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 March 31, 2022

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 March 31, 2022, 503,281,693 ordinary shares (€0.001 par value) of the Registrant were outstanding.

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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, 2021 filed with the SEC on February 28, 2022, 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 March 31,	
	2022	2021
Sales	$ 8,211	$ 7,243
Cost of sales, exclusive of depreciation and amortization	4,798	4,054
Selling, general and administrative	802	787
Depreciation and amortization	1,112	1,166
Research and development	35	35
Cost reduction programs and other charges	(4)	(8)
Other income (expense) - net	12	4
Operating Profit	1,480	1,213
Interest expense - net	9	20
Net pension and OPEB cost (benefit), excluding service cost	(64)	(49)
Income From Continuing Operations Before Income Taxes and Equity Investments	1,535	1,242
Income taxes on continuing operations	369	268
Income From Continuing Operations Before Equity Investments	1,166	974
Income from equity investments	44	43
Income From Continuing Operations (Including Noncontrolling Interests)	1,210	1,017
Income from discontinued operations, net of tax	—	1
Net Income (Including Noncontrolling Interests)	1,210	1,018
Less: noncontrolling interests from continuing operations	(36)	(38)
Net Income – Linde plc	$ 1,174	$ 980
Net Income – Linde plc		
Income from continuing operations	$ 1,174	$ 979
Income from discontinued operations	$ —	$ 1
Per Share Data – Linde plc Shareholders		
Basic earnings per share from continuing operations	$ 2.31	$ 1.87
Basic earnings per share from discontinued operations	—	—
Basic earnings per share	$ 2.31	$ 1.87
Diluted earnings per share from continuing operations	$ 2.30	$ 1.86
Diluted earnings per share from discontinued operations	—	—
Diluted earnings per share	$ 2.30	$ 1.86
Weighted Average Shares Outstanding (000's):		
Basic shares outstanding	507,152	522,459
Diluted shares outstanding	511,410	526,927

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 March 31, 2022	Quarter Ended March 31, 2021
NET INCOME (INCLUDING NONCONTROLLING INTERESTS)	$ 1,210	$ 1,018
OTHER COMPREHENSIVE INCOME (LOSS)		
Translation adjustments:		
Foreign currency translation adjustments	60	(657)
Reclassification to net income	—	(52)
Income taxes	(12)	(6)
Translation adjustments	48	(715)
Funded status - retirement obligations (Note 8):		
Retirement program remeasurements	55	20
Reclassifications to net income	19	43
Income taxes	(21)	(23)
Funded status - retirement obligations	53	40
Derivative instruments (Note 5):		
Current unrealized gain (loss)	18	21
Reclassifications to net income	(23)	(2)
Income taxes	2	(5)
Derivative instruments	(3)	14
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)	98	(661)
COMPREHENSIVE INCOME (LOSS) (INCLUDING NONCONTROLLING INTERESTS)	1,308	357
Less: noncontrolling interests	(24)	(32)
COMPREHENSIVE INCOME (LOSS) - LINDE PLC	$ 1,284	$ 325

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

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

	March 31, 2022	December 31, 2021
Assets		
Cash and cash equivalents	$ 4,464	$ 2,823
Accounts receivable - net	4,845	4,499
Contract assets	100	134
Inventories	1,766	1,733
Prepaid and other current assets	1,082	970
Total Current Assets	12,257	10,159
Property, plant and equipment - net	25,595	26,003
Goodwill	26,822	27,038
Other intangible assets - net	13,506	13,802
Other long-term assets	4,587	4,603
Total Assets	$ 82,767	$ 81,605
Liabilities and equity		
Accounts payable	$ 3,387	$ 3,503
Short-term debt	2,549	1,163
Current portion of long-term debt	1,074	1,709
Contract liabilities	3,035	2,940
Other current liabilities	4,461	4,328
Total Current Liabilities	14,506	13,643
Long-term debt	12,833	11,335
Other long-term liabilities	11,038	11,186
Total Liabilities	38,377	36,164
Redeemable noncontrolling interests	13	13
Linde plc Shareholders’ Equity:		
Ordinary shares,€0.001 par value, authorized 1,750,000,000 shares, 2022 issued: 552,012,862 ordinary shares; 2021 issued: 552,012,862 ordinary shares	1	1
Additional paid-in capital	39,972	40,180
Retained earnings	19,387	18,710
Accumulated other comprehensive income (loss) (Note 11)	(4,938)	(5,048)
Less: Treasury shares, at cost (2022 – 48,731,169 shares and 2021 – 43,331,983 shares)	(11,459)	(9,808)
Total Linde plc Shareholders’ Equity	42,963	44,035
Noncontrolling interests	1,414	1,393
Total Equity	44,377	45,428
Total Liabilities and Equity	$ 82,767	$ 81,605

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)

	Three Months Ended March 31, 2022	Three Months Ended March 31, 2021
Increase (Decrease) in Cash and Cash Equivalents		
Operations		
Net income - Linde plc	$ 1,174	$ 980
Less: Income from discontinued operations, net of tax and noncontrolling interests	—	(1)
Add: Noncontrolling interests from continuing operations	36	38
Income from continuing operations (including noncontrolling interests)	1,210	1,017
Adjustments to reconcile net income to net cash provided by operating activities:		
Cost reduction programs and other charges, net of payments	(34)	(76)
Depreciation and amortization	1,112	1,166
Deferred income taxes	(59)	(65)
Share-based compensation	34	29
Working capital:		
Accounts receivable	(340)	(178)
Inventory	(35)	(60)
Prepaid and other current assets	(107)	(64)
Payables and accruals	51	69
Contract assets and liabilities, net	192	191
Pension contributions	(13)	(12)
Long-term assets, liabilities and other	(11)	92
Net cash provided by operating activities	2,000	2,109
Investing		
Capital expenditures	(649)	(762)
Acquisitions, net of cash acquired	(43)	(10)
Divestitures and asset sales, net of cash divested	27	21
Net cash provided by (used for) investing activities	(665)	(751)
Financing		
Short-term debt borrowings (repayments) - net	1,416	704
Long-term debt borrowings	2,296	34
Long-term debt repayments	(1,166)	(57)
Issuances of ordinary shares	10	17
Purchases of ordinary shares	(1,719)	(868)
Cash dividends - Linde plc shareholders	(592)	(553)
Noncontrolling interest transactions and other	(1)	(247)
Net cash provided by (used for) financing activities	244	(970)
Effect of exchange rate changes on cash and cash equivalents	62	(46)
Change in cash and cash equivalents	1,641	342
Cash and cash equivalents, beginning-of-period	2,823	3,754
Cash and cash equivalents, end-of-period	$ 4,464	$ 4,096

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

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 presentation 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 2021 Annual Report on Form 10-K. There have been no material changes to the company's significant accounting policies during 2022.

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

2. Cost Reduction Programs and Other Charges

2022 Charges

Cost reduction programs and other charges were a net benefit of $4 million for the three months ended March 31, 2022 ($1 million, after tax). Total cost reduction program related charges were $4 million for the three months ended March 31, 2022 ($4 million, after tax), primarily related to severance in the APAC segment. Merger-related costs and other charges were a benefit of $8 million for the three months ended March 31, 2022 (benefit of $5 million after tax), primarily related to a gain on sale of an interest in a joint venture.

The following table summarizes the activities related to the company's cost reduction related charges for the three months ended March 31, 2022:

(millions of dollars)	Severance costs	Other cost reduction charges	**Total cost reduction program related charges**	Merger-related and other charges	Total
Balance, December 31, 2021	$ 384	$ 38	$ 422	$ 31	$ 453
2022 Cost Reduction Programs and Other Charges	4	—	4	(8)	(4)
Less: Cash payments / receipts	(34)	(1)	(35)	5	(30)
Foreign currency translation and other	(8)	(3)	(11)	—	(11)
Balance, March 31, 2022	$ 346	$ 34	$ 380	$ 28	$ 408

2021 Charges

Cost reduction programs and other charges were a net benefit of $8 million for the three months ended March 31, 2021, ($28 million after tax). Total cost reduction program related charges were $44 million ($34 million after tax), for the three months ended March 31, 2021, which consisted primarily of severance charges of $26 million and other charges of $18 million related to the execution of the company's synergistic actions. Merger-related and other charges were a benefit of $52 million for the three months ended March 31, 2021 ($62 million after tax), primarily due to a $52 million gain triggered by a joint venture deconsolidation in the APAC segment and other tax adjustments.

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 $4,808 million and $4,425 million at March 31, 2022 and December 31, 2021 respectively and gross receivables aged greater than one year were $278 million and $329 million at March 31, 2022 and December 31, 2021, respectively. Other receivables were $158 million and $150 million at March 31, 2022 and December 31, 2021, 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 $4,845 million at March 31, 2022 and $4,499 million at December 31, 2021. Allowances for expected credit losses were $399 million at March 31, 2022 and $405 million at December 31, 2021. Provisions for expected credit losses were $35 million and $39 million for the three months ended March 31, 2022 and 2021, respectively. The allowance activity in the three months ended March 31, 2022 and 2021 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)	March 31, 2022	December 31, 2021
Inventories		
Raw materials and supplies	$ 440	$ 399
Work in process	318	334
Finished goods	1,008	1,000
Total inventories	$ 1,766	$ 1,733

4. Debt

The following is a summary of Linde's outstanding debt at March 31, 2022 and December 31, 2021:

(Millions of dollars)	March 31, 2022	December 31, 2021
SHORT-TERM		
Commercial paper	$ 2,249	$ 278
Other bank borrowings (primarily non U.S.)	300	885
Total short-term debt	2,549	1,163
LONG-TERM (a)		
(U.S. dollar denominated unless otherwise noted)		
0.250% Euro denominated notes due 2022 (b) (c)	—	1,137
2.20% Notes due 2022	500	500
2.70% Notes due 2023	500	500
2.00% Euro denominated notes due 2023 (b)	735	759
5.875% GBP denominated notes due 2023 (b)	415	432
1.20% Euro denominated notes due 2024	608	625
1.875% Euro denominated notes due 2024 (b)	342	356
2.65% Notes due 2025	399	399
1.625% Euro denominated notes due 2025	550	565
0.00% Euro denominated notes due 2026	777	799
3.20% Notes due 2026	725	725
3.434% Notes due 2026	198	197
1.652% Euro denominated notes due 2027	91	94
0.250% Euro denominated notes due 2027	828	850
1.00% Euro denominated notes due 2027 (d)	551	—
1.00% Euro denominated notes due 2028 (b)	824	879
1.10% Notes due 2030	696	696
1.90% Euro denominated notes due 2030	115	118
1.375% Euro denominated notes due 2031 (d)	821	—
0.550% Euro denominated notes due 2032	824	847
0.375% Euro denominated notes due 2033	550	565
1.625% Euro denominated notes due 2035 (d)	874	—
3.55% Notes due 2042	664	664
2.00% Notes due 2050	296	296
1.00% Euro denominated notes due 2051	767	788
Non U.S borrowings	247	243
Other	10	10
	13,907	13,044
Less: current portion of long-term debt	(1,074)	(1,709)
Total long-term debt	12,833	11,335
Total debt	$ 16,456	$ 14,207

(a) Amounts are net of unamortized discounts, premiums and/or debt issuance costs as applicable.
(b) March 31, 2022 and December 31, 2021 included a cumulative $4 million and $42 million adjustment to carrying value, respectively, related to hedge accounting of interest rate swaps. Refer to Note 5.
(c) In January 2022, Linde repaid €1.0 billion of 0.250% notes that became due.
(d) In March 2022, Linde issued €500 million of 1.000% notes due 2027, €750 million of 1.375% notes due 2031, and €800 million of 1.625% notes due 2035.

The company maintains a $5 billion unsecured revolving credit agreement with a syndicate of banking institutions that expires March 26, 2024. There are no financial maintenance covenants contained within the credit agreement. No borrowings were outstanding under the credit agreement as of March 31, 2022.

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 its 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 March 31, 2022, 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 March 31, 2022 and December 31, 2021 for consolidated subsidiaries:

			Fair Value			
	Notional Amounts		Assets (a)		Liabilities (a)	
(Millions of dollars)	March 31, 2022	December 31, 2021	March 31, 2022	December 31, 2021	March 31, 2022	December 31, 2021
Derivatives Not Designated as Hedging Instruments:						
Currency contracts:						
Balance sheet items	$ 4,460	$ 4,427	$ 25	$ 22	$ 19	$ 17
Forecasted transactions	415	537	7	6	11	11
Cross-currency swaps	140	148	18	21	5	4
Total	$ 5,015	$ 5,112	$ 50	$ 49	$ 35	$ 32
Derivatives Designated as Hedging Instruments:						
Currency contracts:						
Forecasted transactions	693	758	14	14	32	3
Commodity contracts	N/A	N/A	56	49	—	—
Interest rate swaps	885	1,251	7	24	19	—
Total Hedges	$ 1,578	$ 2,009	$ 77	$ 87	$ 51	$ 3
Total Derivatives	$ 6,593	$ 7,121	$ 127	$ 136	$ 86	$ 35

(a) March 31, 2022 and December 31, 2021 included current assets of $109 million and $101 million which are recorded in prepaid and other current assets; long-term assets of $18 million and $35 million which are recorded in other long-term assets; current liabilities of $40 million and $27 million which are recorded in other current liabilities; and long-term liabilities of $46 million and $8 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 ("AOCI") with deferred amounts reclassified to earnings over the same time period as the income statement impact of the associated forecasted transaction. 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 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. Commodity price fluctuations are largely covered through contractual pass through to customers. To reduce the extent of the remaining 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 ("AOCI") 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 March 31, 2022, Linde has €6.9 billion ($7.7 billion) Euro-denominated notes and intercompany loans that are designated as hedges of the net investment positions in foreign operations. Since hedge inception, the deferred gain recorded within the cumulative translation adjustment component of AOCI in the condensed consolidated balance sheets and the consolidated statements of comprehensive income is $269 million (deferred gain of $129 million recorded for the three months ended March 31, 2022).

As of March 31, 2022, exchange rate movements relating to previously designated hedges that remain in AOCI is a loss of $42 million. These movements will remain in AOCI, until appropriate, such as upon sale or liquidation of the related foreign operations at which time amounts will be reclassified to the consolidated statement 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:

(Millions of dollars)	Amount of Pre-Tax Gain (Loss) Recognized in Earnings * Quarter Ended March 31, 2022	2021
Derivatives Not Designated as Hedging Instruments		
Currency contracts:		
Balance sheet items		
Debt-related	$ 51	$ 19
Other balance sheet items	(12)	4
Total	$ 39	$ 23

* 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 AOCI and reclassified to the consolidated statement of income was immaterial for the quarter and three months ended March 31, 2022 and 2021, respectively. Net losses 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:

	Fair Value Measurements Using					
	Level 1		Level 2		Level 3	
(Millions of dollars)	March 31, 2022	December 31, 2021	March 31, 2022	December 31, 2021	March 31, 2022	December 31, 2021
Assets						
Derivative assets	$ —	$ —	$ 127	$ 136	$ —	$ —
Investments and securities*	38	42	—	—	17	20
Total	$ 38	$ 42	$ 127	$ 136	17	$ 20
Liabilities						
Derivative liabilities	$ —	$ —	$ 86	$ 35	$ —	$ —

* 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 these 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 either Level 1 or Level 2 of the fair value hierarchy depending on the trading volume of the issues and whether or not they are actively quoted in the market as opposed to traded through over-the-counter transactions. At March 31, 2022, the estimated fair value of Linde's long-term debt portfolio was $13,415 million versus a carrying value of $13,907 million. At December 31, 2021, the estimated fair value of Linde's long-term debt portfolio was $13,219 million versus a carrying value of $13,044 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 Income from continuing operations, Income from discontinued operations and Net income – Linde plc for the period by the weighted average number of either basic or diluted shares outstanding, as follows:

	Quarter Ended March 31,	
	2022	2021
Numerator (Millions of dollars)		
Income from continuing operations	$ 1,174	$ 979
Income from discontinued operations	—	1
Net Income – Linde plc	$ 1,174	$ 980
Denominator (Thousands of shares)		
Weighted average shares outstanding	506,716	522,103
Shares earned and issuable under compensation plans	436	356
Weighted average shares used in basic earnings per share	507,152	522,459
Effect of dilutive securities		
Stock options and awards	4,258	4,468
Weighted average shares used in diluted earnings per share	511,410	526,927
Basic earnings per share from continuing operations	$ 2.31	$ 1.87
Basic earnings per share from discontinued operations	—	—
Basic Earnings Per Share	$ 2.31	$ 1.87
Diluted earnings per share from continuing operations	$ 2.30	$ 1.86
Diluted earnings per share from discontinued operations	—	—
Diluted Earnings Per Share	$ 2.30	$ 1.86

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 three months ended March 31, 2022 and 2021 are shown below:

	Quarter Ended March 31,	
(Millions of dollars)	2022	2021
Amount recognized in Operating Profit		
Service cost	$ 33	$ 40
Amount recognized in Net pension and OPEB cost (benefit), excluding service cost		
Interest cost	53	39
Expected return on plan assets	(136)	(131)
Net amortization and deferral	19	43
	(64)	(49)
Net periodic benefit cost (benefit)	$ (31)	$ (9)

Components of net periodic benefit expense for other post-retirement plans for the three months ended March 31, 2022 and 2021 were not material.

Linde estimates that 2022 required contributions to its pension plans will be in the range of $40 million to $50 million, of which $13 million have been made through March 31, 2022.

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 2021 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 March 31, 2022 the most significant non-income and income tax claims in Brazil, after enrollment in the Refis Program, relate to state VAT tax matters and a federal income tax matter where the taxing authorities are challenging the tax rate that should be applied to income generated by a subsidiary company. The total estimated exposure relating to such claims, including interest and penalties, as appropriate, is approximately $235 million. Linde has not recorded any liabilities related to such claims based on management judgments, after considering judgments and opinions of outside counsel. 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 $2.2 billion Brazilian reais ($464 million) on White Martins, the Brazil-based subsidiary of Praxair, Inc. The fine was reduced to $1.7 billion Brazilian reais ($359 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 $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 $188 million Brazilian reais ($40 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.

10. Segments

For a description of Linde plc's operating segments, refer to Note 18 to the consolidated financial statements on Linde plc's 2021 Annual Report on Form 10-K.

The table below presents sales and operating profit information about reportable segments and Other for the three months ended March 31, 2022 and 2021.

	Quarter Ended March 31,	
(Millions of dollars)	2022	2021
SALES[a]		
Americas	$ 3,241	$ 2,840
EMEA	2,148	1,799
APAC	1,602	1,436
Engineering	728	674
Other	492	494
Total sales	$ 8,211	$ 7,243

	Quarter Ended March 31,	
(Millions of dollars)	2022	2021
SEGMENT OPERATING PROFIT		
Americas	$ 904	$ 795
EMEA	503	451
APAC	399	351
Engineering	143	109
Other	(44)	(18)
Segment operating profit	1,905	1,688
Cost reduction programs and other charges (Note 2)	4	8
Purchase accounting impacts - Linde AG	(429)	(483)
Total operating profit	$ 1,480	$ 1,213

(a) Sales reflect external sales only. Intersegment sales, primarily from Engineering to the industrial gases segments, were not material.

11. Equity

Equity

A summary of the changes in total equity for the quarters ended March 31, 2022 and 2021 is provided below:

(Millions of dollars)	Quarter Ended March 31, 2022			2021		
Activity	Linde plc Shareholders' Equity	Noncontrolling Interests	Total Equity	Linde plc Shareholders' Equity	Noncontrolling Interests	Total Equity
Balance, beginning of period	$ 44,035	$ 1,393	$ 45,428	$ 47,317	$ 2,252	$ 49,569
Net income (a)	1,174	36	1,210	980	38	1,018
Other comprehensive income (loss)	110	(12)	98	(655)	(6)	(661)
Noncontrolling interests:						
Additions (reductions) (b)	—	4	4	—	(853)	(853)
Dividends and other capital changes	—	(7)	(7)	—	(21)	(21)
Dividends to Linde plc ordinary share holders ($1.17 per share in 2022 and $1.06 per share in 2021)	(592)	—	(592)	(553)	—	(553)
Issuances of ordinary shares:						
For employee savings and incentive plans	(46)	—	(46)	(2)	—	(2)
Purchases of ordinary shares	(1,752)	—	(1,752)	(906)	—	(906)
Share-based compensation	34	—	34	29	—	29
Balance, end of period	$ 42,963	$ 1,414	$ 44,377	$ 46,210	$ 1,410	$ 47,620

(a) Net income for noncontrolling interests excludes net income related to redeemable noncontrolling interests which is not significant for the three months ended March 31, 2022 and 2021 and which is not part of total equity.

(b) Additions (reductions) for noncontrolling interests for the three months ended March 31, 2021, includes the impact from the deconsolidation of a joint venture with operations in APAC.

The components of AOCI are as follows:

(Millions of dollars)	March 31, 2022	December 31, 2021
Cumulative translation adjustment - net of taxes:		
Americas	$ (3,652)	$ (3,985)
EMEA	(402)	94
APAC	162	154
Engineering	(100)	24
Other	59	(280)
	(3,933)	(3,993)
Derivatives - net of taxes	72	75
Pension / OPEB (net of $284 million and $305 million tax benefit in March 31, 2022 and December 31, 2021, respectively)	(1,077)	(1,130)
	$ (4,938)	$ (5,048)

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.

Linde 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. Contract modifications are typically accounted for as part of the existing contract and are recognized as a cumulative adjustment 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 $100 million and $134 million at March 31, 2022 and December 31, 2021, respectively. Total contract liabilities are $3,874 million at March 31, 2022 (current of $3,035 million and $839 million within other long-term liabilities in the condensed consolidated balance sheets). Total contract liabilities were $3,699 million at December 31, 2021 (current contract liabilities of $2,940 million and $759 million in other long-term liabilities in the condensed consolidated balance sheets). Revenue recognized for the three months ended March 31, 2022 that was included in the contract liability at December 31, 2021 was $611 million. Contract assets and liabilities primarily relate to the Linde 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 18 to Linde's 2021 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 three months ended March 31, 2022 and March 31, 2021.

(Millions of dollars)	Quarter Ended March 31, 2022						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other**	**Total**	**%**
Merchant	$ 874	$ 614	$ 516	$ —	$ 39	$ 2,043	25 %
On-Site	883	631	655	—	—	2,169	26 %
Packaged Gas	1,432	891	361	—	7	2,691	33 %
Other	52	12	70	728	446	1,308	16 %
Total	$ 3,241	$ 2,148	$ 1,602	$ 728	$ 492	$ 8,211	100 %

(Millions of dollars)	Quarter Ended March 31, 2021						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other**	**Total**	**%**
Merchant	$ 771	$ 531	$ 484	$ —	$ 53	$ 1,839	25 %
On-Site	689	392	553	—	—	1,634	23 %
Packaged Gas	1,332	861	361	—	6	2,560	35 %
Other	48	15	38	674	435	1,210	17 %
Total	$ 2,840	$ 1,799	$ 1,436	$ 674	$ 494	$ 7,243	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 $51 billion (excludes Russian projects which are currently or expected to be impacted by sanctions, as discussed in Note 13). 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. Subsequent Events

Conflict between Russia and Ukraine

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.

In 2021, Linde’s industrial gas business generated approximately 1% of consolidated Linde sales from Russia. Total assets in Russia represent approximately 1% of consolidated Linde assets. Sales and total assets in Ukraine are immaterial. As of March 31, 2022, Linde has approximately $2 billion recorded in contract liabilities within the condensed consolidated balance sheet related to engineering projects in Russia.

Linde continues to closely monitor the situation in Ukraine and has taken steps to ensure the safety of its employees and the continuous delivery of critical medical oxygen. Linde is working with the relevant governments and authorities to ensure the company fully complies with international sanctions and is safely winding down affected projects in Russia. During the first quarter of 2022, engineering projects being executed for Russia that are currently or expected to be impacted by sanctions and thus being wound down were approximately $0.35 billion of sales. Linde has suspended all business development for new projects and is scaling back its operations in Russia by ceasing to supply certain customers and starting the process to divest industrial assets to reduce its footprint in the country.

It is possible that Linde may incur impairment and other charges in future quarters as these actions are defined and executed and as further sanctions are enacted that impact the Company’s operations in Russia, including industrial gases and engineering. Any charges related to such impairments or obligation to satisfy any residual contract liabilities may have an adverse effect on Linde’s result of operations or cash flows.

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 from continuing operations exclusive of certain items such as cost reduction programs and other charges, net gains 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 from continuing operations, 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 three months ended March 31, 2022 and 2021. 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 March 31,		
(Millions of dollars, except per share data)	2022	2021	Variance
Sales	$ 8,211	$ 7,243	13 %
Cost of sales, exclusive of depreciation and amortization	$ 4,798	$ 4,054	18 %
As a percent of sales	58.4 %	56.0 %	
Selling, general and administrative	$ 802	$ 787	2 %
As a percent of sales	9.8 %	10.9 %	
Depreciation and amortization	$ 1,112	$ 1,166	(5)%
Cost reduction programs and other charges (b)	$ (4)	$ (8)	(50)%
Other income (expense) - net	$ 12	$ 4	(200)%
Operating profit	$ 1,480	$ 1,213	22 %
Operating margin	18.0 %	16.7 %	
Interest expense - net	$ 9	$ 20	(55)%
Net pension and OPEB cost (benefit), excluding service cost	$ (64)	$ (49)	31 %
Effective tax rate	24.0 %	21.6 %	
Income from equity investments	$ 44	$ 43	2 %
Noncontrolling interests from continuing operations	$ (36)	$ (38)	(5)%
Income from continuing operations	$ 1,174	$ 979	20 %
Diluted earnings per share from continuing operations	$ 2.30	$ 1.86	24 %
Diluted shares outstanding	511,410	526,927	(3)%
Number of employees	72,507	71,699	1 %
Adjusted Amounts (a)			
Operating profit	$ 1,905	$ 1,688	13 %
Operating margin	23.2 %	23.3 %	
Effective tax rate	24.3 %	23.9 %	
Income from continuing operations	$ 1,500	$ 1,312	14 %
Diluted earnings per share from continuing operations	$ 2.93	$ 2.49	18 %
Other Financial Data (a)			
EBITDA from continuing operations	$ 2,636	$ 2,422	9 %
As percent of sales	32.1 %	33.4 %	
Adjusted EBITDA from continuing operations	$ 2,663	$ 2,438	9 %
As percent of sales	32.4 %	33.7 %	

(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 first quarter of 2022, Linde's sales were $8,211 million, 13% above prior year, primarily driven by 6% price attainment and 3% higher volumes. Cost pass-through, representing the contractual billing of energy cost variances primarily to onsite customers, increased sales by 6% in the quarter, with minimal impact on operating profit. Currency translation decreased sales by 3% in the first quarter of 2022 as compared to 2021.

Reported operating profit for the first quarter of 2022 of $1,480 million, or 18% of sales, was 22% above prior year. The reported year-over-year increase was primarily due to higher price, the benefit of cost reduction programs and productivity initiatives and lower depreciation and amortization driven by merger related intangible assets. The reported effective tax rate ("ETR") was 24.0% in the first quarter 2022 versus 21.6% in the first quarter 2021. Diluted earnings per share from continuing operations ("EPS") was $2.30, or 24% above EPS of $1.86 in the first quarter of 2021 primarily due to higher income from continuing operations and lower diluted shares outstanding.

Adjusted

In the first quarter of 2022, adjusted operating profit of $1,905 million, or 23.2% of sales, was 13% higher as compared to 2021 driven by higher price and the benefit of cost reduction programs and productivity initiatives. The adjusted ETR was 24.3% in the first quarter 2022 versus 23.9% in the 2021 quarter. On an adjusted basis, EPS was $2.93, 18% above the 2021 adjusted EPS of $2.49, driven by higher adjusted income from continuing operations 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 March 31, 2022 vs. 2021
	% Change
Factors Contributing to Changes - Sales	
Volume	3 %
Price/Mix	6 %
Cost pass-through	6 %
Currency	(3)%
Acquisitions/divestitures	— %
Engineering	1 %
	13 %

Sales
Sales increased $968 million, or 13%, for the first quarter of 2022 versus the respective 2021 period. Volume growth across most end markets increased sales by 3% in the quarter. Higher pricing across all geographic segments contributed 6% to sales in the quarter. Currency translation decreased sales by 3% in the quarter largely in EMEA and APAC, driven by the weakening of the Euro, Australian dollar, Korean won and British pound against the U.S. dollar. Cost pass-through increased sales by 6% in the quarter with minimal impact on operating profit.

Cost of sales, exclusive of depreciation and amortization
Cost of sales, exclusive of depreciation and amortization increased $744 million, or 18%, for the first quarter of 2022, primarily due to higher volumes and cost pass-through, partially offset by productivity initiatives and currency impacts. Cost of sales, exclusive of depreciation and amortization was 58.4% of sales, for the first quarter of 2022 versus 56.0% of sales for the respective 2021 period. The increase as a percentage of sales for the first quarter of 2022 was due primarily to higher cost pass-through.

Selling, general and administrative expenses
Selling, general and administrative expense ("SG&A") increased $15 million, or 2%, for the first quarter of 2022. SG&A was 9.8% of first quarter sales versus 10.9% for the respective 2021 period. Currency impacts decreased SG&A by approximately $18 million in the quarter. Excluding currency impacts, underlying SG&A increased in the first quarter of 2022 driven primarily by higher incentive compensation.

Depreciation and amortization
Reported depreciation and amortization expense decreased $54 million for the first quarter of 2022. The decrease is related primarily to intangible assets acquired in the merger.

On an adjusted basis, depreciation and amortization increased $6 million, or 1%, for the first quarter of 2022, primarily due to new project start ups which were partially offset by currency translation impacts which decreased depreciation and amortization by $16 million.

Operating profit
On a reported basis, operating profit increased $267 million, or 22%, for the first quarter of 2022. The increase was primarily due to higher pricing, the benefit of cost reduction programs and productivity initiatives and lower depreciation and amortization driven by merger related intangible assets which more than offset inflation during the quarter.

On an adjusted basis, which excludes the impacts of purchase accounting and cost reduction programs and other charges, operating profit increased $217 million, or 13% in the 2022 quarter. Operating profit growth was driven by higher pricing and the benefit of cost reduction programs and productivity initiatives which more than offset inflation during the period. A discussion of operating profit by segment is included in the segment discussion that follows.

Interest expense - net
Reported interest expense - net decreased $11 million for the first quarter of 2022. On an adjusted basis, interest expense decreased $19 million for the first quarter of 2022 versus the respective 2021 period driven by a lower effective borrowing rate.

Net pension and OPEB cost (benefit), excluding service cost

Reported net pension and OPEB cost (benefit), excluding service cost was a benefit of $64 million for the quarter versus a benefit of $49 million for the respective 2021 period. The increase in benefit primarily relates to lower amortization of deferred losses, partially offset by 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 was 24.0%, versus 21.6% for the respective 2021 period. The increase is primarily driven by lower tax impact from share based compensation in 2022 and a non-taxable gain related to the deconsolidation of a joint venture with operations in APAC in the first quarter of 2021.

On an adjusted basis, the ETR for the quarter was 24.3%, versus 23.9% for the respective 2021 period. The increase is primarily due to lower tax benefits from share option exercises.

Income from equity investments

Reported income from equity investments for the first quarter of 2022 was $44 million, versus $43 million for the respective 2021 period. On an adjusted basis, income from equity investments for the first quarter was $64 million, versus $62 million in the prior year respective period.

Noncontrolling interests from continuing operations

At March 31, 2022, noncontrolling interests from continuing operations consisted primarily of non-controlling shareholders' investments in APAC (primarily China).

Reported noncontrolling interests from continuing operations decreased $2 million for the first quarter of 2022, versus the respective 2021 period.

Income from continuing operations

Reported income from continuing operations increased $195 million, or 20%, for the first quarter of 2022, versus the respective 2021 period, primarily due to higher overall operating profit.

On an adjusted basis, which excludes the impacts of purchase accounting and other non-GAAP adjustments, income from continuing operations increased $188 million, or 14%, for the quarter versus the respective 2021 period. The increase was driven by higher overall adjusted operating profit.

Diluted earnings per share from continuing operations

Reported diluted earnings per share from continuing operations increased $0.44, or 24%, for the first quarter of 2022, versus the comparable 2021 period. On an adjusted basis, diluted EPS for the first quarter of 2022 increased $0.44, or 18%,versus the respective 2021 period. The increase on both bases was primarily due to higher income from continuing operations and lower diluted shares outstanding.

Employees

The number of employees at March 31, 2022 was 72,507, an increase of 808 employees from March 31, 2021, driven primarily by the Americas.

Other Financial Data

EBITDA was $2,636 million for the first quarter of 2022 as compared to $2,422 million in the respective 2021 period. Adjusted EBITDA from continuing operations increased to $2,663 million for the first quarter 2022 from $2,438 million in the respective 2021 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 first quarter of 2022 were $98 million, resulting primarily from currency translation adjustments of $48 million during the quarter. 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 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 March 31,		
(Millions of dollars)	**2022**	**2021**	**Variance**
SALES			
Americas	$ 3,241	$ 2,840	14 %
EMEA	2,148	1,799	19 %
APAC	1,602	1,436	12 %
Engineering	728	674	8 %
Other	492	494	— %
Total sales	$ 8,211	$ 7,243	13 %
SEGMENT OPERATING PROFIT			
Americas	$ 904	$ 795	14 %
EMEA	503	451	12 %
APAC	399	351	14 %
Engineering	143	109	31 %
Other	(44)	(18)	(144)%
Segment operating profit	$ 1,905	$ 1,688	13 %
Reconciliation to reported operating profit:			
Cost reduction programs and other charges (Note 2)	4	8	
Purchase accounting impacts - Linde AG	(429)	(483)	
Total operating profit	$ 1,480	$ 1,213	

Americas

	Quarter Ended March 31,		
(Millions of dollars)	2022	2021	Variance
Sales	$ 3,241	$ 2,840	14 %
Operating profit	$ 904	$ 795	14 %
As a percent of sales	27.9 %	28.0 %	

	Quarter Ended March 31, 2022 vs. 2021
	% Change
Factors Contributing to Changes - Sales	
Volume	5 %
Price/Mix	5 %
Cost pass-through	4 %
Currency	— %
Acquisitions/divestitures	— %
	14 %

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 $401 million, or 14%, for the first quarter versus the respective 2021 period. Higher pricing contributed 5% to sales in the quarter. Higher volumes increased sales by 5% for the first quarter, driven by higher demand across most end markets, led by chemicals and energy and manufacturing. Cost pass-through increased sales by 4% for the first quarter with minimal impact on operating profit. The impact of currency translation in the quarter was not significant.

Operating profit

Operating profit in the Americas segment increased $109 million, or 14%, in the first quarter versus the respective 2021 period, driven primarily by higher pricing and continued productivity initiatives which more than offset inflation during the quarter.

EMEA

	Quarter Ended March 31,		
(Millions of dollars)	2022	2021	Variance
Sales	$ 2,148	$ 1,799	19 %
Operating profit	$ 503	$ 451	12 %
As a percent of sales	23.4 %	25.1 %	

	Quarter Ended March 31, 2022 vs. 2021
	% Change
Factors Contributing to Changes - Sales	
Volume	— %
Price/Mix	11 %
Cost pass-through	14 %
Currency	(6)%
Acquisitions/divestitures	— %
	19 %

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

Sales

EMEA segment sales increased by $349 million, or 19%, in the first quarter as compared to the respective 2021 period. Cost pass-through contributed 14% to sales in the quarter, with minimal impact on operating profit, while higher price attainment increased sales by 11% in the quarter. Volumes were relatively flat in the quarter. Currency translation decreased sales by 6% in the quarter due largely to the weakening of the Euro and British pound against the U.S. Dollar.

Operating Profit

Operating profit for the EMEA segment increased by $52 million, or 12%, in the first quarter as compared to the respective 2021 period, driven largely by higher pricing and continued productivity initiatives which more than offset inflation during the quarter.

APAC

	Quarter Ended March 31,		
(Millions of dollars)	2022	2021	Variance
Sales	$ 1,602	$ 1,436	12 %
Operating profit	$ 399	$ 351	14 %
As a percent of sales	24.9 %	24.4 %	

	Quarter Ended March 31, 2022 vs. 2021
	% Change
Factors Contributing to Changes - Sales	
Volume/Equipment	6 %
Price/Mix	4 %
Cost pass-through	4 %
Currency	(2)%
Acquisitions/divestitures	— %
	12 %

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 $166 million, or 12%, for the first quarter versus the respective 2021 period. Volumes increased 6% in the quarter driven by increased demand across most end markets, led by electronics and chemicals and energy, and project start-ups. Higher price and cost pass-through both contributed 4% to sales in the quarter. The impact of cost pass-through on operating profit was minimal. Currency translation decreased sales by 2% in quarter driven primarily by the weakening of the Australian dollar and Korean won against the U.S. Dollar.

Operating profit
Operating profit in the APAC segment increased $48 million, or 14%, in the first quarter versus the respective 2021 period driven by higher volumes and pricing and continued productivity initiatives which more than offset the impact of inflation during the quarter.

Engineering

	Quarter Ended March 31,		
(Millions of dollars)	2022	2021	Variance
Sales	$ 728	$ 674	8 %
Operating profit	$ 143	$ 109	31 %
As a percent of sales	19.6 %	16.2 %	

	Quarter Ended March 31, 2022 vs. 2021
	% Change
Factors Contributing to Changes - Sales	
Volume	13 %
Currency	(5)%
	8 %

Sales
Engineering segment sales increased $54 million, or 8%, in the first quarter 2022 as compared to the respective 2021 period driven primarily by project timing, partially offset by currency impacts which decreased sales by 5% in the quarter.

Projects being executed for Russia that are currently or expected to be sanctioned and thus being wound down represent approximately $350 million of the Engineering segment sales during the first quarter of 2022.

Operating profit
Engineering segment operating profit increased, $34 million, or 31%, in the first quarter 2022 as compared to the respective 2021 period driven primarily by project timing.

Other

(Millions of dollars)	Quarter Ended March 31, 2022	2021	Variance
Sales	$ 492	$ 494	— %
Operating profit (loss)	$ (44)	$ (18)	(144)%
As a percent of sales	(8.9)%	(3.6)%	

	Quarter Ended March 31, 2022 vs. 2021
	% Change
Factors Contributing to Changes - Sales	
Volume/price	1 %
Cost pass-through	1 %
Currency	(2)%
Acquisitions/divestitures	— %
	— %

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

Sales
Sales for Other decreased $2 million for the first quarter 2022 versus the respective 2021 period. Currency translation decreased sales by 2% in the quarter. Underlying sales increased 1% in the quarter driven by higher pricing partially offset by lower global helium volumes.

Operating profit
Operating profit in Other decreased $26 million, or 144% in the first quarter 2022 versus the respective 2021 period, due primarily to lower volumes and higher sourcing costs in the global helium business.

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			
Currency	Percentage of YTD 2022 Consolidated Sales	2022	2021	March 31, 2022	December 31, 2021
Euro	23 %	0.89	0.83	0.90	0.88
Chinese yuan	8 %	6.35	6.48	6.34	6.36
British pound	7 %	0.75	0.73	0.76	0.74
Australian dollar	4 %	1.38	1.29	1.34	1.38
Brazilian real	4 %	5.22	5.46	4.74	5.58
Canadian dollar	3 %	1.27	1.27	1.25	1.26
Korean won	3 %	1,203	1,114	1,212	1,189
Mexican peso	2 %	20.50	20.34	19.87	20.53
Indian rupee	2 %	75.21	72.90	75.79	74.34
South African rand	1 %	15.23	14.96	14.61	15.94
Swedish krona	1 %	9.34	8.39	9.40	9.05
Thailand bhat	1 %	33.04	30.28	33.26	33.40
Russian ruble	1 %	87.41	74.43	118.69	74.68

Liquidity, Capital Resources and Other Financial Data

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

(Millions of dollars)	Three months ended March 31,	
	2022	2021
NET CASH PROVIDED BY (USED FOR):		
OPERATING ACTIVITIES		
Net income (including noncontrolling interests)	$ 1,210	$ 1,017
Non-cash charges (credits):		
Add: Depreciation and amortization	1,112	1,166
Add: Deferred income taxes	(59)	(65)
Add: Share-based compensation	34	29
Add: Cost reduction programs and other charges, net of payments (a)	(34)	(76)
Net income adjusted for non-cash charges	2,263	2,071
Less: Working capital	(239)	(42)
Less: Pension contributions	(13)	(12)
Other	(11)	92
Net cash provided by operating activities	$ 2,000	$ 2,109
INVESTING ACTIVITIES		
Capital expenditures	(649)	(762)
Acquisitions, net of cash acquired	(43)	(10)
Divestitures and asset sales	27	21
Net cash provided by (used for) investing activities	$ (665)	$ (751)
FINANCING ACTIVITIES		
Debt increase (decrease) - net	2,546	681
Issuances (purchases) of common stock - net	(1,709)	(851)
Cash dividends - Linde plc shareholders	(592)	(553)
Noncontrolling interest transactions and other	(1)	(247)
Net cash provided by (used for) financing activities	$ 244	$ (970)
Effect of exchange rate changes on cash and cash equivalents	$ 62	$ (46)
Cash and cash equivalents, end-of-period	$ 4,464	$ 4,096

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

Cash Flow from Operations

Cash provided by operations of $2,000 million for the three months ended March 31, 2022 decreased $109 million, or 5%, versus 2021. The decrease was driven primarily by higher working capital requirements, which more than offset higher net income adjusted for non-cash charges. Cost reduction programs and other charges were benefits of $4 million and $8 million, respectively, for the three months ended March 31, 2022 and 2021. Related cash outflows were $30 million and $68 million for the same respective periods.

Linde estimates that total 2022 required contributions to its pension plans will be in the range of $40 million to $50 million, of which $13 million has been made through March 31, 2022.

Investing

Net cash used for investing of $665 million for the three months ended March 31, 2022 decreased $86 million versus 2021, primarily driven by lower capital expenditures, partially offset by higher acquisition spend net of cash acquired.

Capital expenditures for the three months ended March 31, 2022 were $649 million, $113 million lower than the prior year.

At March 31, 2022, Linde's sale of gas backlog of large projects under construction was approximately $3.5 billion. This represents the total estimated capital cost of large plants under construction.

Acquisitions for the three months ended March 31, 2022 and 2021 were $43 million and 10 million, respectively, and related primarily to acquisitions in EMEA. Divestitures and asset sales for the three months ended March 31, 2022 and 2021 were $27 million and $21 million, respectively.

Financing

Cash provided by financing activities was $244 million for the three months ended March 31, 2022 as compared to cash used for financing activities of $970 million for the three months ended March 31, 2021. Cash provided by debt was $2,546 million versus $681 million in 2021 driven by higher commercial paper borrowings and debt issuances in 2022. In January 2022, Linde repaid €1.0 billion of 0.250% notes that became due. In March 2022, Linde issued €500 million of 1.000% notes due 2027, €750 million of 1.375% notes due 2031, and €800 million of 1.625% notes due 2035.

Net purchases of ordinary shares were $1,709 million in 2022 versus $851 million in 2021. 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 $592 million increased $39 million from 2021 driven primarily by a 10% increase in quarterly dividends per share from $1.06 per share to $1.17 per share, partially offset by lower shares outstanding. Cash used for Noncontrolling interest transactions and other was $1 million for the three months ended March 31, 2022 versus cash used of $247 million for the respective 2021 period due to the settlement of the buyout of minority interests in the Republic of South Africa in January of 2021.

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 $4.5 billion of cash as of March 31, 2022, and has a $5 billion unsecured and undrawn revolving credit agreement with no associated financial covenants. No borrowings were outstanding under the credit agreement as of March 31, 2022. 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 March 31,	
	2022	2021
Adjusted Operating Profit and Operating Margin		
Reported operating profit	$ 1,480	$ 1,213
Add: Cost reduction programs and other charges	(4)	(8)
Add: Purchase accounting impacts - Linde AG (c)	429	483
Total adjustments	425	475
Adjusted operating profit	$ 1,905	$ 1,688
Reported percentage change	22 %	65 %
Adjusted percentage change	13 %	25 %
Reported sales	$ 8,211	$ 7,243
Reported operating margin	18.0 %	16.7 %
Adjusted operating margin	23.2 %	23.3 %
Adjusted Depreciation and amortization		
Reported depreciation and amortization	$ 1,112	$ 1,166
Less: Purchase accounting impacts - Linde AG (c)	(418)	(478)
Adjusted depreciation and amortization	$ 694	$ 688
Adjusted Other Income (Expense) - net		
Reported Other Income (Expense) - net	$ 12	$ 4
Less: Purchase accounting impacts - Linde AG (c)	(11)	(5)
Adjusted Other Income (Expense) - net	$ 23	$ 9
Adjusted Net Pension and OPEB Cost (Benefit), Excluding Service Cost		
Reported net pension and OPEB cost (benefit), excluding service cost	$ (64)	$ (49)
Add: Pension settlement charges	—	—
Adjusted Net Pension and OPEB cost (benefit), excluding service costs	$ (64)	$ (49)
Adjusted Interest Expense - Net		
Reported interest expense - net	$ 9	$ 20
Add: Purchase accounting impacts - Linde AG (c)	10	18
Adjusted interest expense - net	$ 19	$ 38

Adjusted Income Taxes (a)		
Reported income taxes	$ 369	$ 268
Add: Purchase accounting impacts - Linde AG (c)	108	118
Add: Pension settlement charges	—	—
Add: Cost reduction programs and other charges	(3)	20
Total adjustments	105	138
Adjusted income taxes	$ 474	$ 406
Adjusted Effective Tax Rate (a)		
Reported income before income taxes and equity investments	$ 1,535	$ 1,242
Add: Pension settlement charge	—	—
Add: Purchase accounting impacts - Linde AG (c)	419	465
Add: Cost reduction programs and other charges	(4)	(8)
Total adjustments	415	457
Adjusted income before income taxes and equity investments	$ 1,950	$ 1,699
Reported Income taxes	$ 369	$ 268
Reported effective tax rate	24.0 %	21.6 %
Adjusted income taxes	$ 474	$ 406
Adjusted effective tax rate	24.3 %	23.9 %
Income from Equity Investments		
Reported income from equity investments	$ 44	$ 43
Add: Purchase accounting impacts - Linde AG (c)	20	19
Add: Cost reduction programs and other charges (e)	—	—
Adjusted income from equity investments	$ 64	$ 62
Adjusted Noncontrolling Interests from Continuing Operations		
Reported noncontrolling interests from continuing operations	$ (36)	$ (38)
Add: Purchase accounting impacts - Linde AG (c)	(4)	(5)
Adjusted noncontrolling interests from continuing operations	$ (40)	$ (43)
Adjusted Income from Continuing Operations (b)		
Reported income from continuing operations	$ 1,174	$ 979
Add: Pension settlement charge	—	—
Add: Cost reduction programs and other charges	(1)	(28)
Add: Purchase accounting impacts - Linde AG (c)	327	361
Total adjustments	326	333
Adjusted income from continuing operations	$ 1,500	$ 1,312

Adjusted Diluted EPS from Continuing Operations (b)		
Reported diluted EPS from continuing operations	$ 2.30	$ 1.86
Add: Pension settlement charge	—	—
Add: Cost reduction programs and other charges	—	(0.05)
Add: Purchase accounting impacts - Linde AG (c)	0.63	0.68
Total adjustments	0.63	0.63
Adjusted diluted EPS from continuing operations	$ 2.93	$ 2.49
Reported percentage change	24 %	74 %
Adjusted percentage change	18 %	32 %
Adjusted EBITDA and % of Sales		
Income from continuing operations	$ 1,174	$ 979
Add: Noncontrolling interests related to continuing operations	36	38
Add: Net pension and OPEB cost (benefit), excluding service cost	(64)	(49)
Add: Interest expense	9	20
Add: Income taxes	369	268
Add: Depreciation and amortization	1,112	1,166
EBITDA from continuing operations	$ 2,636	$ 2,422
Add: Cost reduction programs and other charges	(4)	(8)
Add: Purchase accounting impacts - Linde AG (c)	31	24
Total adjustments	27	16
Adjusted EBITDA from continuing operations	$ 2,663	$ 2,438
Reported sales	$ 8,211	$ 7,243
% of sales		
EBITDA from continuing operations	32.1 %	33.4 %
Adjusted EBITDA from continuing operations	32.4 %	33.7 %

(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 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 from Continuing Operations: Represents the noncontrolling interests' ownership portion of the adjustments described above determined on an entity by entity basis.

(e) Impairment charge related to a joint venture in the APAC segment.

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.

	March 31, 2022	December 31, 2021
(Millions of dollars)		
Debt	$ 16,456	$ 14,207
Less: cash and cash equivalents	(4,464)	(2,823)
Net debt	11,992	11,384
Less: purchase accounting impacts - Linde AG	(50)	(61)
Adjusted net debt	$ 11,942	$ 11,323

Supplemental Guarantee Information

On June 6, 2020, 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 of the pre-business combination Linde Inc. and Linde Finance notes, and Linde GmbH and Linde Inc., respectively, provided upstream guarantees of Linde plc's downstream guarantees.

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	Three Months Ended March 31, 2022	Twelve Months Ended December 31, 2021
Sales	$ 2,121	$ 7,767
Operating profit	293	973
Net income	192	721
Transactions with non-guarantor subsidiaries	364	2,067
Balance Sheet Data (at period end)		
Current assets (a)	$ 7,158	$ 5,826
Long-term assets (b)	14,501	15,928
Current liabilities (c)	9,752	8,853
Long-term liabilities (d)	43,200	42,860
(a) From current assets above, amount due from non-guarantor subsidiaries	$ 4,362	$ 4,209
(b) From long-term assets above, amount due from non-guarantor subsidiaries	2,070	3,257
(c) From current liabilities above, amount due to non-guarantor subsidiaries	1,362	1,304
(d) From long-term liabilities above, amount due to non-guarantor subsidiaries	27,226	28,142

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Refer to Item 7A. to Part II of Linde's 2021 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, 2021.

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 March 31, 2022 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)*
January 2022	1,005	$ 325.25	1,005	$ 168
February 2022	554	$ 303.26	554	$ —
March 2022	4,270	$ 294.39	4,270	$ 8,743
First Quarter 2022	5,829	$ 300.57	5,829	$ 8,743

(1) On January 25, 2021 the company's board of directors approved the repurchase of $5.0 billion of its ordinary shares ("2021 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 2021 program has a maximum repurchase amount of 15% of outstanding shares, began on February 1, 2021, expires on July 31, 2023, and was fully utilized as of February 28, 2022.

(2) 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 March 31, 2022, the company repurchased $495 million and $1.3 billion of its ordinary shares pursuant to the 2021 and 2022 programs, respectively. As of March 31, 2022, $8.7 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

None.

Item 6. Exhibits

(a) Exhibits

4.1	Final Terms of 1.000% Notes due 2027 of Linde plc (Filed as Exhibit 4.1 to Linde plc 's current report on Form 8-K, dated March 31, 2022, Filing No. 1-38730, and incorporated herein by reference).
4.2	Final Terms of 1.375% Notes due 2031 of Linde plc (Filed as Exhibit 4.2 to Linde plc 's current report on Form 8-K, dated March 31, 2022, Filing No. 1-38730, and incorporated herein by reference).
4.3	Final Terms of 1.625% Notes due 2035 of Linde plc (Filed as Exhibit 4.3 to Linde plc 's current report on Form 8-K, dated March 31, 2022, Filing No. 1-38730, and incorporated herein 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: May 2, 2022	By: /s/ Kelcey E. Hoyt
	Kelcey E. Hoyt Chief Accounting Officer

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(s) 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(s) 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.

May 2, 2022	By: /s/ Sanjiv Lamba
	Sanjiv Lamba
	Chief Executive Officer

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(s) 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(s) 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.

May 2, 2022	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 March 31, 2022 (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.

May 2, 2022	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 March 31, 2022 (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.

May 2, 2022	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.