UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2023

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number 001-38730

LINDE PLC

(Exact name of registrant as specified in its charter)

Ireland	**98-1448883**
(State or other jurisdiction of incorporation)	(I.R.S. Employer Identification No.)
10 Riverview Drive, Danbury, Connecticut United States 06810	Forge 43 Church Street West Woking, Surrey GU21 6HT United Kingdom

(Address of principal executive offices) (Zip Code)

(203) 837 - 2000	+44 14 83 242200

(Registrant's telephone number, including area code)

N/A
(Former name, former address and former fiscal year, if changed since last report

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Ordinary shares (€0.001 nominal value per share)	LIN	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

At June 30, 2023, 487,945,864 ordinary shares (€0.001 par value) of the Registrant were outstanding.

INDEX

Forward-looking Statements

This document contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are identified by terms and phrases such as: anticipate, believe, intend, estimate, expect, continue, should, could, may, plan, project, predict, will, potential, forecast, and similar expressions. They are based on management's reasonable expectations and assumptions as of the date the statements are made but involve risks and uncertainties. These risks and uncertainties include, without limitation: the performance of stock markets generally; developments in worldwide and national economies and other international events and circumstances, including trade conflicts and tariffs; changes in foreign currencies and in interest rates; the cost and availability of electric power, natural gas and other raw materials; the ability to achieve price increases to offset cost increases; catastrophic events including natural disasters, epidemics, pandemics such as COVID-19, and acts of war and terrorism; the ability to attract, hire, and retain qualified personnel; the impact of changes in financial accounting standards; the impact of changes in pension plan liabilities; the impact of tax, environmental, healthcare and other legislation and government regulation in jurisdictions in which the company operates; the cost and outcomes of investigations, litigation and regulatory proceedings; the impact of potential unusual or non-recurring items; continued timely development and market acceptance of new products and applications; the impact of competitive products and pricing; future financial and operating performance of major customers and industries served; the impact of information technology system failures, network disruptions and breaches in data security; and the effectiveness and speed of integrating new acquisitions into the business. These risks and uncertainties may cause future results or circumstances to differ materially from adjusted projections, estimates or other forward-looking statements.

Linde plc assumes no obligation to update or provide revisions to any forward-looking statement in response to changing circumstances. The above listed risks and uncertainties are further described in Item 1A. Risk Factors in Linde plc's Form 10-K for the fiscal year ended December 31, 2022 filed with the SEC on February 28, 2023, which should be reviewed carefully. Please consider Linde plc's forward-looking statements in light of those risks.

LINDE PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Millions of dollars, except per share data)
(UNAUDITED)

	Quarter Ended June 30,	
	2023	2022
Sales	$ 8,204	$ 8,457
Cost of sales, exclusive of depreciation and amortization	4,316	4,940
Selling, general and administrative	833	771
Depreciation and amortization	960	1,091
Research and development	35	37
Other charges	22	993
Other income (expense) - net	(27)	(36)
Operating Profit	2,011	589
Interest expense - net	52	5
Net pension and OPEB cost (benefit), excluding service cost	(45)	(62)
Income Before Income Taxes and Equity Investments	2,004	646
Income taxes	438	286
Income Before Equity Investments	1,566	360
Income from equity investments	46	50
Net Income (Including Noncontrolling Interests)	1,612	410
Less: noncontrolling interests	(37)	(38)
Net Income – Linde plc	$ 1,575	$ 372
Per Share Data – Linde plc Shareholders		
Basic earnings per share	$ 3.22	$ 0.74
Diluted earnings per share	$ 3.19	$ 0.74
Weighted Average Shares Outstanding (000's):		
Basic shares outstanding	489,618	501,034
Diluted shares outstanding	493,549	505,269

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Millions of dollars, except per share data)
(UNAUDITED)

	Six Months Ended June 30,	
	2023	2022
Sales	$ 16,397	$ 16,668
Cost of sales, exclusive of depreciation and amortization	8,747	9,738
Selling, general and administrative	1,655	1,573
Depreciation and amortization	1,908	2,203
Research and development	71	72
Other charges	40	989
Other income (expense) - net	(32)	(24)
Operating Profit	3,944	2,069
Interest expense - net	89	14
Net pension and OPEB cost (benefit), excluding service cost	(90)	(126)
Income Before Income Taxes and Equity Investments	3,945	2,181
Income taxes	868	655
Income Before Equity Investments	3,077	1,526
Income from equity investments	87	94
Net Income (Including Noncontrolling Interests)	3,164	1,620
Less: noncontrolling interests	(73)	(74)
Net Income – Linde plc	$ 3,091	$ 1,546
Per Share Data – Linde plc Shareholders		
Basic earnings per share	$ 6.30	$ 3.07
Diluted earnings per share	$ 6.25	$ 3.04
Weighted Average Shares Outstanding (000's):		
Basic shares outstanding	490,727	504,093
Diluted shares outstanding	494,685	508,432

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Millions of dollars)
(UNAUDITED)

	Quarter Ended June 30,	
	2023	2022
NET INCOME (INCLUDING NONCONTROLLING INTERESTS)	$ 1,612	$ 410
OTHER COMPREHENSIVE INCOME (LOSS)		
Translation adjustments:		
Foreign currency translation adjustments	(96)	(1,570)
Reclassification to net income	—	(134)
Income taxes	1	5
Translation adjustments	(95)	(1,699)
Funded status - retirement obligations (Note 8):		
Retirement program remeasurements	(5)	67
Reclassifications to net income	(8)	19
Income taxes	2	(7)
Funded status - retirement obligations	(11)	79
Derivative instruments (Note 5):		
Current unrealized gain (loss)	(9)	92
Reclassifications to net income	2	3
Income taxes	1	(20)
Derivative instruments	(6)	75
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)	(112)	(1,545)
COMPREHENSIVE INCOME (LOSS) (INCLUDING NONCONTROLLING INTERESTS)	1,500	(1,135)
Less: noncontrolling interests	(14)	(21)
COMPREHENSIVE INCOME (LOSS) - LINDE PLC	$ 1,486	$ (1,156)

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Millions of dollars)
(UNAUDITED)

	Six Months Ended June 30,	
	2023	2022
NET INCOME (INCLUDING NONCONTROLLING INTERESTS)	$ 3,164	$ 1,620
OTHER COMPREHENSIVE INCOME (LOSS)		
Translation adjustments:		
Foreign currency translation adjustments	133	(1,510)
Reclassification to net income	—	(134)
Income taxes	1	(7)
Translation adjustments	134	(1,651)
Funded status - retirement obligations (Note 8):		
Retirement program remeasurements	(254)	122
Reclassifications to net income	(16)	38
Income taxes	65	(28)
Funded status - retirement obligations	(205)	132
Derivative instruments (Note 5):		
Current unrealized gain (loss)	(84)	110
Reclassifications to net income	(4)	(20)
Income taxes	17	(18)
Derivative instruments	(71)	72
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)	(142)	(1,447)
COMPREHENSIVE INCOME (LOSS) (INCLUDING NONCONTROLLING INTERESTS)	3,022	173
Less: noncontrolling interests	(48)	(45)
COMPREHENSIVE INCOME (LOSS) - LINDE PLC	$ 2,974	$ 128

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(Millions of dollars)
(UNAUDITED)

	June 30, 2023	December 31, 2022
Assets		
Cash and cash equivalents	$ 3,357	$ 5,436
Accounts receivable - net	4,799	4,559
Contract assets	156	124
Inventories	2,079	1,978
Prepaid and other current assets	1,020	950
Total Current Assets	11,411	13,047
Property, plant and equipment - net	23,808	23,548
Goodwill	26,456	25,817
Other intangible assets - net	12,510	12,420
Other long-term assets	4,533	4,826
Total Assets	$ 78,718	$ 79,658
Liabilities and equity		
Accounts payable	$ 2,977	$ 2,995
Short-term debt	3,018	4,117
Current portion of long-term debt	944	1,599
Contract liabilities	3,246	3,073
Other current liabilities	4,367	4,695
Total Current Liabilities	14,552	16,479
Long-term debt	13,528	12,198
Other long-term liabilities	9,390	9,594
Total Liabilities	37,470	38,271
Redeemable noncontrolling interests	13	13
Linde plc Shareholders' Equity (Note 11):		
Ordinary shares,€0.001 par value, authorized 1,750,000,000 shares, 2023 issued: 490,766,972 ordinary shares; 2022 issued: 552,012,862 ordinary shares	—	1
Additional paid-in capital	39,797	40,005
Retained earnings	7,024	20,541
Accumulated other comprehensive income (loss)	(5,899)	(5,782)
Less: Treasury shares, at cost (2023 – 2,821,108 shares and 2022 – 59,555,235 shares)	(1,011)	(14,737)
Total Linde plc Shareholders' Equity	39,911	40,028
Noncontrolling interests	1,324	1,346
Total Equity	41,235	41,374
Total Liabilities and Equity	$ 78,718	$ 79,658

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Millions of dollars)
(UNAUDITED)

	Six Months Ended June 30,	
	2023	2022
Increase (Decrease) in Cash and Cash Equivalents		
Operations		
Net income - Linde plc	$ 3,091	$ 1,546
Add: Noncontrolling interests	73	74
Net Income (including noncontrolling interests)	3,164	1,620
Adjustments to reconcile net income to net cash provided by operating activities:		
Other charges, net of payments	(61)	922
Depreciation and amortization	1,908	2,203
Deferred income taxes	(61)	(221)
Share-based compensation	66	51
Working capital:		
Accounts receivable	(175)	(543)
Inventory	(85)	(144)
Prepaid and other current assets	(39)	(123)
Payables and accruals	(458)	70
Contract assets and liabilities, net	117	243
Pension contributions	(25)	(19)
Long-term assets, liabilities and other	(293)	74
Net cash provided by (used for) operating activities	4,058	4,133
Investing		
Capital expenditures	(1,688)	(1,475)
Acquisitions, net of cash acquired	(834)	(49)
Divestitures, net of cash divested and asset sales	24	17
Net cash provided by (used for) investing activities	(2,498)	(1,507)
Financing		
Short-term debt borrowings (repayments) - net	(1,116)	2,172
Long-term debt borrowings	2,115	2,291
Long-term debt repayments	(1,641)	(1,703)
Issuances of ordinary shares	21	22
Purchases of ordinary shares	(1,767)	(3,329)
Cash dividends - Linde plc shareholders	(1,246)	(1,177)
Noncontrolling interest transactions and other	(22)	(35)
Net cash provided by (used for) financing activities	(3,656)	(1,759)
Effect of exchange rate changes on cash and cash equivalents	17	(35)
Change in cash and cash equivalents	(2,079)	832
Cash and cash equivalents, beginning-of-period	5,436	2,823
Cash and cash equivalents, end-of-period	$ 3,357	$ 3,655

The accompanying notes are an integral part of these financial statements.

INDEX TO NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Notes to Condensed Consolidated Financial Statements - Linde plc and Subsidiaries (Unaudited)

1. Summary of Significant Accounting Policies

Linde plc ("Linde" or "the company") is an incorporated public limited company formed under the laws of Ireland. Linde's registered office is located at Ten Earlsfort Terrace, Dublin 2, D02 T380 Ireland. Linde's principal executive offices are located at Forge, 43 Church Street West, Woking, Surrey GU21 6HT, United Kingdom and 10 Riverview Drive, Danbury, Connecticut, 06810, United States.

On January 18, 2023, shareholders approved the company's proposal for an intercompany reorganization that resulted in the delisting of its ordinary shares from the Frankfurt Stock Exchange, on March 1, 2023, after the completion of legal and regulatory approvals.

In connection with the closing of the intercompany reorganization on March 1, 2023, Linde shareholders automatically received one share of the new holding company, listed on the New York Stock Exchange, in exchange for each share of Linde plc that was previously owned. The new holding company is also named "Linde plc" and trades under the existing ticker LIN (see Note 11).

Presentation of Condensed Consolidated Financial Statements - In the opinion of Linde management, the accompanying condensed consolidated financial statements include all adjustments necessary for a fair statement of the results for the interim periods presented and such adjustments are of a normal recurring nature. The accompanying condensed consolidated financial statements should be read in conjunction with the notes to the consolidated financial statements of Linde plc and subsidiaries in Linde's 2022 Annual Report on Form 10-K. There have been no material changes to the company's significant accounting policies during 2023.

Reclassifications – Certain prior periods' amounts have been reclassified to conform to the current year's presentation.

2. Other Charges

2023 Other Charges

Other charges were $22 million for the quarter and $40 million for the six months ended June 30, 2023, respectively. Costs primarily related to severance in the Engineering segment and expenses incurred due to the intercompany reorganization for the quarter and six month period ended June 30, 2023, respectively. Other charges for the quarter and year-to-date periods had an associated net income tax benefit of $34 million and $79 million, respectively, primarily comprised of a benefit of $124 million related to the resolution of a U.S. income tax audit, partially offset by an accrual of $85 million for the potential settlement of an international income tax matter, both recorded in the first quarter.

The following table summarizes the activities related to the company's pre-tax Other charges for the six months ended June 30, 2023:

	Six Months Ended June 30, 2023				
(millions of dollars)	Severance costs	Other cost reduction charges	**Total cost reduction program related charges**	Other charges	Total other charges
Balance, December 31, 2022	$ 281	$ 27	$ 308	$ 12	$ 320
2023 Other charges	24	—	24	16	40
Less: Cash payments / receipts	(100)	(1)	(101)	—	(101)
Less: Non-cash charges	—	—	—	7	7
Foreign currency translation and other	(3)	—	(3)	—	(3)
Balance, June 30, 2023	$ 202	$ 26	$ 228	$ 35	$ 263

2022 Other Charges

Russia-Ukraine Conflict

In response to the Russian invasion of Ukraine, multiple jurisdictions, including Europe and the U.S., have imposed several tranches of economic sanctions on Russia. As a result, Linde has reassessed its ability to control its Russian subsidiaries and determined that as of June 30, 2022 it can no longer exercise control over these entities. As such, Linde has deconsolidated its Russian gas and engineering business entities as of June 30, 2022. The deconsolidation of the company's Russian gas and engineering business entities resulted in a loss of $787 million ($730 million after tax) for the quarter and six months ended June 30, 2022.

The fair value of Linde’s Russian subsidiaries was determined using a probability weighted discounted cash flow model, which resulted in the recognition of a $407 million loss on deconsolidation when compared to the carrying value of the entities. This loss is recorded within other charges in the consolidated statements of income.

Upon deconsolidation an investment was recorded, which represents the fair value of net assets. The company did not receive any consideration, cash or otherwise, as part of the deconsolidation. Linde will maintain its interest in its Russian subsidiaries and will continue to comply with sanctions and government restrictions. The investment will be monitored for impairment in future periods.

Receivables, primarily loans receivable, with newly deconsolidated entities were reassessed for collectability resulting in a write-off of approximately $380 million.

Other charges related specifically to the Russia-Ukraine conflict were $114 million ($84 million after tax) for the quarter and six months ended June 30, 2022, and are primarily comprised of impairments of assets which are maintained by international entities in support of the Russian business.

Other charges

Other charges were $92 million and $88 million ($75 million and $74 million, after tax) for the quarter and six months ended June 30, 2022, respectively, primarily related to the impairment of an equity method investment in the EMEA segment.

Classification in the condensed consolidated financial statements

The costs are shown within operating profit in a separate line item on the consolidated statements of income. On the condensed consolidated statements of cash flows, the impact of these costs, net of cash payments, is shown as an adjustment to reconcile net income to net cash provided by operating activities. In Note 10 Segments, Linde excluded these costs from its management definition of segment operating profit; a reconciliation of segment operating profit to consolidated operating profit is shown within the segment operating profit table.

3. Supplemental Information

Receivables

Linde applies loss rates that are lifetime expected credit losses at initial recognition of the receivables. These expected loss rates are based on an analysis of the actual historical default rates for each business, taking regional circumstances into account. If necessary, these historical default rates are adjusted to reflect the impact of current changes in the macroeconomic environment using forward-looking information. The loss rates are also evaluated based on the expectations of the responsible management team regarding the collectability of the receivables. Gross trade receivables aged less than one year were $4,700 million and $4,498 million at June 30, 2023 and December 31, 2022, respectively, and gross receivables aged greater than one year were $368 million and $321 million at June 30, 2023 and December 31, 2022, respectively. Other receivables were $157 million and $145 million at June 30, 2023 and December 31, 2022, respectively. Receivables aged greater than one year are generally fully reserved unless specific circumstances warrant exceptions, such as those backed by federal governments.

Accounts receivable net of reserves were $4,799 million at June 30, 2023 and $4,559 million at December 31, 2022. Allowances for expected credit losses were $426 million at June 30, 2023 and $405 million at December 31, 2022. Provisions for expected credit losses were $83 million and $67 million for the six months ended June 30, 2023 and 2022, respectively. The allowance activity in the six months ended June 30, 2023 and 2022 related to write-offs of uncollectible amounts, net of recoveries and currency movements is not material.

Inventories

The following is a summary of Linde's consolidated inventories:

(Millions of dollars)	June 30, 2023	December 31, 2022
Inventories		
Raw materials and supplies	$ 600	$ 567
Work in process	401	368
Finished goods	1,078	1,043
Total inventories	$ 2,079	$ 1,978

4. Debt

The following is a summary of Linde's outstanding debt at June 30, 2023 and December 31, 2022:

(Millions of dollars)	June 30, 2023	December 31, 2022
SHORT-TERM		
Commercial paper	$ 2,765	$ 3,926
Other bank borrowings (primarily non U.S.)	253	191
Total short-term debt	3,018	4,117
LONG-TERM (a)		
(U.S. dollar denominated unless otherwise noted)		
2.70% Notes due 2023 (c)	—	501
2.00% Euro denominated notes due 2023 (b) (d)	—	699
5.875% GBP denominated notes due 2023 (b) (d)	—	367
1.20% Euro denominated notes due 2024	600	588
1.875% Euro denominated notes due 2024 (b)	328	324
4.800% Notes due 2024	299	299
4.700% Notes due 2025	598	598
2.65% Notes due 2025	399	400
1.625% Euro denominated notes due 2025	543	533
3.625% Euro denominated notes due 2025 (e)	544	—
0.00% Euro denominated notes due 2026	766	751
3.20% Notes due 2026	725	724
3.434% Notes due 2026	198	198
1.652% Euro denominated notes due 2027	89	88
0.25% Euro denominated notes due 2027	817	802
1.00% Euro denominated notes due 2027	546	536
1.00% Euro denominated notes due 2028 (b)	767	749
3.375% Euro denominated notes due 2029 (e)	814	—
1.10% Notes due 2030	697	696
1.90% Euro denominated notes due 2030	113	111
1.375% Euro denominated notes due 2031	819	803
0.55% Euro denominated notes due 2032	813	798
0.375% Euro denominated notes due 2033	540	529
3.625% Euro denominated notes due 2034 (e)	705	—
1.625% Euro denominated notes due 2035	865	849
3.55% Notes due 2042	665	665
2.00% Notes due 2050	296	296
1.00% Euro denominated notes due 2051	746	731
Non U.S. borrowings	170	152
Other	10	10
	14,472	13,797
Less: current portion of long-term debt	(944)	(1,599)
Total long-term debt	13,528	12,198
Total debt	$ 17,490	$ 17,914

(a) Amounts are net of unamortized discounts, premiums and/or debt issuance costs as applicable.
(b) June 30, 2023 and December 31, 2022 included a cumulative $50 million and $56 million adjustment to carrying value, respectively, related to hedge accounting of interest rate swaps. Refer to Note 5.
(c) In February 2023, Linde repaid $500 million of 2.70% notes that became due.
(d) In April 2023, Linde repaid €650 million of 2.00% notes and £300 million of 5.875% notes that became due.
(e) In June 2023, Linde issued €500 million of 3.625% notes due in 2025, €750 million of 3.375% notes due in 2029 and €650 million of 3.625% notes due in 2034.

The company maintains a $5 billion and a $1.5 billion unsecured revolving credit agreement with a syndicate of banking institutions that expire December 7, 2027 and December 7, 2023, respectively. There are no financial maintenance covenants contained within the credit agreements. No borrowings were outstanding under the credit agreements as of June 30, 2023.

5. Financial Instruments

In its normal operations, Linde is exposed to market risks relating to fluctuations in interest rates, foreign currency exchange rates, energy and commodity costs. The objective of financial risk management at Linde is to minimize the negative impact of such fluctuations on the company's earnings and cash flows. To manage these risks, among other strategies, Linde routinely enters into various derivative financial instruments ("derivatives") including interest-rate swap and treasury rate lock agreements, currency-swap agreements, forward contracts, currency options, and commodity-swap agreements. These instruments are not entered into for trading purposes and Linde only uses commonly traded and non-leveraged instruments.

There are three types of derivatives that the company enters into: (i) those relating to fair-value exposures, (ii) those relating to cash-flow exposures, and (iii) those relating to foreign currency net investment exposures. Fair-value exposures relate to recognized assets or liabilities, and firm commitments; cash-flow exposures relate to the variability of future cash flows associated with recognized assets or liabilities, or forecasted transactions; and net investment exposures relate to the impact of foreign currency exchange rate changes on the carrying value of net assets denominated in foreign currencies.

When a derivative is executed and hedge accounting is appropriate, it is designated as either a fair-value hedge, cash-flow hedge, or a net investment hedge. Currently, Linde designates all interest-rate and treasury-rate locks as hedges for accounting purposes; however, cross-currency contracts are generally not designated as hedges for accounting purposes. Certain currency contracts related to forecasted transactions are designated as hedges for accounting purposes. Whether designated as hedges for accounting purposes or not, all derivatives are linked to an appropriate underlying exposure. On an ongoing basis, the company assesses the hedge effectiveness of all derivatives designated as hedges for accounting purposes to determine if they continue to be highly effective in offsetting changes in fair values or cash flows of the underlying hedged items. If it is determined that the hedge is not highly effective through the use of a qualitative assessment, then hedge accounting will be discontinued prospectively.

Counterparties to Linde's derivatives are major banking institutions with credit ratings of investment grade or better. The company has Credit Support Annexes ("CSAs") in place for certain entities with their principal counterparties to minimize potential default risk and to mitigate counterparty risk. Under the CSAs, the fair values of derivatives for the purpose of interest rate and currency management are collateralized with cash on a regular basis. As of June 30, 2023, the impact of such collateral posting arrangements on the fair value of derivatives was insignificant. Management believes the risk of incurring losses on derivative contracts related to credit risk is remote and any losses would be immaterial.

The following table is a summary of the notional amount and fair value of derivatives outstanding at June 30, 2023 and December 31, 2022 for consolidated subsidiaries:

(Millions of dollars)	Notional Amounts June 30, 2023	Notional Amounts December 31, 2022	Fair Value Assets (a) June 30, 2023	Fair Value Assets (a) December 31, 2022	Fair Value Liabilities (a) June 30, 2023	Fair Value Liabilities (a) December 31, 2022
Derivatives Not Designated as Hedging Instruments:						
Currency contracts:						
Balance sheet items	$ 3,477	$ 3,056	$ 26	$ 13	$ 8	$ 7
Forecasted transactions	395	449	13	9	11	9
Cross-currency swaps	4	42	—	—	—	1
Total	$ 3,876	$ 3,547	$ 39	$ 22	$ 19	$ 17
Derivatives Designated as Hedging Instruments:						
Currency contracts:						
Forecasted transactions	$ 292	$ 323	$ 5	$ 6	$ 1	$ 5
Commodity contracts	N/A	N/A	10	—	7	4
Interest rate swaps	600	856	1	—	67	70
Total Hedges	$ 892	$ 1,179	$ 16	$ 6	$ 75	$ 79
Total Derivatives	$ 4,768	$ 4,726	$ 55	$ 28	$ 94	$ 96

(a) Amounts as of June 30, 2023 and December 31, 2022 included current assets of $45 million and $24 million which are recorded in prepaid and other current assets; long-term assets of $10 million and $4 million which are recorded in other long-term assets; current liabilities of $30 million and $23 million which are recorded in other current liabilities; and long-term liabilities of $64 million and $73 million which are recorded in other long-term liabilities.

Balance Sheet Items

Foreign currency contracts related to balance sheet items consist of forward contracts entered into to manage the exposure to fluctuations in foreign-currency exchange rates on recorded balance sheet assets and liabilities denominated in currencies other than the functional currency of the related operating unit. Certain forward currency contracts are entered into to protect underlying monetary assets and liabilities denominated in foreign currencies from foreign exchange risk and are not designated as hedging instruments. For balance sheet items that are not designated as hedging instruments, the fair value adjustments on these contracts are offset by the fair value adjustments recorded on the underlying monetary assets and liabilities.

Forecasted Transactions

Foreign currency contracts related to forecasted transactions consist of forward contracts entered into to manage the exposure to fluctuations in foreign-currency exchange rates on (1) forecasted purchases of capital-related equipment and services, (2) forecasted sales, or (3) other forecasted cash flows denominated in currencies other than the functional currency of the related operating units. For forecasted transactions that are designated as cash flow hedges, fair value adjustments are recorded to accumulated other comprehensive income (loss) with deferred amounts reclassified to earnings over the same time period as the income statement impact of the associated purchase. For forecasted transactions that do not qualify for cash flow hedging relationships, fair value adjustments are recorded directly to earnings.

Cross-Currency Swaps

Cross-currency interest rate swaps are entered into to limit the foreign currency risk of future principal and interest cash flows associated with intercompany loans, and to a more limited extent bonds, denominated in non-functional currencies. The fair value adjustments on the cross-currency swaps are recorded to earnings, where they are offset by fair value adjustments on the underlying intercompany loan or bond.

Commodity Contracts

Commodity contracts are entered into to manage the exposure to fluctuations in commodity prices, which arise in the normal course of business from its procurement transactions. To reduce the extent of this risk, Linde enters into a limited number of electricity, natural gas, and propane gas derivatives. For forecasted transactions that are designated as cash flow hedges, fair value adjustments are recorded to accumulated other comprehensive income (loss) with deferred amounts reclassified to earnings over the same time period as the income statement impact of the associated purchase.

Net Investment Hedges

As of June 30, 2023, Linde has €10.4 billion ($11.2 billion) Euro-denominated notes and intercompany loans and ¥3.6 billion ($0.5 billion) CNY-denominated intercompany loans that are designated as hedges of the net investment positions in certain foreign operations. Since hedge inception, the deferred gain recorded within cumulative translation adjustment component of accumulated other comprehensive income (loss) in the consolidated balance sheet and the consolidated statement of comprehensive income is $199 million (deferred loss of $66 million and $151 million for the quarter and six months ended June 30, 2023, respectively).

As of June 30, 2023, exchange rate movements relating to previously designated hedges that remain in accumulated other comprehensive income (loss) is at a gain of $56 million. These movements will remain in accumulated other comprehensive income (loss), until appropriate, such as upon sale or liquidation of the related foreign operations at which time amounts will be reclassified to the consolidated statements of income.

Interest Rate Swaps

Linde uses interest rate swaps to hedge the exposure to changes in the fair value of financial assets and financial liabilities as a result of interest rate changes. These interest rate swaps effectively convert fixed-rate interest exposures to variable rates; fair value adjustments are recognized in earnings along with an equally offsetting charge/benefit to earnings for the changes in the fair value of the underlying financial asset or financial liability (See Note 4).

Derivatives' Impact on Consolidated Statements of Income

The following table summarizes the impact of the company's derivatives on the consolidated statements of income:

	Amount of Pre-Tax Gain (Loss) Recognized in Earnings *			
	Quarter Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
Derivatives Not Designated as Hedging Instruments				
Currency contracts:				
Balance sheet items				
Debt-related	$ (44)	$ (41)	$ (83)	$ 10
Other balance sheet items	(1)	4	(2)	(8)
Total	$ (45)	$ (37)	$ (85)	$ 2

* The gains (losses) on balance sheet items are offset by gains (losses) recorded on the underlying hedged assets and liabilities. Accordingly, the gains (losses) for the derivatives and the underlying hedged assets and liabilities related to debt items are recorded in the consolidated statements of income as interest expense-net. Other balance sheet items and anticipated net income gains (losses) are generally recorded in the consolidated statements of income as other income (expenses)-net.

The amounts of gain or loss recognized in accumulated other comprehensive income (loss) and reclassified to the consolidated statement of income was not material for the six months ended June 30, 2023 and 2022, respectively. Net impacts expected to be reclassified to earnings during the next twelve months are also not material.

6. Fair Value Disclosures

The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows:

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

Level 2 – quoted prices for similar assets and liabilities in active markets or inputs that are observable

Level 3 – inputs that are unobservable (for example cash flow modeling inputs based on assumptions)

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table summarizes assets and liabilities measured at fair value on a recurring basis:

(Millions of dollars)	Fair Value Measurements Using					
	Level 1		Level 2		Level 3	
	June 30, 2023	December 31, 2022	June 30, 2023	December 31, 2022	June 30, 2023	December 31, 2022
Assets						
Derivative assets	$ —	$ —	$ 55	$ 28	$ —	$ —
Investments and securities*	21	20	—	—	13	13
Total	$ 21	$ 20	$ 55	$ 28	$ 13	$ 13
Liabilities						
Derivative liabilities	$ —	$ —	$ 94	$ 96	$ —	$ —

* Investments and securities are recorded in prepaid and other current assets and other long-term assets in the company's condensed consolidated balance sheets.

Level 1 investments and securities are marketable securities traded on an exchange. Level 2 investments are based on market prices obtained from independent brokers or determined using quantitative models that use as their basis readily observable market parameters that are actively quoted and can be validated through external sources, including third-party pricing services, brokers and market transactions. Level 3 investments and securities consist of a venture fund. For the valuation, Linde uses the net asset value received as part of the fund's quarterly reporting, which for the most part is not based on quoted prices in active markets. In order to reflect current market conditions, Linde proportionally adjusts by observable market data (stock exchange prices) or current transaction prices.

Changes in level 3 investments and securities were immaterial.

The fair value of cash and cash equivalents, short-term debt, accounts receivable-net, and accounts payable approximate carrying value because of the short-term maturities of these instruments.

The fair value of long-term debt is estimated based on the quoted market prices for the same or similar issues. Long-term debt is categorized within Level 2 of the fair value hierarchy. At June 30, 2023, the estimated fair value of Linde’s long-term debt portfolio was $12,689 million versus a carrying value of $14,472 million. At December 31, 2022, the estimated fair value of Linde’s long-term debt portfolio was $11,994 million versus a carrying value of $13,797 million. Differences between the carrying value and the fair value are attributable to fluctuations in interest rates subsequent to when the debt was issued and relative to stated coupon rates.

7. Earnings Per Share – Linde plc Shareholders

Basic and diluted earnings per share is computed by dividing Net income – Linde plc for the period by the weighted average number of either basic or diluted shares outstanding, as follows:

	Quarter Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Numerator (Millions of dollars)				
Net Income – Linde plc	$ 1,575	$ 372	$ 3,091	$ 1,546
Denominator (Thousands of shares)				
Weighted average shares outstanding	489,061	500,535	490,201	503,626
Shares earned and issuable under compensation plans	557	499	526	467
Weighted average shares used in basic earnings per share	489,618	501,034	490,727	504,093
Effect of dilutive securities				
Stock options and awards	3,931	4,235	3,958	4,339
Weighted average shares used in diluted earnings per share	493,549	505,269	494,685	508,432
Basic Earnings Per Share	$ 3.22	$ 0.74	$ 6.30	$ 3.07
Diluted Earnings Per Share	$ 3.19	$ 0.74	$ 6.25	$ 3.04

There were no antidilutive shares for any period presented.

8. Retirement Programs

The components of net pension and postretirement benefits other than pensions ("OPEB") costs for the quarter and six months ended June 30, 2023 and 2022 are shown below:

	Quarter Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
Amount recognized in Operating Profit				
Service cost	$ 21	$ 32	$ 42	$ 65
Amount recognized in Net pension and OPEB cost (benefit), excluding service cost				
Interest cost	94	51	186	104
Expected return on plan assets	(131)	(132)	(260)	(268)
Net amortization and deferral	(8)	19	(16)	38
	(45)	(62)	(90)	(126)
Net periodic benefit cost (benefit)	$ (24)	$ (30)	$ (48)	$ (61)

Components of net periodic benefit expense for other post-retirement plans for the quarter and six months ended June 30, 2023 and 2022 were not material.

Linde estimates that 2023 required contributions to its pension plans will be in the range of approximately $40 million to $50 million, of which $25 million have been made through June 30, 2023.

9. Commitments and Contingencies

Contingent Liabilities

Linde is subject to various lawsuits and government investigations that arise from time to time in the ordinary course of business. These actions are based upon alleged environmental, tax, antitrust and personal injury claims, among others. Linde has strong defenses in these cases and intends to defend itself vigorously. It is possible that the company may incur losses in connection with some of these actions in excess of accrued liabilities. Management does not anticipate that in the aggregate such losses would have a material adverse effect on the company's consolidated financial position or liquidity; however, it is possible that the final outcomes could have a significant impact on the company's reported results of operations in any given period (see Note 17 to the consolidated financial statements of Linde's 2022 Annual Report on Form 10-K).

Significant matters are:

- During 2009, the Brazilian government published Law 11941/2009 instituting a new voluntary amnesty program ("Refis Program") which allowed Brazilian companies to settle certain federal tax disputes at reduced amounts. During 2009, the company decided that it was economically beneficial to settle many of its outstanding federal tax disputes and such disputes were enrolled in the Refis Program, subject to final calculation and review by the Brazilian federal government. The company recorded estimated liabilities based on the terms of the Refis Program. Since 2009, Linde has been unable to reach final agreement on the calculations and initiated litigation against the government in an attempt to resolve certain items. Open issues relate to the following matters: (i) application of cash deposits and net operating loss carryforwards to satisfy obligations and (ii) the amount of tax reductions available under the Refis Program. It is difficult to estimate the timing of resolution of legal matters in Brazil.

- At June 30, 2023, the most significant non-income tax claims in Brazil, after enrollment in the Refis Program, relate to state VAT tax matters. The total estimated exposure relating to such claims, including interest and penalties, as appropriate, is approximately $120 million. Linde has not recorded any liabilities related to such claims based on management judgment and opinions of outside counsel.

  During the first quarter of 2023, the Brazilian Supreme Court issued a decision related to a federal tax matter that the company previously disclosed as a contingency in Note 17 to the consolidated financial statements of Linde's 2022 Annual report on Form 10-K. As a result of this decision, the company recorded a reserve based on its best estimate of potential settlement (see Note 2). Because litigation in Brazil historically takes many years to resolve, it is very difficult to estimate the timing of resolution of these matters; however, it is possible that certain of these matters may be resolved within the near term. The company is vigorously defending against the proceedings.

- On September 1, 2010, CADE (Brazilian Administrative Council for Economic Defense) announced alleged anticompetitive activity on the part of five industrial gas companies in Brazil and imposed fines. Originally, CADE imposed a civil fine of R$2.2 billion Brazilian reais ($460 million) on White Martins, the Brazil-based subsidiary of Linde Inc. The fine was reduced to R$1.7 billion Brazilian reais ($355 million) due to a calculation error made by CADE. The fine against White Martins was overturned by the Ninth Federal Court of Brasilia. CADE appealed this decision, and the Federal Court of Appeals rejected CADE's appeal and confirmed the decision of the Ninth Federal Court of Brasilia. CADE has filed an appeal with the Superior Court of Justice and a decision is pending.

Similarly, on September 1, 2010, CADE imposed a civil fine of R$237 million Brazilian reais ($50 million) on Linde Gases Ltda., the former Brazil-based subsidiary of Linde AG, which was divested to MG Industries GmbH on March 1, 2019 and with respect to which Linde provided a contractual indemnity. The fine was reduced to R$188 million Brazilian reais ($39 million) due to a calculation error made by CADE. The fine against Linde Gases Ltda. was overturned by the Seventh Federal Court in Brasilia. CADE appealed this decision, and the Federal Court of Appeals rejected CADE's appeal and confirmed the decision of the Seventh Federal Court of Brasilia. CADE filed an appeal with the Superior Court of Justice which was denied. In parallel, CADE filed (i) an appeal with the Supreme Court of Justice, which was denied, and (ii) a subsequent appeal to a panel of the Supreme Court of Justice where a final decision is pending.

Linde has strong defenses and is confident that it will prevail on appeal and have the fines overturned. Linde strongly believes that the allegations of anticompetitive activity against our current and former Brazilian subsidiaries are not supported by valid and sufficient evidence. Linde believes that this decision will not stand up to judicial review and deems the possibility of cash outflows to be extremely unlikely. As a result, no reserves have been recorded as management does not believe that a loss from this case is probable.

On and after April 23, 2019 former shareholders of Linde AG filed appraisal proceedings at the District Court (*Landgericht*) Munich I (Germany), seeking an increase of the cash consideration paid in connection with the previously completed cash merger squeeze-out of all of Linde AG's minority shareholders for €189.46 per share. Any such increase would apply to all 14,763,113 Linde AG shares that were outstanding on April 8, 2019, when the cash merger squeeze-out was completed. The period for plaintiffs to file claims expired on July 9, 2019. The company believes the consideration paid was fair and that the claims lack merit, and no reserve has been established. We cannot estimate the timing of resolution.

On December 30, 2022, the Russian Arbitration Court of the St. Petersburg and Leningrad Region issued an injunction preventing (i) the sale of any shares in Linde's subsidiaries and joint ventures in Russia, and (ii) the disposal of any of assets in those entities exceeding 5% of the relevant company's overall asset value. The injunction is not expected to have any impact on the operations of Linde's Russian businesses. The injunction was requested by RusChemAlliance (RCA) as a preliminary measure to secure payment of an eventual award under an arbitration proceeding RCA intended to file against Linde Engineering for alleged breach of contract under the agreement to build a gas processing plant in Ust Luga, Russia entered into between a consortium of Linde Engineering and Renaissance Heavy Industries LLC, and RCA on July 7, 2021. Performance of the agreement was lawfully suspended by Linde Engineering on May 27, 2022 in compliance with applicable sanctions and in accordance with a decision by the sanctions authority in Germany. On March 1, 2023, RCA filed a claim in St. Petersburg against Linde GmbH for recovery of advance payments under the agreement ("Russian Claim"). On March 4, 2023, in accordance with the dispute resolution provisions of the agreement, Linde GmbH filed a notice of arbitration with the Hong Kong International Arbitration Centre ("HKIAC") against RCA to claim that (i) RCA has no entitlement to payment, (ii) RCA's Russian claim is in breach of the arbitration agreement, and (iii) RCA must compensate Linde for the losses and damages caused by the injunction. Additionally, Linde GmbH filed for and on March 17, 2023 obtained an anti-suit injunction from a Hong Kong court against RCA directing RCA to seek a stay of the Russian Claim and ordering it to resolve any disputes in accordance with HKIAC arbitration. Despite the anti-suit injunction obtained by Linde, the proceeding in St. Petersburg has not been stayed and RCA is continuing to pursue its claim in Russia. We cannot estimate timing of resolution of the parallel proceedings in Russia and Hong Kong.

As of June 30, 2023, Linde had approximately $1.2 billion of advance payments recorded in contract liabilities related to engineering projects with RCA which are subject to sanctions and have been suspended accordingly as of May 27, 2022. Contract liabilities are typically recognized as revenue as performance obligations are satisfied under contract terms. Linde deconsolidated its Russian gas and engineering business entities as of June 30, 2022, and the remaining investment value of its Russia subsidiaries is immaterial. As such, the obligation to satisfy any residual contract liabilities is not expected to have an adverse impact on earnings, but may result in net cash outflows.

It is difficult to estimate the timing of resolution of this matter. The company intends to vigorously defend its interests in both the injunction and arbitration proceedings.

10. Segments

For a description of Linde plc's operating segments, refer to Note 18 to the consolidated financial statements on Linde plc's 2022 Annual Report on Form 10-K.

The table below presents sales and operating profit information about reportable segments and Other for the quarter and six months ended June 30, 2023 and 2022.

	Quarter Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
SALES[a]				
Americas	$ 3,541	$ 3,518	$ 7,092	$ 6,759
EMEA	2,160	2,144	4,337	4,292
APAC	1,683	1,651	3,281	3,253
Engineering	495	644	1,035	1,372
Other	325	500	652	992
Total sales	$ 8,204	$ 8,457	$ 16,397	$ 16,668

	Quarter Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
SEGMENT OPERATING PROFIT				
Americas	$ 1,070	$ 910	$ 2,095	$ 1,814
EMEA	630	536	1,237	1,039
APAC	472	426	895	825
Engineering	107	105	256	248
Other	7	11	9	(33)
Segment operating profit	2,286	1,988	4,492	3,893
Other charges (Note 2)	(22)	(993)	(40)	(989)
Purchase accounting impacts - Linde AG	(253)	(406)	(508)	(835)
Total operating profit	$ 2,011	$ 589	$ 3,944	$ 2,069

(a) Sales reflect external sales only. Intersegment sales, primarily from Engineering to the industrial gases segments, were $335 million and $629 million for the quarter and six months ended June 30, 2023, respectively, and $246 million and $477 million for the respective 2022 periods.

11. Equity

Equity

On March 1, 2023, in connection with the shareholder approved intercompany reorganization that resulted in the delisting of old Linde plc from the New York Stock Exchange (NYSE) and the Frankfurt Stock Exchange (FSE), and the subsequent relisting of new Linde plc to the NYSE, Linde shareholders automatically received one share of the new holding company, listed on the NYSE in exchange for each share of Linde plc that was previously owned. The company issued 490,766,972 new Linde shares. Linde plc's historical treasury shares were immediately canceled which resulted in an approximately $15 billion decrease in treasury shares and retained earnings in Shareholders' Equity.

A summary of the changes in total equity for the quarter and six months ended June 30, 2023 and 2022 is provided below:

	Quarter Ended June 30,					
(Millions of dollars)	2023			2022		
Activity	Linde plc Shareholders' Equity	Noncontrolling Interests	Total Equity	Linde plc Shareholders' Equity	Noncontrolling Interests	Total Equity
Balance, beginning of period	$ 39,970	$ 1,353	$ 41,323	$ 42,963	$ 1,414	$ 44,377
Net income (a)	1,575	37	1,612	372	38	410
Other comprehensive income (loss)	(89)	(23)	(112)	(1,528)	(17)	(1,545)
Noncontrolling interests:						
Additions (reductions)	(11)	(7)	(18)	—	(53)	(53)
Dividends and other capital changes	—	(36)	(36)	—	(29)	(29)
Dividends to Linde plc ordinary share holders ($1.275 per share in 2023 and $1.17 per share in 2022)	(623)	—	(623)	(585)	—	(585)
Issuances of ordinary shares:						
For employee savings and incentive plans	(35)	—	(35)	7	—	7
Purchases of ordinary shares	(912)	—	(912)	(1,572)	—	(1,572)
Share-based compensation	36	—	36	17	—	17
Balance, end of period	$ 39,911	$ 1,324	$ 41,235	$ 39,674	$ 1,353	$ 41,027

	Six Months Ended June 30,					
(Millions of dollars)	2023			2022		
Activity	Linde plc Shareholders' Equity	Noncontrolling Interests	Total Equity	Linde plc Shareholders' Equity	Noncontrolling Interests	Total Equity
Balance, beginning of period	$ 40,028	$ 1,346	$ 41,374	$ 44,035	$ 1,393	$ 45,428
Net income (a)	3,091	73	3,164	1,546	74	1,620
Other comprehensive income (loss)	(117)	(25)	(142)	(1,418)	(29)	(1,447)
Noncontrolling interests:						
Additions (reductions)	(11)	(5)	(16)	—	(49)	(49)
Dividends and other capital changes	—	(65)	(65)	—	(36)	(36)
Dividends to Linde plc ordinary share holders ($2.55 per share in 2023 and $2.34 per share in 2022)	(1,246)	—	(1,246)	(1,177)	—	(1,177)
Issuances of ordinary shares:						
For employee savings and incentive plans	(98)	—	(98)	(39)	—	(39)
Purchases of ordinary shares	(1,802)	—	(1,802)	(3,324)	—	(3,324)
Share-based compensation	66	—	66	51	—	51
Balance, end of period	$ 39,911	$ 1,324	$ 41,235	$ 39,674	$ 1,353	$ 41,027

(a) Net income for noncontrolling interests excludes net income related to redeemable noncontrolling interests which is not significant for the quarter and six months ended June 30, 2023 and 2022 and which is not part of total equity.

The components of Accumulated other comprehensive income (loss) are as follows:

(Millions of dollars)	June 30, 2023	December 31, 2022
Cumulative translation adjustment - net of taxes:		
Americas	$ (3,572)	$ (3,942)
EMEA	(881)	(1,249)
APAC	(1,238)	(835)
Engineering	(165)	(241)
Other	231	483
	(5,625)	(5,784)
Derivatives - net of taxes	(9)	62
Pension / OPEB (net of $11 million tax benefit and $54 million tax obligation at June 30, 2023 and December 31, 2022, respectively)	(265)	(60)
	$ (5,899)	$ (5,782)

12. Revenue Recognition

Revenue is accounted for in accordance with ASC 606. Revenue is recognized as control of goods or services are transferred to customers in an amount that reflects the consideration to which an entity expects to be entitled to receive in exchange for the goods or services.

Contracts with Customers

Linde serves a diverse group of industries including healthcare, chemicals and energy, manufacturing, metals and mining, food and beverage, and electronics.

Industrial Gases

Within each of the company's geographic segments for industrial gases, there are three basic distribution methods: (i) on-site or tonnage; (ii) merchant or bulk liquid; and (iii) packaged or cylinder gases. The distribution method used by Linde to supply a customer is determined by many factors, including the customer's volume requirements and location. The distribution method generally determines the contract terms with the customer and, accordingly, the revenue recognition accounting practices. Linde's primary products in its industrial gases business are atmospheric gases (oxygen, nitrogen, argon, rare gases) and process gases (carbon dioxide, helium, hydrogen, electronic gases, specialty gases, acetylene). These products are generally sold through one of the three distribution methods.

Following is a description of each of the three industrial gases distribution methods and the respective revenue recognition policies:

On-site. Customers that require the largest volumes of product and that have a relatively constant demand pattern are supplied by cryogenic and process gas on-site plants. Linde constructs plants on or adjacent to these customers' sites and supplies the product directly to customers by pipeline. Where there are large concentrations of customers, a single pipeline may be connected to several plants and customers. On-site product supply contracts generally are total requirement contracts with terms typically ranging from 10-20 years and contain minimum purchase requirements and price escalation provisions. Many of the cryogenic on-site plants also produce liquid products for the merchant market. Therefore, plants are typically not dedicated to a single customer. Additionally, Linde is responsible for the design, construction, operations and maintenance of the plants and our customers typically have no involvement in these activities. Advanced air separation processes also allow on-site delivery to customers with smaller volume requirements.

The company's performance obligations related to on-site customers are satisfied over time as customers receive and obtain control of the product. Linde has elected to apply the practical expedient for measuring progress towards the completion of a performance obligation and recognizes revenue as the company has the right to invoice each customer, which generally corresponds with product delivery. Accordingly, revenue is recognized when product is delivered to the customer and the company has the right to invoice the customer in accordance with the contract terms. Consideration in these contracts is generally based on pricing which fluctuates with various price indices. Variable components of consideration exist within on-site contracts but are considered constrained.

Merchant. Merchant deliveries generally are made from Linde's plants by tanker trucks to storage containers at the customer's site. Due to the relatively high distribution cost, merchant oxygen and nitrogen generally have a relatively small distribution radius from the plants at which they are produced. Merchant argon, hydrogen and helium can be shipped much longer distances. The customer agreements used in the merchant business are usually three-to seven-year supply agreements based on the requirements of the customer. These contracts generally do not contain minimum purchase requirements or volume commitments.

The company's performance obligations related to merchant customers are generally satisfied at a point in time as the customers receive and obtain control of the product. Revenue is recognized when product is delivered to the customer and the company has the right to invoice the customer in accordance with the contract terms. Any variable components of consideration within merchant contracts are constrained; however, this consideration is not significant.

Packaged Gases. Customers requiring small volumes are supplied products in containers called cylinders, under medium to high pressure. Linde distributes merchant gases from its production plants to company-owned cylinder filling plants where cylinders are then filled for distribution to customers. Cylinders may be delivered to the customer's site or picked up by the customer at a packaging facility or retail store. Linde invoices the customer for the industrial gases and the use of the cylinder container(s). The company also sells hardgoods and welding equipment purchased from independent manufacturers. Packaged gases are generally sold under one to three-year supply contracts and purchase orders and do not contain minimum purchase requirements or volume commitments.

The company's performance obligations related to packaged gases are satisfied at a point in time. Accordingly, revenue is recognized when product is delivered to the customer or when the customer picks up product from a packaged gas facility or retail store and the company has the right to payment from the customer in accordance with the contract terms. Any variable consideration is constrained and will be recognized when the uncertainty related to the consideration is resolved.

Engineering

The company designs and manufactures equipment for air separation and other industrial gas applications manufactured specifically for end customers. Sale of equipment contracts are generally comprised of a single performance obligation. Revenue from sale of equipment is generally recognized over time as Linde has an enforceable right to payment for performance completed to date and performance does not create an asset with alternative use. For contracts recognized over time, revenue is recognized primarily using a cost incurred input method. Costs incurred to date relative to total estimated costs at completion are used to measure progress toward satisfying performance obligations. Costs incurred include material, labor, and overhead costs and represent work contributing and proportionate to the transfer of control to the customer. Changes to cost estimates and contract modifications are typically accounted for as part of the existing contract and are recognized as cumulative adjustments for the inception-to-date effect of such change.

Contract Assets and Liabilities

Contract assets and liabilities result from differences in timing of revenue recognition and customer invoicing. Contract assets primarily relate to sale of equipment contracts for which revenue is recognized over time. The balance represents unbilled revenue which occurs when revenue recognized under the measure of progress exceeds amounts invoiced to customers. Customer invoices may be based on the passage of time, the achievement of certain contractual milestones or a combination of both criteria. Contract liabilities include advance payments or right to consideration prior to performance under the contract. Contract liabilities are recognized as revenue as performance obligations are satisfied under contract terms. Linde has contract assets of $156 million and $124 million at June 30, 2023 and December 31, 2022, respectively. Total contract liabilities are $4,196 million at June 30, 2023 (current of $3,246 million and $950 million within other long-term liabilities in the condensed consolidated balance sheets). As of June 30, 2023, Linde has approximately $1.7 billion recorded in contract liabilities related to engineering projects in Russia subject to sanctions. Total contract liabilities were $3,986 million at December 31, 2022 (current contract liabilities of $3,073 million and $913 million within other long-term liabilities in the condensed consolidated balance sheets). Revenue recognized for the six months ended June 30, 2023 that was included in the contract liability at December 31, 2022 was $568 million. Contract assets and liabilities primarily relate to the Engineering business.

Payment Terms and Other

Linde generally receives payment after performance obligations are satisfied, and customer prepayments are not typical for the industrial gases business. Payment terms vary based on the country where sales originate and local customary payment practices. Linde does not offer extended financing outside of customary payment terms. Amounts billed for sales and use taxes, value-added taxes, and certain excise and other specific transactional taxes imposed on revenue producing transactions are presented on a net basis and are not included in sales within the consolidated statement of income. Additionally, sales returns and allowances are not a normal practice in the industry and are not significant.

Disaggregated Revenue Information

As described above and in Note 19 to Linde plc's 2022 Annual Report on Form 10-K, the company manages its industrial gases business on a geographic basis, while the Engineering and Other businesses are generally managed on a global basis. Furthermore, the company believes that reporting sales by distribution method by reportable geographic segment best illustrates the nature, timing, type of customer, and contract terms for its revenues, including terms and pricing.

The following tables show sales by distribution method at the consolidated level and for each reportable segment and Other for the quarter and six months ended June 30, 2023 and June 30, 2022.

(Millions of dollars)	Quarter Ended June 30, 2023						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other**	**Total**	**%**
Merchant	$ 1,094	$ 704	$ 570	$ —	$ 53	$ 2,421	30 %
On-Site	756	493	677	—	—	1,926	23 %
Packaged Gas	1,638	946	366	—	12	2,962	36 %
Other	53	17	70	495	260	895	11 %
Total	$ 3,541	$ 2,160	$ 1,683	$ 495	$ 325	$ 8,204	100 %

(Millions of dollars)	Quarter Ended June 30, 2022						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other**	**Total**	**%**
Merchant	$ 941	$ 634	$ 562	$ —	$ 40	$ 2,177	26 %
On-Site	1,049	610	631	—	—	2,290	27 %
Packaged Gas	1,473	884	389	—	9	2,755	33 %
Other	55	16	69	644	451	1,235	15 %
Total	$ 3,518	$ 2,144	$ 1,651	$ 644	$ 500	$ 8,457	100 %

(Millions of dollars)	Six Months Ended June 30, 2023						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other**	**Total**	**%**
Merchant	$ 2,137	$ 1,404	$ 1,122	$ —	$ 108	$ 4,771	29 %
On-Site	1,560	1,031	1,321	—	—	3,912	24 %
Packaged Gas	3,276	1,874	721	—	32	5,903	36 %
Other	119	28	117	1,035	512	1,811	11 %
Total	$ 7,092	$ 4,337	$ 3,281	$ 1,035	$ 652	$ 16,397	100 %

(Millions of dollars)	Six Months Ended June 30, 2022						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other**	**Total**	**%**
Merchant	$ 1,815	$ 1,248	$ 1,078	$ —	$ 79	$ 4,220	25 %
On-Site	1,931	1,241	1,286	—	—	4,458	27 %
Packaged Gas	2,906	1,775	750	—	16	5,447	33 %
Other	107	28	139	1,372	897	2,543	15 %
Total	$ 6,759	$ 4,292	$ 3,253	$ 1,372	$ 992	$ 16,668	100 %

Remaining Performance Obligations

As described above, Linde's contracts with on-site customers are under long-term supply arrangements which generally require the customer to purchase their requirements from Linde and also have minimum purchase requirements. Additionally, plant sales from the Linde Engineering business are primarily contracted on a fixed price basis. The company estimates the consideration related to future minimum purchase requirements and plant sales was approximately $47 billion (excludes Russian projects which are impacted by sanctions). This amount excludes all on-site sales above minimum purchase requirements, which can be significant depending on customer needs. In the future, actual amounts will be different due to impacts from several factors, many of which are beyond the company's control including, but not limited to, timing of newly signed, terminated and renewed contracts, inflationary price escalations, currency exchange rates, and pass-through costs related to natural gas and electricity. The actual duration of long-term supply contracts ranges up to twenty years. The company estimates that approximately half of the revenue related to minimum purchase requirements will be earned in the next five years and the remaining thereafter.

13. Business Acquisition

Acquisition of nexAir, LLC

On January 5, 2023, Linde completed the acquisition of nexAir, LLC, a gas distribution and welding supply company in the United States, in order to further expand the company's geographic footprint into different regions. Prior to completion of the acquisition, Linde held a 23% interest in nexAir, LLC. Pursuant to a signed purchase agreement between Linde and nexAir, LLC, Linde purchased the remaining 77% ownership interest in an all cash transaction with a total purchase price of $859 million, or $804 million net of cash acquired. The fair value of Linde's equity interest in nexAir, LLC immediately preceding the acquisition date was $183 million, which resulted in a gain on remeasurement of the company's previously held equity interest which was not material; this gain is recorded within "Other income (expenses) – net" on the consolidated statements of income.

Preliminary Allocation of Purchase Price

The acquisition of nexAir, LLC was accounted for as a business combination. Following the acquisition date, 100% of nexAir, LLC's results were consolidated in the Americas business segment. Linde's three and six months ended June 30, 2023 consolidated income statement includes sales of $101 million and $204 million, respectively, related to nexAir, LLC. Pro forma results for 2022 have not been included as the impact of the acquisition is not material to the consolidated statements of income.

The company has estimated the preliminary fair value of net assets acquired based on information currently available and will continue to adjust those estimates as additional information becomes available. The following table summarizes the fair value of identifiable assets acquired and liabilities assumed in the acquisition of nexAir, LLC as of the acquisition date.

(Millions of dollars)		January 5, 2023
Assets:		
Cash and cash equivalents	$	55
Other current assets - net		48
Property, plant and equipment, net		241
Other intangible assets - net		245
Other long-term liabilities - net		(5)
Total identifiable net assets	$	584
Goodwill	$	458
Fair value of previously held equity interest	$	183
Total purchase price	$	859

nexAir, LLC’s assets and liabilities were measured at estimated fair values at January 5, 2023. Estimates of fair value represent management's best estimate of assumptions about future events and uncertainties, including significant judgments related to future cash flows (sales, costs, customer attrition rates, and contributory asset charges), discount rates, competitive trends, and market comparables. Inputs used were generally obtained from historical data supplemented by current and anticipated market conditions and growth rates.

The fair value of the previously held equity interest was based upon a purchase price valuation (excluding debt) multiplied by the company’s previously held ownership interest adjusted by a discount for lack of marketability. The fair value of property, plant & equipment, net is based on assumptions that market participants would use in pricing an asset, based on the most advantageous market for the asset (i.e., its highest and best use). The cost approach, adjusted for the age and condition of the property, plant and equipment, was used to estimate fair value.

Identifiable intangible assets primarily consist of customer relationships of approximately $245 million that will be amortized over their estimated useful life of 20 years. The fair value of the customer relationships intangible asset was valued using a multi-period excess earnings method, a form of the income approach, which incorporates the estimated future cash flows to be generated from nexAir, LLC's existing customer base. There were no indefinite-lived intangible assets identified in conjunction with the acquisition.

The excess of the consideration for the acquisition over the preliminary fair value of net assets acquired was recorded as goodwill. The acquisition resulted in $458 million of goodwill, the majority of which is expected to be deductible for tax purposes. The goodwill balance is primarily attributable to the assembled workforce and operating synergies expected to result from the acquisition. The goodwill recorded as a result of the acquisition was allocated to the Americas reportable segment, which represents the reportable segment anticipated to experience operating synergies as a result of the acquisition.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A")

Non-GAAP Measures

Throughout MD&A, the company provides adjusted operating results exclusive of certain items such as Other charges, net gains or losses on sale of businesses, purchase accounting impacts of the Linde AG merger and pension settlement charges. Adjusted amounts are non-GAAP measures which are intended to supplement investors' understanding of the company's financial information by providing measures which investors, financial analysts and management find useful in evaluating the company's operating performance. Items which the company does not believe to be indicative of on-going business performance are excluded from these calculations so that investors can better evaluate and analyze historical and future business trends on a consistent basis. In addition, operating results, excluding these items, is important to management's development of annual and long-term employee incentive compensation plans. Definitions of these non-GAAP measures may not be comparable to similar definitions used by other companies and are not a substitute for similar GAAP measures.

The non-GAAP measures and reconciliations are separately included in a later section in the MD&A titled "Non-GAAP Measures and Reconciliations."

Consolidated Results

The following table provides summary information for the quarters and six months ended June 30, 2023 and 2022. The reported amounts are GAAP amounts from the Consolidated Statements of Income. The adjusted amounts are intended to supplement investors' understanding of the company's financial information and are not a substitute for GAAP measures:

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars, except per share data)	2023	2022	Variance	2023	2022	Variance
Sales	$ 8,204	$ 8,457	(3)%	$ 16,397	$ 16,668	(2)%
Cost of sales, exclusive of depreciation and amortization	$ 4,316	$ 4,940	(13)%	$ 8,747	$ 9,738	(10)%
As a percent of sales	52.6 %	58.4 %		53.3 %	58.4 %	
Selling, general and administrative	$ 833	$ 771	8 %	$ 1,655	$ 1,573	5 %
As a percent of sales	10.2 %	9.1 %		10.1 %	9.4 %	
Depreciation and amortization	$ 960	$ 1,091	(12)%	$ 1,908	$ 2,203	(13)%
Other charges (b)	$ 22	$ 993	(98)%	$ 40	$ 989	(96)%
Other income (expense) - net	$ (27)	$ (36)	25 %	$ (32)	$ (24)	(33)%
Operating profit	$ 2,011	$ 589	241 %	$ 3,944	$ 2,069	91 %
Operating margin	24.5 %	7.0 %		24.1 %	12.4 %	
Interest expense - net	$ 52	$ 5	940 %	$ 89	$ 14	536 %
Net pension and OPEB cost (benefit), excluding service cost	$ (45)	$ (62)	(27)%	$ (90)	$ (126)	(29)%
Effective tax rate	21.9 %	44.3 %		22.0 %	30.0 %	
Income from equity investments	$ 46	$ 50	(8)%	$ 87	$ 94	(7)%
Noncontrolling interests	$ (37)	$ (38)	(3)%	$ (73)	$ (74)	(1)%
Net Income – Linde plc	$ 1,575	$ 372	323 %	$ 3,091	$ 1,546	100 %
Diluted earnings per share	$ 3.19	$ 0.74	331 %	$ 6.25	$ 3.04	106 %
Diluted shares outstanding	493,549	505,269	(2)%	494,685	508,432	(3)%
Number of employees	66,270	72,438	(9)%	66,270	72,438	(9)%
Adjusted Amounts (a)						
Operating profit	$ 2,286	$ 1,988	15 %	$ 4,492	$ 3,893	15 %
Operating margin	27.9 %	23.5 %		27.4 %	23.4 %	
Effective tax rate	23.7 %	24.5 %		23.9 %	24.4 %	
Net Income – Linde plc	$ 1,760	$ 1,566	12 %	$ 3,453	$ 3,066	13 %
Diluted earnings per share	$ 3.57	$ 3.10	15 %	$ 6.98	$ 6.03	16 %
Other Financial Data (a)						
EBITDA	$ 3,017	$ 1,730	74 %	$ 5,939	$ 4,366	36 %
As percent of sales	36.8 %	20.5 %		36.2 %	26.2 %	
Adjusted EBITDA	$ 3,059	$ 2,746	11 %	$ 6,022	$ 5,409	
As percent of sales	37.3 %	32.5 %		36.7 %	32.5 %	

(a) Adjusted Amounts and Other Financial Data are non-GAAP performance measures. A reconciliation of reported amounts to adjusted amounts can be found in the "Non-GAAP Measures and Reconciliations" section of this MD&A.
(b) See Note 2 to the condensed consolidated financial statements.

Reported

In the second quarter of 2023, Linde's sales were $8,204 million, $253 million below prior year. Cost pass-through, representing the contractual billing of energy cost variances primarily to onsite customers, decreased sales by 4% in the quarter, with minimal impact on operating profit. Divestitures, net of acquisitions, decreased sales by 2% in the quarter, primarily due to the divestment of the GIST business, partially offset by the nexAir, LLC acquisition. Engineering decreased sales by 2% in the quarter. Currency translation decreased sales by 1% in the quarter. Volumes decreased sales by 1% in the quarter versus the 2022 respective period. Higher price attainment increased sales by 7% in the quarter.

Reported operating profit for the second quarter of 2023 of $2,011 million, or 24.5% of sales, was 241% above prior year. The reported year-over-year increase was primarily due to charges recorded in second quarter 2022 relating to the deconsolidation and impairment of Russian subsidiaries resulting from the ongoing war in Ukraine and related sanctions. In addition, the increase in the quarter was also driven by higher pricing, productivity initiatives and lower depreciation and amortization driven by merger related intangible assets, which more than offset adverse impacts from cost inflation and currency. The reported effective tax rate ("ETR") of 21.9% in the second quarter 2023 related to higher tax benefits from share based compensation and a tax refund relating to a prior period versus 44.3% in the second quarter 2022. Second quarter 2022 ETR was impacted by the non-deductibility of the charges related to the deconsolidation and impairment of Linde's Russian subsidiaries which were partially offset by the reversal of a related deferred tax liability. Diluted earnings per share ("EPS") was $3.19, or 331% above EPS of $0.74 in the second quarter of 2022, primarily due to higher net income - Linde plc and lower diluted shares outstanding.

Adjusted
In the second quarter of 2023, adjusted operating profit of $2,286 million, or 27.9% of sales, was 15% higher as compared to the respective 2022 period, driven by higher pricing and productivity initiatives, partially offset by cost inflation. The adjusted ETR was 23.7% in the second quarter 2023 versus 24.5% in the 2022 quarter. On an adjusted basis, EPS was $3.57, 15% above the 2022 adjusted EPS of $3.10, driven by higher adjusted net income - Linde plc and lower diluted shares outstanding.

Outlook

Linde provides quarterly updates on operating results, material trends that may affect financial performance, and financial guidance via quarterly earnings releases and investor teleconferences. These updates are available on the company’s website, www.linde.com, but are not incorporated herein.

Results of operations

The changes in consolidated sales compared to the prior year are attributable to the following:

	Quarter Ended June 30, 2023 vs. 2022	Six Months Ended June 30, 2023 vs. 2022
	% Change	% Change
Factors Contributing to Changes - Sales		
Volume	(1)%	(1)%
Price/Mix	7 %	7 %
Cost pass-through	(4)%	(2)%
Currency	(1)%	(2)%
Acquisitions/divestitures	(2)%	(2)%
Engineering	(2)%	(2)%
	(3)%	(2)%

Sales

Sales decreased $253 million or 3% for the second quarter of 2023 and decreased $271 million or 2% for six months ended June 30, 2023 versus the respective 2022 periods. Cost pass-through decreased sales by 4% in the quarter and 2% in the year-to-date period, with minimal impact on operating profit. The impact of divestitures, net of acquisitions decreased sales by 2% in the quarter and year-to-date period. Engineering decreased sales by 2% in the quarter and year-to-date period. Currency translation decreased sales by 1% in the quarter, driven by the weakening of the Chinese yuan and Australian dollar, and 2% in the year-to-date period, driven by the weakening of the Euro, Chinese yuan, British pound and Australian dollar against the U.S. dollar. Volumes decreased sales by 1% in the quarter and year-to-date period versus the respective 2022 periods. Higher pricing across all geographic segments contributed 7% to sales in the quarter and year-to-date period.

Cost of sales, exclusive of depreciation and amortization

Cost of sales, exclusive of depreciation and amortization decreased $624 million, or 13%, for the second quarter of 2023 and decreased $991 million, or 10% for the six months ended June 30, 2023 primarily due to currency, lower cost pass-through, the net impact of acquisitions and divestitures and productivity gains which more than offset cost inflation. Cost of sales, exclusive of depreciation and amortization was 52.6% and 53.3% of sales, respectively, for the second quarter and six months ended June 30, 2023 versus 58.4% for the respective 2022 periods. The decrease as a percentage of sales in the quarter and for the six months ended June 30, 2023 was primarily due to higher pricing and lower cost pass-through.

Selling, general and administrative expenses

Selling, general and administrative expense ("SG&A") increased $62 million, or 8%, for the second quarter of 2023 and increased $82 million or 5% for the six months ended June 30, 2023. SG&A was 10.2% of second quarter sales and 10.1% of the sales for the six months ended June 30, 2023 versus 9.1% and 9.4% for the respective 2022 periods. Currency impacts decreased SG&A by approximately $5 million and $24 million for the quarter and six months ended June 30, 2023. Excluding currency impacts, underlying SG&A increased in the second quarter and the six months ended June 30, 2023 primarily due to higher compensation and higher costs related to the acquisition of nexAir.

Depreciation and amortization

Reported depreciation and amortization expense decreased $131 million, or 12%, for the second quarter of 2023 and decreased $295 million, or 13%, for the six months ended June 30, 2023. The decrease is related primarily to lower depreciation and amortization of intangible assets acquired in the merger and currency impacts.

On an adjusted basis, depreciation and amortization increased $19 million, for the second quarter of 2023 and increased $23 million for the year-to-date period. Currency impacts decreased depreciation and amortization by $7 million and $28 million for the quarter and six months ended June 30, 2023, respectively. Excluding currency, underlying depreciation and amortization increased due to the net impact of acquisitions and new project start ups.

Other charges

Other charges were $22 million and $40 million for the second quarter and six months ended June 30, 2023, respectively, and $993 million and $989 million for the respective 2022 periods. The charge for the quarter relates primarily to severance in the Engineering segment. The charge for the six months ended June 30, 2023 includes charges associated with the intercompany reorganization that occurred in the first quarter of 2023. 2022 charges relate primarily to the deconsolidation and impairment of Russian subsidiaries resulting from the ongoing war in Ukraine and related sanctions (see Note 2 to the condensed consolidated financial statements).

On an adjusted basis, these benefits and costs have been excluded in both periods.

Operating profit
On a reported basis, operating profit increased $1,422 million, or 241%, for the second quarter of 2023 and increased $1,875 million, or 91%, for the six months ended June 30, 2023. The increase was primarily due to Russia-Ukraine conflict and other charges recorded in the second quarter of 2022 and higher pricing, savings from productivity initiatives, and lower depreciation and amortization driven by merger related intangible assets in 2023. These increases more than offset the adverse impacts of cost inflation and currency in the second quarter and year-to-date period of 2023.

On an adjusted basis, which excludes the impacts of merger-related purchase accounting as well as other charges, operating profit increased $298 million, or 15% in the second quarter of 2023 and increased $599 million, or 15% for the six months ended June 30, 2023. Operating profit growth was driven by higher pricing and productivity initiatives, which more than offset the effects of cost inflation and currency during the periods. A discussion of operating profit by segment is included in the segment discussion that follows.

Interest expense - net
Reported interest expense - net increased $47 million for the second quarter of 2023 and increased $75 million for the six months ended June 30, 2023. On an adjusted basis, interest expense increased $42 million for the second quarter of 2023 and increased $69 million for the six months ended June 30, 2023 versus the respective 2022 periods. The increase in both periods was driven primarily by higher interest rates on short-term debt.

Net pension and OPEB cost (benefit), excluding service cost
Reported net pension and OPEB cost (benefit), excluding service cost were benefits of $45 million and $90 million for the quarter and six months ended June 30, 2023, respectively, versus $62 million and $126 million for the respective 2022 periods. The decrease in benefit primarily relates to higher interest cost reflective of the higher discount rate environment year-over-year.

Effective tax rate
The reported effective tax rate ("ETR") for the quarter and six months ended June 30, 2023 was 21.9% and 22.0%, respectively, versus 44.3% and 30.0% for the respective 2022 periods. The decrease in the quarter rate is primarily related to a higher tax benefit from share based compensation, a tax refund relating to a prior period and the absence of the net unfavorable tax expense resulting from the Russia deconsolidation in 2022 (see Note 2 to the condensed consolidated financial statements). The decrease in the year to date rate is primarily related to a net decrease in the company's uncertain tax positions, partially offset by additional accruals in several non-U.S. jurisdictions, a tax refund related to a period period and the absence of the net unfavorable tax expense resulting from the Russia deconsolidation in 2022.

On an adjusted basis, the ETR for the quarter and six months ended June 30, 2023 was 23.7% and 23.9%, respectively, versus 24.5% and 24.4% for the respective 2022 periods. The decrease in both periods is primarily due to higher tax benefits from share based compensation.

Income from equity investments
Reported income from equity investments for the second quarter of 2023 and six months ended June 30, 2023 was $46 million and $87 million, respectively, versus $50 million and $94 million for the respective 2022 periods.

On an adjusted basis, income from equity investments for the second quarter and six months ended June 30, 2023 was $64 million and $123 million, respectively, versus $69 million and $133 million in the respective 2022 periods.

Noncontrolling interests
At June 30, 2023, noncontrolling interests consisted primarily of non-controlling shareholders' investments in APAC (primarily China). Reported noncontrolling interest was flat for the quarter and six months ended June 30, 2023 versus the respective 2022 periods.

Net Income – Linde plc
Reported net income - Linde plc increased $1,203 million, or 323%, for the second quarter of 2023 and increased $1,545 million, or 100% for the six months ended June 30, 2023 versus the respective 2022 periods.

On an adjusted basis, which excludes the impacts of purchase accounting and other charges, net income - Linde plc increased $194 million, or 12%, for the quarter and increased $387 million, or 13%, for the six months ended June 30, 2023 versus the respective 2022 periods.

On both a reported and adjusted basis, the increase was driven by higher operating profit.

Diluted earnings per share

Reported diluted earnings per share increased $2.45, or 331%, for the second quarter of 2023 and increased $3.21, or 106%, for the six months ended June 30, 2023 versus the comparable 2022 periods.

On an adjusted basis, diluted EPS increased $0.47, or 15%, for the second quarter of 2023 and increased $0.95, or 16% versus the respective 2022 periods.

The increase on both a reported and adjusted basis is primarily due to higher net income - Linde plc and lower diluted shares outstanding.

Employees

The number of employees at June 30, 2023 was 66,270, a decrease of 6,168 employees from June 30, 2022, driven primarily by the sale of the GIST business, cost reduction initiatives and the deconsolidation of Russian subsidiaries in the EMEA and Engineering segments, partially offset by the acquisition of nexAir.

Other Financial Data

EBITDA was $3,017 million for the second quarter of 2023 as compared to $1,730 million in the respective 2022 period. EBITDA was $5,939 million for the six months ended June 30, 2023 as compared to $4,366 million in the respective 2022 period. The increase in both periods was driven by higher net income - Linde plc versus prior year.

Adjusted EBITDA increased to $3,059 million for the second quarter 2023 from $2,746 million in the respective 2022 period. Adjusted EBITDA was $6,022 million for the six months ended June 30, 2023 as compared to $5,409 million in the respective 2022 period. The higher EBITDA was primarily due to higher net income - Linde plc versus the respective prior period.

See the "Non-GAAP Measures and Reconciliations" section for definitions and reconciliations of these adjusted non-GAAP measures to reported GAAP amounts.

Other Comprehensive Income (Loss)

Other comprehensive losses for the second quarter and six months ended June 30, 2023 were $112 million and $142 million, respectively. The loss in the quarter resulted primarily from currency translation adjustments of $95 million. The loss during the six months ended June 30, 2023 resulted from $205 million associated with retirement programs and $71 million relating to current unrealized loss on derivatives instruments, partially offset by favorable currency translation adjustments of $134 million. The translation adjustments reflect the impact of translating local currency foreign subsidiary financial statements to U.S. dollars, and are largely driven by the movement of the U.S. dollar against major currencies including the Euro, British pound and the Chinese yuan. See the "Currency" section of the MD&A for exchange rates used for translation purposes and Note 11 to the condensed consolidated financial statements for a summary of the currency translation adjustment component of accumulated other comprehensive income (loss) by segment.

Segment Discussion

The following summary of sales and operating profit by segment provides a basis for the discussion that follows. Linde plc evaluates the performance of its reportable segments based on operating profit, excluding items not indicative of ongoing business trends. The reported amounts are GAAP amounts from the Consolidated Statements of Income.

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2023	2022	Variance	2023	2022	Variance
SALES						
Americas	$ 3,541	$ 3,518	1 %	$ 7,092	$ 6,759	5 %
EMEA	2,160	2,144	1 %	4,337	4,292	1 %
APAC	1,683	1,651	2 %	3,281	3,253	1 %
Engineering	495	644	(23)%	1,035	1,372	(25)%
Other	325	500	(35)%	652	992	(34)%
Total sales	$ 8,204	$ 8,457	(3)%	$ 16,397	$ 16,668	(2)%
SEGMENT OPERATING PROFIT						
Americas	$ 1,070	$ 910	18 %	$ 2,095	$ 1,814	15 %
EMEA	630	536	18 %	1,237	1,039	19 %
APAC	472	426	11 %	895	825	8 %
Engineering	107	105	2 %	256	248	3 %
Other	7	11	(36)%	9	(33)	127 %
Segment operating profit	$ 2,286	$ 1,988	15 %	$ 4,492	$ 3,893	15 %
Reconciliation to reported operating profit:						
Other charges (Note 2)	(22)	(993)		(40)	(989)	
Purchase accounting impacts - Linde AG	(253)	(406)		(508)	(835)	
Total operating profit	$ 2,011	$ 589		$ 3,944	$ 2,069	

Americas

(Millions of dollars)	Quarter Ended June 30, 2023	Quarter Ended June 30, 2022	Variance	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022	Variance
Sales	$ 3,541	$ 3,518	1 %	$ 7,092	$ 6,759	5 %
Operating profit	$ 1,070	$ 910	18 %	$ 2,095	$ 1,814	15 %
As a percent of sales	30.2 %	25.9 %		29.5 %	26.8 %	

	Quarter Ended June 30, 2023 vs. 2022	Six Months Ended June 30, 2023 vs. 2022
	% Change	% Change
Factors Contributing to Changes - Sales		
Volume	(1)%	— %
Price/Mix	6 %	7 %
Cost pass-through	(7)%	(5)%
Currency	— %	— %
Acquisitions/divestitures	3 %	3 %
	1 %	5 %

The Americas segment includes Linde's industrial gases operations in approximately 20 countries including the United States, Canada, Mexico, and Brazil.

Sales

Sales for the Americas segment increased $23 million, or 1%, in the second quarter and increased $333 million, or 5% for the six months ended June 30, 2023 versus the respective 2022 periods. Higher pricing contributed 6% to sales in the quarter and 7% in the year-to-date period. The impact of net acquisitions increased sales by 3% in the second quarter and six months ended June 30, 2023, primarily due to the acquisition of nexAir, LLC (See Note 13 to the condensed consolidated financial statements). Cost pass-through decreased sales by 7% for the second quarter and 5% for the six months ended June 30, 2023 with minimal impact on operating profit. Volumes decreased sales by 1% for the second quarter and remained flat for the six months ended June 30, 2023 driven primarily by customer outages in the chemicals and energy end market.

Operating profit

Operating profit in the Americas segment increased $160 million, or 18%, in the second quarter and increased $281 million, or 15% for the six months ended June 30, 2023 versus the respective 2022 periods, driven primarily by higher pricing, acquisitions and continued productivity initiatives which more than offset cost inflation during the quarter and year-to-date period.

EMEA

(Millions of dollars)	Quarter Ended June 30, 2023	Quarter Ended June 30, 2022	Variance	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022	Variance
Sales	$ 2,160	$ 2,144	1 %	$ 4,337	$ 4,292	1 %
Operating profit	$ 630	$ 536	18 %	$ 1,237	$ 1,039	19 %
As a percent of sales	29.2 %	25.0 %		28.5 %	24.2 %	

	Quarter Ended June 30, 2023 vs. 2022	Six Months Ended June 30, 2023 vs. 2022
	% Change	% Change
Factors Contributing to Changes - Sales		
Volume	(4)%	(4)%
Price/Mix	11 %	12 %
Cost pass-through	(3)%	(1)%
Currency	— %	(3)%
Acquisitions/divestitures	(3)%	(3)%
	1 %	1 %

The EMEA segment includes Linde's industrial gases operations in approximately 45 European, Middle Eastern and African countries including Germany, United Kingdom, France, the Republic of South Africa and Sweden.

Sales

EMEA segment sales increased by $16 million, or 1%, in the second quarter and increased $45 million for the six months ended June 30, 2023 as compared to the respective 2022 periods. Higher price attainment increased sales by 11% in the quarter and 12% in the year-to-date period. Volumes decreased sales by 4% in the quarter and year-to-date period led by the manufacturing and chemicals and energy end markets. Cost pass-through decreased sales by 3% in the quarter and 1% in the year-to-date period, with minimal impact on operating profit. The impact of currency translation on sales was flat in the quarter and 3% in the year-to-date period, due largely to the weakening of the Euro and British pound against the U.S. Dollar. The impact of net divestitures decreased sales by 3% in the quarter and year-to-date period, primarily due to the deconsolidation of the Russian subsidiaries in June 2022.

Operating Profit

Operating profit for the EMEA segment increased by $94 million, or 18%, in the second quarter and increased by $198 million, or 19% for the six months ended June 30, 2023, as compared to the respective 2022 periods. The increase in operating profit in the quarter and year-to-date period was driven primarily by higher pricing and continued productivity initiatives, partially offset by cost inflation, lower volumes and divestitures.

APAC

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2023	2022	Variance	2023	2022	Variance
Sales	$ 1,683	$ 1,651	2 %	$ 3,281	$ 3,253	1 %
Operating profit	$ 472	$ 426	11 %	$ 895	$ 825	8 %
As a percent of sales	28.0 %	25.8 %		27.3 %	25.4 %	

	Quarter Ended June 30, 2023 vs. 2022	Six Months Ended June 30, 2023 vs. 2022
	% Change	% Change
Factors Contributing to Changes - Sales		
Volume/Equipment	3 %	2 %
Price/Mix	5 %	5 %
Cost pass-through	(1)%	(1)%
Currency	(5)%	(5)%
Acquisitions/divestitures	— %	— %
	2 %	1 %

The APAC segment includes Linde's industrial gases operations in approximately 20 Asian and South Pacific countries and regions including China, Australia, India, and South Korea.

Sales

Sales for the APAC segment increased $32 million, or 2%, in the second quarter and increased $28 million, or 1% for the six months ended June 30, 2023 versus the respective 2022 periods. Higher pricing contributed 5% to sales in the quarter and year-to-date period. Volumes increased 3% in the quarter and 2% in the year-to-date period including project start-ups in the electronics and chemicals and energy end markets. Currency translation decreased sales by 5% in quarter and year-to-date period, driven primarily by the weakening of the Australian dollar, Indian rupee and Chinese yuan against the U.S. dollar. Cost pass-through decreased sales by 1% in the quarter and year-to-date period.

Operating profit

Operating profit in the APAC segment increased $46 million, or 11%, in the second quarter and increased $70 million, or 8% in the six months ended June 30, 2023 versus the respective 2022 periods, driven by higher pricing, volumes and continued productivity initiatives which more than offset the impact of currency and cost inflation during the quarter and year-to-date period.

Engineering

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2023	2022	Variance	2023	2022	Variance
Sales	$ 495	$ 644	(23)%	$ 1,035	$ 1,372	(25)%
Operating profit	$ 107	$ 105	2 %	$ 256	$ 248	3 %
As a percent of sales	21.6 %	16.3 %		24.7 %	18.1 %	

	Quarter Ended June 30, 2023 vs. 2022	Six Months Ended June 30, 2023 vs. 2022
	% Change	% Change
Factors Contributing to Changes - Sales		
Currency	2 %	(2)%
Other	(25)%	(23)%
	(23)%	(25)%

Sales

Engineering segment sales decreased $149 million in the second quarter and decreased $337 million in the six months ended June 30, 2023 as compared to the respective 2022 periods. The decrease in both periods were driven primarily by project timing.

Projects for Russia that were sanctioned and have been wound down represented $26 million and $87 million of the Engineering segment sales during the second quarter and six months ended June 30, 2023, respectively, and $300 million and $650 million during the respective 2022 periods.

Operating profit

Engineering segment operating profit increased, $2 million in the second quarter and increased $8 million in the six months ended June 30, 2023 as compared to the respective 2022 periods. The decline from lower sales was more than offset by higher margin on wind down of projects subject to sanctions in Russia in both the quarter and year-to-date period.

Other

(Millions of dollars)	Quarter Ended June 30, 2023	Quarter Ended June 30, 2022	Quarter Ended June 30, Variance	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022	Six Months Ended June 30, Variance
Sales	$ 325	$ 500	(35)%	$ 652	$ 992	(34)%
Operating profit (loss)	$ 7	$ 11	(36)%	$ 9	$ (33)	127 %
As a percent of sales	2.2 %	2.2 %		1.4 %	(3.3)%	

	Quarter Ended June 30, 2023 vs. 2022	Six Months Ended June 30, 2023 vs. 2022
	% Change	% Change
Factors Contributing to Changes - Sales		
Volume/price	4 %	5 %
Currency	— %	— %
Acquisitions/divestitures	(39)%	(39)%
	(35)%	(34)%

Other consists of corporate costs and a few smaller businesses including Surface Technologies and global helium wholesale, which individually do not meet the quantitative thresholds for separate presentation.

Sales

Sales for Other decreased $175 million for the second quarter and decreased $340 million for the six months ended June 30, 2023 versus the respective 2022 periods. The impact of net divestitures decreased sales by 39% in the quarter and year-to-date period versus the respective 2022 periods, primarily due to sale of GIST business in third quarter of 2022. Underlying sales increased 4% in the quarter and 5% in the year-to-date period, driven primarily by price in the coatings and global helium businesses. Currency translation impacts were flat in the quarter and year-to-date period.

Operating profit

Operating profit in Other decreased $4 million, or 36% in the second quarter and increased $42 million, or 127% in the six months ended June 30, 2023 versus the respective 2022 periods. The decrease in the quarter was driven by divestitures, partially offset by higher pricing. In the year-to-date period, higher pricing and lower corporate costs more than offset the impact of divestitures.

Currency

The results of Linde's non-U.S. operations are translated to the company’s reporting currency, the U.S. dollar, from the functional currencies. For most operations, Linde uses the local currency as its functional currency. There is inherent variability and unpredictability in the relationship of these functional currencies to the U.S. dollar and such currency movements may materially impact Linde's results of operations in any given period.

To help understand the reported results, the following is a summary of the significant currencies underlying Linde's consolidated results and the exchange rates used to translate the financial statements (rates of exchange expressed in units of local currency per U.S. dollar):

		Exchange Rate for Income Statement		Exchange Rate for Balance Sheet	
		Year-To-Date Average		June 30,	December 31,
Currency	Percentage of YTD 2023 Consolidated Sales	2023	2022	2023	2022
Euro	19 %	0.93	0.91	0.92	0.93
Chinese yuan	8 %	6.93	6.47	7.25	6.90
British pound	5 %	0.81	0.77	0.79	0.83
Australian dollar	4 %	1.48	1.39	1.50	1.47
Brazilian real	4 %	5.07	5.06	4.79	5.28
Canadian dollar	3 %	1.35	1.27	1.32	1.36
Korean won	3 %	1,295	1,231	1,318	1,266
Mexican peso	3 %	18.15	20.26	17.12	19.50
Indian rupee	2 %	82.21	76.17	82.04	82.73
South African rand	1 %	18.19	15.39	18.85	17.04
Swedish krona	1 %	10.49	9.58	10.80	10.43
Thailand bhat	1 %	34.19	33.69	35.45	34.61

Liquidity, Capital Resources and Other Financial Data

The following selected cash flow information provides a basis for the discussion that follows:

(Millions of dollars)	Six months ended June 30,	
	2023	2022
NET CASH PROVIDED BY (USED FOR):		
OPERATING ACTIVITIES		
Net income (including noncontrolling interests)	$ 3,164	$ 1,620
Non-cash charges (credits):		
Add: Depreciation and amortization	1,908	2,203
Add: Deferred income taxes	(61)	(221)
Add: Share-based compensation	66	51
Add: Other charges, net of payments (a)	(61)	922
Net income adjusted for non-cash charges	5,016	4,575
Less: Working capital	(640)	(497)
Less: Pension contributions	(25)	(19)
Other	(293)	74
Net cash provided by (used for) operating activities	$ 4,058	$ 4,133
INVESTING ACTIVITIES		
Capital expenditures	(1,688)	(1,475)
Acquisitions, net of cash acquired	(834)	(49)
Divestitures, net of cash divested and asset sales	24	17
Net cash provided by (used for) investing activities	$ (2,498)	$ (1,507)
FINANCING ACTIVITIES		
Debt increase (decrease) - net	(642)	2,760
Issuances (purchases) of common stock - net	(1,746)	(3,307)
Cash dividends - Linde plc shareholders	(1,246)	(1,177)
Noncontrolling interest transactions and other	(22)	(35)
Net cash provided by (used for) financing activities	$ (3,656)	$ (1,759)
Effect of exchange rate changes on cash and cash equivalents	$ 17	$ (35)
Cash and cash equivalents, end-of-period	$ 3,357	$ 3,655

(a) See Note 2 to the condensed consolidated financial statements.

Cash Flow from Operations

Cash provided by operations of $4,058 million for the six months ended June 30, 2023 decreased $75 million, or 2%, versus 2022. The decrease was driven primarily by higher working capital requirements, including lower inflows from contract liabilities from engineering customer advanced payments and higher cash tax payments. Other charges were $40 million and $989 million, for the six months ended June 30, 2023 and 2022, respectively. 2022 charges related primarily to the deconsolidation and impairment of Russian subsidiaries resulting from the ongoing war in Ukraine and related sanctions. Related cash outflows were $101 million and $67 million for the six months ended June 30, 2023 and 2022, respectively.

Linde estimates that total 2023 required contributions to its pension plans will be in the range of approximately $40 million to $50 million, of which $25 million has been made through June 30, 2023.

As of June 30, 2023, Linde has approximately $1.7 billion recorded in contract liabilities within the condensed consolidated balance sheet related to engineering projects in Russia. Any obligation to satisfy the related residual contract liabilities may have an adverse effect on Linde's cash flows.

Investing

Net cash used for investing of $2,498 million for the six months ended June 30, 2023 increased $991 million versus 2022, due to higher acquisitions, net of cash acquired and higher capital expenditures.

Capital expenditures for the six months ended June 30, 2023 were $1,688 million, $213 million higher than the prior year due primarily to investments in new plant and production equipment for operating and growth requirements.

At June 30, 2023, Linde's sale of gas backlog of large projects under construction was approximately $4.4 billion. This represents the total estimated capital cost of large plants under construction.

Acquisitions, net of cash acquired for the six months ended June 30, 2023 and 2022 were $834 million and $49 million, respectively, and related primarily to the acquisition of nexAir in the Americas (see Note 13 to the condensed consolidated financial statements).

Divestitures, net of cash divested and asset sales for the six months ended June 30, 2023 and 2022 were $24 million and $17 million, respectively.

Financing

Cash used for financing activities was $3,656 million for the six months ended June 30, 2023 as compared to $1,759 million for the six months ended June 30, 2022. Cash used for debt was $642 million in 2023 versus cash provided by debt of $2,760 million in 2022, driven primarily by lower commercial paper borrowings and lower net debt issuances in 2023. In February 2023, Linde repaid $500 million of 2.70% notes that became due. In April 2023, Linde repaid €650 million of 2.00% notes and £300 million of 5.875% notes that became due. In June 2023, Linde issued €500 million of 3.625% notes due in 2025, €750 million of 3.375% notes due in 2029 and €650 million of 3.625% notes due in 2034.

Net purchases of ordinary shares were $1,746 million in 2023 versus $3,307 million in 2022. On February 28, 2022, the company's Board of Directors approved the additional repurchase of $10.0 billion of its ordinary shares. For additional information related to the share repurchase programs, see Part II Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Cash dividends of $1,246 million increased $69 million from 2022 driven primarily by a 9% increase in quarterly dividends per share from $1.17 per share to $1.275 per share, partially offset by lower shares outstanding. Cash used for Noncontrolling interest transactions and other was $22 million for the six months ended June 30, 2023 versus cash used of $35 million for the respective 2022 period.

The company continues to believe it has sufficient operating flexibility, cash, and funding sources to meet its business needs around the world. The company had $3.4 billion of cash as of June 30, 2023, and has a $5 billion and a $1.5 billion unsecured and undrawn revolving credit agreement with no associated financial covenants. No borrowings were outstanding under the credit agreements as of June 30, 2023. The company does not anticipate any limitations on its ability to access the debt capital markets and/or other external funding sources and remains committed to its strong ratings from Moody's and Standard & Poor's.

Legal Proceedings

See Note 9 to the condensed consolidated financial statements.

NON-GAAP MEASURES AND RECONCILIATIONS

(Millions of dollars, except per share data)
(UNAUDITED)

The following non-GAAP measures are intended to supplement investors' understanding of the company's financial information by providing measures which investors, financial analysts and management use to help evaluate the company's operating performance and liquidity. Items which the company does not believe to be indicative of on-going business trends are excluded from these calculations so that investors can better evaluate and analyze historical and future business trends on a consistent basis. Definitions of these non-GAAP measures may not be comparable to similar definitions used by other companies and are not a substitute for similar GAAP measures.

	Quarter Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Adjusted Operating Profit and Operating Margin				
Reported operating profit	$ 2,011	$ 589	$ 3,944	$ 2,069
Add: Other charges	22	993	40	989
Add: Purchase accounting impacts - Linde AG (c)	253	406	508	835
Total adjustments	275	1,399	548	1,824
Adjusted operating profit	$ 2,286	$ 1,988	$ 4,492	$ 3,893
Reported percentage change	241 %	(48)%	91 %	(12)%
Adjusted percentage change	15 %	8 %	15 %	10 %
Reported sales	$ 8,204	$ 8,457	$ 16,397	$ 16,668
Reported operating margin	24.5 %	7.0 %	24.1 %	12.4 %
Adjusted operating margin	27.9 %	23.5 %	27.4 %	23.4 %
Adjusted Depreciation and amortization				
Reported depreciation and amortization	$ 960	$ 1,091	$ 1,908	$ 2,203
Less: Purchase accounting impacts - Linde AG (c)	(251)	(401)	(501)	(819)
Adjusted depreciation and amortization	$ 709	$ 690	$ 1,407	$ 1,384
Adjusted Other Income (Expense) - net				
Reported Other Income (Expense) - net	$ (27)	$ (36)	$ (32)	$ (24)
Less: Purchase accounting impacts - Linde AG (c)	(2)	(5)	(7)	(16)
Adjusted Other Income (Expense) - net	$ (25)	$ (31)	$ (25)	$ (8)
Adjusted Interest Expense - Net				
Reported interest expense - net	$ 52	$ 5	$ 89	$ 14
Add: Purchase accounting impacts - Linde AG (c)	4	9	13	19
Adjusted interest expense - net	$ 56	$ 14	$ 102	$ 33

Adjusted Income Taxes (a)				
Reported income taxes	$ 438	$ 286	$ 868	$ 655
Add: Purchase accounting impacts - Linde AG (c)	67	108	124	216
Add: Other charges	34	104	79	101
Total adjustments	101	212	203	317
Adjusted income taxes	$ 539	$ 498	$ 1,071	$ 972
Adjusted Effective Tax Rate (a)				
Reported income before income taxes and equity investments	$ 2,004	$ 646	$ 3,945	$ 2,181
Add: Purchase accounting impacts - Linde AG (c)	249	397	495	816
Add: Other charges	22	993	40	989
Total adjustments	271	1,390	535	1,805
Adjusted income before income taxes and equity investments	$ 2,275	$ 2,036	$ 4,480	$ 3,986
Reported Income taxes	$ 438	$ 286	$ 868	$ 655
Reported effective tax rate	21.9 %	44.3 %	22.0 %	30.0 %
Adjusted income taxes	$ 539	$ 498	$ 1,071	$ 972
Adjusted effective tax rate	23.7 %	24.5 %	23.9 %	24.4 %
Income from Equity Investments				
Reported income from equity investments	$ 46	$ 50	$ 87	$ 94
Add: Purchase accounting impacts - Linde AG (c)	18	19	36	39
Adjusted income from equity investments	$ 64	$ 69	$ 123	$ 133
Adjusted Noncontrolling Interests				
Reported noncontrolling interests	$ (37)	$ (38)	$ (73)	$ (74)
Add: Purchase accounting impacts - Linde AG (c)	(3)	(3)	(6)	(7)
Adjusted noncontrolling interests	$ (40)	$ (41)	$ (79)	$ (81)
Adjusted Net Income - Linde plc (b)				
Reported net income - Linde plc	$ 1,575	$ 372	$ 3,091	$ 1,546
Add: Other charges	(12)	889	(39)	888
Add: Purchase accounting impacts - Linde AG (c)	197	305	401	632
Total adjustments	185	1,194	362	1,520
Adjusted net income - Linde plc	$ 1,760	$ 1,566	$ 3,453	$ 3,066

Adjusted Diluted EPS (b)				
Reported diluted EPS	$ 3.19	$ 0.74	$ 6.25	$ 3.04
Add: Other charges	(0.02)	1.76	(0.08)	1.75
Add: Purchase accounting impacts - Linde AG (c)	0.40	0.60	0.81	1.24
Total adjustments	0.38	2.36	0.73	2.99
Adjusted diluted EPS	$ 3.57	$ 3.10	$ 6.98	$ 6.03
Reported percentage change	331 %	(54)%	106 %	(12)%
Adjusted percentage change	15 %	15 %	16 %	16 %
Adjusted EBITDA and % of Sales				
Net Income - Linde plc	$ 1,575	$ 372	$ 3,091	$ 1,546
Add: Noncontrolling interests	37	38	73	74
Add: Net pension and OPEB cost (benefit), excluding service cost	(45)	(62)	(90)	(126)
Add: Interest expense	52	5	89	14
Add: Income taxes	438	286	868	655
Add: Depreciation and amortization	960	1,091	1,908	2,203
EBITDA	$ 3,017	$ 1,730	$ 5,939	$ 4,366
Add: Other charges	22	993	40	989
Add: Purchase accounting impacts - Linde AG (c)	20	23	43	54
Total adjustments	42	1,016	83	1,043
Adjusted EBITDA	$ 3,059	$ 2,746	$ 6,022	$ 5,409
Reported sales	$ 8,204	$ 8,457	$ 16,397	$ 16,668
% of sales				
EBITDA	36.8 %	20.5 %	36.2 %	26.2 %
Adjusted EBITDA	37.3 %	32.5 %	36.7 %	32.5 %

(a) The income tax expense (benefit) on the non-GAAP pre-tax adjustments was determined using the applicable tax rates for the jurisdictions that were utilized in calculating the GAAP income tax expense (benefit) and included both current and deferred income tax amounts.

(b) Net of income taxes which are shown separately in “Adjusted Income Taxes and Adjusted Effective Tax Rate”.

(c) The company believes that its non-GAAP measures excluding Purchase accounting impacts - Linde AG are useful to investors because: (i) the 2018 business combination was a merger of equals in an all-stock merger transaction, with no cash consideration, (ii) the company is managed on a geographic basis and the results of certain geographies are more heavily impacted by purchase accounting than others, causing results that are not comparable at the reportable segment level, therefore, the impacts of purchase accounting adjustments to each segment vary and are not comparable within the company and when compared to other companies in similar regions, (iii) business management is evaluated and variable compensation is determined based on results excluding purchase accounting impacts, and; (iv) it is important to investors and analysts to understand the purchase accounting impacts to the financial statements.

A summary of each of the adjustments made for Purchase accounting impacts - Linde AG are as follows:
Adjusted Operating Profit and Margin: The purchase accounting adjustments for the periods presented relate primarily to depreciation and amortization related to the fair value step up of fixed assets and intangible assets (primarily customer related) acquired in the merger and the allocation of fair value step-up for ongoing Linde AG asset disposals (reflected in Other Income/(Expense)).
Adjusted Interest Expense - Net: Relates to the amortization of the fair value of debt acquired in the merger.
Adjusted Income Taxes and Effective Tax Rate: Relates to the current and deferred income tax impact on the adjustments discussed above. The income tax expense (benefit) on the non-GAAP pre-tax adjustments was determined using the applicable tax rates for the jurisdictions that were utilized in calculating the GAAP income tax expense (benefit) and included both current and deferred income tax amounts.
Adjusted Income from Equity Investments: Represents the amortization of increased fair value on equity investments related to depreciable and amortizable assets.
Adjusted Noncontrolling Interests: Represents the noncontrolling interests’ ownership portion of the adjustments described above determined on an entity by entity basis.

Net Debt and Adjusted Net Debt

Net debt is a financial liquidity measure used by investors, financial analysts and management to evaluate the ability of a company to repay its debt. Purchase accounting impacts have been excluded as they are non-cash and do not have an impact on liquidity.

	June 30, 2023	December 31, 2022
(Millions of dollars)		
Debt	$ 17,490	$ 17,914
Less: cash and cash equivalents	(3,357)	(5,436)
Net debt	14,133	12,478
Less: purchase accounting impacts - Linde AG	(10)	(22)
Adjusted net debt	$ 14,123	$ 12,456

Supplemental Guarantee Information

On May 3, 2023, the company filed a Form S-3 Registration Statement with the SEC ("the Registration Statement").

Linde plc may offer debt securities, preferred shares, depositary shares and ordinary shares under the Registration Statement, and debt securities exchangeable for or convertible into preferred shares, ordinary shares or other debt securities. Debt securities of Linde plc may be guaranteed by Linde Inc and/or Linde GmbH. Linde plc may provide guarantees of debt securities offered by its wholly owned subsidiaries Linde Inc. or Linde Finance under the Registration Statement.

Linde Inc. is a wholly owned subsidiary of Linde plc. Linde Inc. may offer debt securities under the Registration Statement. Debt securities of Linde Inc. will be guaranteed by Linde plc, and such guarantees by Linde plc may be guaranteed by Linde GmbH. Linde Inc. may also provide (i) guarantees of debt securities offered by Linde plc under the Registration Statement and (ii) guarantees of the guarantees provided by Linde plc of debt securities of Linde Finance offered under the Registration Statement.

Linde Finance B.V. is a wholly owned subsidiary of Linde plc. Linde Finance may offer debt securities under the Registration Statement. Linde plc will guarantee debt securities of Linde Finance offered under the Registration Statement. Linde GmbH and Linde Inc. may guarantee Linde plc's obligations under its downstream guarantee.

Linde GmbH is a wholly owned subsidiary of Linde plc. Linde GmbH may provide (i) guarantees of debt securities offered by Linde plc under the Registration Statement and (ii) upstream guarantees of downstream guarantees provided by Linde plc of debt securities of Linde Inc. or Linde Finance offered under the Registration Statement.

In September 2019, Linde plc provided downstream guarantees of all pre-existing Linde Inc. and Linde Finance notes, and Linde GmbH and Linde Inc., respectively, provided upstream guarantees of Linde plc's downstream guarantees.

Linde plc has filed a base prospectus with the Luxembourg Stock Exchange for a €10.0 billion debt issuance program, under which Linde plc may offer debt securities. Linde Inc. and Linde GmbH have provided to Linde plc upstream guarantees in relation to debt securities of Linde plc offered under the European debt program.

For further information about the guarantees of the debt securities registered under the Registration Statement (including the ranking of such guarantees, limitations on enforceability of such guarantees and the circumstances under which such guarantees may be released), see "Description of Debt Securities – Guarantees" and "Description of Debt Securities – Ranking" in the Registration Statement, which subsections are incorporated herein by reference.

The following tables present summarized financial information for Linde plc, Linde Inc., Linde GmbH and Linde Finance on a combined basis, after eliminating intercompany transactions and balances between them and excluding investments in and equity in earnings from non-guarantor subsidiaries.

(Millions of dollars)		
Statement of Income Data	Six Months Ended June 30, 2023	Twelve Months Ended December 31, 2022
Sales	$ 4,026	$ 8,850
Operating profit	775	1,337
Net income	300	675
Transactions with non-guarantor subsidiaries	1,208	2,241
Balance Sheet Data (at period end)		
Current assets (a)	$ 4,896	$ 11,478
Long-term assets (b)	13,264	13,949
Current liabilities (c)	9,647	11,767
Long-term liabilities (d)	50,170	48,210
(a) From current assets above, amount due from non-guarantor subsidiaries	$ 3,034	$ 7,260
(b) From long-term assets above, amount due from non-guarantor subsidiaries	495	1,982
(c) From current liabilities above, amount due to non-guarantor subsidiaries	1,363	1,334
(d) From long-term liabilities above, amount due to non-guarantor subsidiaries	34,087	33,268

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Refer to Item 7A. to Part II of Linde's 2022 Annual Report on Form 10-K for discussion.

Item 4. Controls and Procedures

(a) Based on an evaluation of the effectiveness of Linde's disclosure controls and procedures, which was made under the supervision and with the participation of management, including Linde's principal executive officer and principal financial officer, the principal executive officer and principal financial officer have each concluded that, as of the end of the quarterly period covered by this report, such disclosure controls and procedures are effective in ensuring that information required to be disclosed by Linde in reports that it files under the Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and accumulated and communicated to management including Linde's principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

(b) There were no changes in Linde's internal control over financial reporting that occurred during the quarterly period covered by this report that have materially affected, or are reasonably likely to materially affect, Linde's internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

See Note 9 to the condensed consolidated financial statements for a description of current legal proceedings.

Item 1A. Risk Factors

Through the quarterly period covered by this report, there have been no material changes to the risk factors disclosed in Item 1A to Part I of Linde's Annual Report on Form 10-K for the year ended December 31, 2022.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Purchases of Equity Securities- Certain information regarding purchases made by or on behalf of the company or any affiliated purchaser (as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934, as amended) of its ordinary shares during the quarter ended June 30, 2023 is provided below:

Period	Total Number of Shares Purchased *(Thousands)*	Average Price Paid Per Share	Total Numbers of Shares Purchased as Part of Publicly Announced Program (1,2) *(Thousands)*	Approximate Dollar Value of Shares that May Yet be Purchased Under the Program (1) *(Millions)*
April 2023	830	$ 361.66	830	$ 4,179
May 2023	997	$ 361.52	997	$ 3,818
June 2023	682	$ 368.70	682	$ 3,567
Second Quarter 2023	2,509	$ 363.52	2,509	$ 3,567

(1) On February 28, 2022, the company's board of directors approved the repurchase of $10.0 billion of its ordinary shares ("2022 program") which could take place from time to time on the open market (and could include the use of 10b5-1 trading plans), subject to market and business conditions. The 2022 program has a maximum repurchase amount of 15% of outstanding shares, began on March 1, 2022 and expires on July 31, 2024.

As of June 30, 2023, the company repurchased $6.4 billion of its ordinary shares pursuant to the 2022 program. As of June 30, 2023, $3.6 billion of share repurchases remain authorized under the 2022 program.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

On June 15, 2023, Sean Durbin, Executive Vice President, EMEA, adopted a written plan for certain transactions in the Ordinary Shares of Linde plc that is intended to satisfy the affirmative defense conditions of SEC Rule 10b5–1(c) (the “Plan”). The Plan will terminate on May 31, 2024, or earlier if, among other things, all the Ordinary Share transactions have been completed before such date. Under the Plan, Ordinary Shares may be sold if specified minimum market limit sale prices are achieved as follows: (1) 1,810 Ordinary Shares if such shares are acquired pursuant to the vesting and payout of previously granted restricted stock units, (2) 4,200 Ordinary Shares if such shares are acquired pursuant to the vesting and payout of previously granted performance share units, assuming a payout at the target number of units granted (the actual payout, if any, may be more or less than the 4,200 share target payout); and (3) 4,000 Ordinary Shares upon the exercise of a previously granted stock option.

Item 6. Exhibits

(a) Exhibits

4.1	Amended and Restated Fiscal Agency Agreement, dated May 4, 2023, among Linde plc, as Issuer, and Deutsche Bank Aktiengesellschaft, as Fiscal Agent and Paying Agent (filed as Exhibit 4.6 to Linde plc's Current Report on Form 8-K dated June 12, 2033, File No. 001-38730, and is incorporated by reference)
4.2	Form of Indenture for Debt Securities between Linde plc, as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee ,including form of debt securities and related guarantees (filed as Exhibit 4.2 to Linde plc's Registration Statement on Form S-3 dated May 3, 2023, and is incorporated by reference)
4.3	Form of Indenture for Debt Securities between Linde Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee ,including form of debt securities and related guarantees, (filed as Exhibit 4.3 to Linde plc's Registration Statement on Form S-3 dated May 3, 2023, and is incorporated by reference)
4.4	Form of Indenture for Debt Securities between Linde Finance B.V., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, including form of debt securities and related guarantees, (filed as Exhibit 4.4 to Linde plc's Registration Statement on Form S-3 dated May 3, 2023, and is incorporated by reference)
31.01	Rule 13a-14(a) Certification
31.02	Rule 13a-14(a) Certification
32.01	Section 1350 Certification (such certifications are furnished for the information of the Commission and shall not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act).
32.02	Section 1350 Certification (such certifications are furnished for the information of the Commission and shall not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act).
101.INS	XBRL Instance Document: The XBRL Instance Document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase

*Indicates a management contract or compensatory plan or arrangement.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Linde plc
(Registrant)

Date: July 27, 2023

By: /s/ Kelcey E. Hoyt

Kelcey E. Hoyt
Chief Accounting Officer

RULE 13a-14(a) CERTIFICATIONS

EXHIBIT 31.01

I, Sanjiv Lamba, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Linde plc;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

July 27, 2023	By:/s/ Sanjiv Lamba
	Sanjiv Lamba Chief Executive Officer

RULE 13a-14(a) CERTIFICATIONS

EXHIBIT 31.02

I, Matthew J. White, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Linde plc;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

July 27, 2023	By: /s/ Matthew J. White
	Matthew J. White Chief Financial Officer

SECTION 1350 CERTIFICATION

EXHIBIT 32.01

Pursuant to 18 U.S.C. § 1350, the undersigned officer of Linde plc (the "Company"), hereby certifies that the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

July 27, 2023	By:/s/ Sanjiv Lamba
	Sanjiv Lamba Chief Executive Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

A signed original of this written statement required by 18 U.S.C. § 1350 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

SECTION 1350 CERTIFICATION

EXHIBIT 32.02

Pursuant to 18 U.S.C. § 1350, the undersigned officer of Linde plc (the “Company”), hereby certifies that the Company’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2023 (the “Report”) fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

July 27, 2023	By: /s/ Matthew J. White
	Matthew J. White Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

A signed original of this written statement required by 18 U.S.C. § 1350 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.