p in respect of the year-ending 31 December 2023.

7 Reconciliation of movement in net debt

	Balance as at 1 Jan 2023 £m	**Foreign exchange adjustments £m**	**Fair value gains/ (losses)**	**Non-cash movements* £m**	**Cash flow £m**	**Balance as at 30 June 2023 £m**
Cash and cash equivalents						
Cash at bank and in hand	**184.2**	**(13.4)**	**-**	**-**	**2.4**	**173.2**
Short term deposits	**-**	**-**	**-**	**-**	**-**	**-**
Bank overdrafts	**(4.4)**	**0.1**	**-**	**-**	**1.4**	**(2.9)**
	179.8	**(13.3)**	**-**	**-**	**3.8**	**170.3**
Borrowings, excluding bank overdrafts	**(440.2)**	**14.5**	**-**	**(10.8)**	**(5.2)**	**(441.7)**
Capitalised arrangement costs	**2.7**	**-**	**-**	**(0.4)**	**-**	**2.3**
Derivative financial instruments	**2.7**	**-**	**(1.6)**	**-**	**-**	**1.1**
Net debt	**(255.0)**	**1.2**	**(1.6)**	**(11.2)**	**(1.4)**	**(268.0)**

* £10.8m (2022 half year: £5.5m) of new leases were entered into during the year.

	Balance as at 1 Jan 2022 £m	**Foreign exchange adjustments £m**	**Fair value gains/ (losses)**	**Non-cash movements* £m**	**Cash flow £m**	**Balance as at 31 Dec 2022 £m**
Cash and cash equivalents						
Cash at bank and in hand	**169.1**	**0.1**	**-**	**-**	**15.0**	**184.2**
Short term deposits	**-**	**-**	**-**	**-**	**-**	**-**
Bank overdrafts	**(6.7)**	**(0.3)**	**-**	**-**	**2.6**	**(4.4)**
	162.4	**(0.2)**	**-**	**-**	**17.6**	**179.8**
Borrowings, excluding bank overdrafts	**(440.3)**	**(25.4)**	**-**	**(11.5)**	**37.0**	**(440.2)**
Capitalised borrowing costs	**3.3**	**-**	**-**	**(0.6)**	**-**	**2.7**
Derivative financial instruments	**(2.5)**	**-**	**5.2**	**-**	**-**	**2.7**
Net debt	**(277.1)**	**(25.6)**	**5.2**	**(12.1)**	**54.6**	**(255.0)**

* £11.5m (2021: £17.1m) of new leases were entered into during the year.

7 Reconciliation of movement in net debt (continued)

Net debt is a measure of the Group's net indebtedness to banks and other external financial institutions and comprises the total of cash and short-term deposits, current and non-current interest-bearing borrowings, derivative financial instruments and lease liabilities.

Cash is held both centrally and in operating territories. There is no restricted cash. For certain territories including Argentina, China, India and Russia cash is more readily used locally than for broader group purposes.

8 Cash Generated from Operations

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m
Operating profit	**99.7**	122.3
Adjustments for:		
Amortisation of acquired intangible assets	**5.2**	5.1
Trading Profit	**104.9**	127.4
Profit on disposal of non-current assets	**(2.3)**	(0.1)
Depreciation and amortisation	**28.0**	26.2
Defined benefit retirement plans net charge	**3.0**	3.0
Net increase in inventories	**(18.1)**	(40.2)
Net increase in trade receivables	**(31.3)**	(62.9)
Net increase in trade payables	**18.1**	9.8
Net decrease in other working capital	**9.3**	10.0
Outflow related to restructuring charges	**(1.0)**	(0.5)
Defined benefit retirement plans cash outflows	**(3.2)**	(2.8)
Vacant site remediation costs paid	**(0.6)**	(0.9)
Cash generated from operations	**106.8**	69.0

	Full year 2022 £m
Operating profit	216.8
Adjustments for:	
Amortisation of acquired intangible assets	10.4
Trading Profit	227.2
Profit on disposal of non-current assets	(0.1)
Depreciation and amortisation	55.5
Defined benefit retirement plans net charge	5.6
Net decrease in inventories	2.2
Net increase in trade receivables	(9.2)
Net decrease in trade payables	(28.0)
Net decrease in other working capital	24.7
Outflow related to restructuring charges	(1.5)
Defined benefit retirement plans cash outflows	(6.3)
Vacant site remediation costs paid	(1.8)
Cash generated from operations	268.3

9 Employee benefits

The net employee benefits liability as at 30 June 2023 was £50.8m (2022 half year: £54.0m; 2022 full year: £56.1m) derived from an actuarial valuation of the Group's defined benefit pension and other post-retirement obligations as at that date.

All the liabilities in the UK were insured following a buy-in agreement with Pension Insurance Corporation plc ("PIC") in 2021. This buy-in agreement secured an insurance asset from PIC that matches the remaining pension liabilities of the UK Plan, with the result that the Company no longer bears any investment, longevity, interest rate or inflation risks in respect of the UK Plan.

As disclosed in note 26 of the 2022 Annual Report and Financial Statements, the above amounts may materially change in the next 12 months if there is a change in assumptions.

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Employee benefits — net surpluses			
UK defined benefit pension plans	**26.7**	23.3	24.5
ROW defined benefit pension plans	**1.6**	1.2	1.7
Net surpluses	**28.3**	24.5	26.2
Employee benefits — net liabilities			
UK defined benefit pension plans	**(1.1)**	(1.6)	(1.1)
US defined benefit pension plans	**(19.8)**	(21.8)	(22.5)
Germany defined benefit pension plans	**(37.2)**	(34.7)	(38.4)
ROW defined benefit pension plans	**(11.2)**	(13.1)	(10.9)
Other post-retirement benefit plans	**(9.8)**	(7.3)	(9.4)
Net liabilities	**(79.1)**	(78.5)	(82.3)
Net liabilities	**(50.8)**	(54.0)	(56.1)

The expense recognised in the Condensed Group Income Statement in respect of the Group's defined benefit retirement plans and other post-retirement benefit plans is shown below.

		Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
In arriving at trading profit	— within other manufacturing costs	**0.7**	0.8	1.7
(as defined in Note 15.4)	— within administration, selling and distribution costs	**2.3**	2.2	3.9
In arriving at profit before tax	— within net finance costs	**1.1**	0.7	1.4
Total net charge		**4.1**	3.7	7.0

10 Contingent liabilities

Vesuvius has extensive international operations and is subject to various legal and regulatory regimes, including those covering taxation and environmental matters.

Certain of Vesuvius' subsidiaries are subject to legacy matter lawsuits, predominantly in the US, relating to a small number of products containing asbestos manufactured prior to the acquisition of those subsidiaries by Vesuvius. These suits usually also name many other product manufacturers. To date, Vesuvius is not aware of there being any liability verdicts against any of these subsidiaries. Each year a number of these lawsuits are withdrawn, dismissed or settled. The amount paid, including costs, in relation to this litigation has not had a material adverse effect on Vesuvius' financial position or results of operations.

As the settlement of many of the obligations for which reserve is made is subject to legal or other regulatory process, the timing and amount of the associated outflows is subject to some uncertainty (see Note 30 of the 2022 Annual Report and Financial Statements for further information). The amount paid, including costs in relation to this litigation, has not had a material effect on Vesuvius' financial position or results of operations in the current period.

11 Related parties

The nature of related party transactions in H1 2023 are in line with those transactions disclosed in Note 34 of the 2022 Annual Report and Financial Statements. All transactions with related parties are conducted on an arm's length basis and in accordance with normal business terms. Transactions with joint ventures and associates are consistent with those disclosed in Note 34 of the 2022 Annual Report and Financial Statements. Transactions between related parties that are Group subsidiaries are eliminated on consolidation.

Transactions with joint ventures and associate	**Unaudited Half year 2023 £m**	Unaudited Half year 2022 £m
Sales to joint ventures	**2.1**	2.6
Purchases from joint ventures	**14.5**	19.4
Dividends received from joint ventures	**-**	-
Trade payables owed to joint ventures	**9.9**	11.4
Trade receivables owed by joint ventures	**1.0**	0.6

There were no transactions with the associate in the period.

12 Acquisitions and divestments

There were no acquisitions or divestments in the period.

13 Provisions

	Disposal, closure and environmental costs £m	Restructuring charges £m	Other £m	Total £m
As at 1 January 2023	**57.7**	**3.6**	**5.4**	**66.7**
Exchange adjustments	(2.7)	0.2	(0.1)	**(2.6)**
Charge to Condensed Group Income Statement	0.6	-	4.1	**4.7**
Adjustment to discount	1.2	-	-	**1.2**
Cash spend	(2.7)	(1.0)	(3.7)	**(7.4)**
As at 30 June 2023	**54.1**	**2.8**	**5.7**	**62.6**

	Disposal, closure and environmental costs £m	Restructuring charges £m	Other £m	Total £m
As at 1 January 2022	**41.7**	**5.0**	**4.0**	**50.7**
Exchange adjustments	4.4	(0.4)	0.4	**4.4**
Charge to Condensed Group Income Statement	2.0	-	5.7	**7.7**
Adjustment to discount	0.5	-	-	**0.5**
Cash spend	(3.7)	(0.5)	(5.8)	**(10.0)**
As at 30 June 2022	**44.9**	**4.1**	**4.3**	**53.3**

Of the total provision balance at 30 June 2023 of £62.6m (30 June 2022: £53.3m), £47.7m (30 June 2022: £36.0m) is recognised in the Group Balance Sheet within non-current liabilities and £14.9m (30 June 2022: £17.3m) within current liabilities.

In assessing the probable costs and realisation certainty of provisions, reasonable assumptions are made. Changes to the assumptions used could significantly alter the Directors' assessment of the value, timing or certainty of the costs. The nature of the provisions held remains consistent with those held at 31 December 2022 and further description is set out within Note 30 of the 2022 Annual Report and Financial Statements.

14 Financial instruments

The Company's financial assets are measured at amortised cost with the exception of certain investments in debt, which are measured at fair value through other comprehensive income, and certain derivative instruments, which are measured at fair value through profit or loss. Financial liabilities are measured at amortised cost with the exception of certain derivative instruments, which are measured at fair value through profit and loss.

IFRS 13 Fair Value Measurement requires classification of financial instruments within a hierarchy that prioritises the inputs to fair value measurement. The three levels of the fair value hierarchy are:

Level 1 – Unadjusted quoted prices in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly;

Level 3 – Inputs that are not based on observable market data.

The following table summarises Vesuvius' financial instruments measured at fair value, and shows the level within the fair value hierarchy in which the financial instruments have been classified:

	Unaudited Half year 2023		Unaudited Half year 2022		Full year 2022	
	Assets	**Liabilities**	Assets	Liabilities	Assets	Liabilities
	£m	**£m**	£m	£m	£m	£m
Investments (Level 2)	**0.7**		0.8	-	0.5	-
Derivatives not designated for hedge accounting purposes (Level 2)	**0.1**	**(0.2)**	0.2	(0.2)	0.1	(0.1)
Derivatives designated for hedge accounting purposes (Level 2)	**1.2**	**-**	3.1	-	2.7	-

All of the derivative financial instruments not designated for hedge accounting purposes reported in the table above will mature within a year of the balance sheet date. There were no transfers between fair value hierarchies during the period. The method for determining the hierarchy and for valuing the financial instruments is consistent with that used at year-end, as disclosed in Note 25 of the 2022 Annual Report and Financial Statements. Fair value disclosures have not been made in respect of other financial assets and liabilities on the basis that the carrying amount is deemed to be a reasonable approximation of fair value.

The Group's Treasury department, acting in accordance with policies approved by the Board, is principally responsible for managing the financial risks faced by the Group. The Group's activities expose it to a variety of financial risks, the most significant of which are market risk and liquidity risk. The condensed interim financial statements do not include all financial risk management information and disclosures required in the annual financial statements; they should be read in conjunction with the Group's 2022 Annual Report and Financial Statements, in which further details of these financial risks were disclosed in Note 25. There have been no changes in the risk management policies since year end.

In June 2020 the Group executed a $86m Cross currency interest rate swap ('CCIRS') with 3 of its relationship banks. The effect of this is to convert the $86m Private Placement Notes issued in June 2020 into €76.6m. The timing and amount of the US Dollar cashflows under the CCIRS exactly mirror those of the Private Placement Notes and the maturity date of the CCIRS also matches the repayment date of the Notes. The CCIRS would by default be revalued through the Income Statement; however as it is in a designated hedging relationship it is instead revalued through Other Comprehensive Income. More specifically, the US Dollar exposure is designated as a cashflow hedge of the underlying Private Placement Notes and the Euro exposure is designated as a net investment hedge of part of the Group's foreign operations. The CCIRS is presented as a non-current asset or liability as it is expected to be settled more than 12 months after the end of the reporting period.

With the exception of the CCIRS change in the fair value of Derivatives outstanding at 30 June 2023 has been booked through the Income Statement. All of the fair values shown in the table above are classified under IFRS 13 as Level 2 measurements which have been calculated using quoted prices from active markets, where similar contracts are traded and the quotes reflect actual transactions in similar instruments. All of the derivative assets and liabilities not designated for hedge accounting purposes reported in the table above will mature within a year of the balance sheet date.

14 Financial instruments (continued)

The cross-currency interest rate swaps are fair valued at each reporting date and the Group applies hedge accounting in accordance with IFRS 9 such that the movement in fair value is accounted for directly within equity. The USD component is designated as a cashflow hedge of the $86m US Private Placement Notes. The Euro component is designated as a net investment hedge of the Group's Euro denominated net assets.

As at 30 June 2023, €244.0m (2022 half year: €249.0m; full year: €246.0m) and $60.0m (2022 half year: $60.0m; full year: $60.0m) of borrowings were designated as hedges of net investments in €244.0m (2022 half year: €249.0m; full year: €246.0m) and $60.0m (2022 half year: $60.0m; full year: $60.0m) worth of overseas foreign operations. In addition, the €76.6m (2022 half year: €76.6m; full year: €76.6m) CCIRS liability has been designated as a net investment hedge of a further €76.6m (2022 half year: €76.6m; full year: €76.6m) worth of overseas foreign operations.
As the value of the borrowings and the CCIRS liability exactly matches the designated hedged portion of the net investments, the relevant hedge ratio is 1:1. The net investment hedges are therefore 100% effective with no ineffectiveness. It is noted that hedge ineffectiveness would arise in the event there were insufficient euro-denominated overseas foreign operations to be matched against the €76.6m CCIRS liability.

As at 30 June 2023, the Group had $146.0m (2022 half year: $146.0m; full year: $146.0m), €198.0m (2022 half year: €198.0m; full year: €198.0m) and £28.0m (2022 half year: £28.0m; full year: £28.0m) of US Private Placement Loan Notes (USPP) outstanding, which carry a fixed rate of interest, representing 78% (2022 half year: 68%; full year: 81%) of the Group's total borrowings outstanding at that date. The Group had £47.5m (2022 half year: £102.0m; full year: £33.0m) and €46.0m (2022 half year: €51.0m; full year: €48.0m) short-term drawdowns in relation to its committed bank facilities, which carry floating rates of interest, representing 22% (2022 half year: 32%; full year: 19%) of the Group's total borrowings outstanding at 30 June 2023. Maturities of the corresponding USPP Notes were disclosed in Note 25 to the 2022 Annual Report and Financial Statements.

The currency and interest rate profile of the Group's borrowings is detailed in the tables below.

	Financial liabilities (gross borrowings)		
	Fixed rate	**Floating rate**	**Total**
	£m	**£m**	**£m**
Sterling	**28.0**	**48.4**	**76.4**
United States dollar	**114.9**	**0.5**	**115.4**
Euro	**170.1**	**40.6**	**210.7**
Other	**-**	**0.5**	**0.5**
Capitalised costs	**(0.8)**	**(1.5)**	**(2.3)**
As at 30 June 2023	**312.2**	**88.5**	**400.7**
Sterling	28.0	33.3	61.3
United States dollar	120.7	1.9	122.6
Euro	175.2	44.8	220.0
Capitalised costs	(0.9)	(1.8)	(2.7)
As at 31 December 2022	323.0	78.2	401.2

14 Financial instruments (continued)

The maturity analysis of the Group's financial liabilities is shown in the tables below. The cash flows shown are undiscounted.

As at 30 June 2023	**Within one year**	**Between 1-2 years**	**Between 2-5 years**	**Over 5 years**	**Total contractual cash flows**	**Carrying amount**
	£m	**£m**	**£m**	**£m**	**£m**	**£m**
Trade payables	**245.8**	**-**	**-**	**-**	**245.8**	**245.8**
Loans & overdrafts	**47.9**	**56.2**	**211.1**	**128.2**	**443.4**	**403.0**
Lease liabilities	**10.6**	**9.4**	**15.0**	**14.0**	**49.0**	**41.6**
Capitalised arrangement fees	**-**	**-**	**-**	**-**	**-**	**(2.3)**
Derivative liability	**0.2**	**-**	**-**	**-**	**0.2**	**0.2**
Total financial liabilities	**304.5**	**65.6**	**226.1**	**142.2**	**738.4**	**688.3**

As at 31 December 2022	Within one year	Between 1-2 years	Between 2-5 years	Over 5 years	Total contractual cash flows	Carrying amount
	£m	£m	£m	£m	£m	£m
Trade payables	239.5	-	-	-	239.5	239.5
Loans & overdrafts	52.6	9.2	255.3	133.4	450.5	403.8
Lease liabilities	12.3	9.2	13.2	13.5	48.2	40.8
Capitalised arrangement fees	-	-	-	-	-	(2.7)
Derivative liability	0.1	-	-	-	0.1	0.1
Total financial liabilities	304.5	18.4	268.5	146.9	738.3	681.5

In July 2022 and May 2023, the Group exercised its option to request a one-year extension to the maturity of its £385m committed bank facility. Following the requests £385m of the facility matures in August 2026. At the time of the extension the reference to USD LIBOR was replaced with reference to SOFR.

In H1 2023, the Group did not hold any borrowings for which the interest payable referenced LIBOR benchmarks.

15 Alternative performance measures

The Company uses a number of Alternative Performance Measures (APMs) in addition to those reported in accordance with IFRS. The Directors believe that these APMs, listed below, are important when assessing the underlying financial and operating performance of the Group and its Divisions, providing management with key insights and metrics in support of the ongoing management of the Group's performance and cash flow. A number of these align with KPI's and other key metrics used in the business and therefore are considered useful to also disclose to the users of the financial statements. The following APMs do not have standardised meaning prescribed by IFRS and therefore may not be directly comparable to similar measures presented by other companies.

15.1 Headline performance

Headline performance, reported separately on the face of the Condensed Group Income Statement, is from continuing operations and before items reported separately on the face of the Condensed Group Income Statement.

15.2 Underlying revenue, underlying trading profit and underlying return on sales

Underlying revenue, underlying trading profit and underlying return on sales are the headline equivalents of these measures after adjustments to exclude the effects of changes in exchange rates, business acquisitions and disposals. Reconciliations of underlying revenue and underlying trading profit can be found in the Financial Summary. Underlying revenue growth is one of the Group's key performance indicators and provides an important measure of organic growth of Group businesses between reporting periods, by eliminating the impact of exchange rates, acquisitions and disposals.

15.3 Return on Sales ('ROS')

ROS is calculated as trading profit divided by revenue. It is one of the Group's key performance indicators and is used to assess the trading performance of Group businesses. A calculation of ROS is included in Note 2.

15.4 Trading profit/adjusted EBITA

Trading profit/adjusted EBITA is defined as operating profit before separately reported items. It is one of the Group's key performance indicators and is used to assess the trading performance of Group businesses. It is also used as one of the targets against which the annual bonuses of certain employees are measured.

15.5 Headline profit before tax

Headline profit before tax is calculated as the net total of trading profit, plus the Group's share of post-tax profit of joint ventures and total net finance costs associated with headline performance. It is one of the Group's key performance indicators and is used to assess the financial performance of the Group as a whole.

15.6 Headline effective tax rate ('ETR')

The Group's headline ETR is calculated on the income tax costs associated with headline performance, divided by headline profit before tax and before the Group's share of post-tax profit of joint ventures and associates.

15.7 Headline earnings

Headline earnings is profit after tax before separately reported items attributable to owners of the parent.

15.8 Headline earnings per share

Headline earnings per share is calculated by dividing headline profit before tax less associated income tax costs, attributable to owners of the parent by the weighted average number of ordinary shares in issue during the year. It is one of the Group's key performance indicators and is used to assess the underlying earnings performance of the Group as a whole. It is also used as one of the targets against which the annual bonuses of certain employees are measured. Headline earnings per share is disclosed in Note 5.

15 Alternative performance measures (continued)

15.9 Adjusted operating cash flow

Adjusted operating cash flow is cash generated from operations before restructuring and vacant site remediation costs but after deducting capital expenditure net of asset disposals. It is used in calculating the Group's cash conversion.

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Cash generated from continuing operations	**106.8**	69.0	268.3
Add: Outflows relating to restructuring charges	**1.0**	0.5	1.5
Add: Vacant site remediation costs paid	**0.6**	0.9	1.8
Less: Capital expenditure	**(41.9)**	(38.6)	(89.2)
Add: Proceeds from the sale of property, plant and equipment	**4.2**	1.3	3.1
Adjusted operating cash flow	**70.7**	33.1	185.5
Trading Profit	**104.9**	127.4	227.2
Cash Conversion	**67%**	26%	82%

15.10 Cash conversion

Cash conversion is calculated as adjusted operating cash flow divided by trading profit. It is useful for measuring the rate at which cash is generated from trading profit. It is also used as one of the targets against which the annual bonuses of certain employees are measured. The calculation of cash conversion is detailed in Note 15.9 above.

15.11 Free cash flow

Free cash flow is defined as net cash flow from operating activities after net outlays for the purchase and sale of property, plant and equipment, dividends from joint ventures and dividends paid to non-controlling shareholders. It is one of the Group's key performance indicators and is used to assess the underlying cash generation of the Group and is one of the measures used in monitoring the Group's capital. A reconciliation of free cash flow is included underneath the Condensed Group Statement of Cash Flows.

15.12 Average trade working capital to sales ratio

The average trade working capital to sales ratio is calculated as the percentage of average trade working capital balances to the total revenue for the previous 12 months, at constant currency. Average trade working capital (comprising inventories, trade receivables and trade payables) is calculated as the average of the 13 previous month-end balances. It is one of the Group's key performance indicators and is useful for measuring the level of working capital used in the business and is one of the measures used in monitoring the Group's capital.

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Average trade working capital	**480.4**	426.4	487.3
Last 12 months total revenue	**1,989.9**	1,868.6	2,047.4
Average trade working capital to sales ratio	**24.1%**	22.8%	23.8%

15 Alternative performance measures (continued)

15.13 Adjusted earnings before interest, tax, depreciation and amortisation (adjusted EBITDA)

Adjusted EBITDA is calculated as the total of trading profit before depreciation and amortisation of non-acquired intangible assets. It is used in the calculation of the Group's interest cover and net debt to adjusted EBITDA ratios. A reconciliation of adjusted EBITDA is included in Note 2.

15.14 Net interest payable on borrowings

Net interest payable on borrowings is calculated as total interest payable on borrowings less finance income, excluding interest on net retirement benefit obligations, adjustments to discounts and any item separately reported. It is used in the calculation of the Group's interest cover ratio.

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Total interest payable on borrowings (note 3)	**10.4**	8.0	18.3
Finance income (note 3)	**(6.5)**	(2.3)	(8.8)
Net interest payable on borrowings	**3.9**	5.7	9.5

15.15 Interest cover

Interest cover is the ratio of adjusted EBITDA for the last 12 months to net interest payable on borrowings for the last 12 months. It is one of the Group's key performance indicators and is used to assess the financial position of the Group and its ability to fund future growth. This measure is also a component of the Group's covenant calculations.

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Last 12 months adjusted EBITDA	**262.0**	248.0	282.7
Last 12 months net interest payable on borrowings	**7.7**	8.5	9.5
Interest cover	**34.0x**	29.2x	29.8x

15.16 Net debt

Net debt comprises the net total of current and non-current interest-bearing borrowings (including IFRS16 lease liabilities), cash and short-term deposits and derivative financial instruments. Net debt is a measure of the Group's net indebtedness to banks and other external financial institutions. A reconciliation of the movement in net debt is included in Note 7.

15.17 Net debt to adjusted EBITDA

Net debt to adjusted EBITDA is the ratio of net debt at the period-end to adjusted EBITDA for the last 12 months. It is one of the Group's key performance indicators and is used to assess the financial position of the Group and its ability to fund future growth and is one of the measures used in monitoring the Group's capital.

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Net debt (note 7)	**268.0**	327.7	255.0
Last 12 months adjusted EBITDA (note 2)	**262.0**	248.0	282.7
Net debt to adjusted EBITDA	**1.0x**	1.3x	0.9x

15 Alternative performance measures (continued)

15.18 Return on invested capital (ROIC)

The Group has adopted ROIC as its key measure of return from the Group's invested capital. ROIC is calculated as trading profit less amortisation of acquired intangibles plus share of post-tax profit of joint ventures and associates for the previous 12 months after tax, divided by the average (being the average of the opening and closing balance sheet) invested capital (defined as: total assets excluding cash plus non-interest-bearing liabilities), at the average foreign exchange rate for the year.

	Unaudited Half year 2023	Unaudited Half year 2022 £m	Full year 2022 £m
Average invested capital	**1,574.4**	1,437.9	1,503.6
Trading profit (note 15.4)	196.8	198.7	227.2
Amortisation of acquired intangible assets	(10.4)	(9.9)	(10.4)
Share of post-tax profit from joint ventures and associates	0.7	1.7	1.2
Tax on trading profit and amortisation of acquired intangible assets	(51.3)	(51.9)	(57.5)
	135.8	138.6	160.5
ROIC	**8.6%**	9.6%	10.7%

15.19 Constant currency

Figures presented at constant currency represent 2022 amounts retranslated at average 2023 exchange rates.

15.20 Liquidity

Liquidity is the Group's cash and short-term deposits plus undrawn committed debt facilities less cash used as collateral on loans and any gross up of cash in notional cash pools.

	Unaudited Half year 2023 £m	Unaudited Half year 2022 £m	Full year 2022 £m
Cash and short term deposits	**173.2**	177.2	184.2
Undrawn committed debt facilities	**309.5**	257.1	322.5
Cash used as collateral on loans	**(11.5)**	(18.0)	(13.0)
Gross up of cash in notional pools	**-**	(0.1)	(0.1)
Liquidity	**471.2**	416.2	493.6

15.21 Last twelve months ('LTM')

Some results are presented or calculated using data from the last twelve months from the reference date.

16 Exchange rates

The Group reports its results in pounds sterling. A substantial portion of the Group's revenue and profits are denominated in currencies other than pounds sterling. It is the Group's policy to translate the income statements and cash flow statements of its overseas operations into pounds sterling using average exchange rates for the year reported (except when the use of average rates does not approximate the exchange rate at the date of the transaction, in which case the transaction rate is used) and to translate balance sheets using period end rates. The principal exchange rates used were as follows:

	Income and expense Average rates				
	Half year 2023	**Half year 2022**	**Full year 2022**	**Half year to Half year change**	**Full year to Half year change**
US Dollar	1.23	1.30	1.24	-5.4%	-0.8%
Euro	1.14	1.19	1.17	-4.2%	-2.6%
Chinese Renminbi	8.56	8.42	8.31	1.7%	3.0%
Japanese Yen	166.52	159.48	161.86	4.4%	2.9%
Brazilian Real	6.25	6.59	6.38	-5.2%	-2.0%
Indian Rupee	101.37	98.87	96.99	2.5%	4.5%
South African Rand	22.48	19.97	20.16	12.6%	11.5%

	Assets and liabilities Period end rates				
	Half year 2023	**Half year 2022**	**Full year 2022**	**Half year to Half year change**	**Full year to Half year change**
US Dollar	1.27	1.22	1.21	4.1%	5.0%
Euro	1.16	1.16	1.13	0.0%	2.7%
Chinese Renminbi	9.23	8.15	8.37	13.3%	10.3%
Japanese Yen	183.34	165.25	158.60	10.9%	15.6%
Brazilian Real	6.08	6.40	6.39	-5.0%	-4.9%
Indian Rupee	104.29	96.12	100.06	8.5%	4.2%
South African Rand	23.92	19.81	20.57	20.7%	16.3%