

Johnson Controls International PLC

Taking a closer look at JCI's cash flows,
10Q review

Maintain Rating: NEUTRAL | PO: 60.00 USD | Price: 54.45 USD

FCF in 1Q24 and the contributing factors

FCF in 1Q24 was \$(338)mn up \$92mn y/y. Adjusted FCF was (\$250)mn. Factoring was a \$80mn benefit in the quarter. Higher accounts receivables in the quarter were a \$(0.7)bn drag on FCF y/y, with days sales outstanding staying flat at 82 days. Lower inventory levels were a \$145mn benefit y/y in 1Q24. Days inventory in 1Q24 was down 1 day y/y from 62 to 61, however this is still significantly above 1Q20's 44 days. The increase of work in progress inventory was offset by the decrease in finish goods inventory y/y in 1Q24. However, finished good inventory was up sequentially. Raw material inventory is up y/y. We maintain our Neutral rating given positive end market exposure offsetting near-term execution challenges.

Factoring helped in 2023 and is expected to help in 2024

Since FY21-end, JCI's factored balances have increased from 2% of accounts receivable to 11% currently. We find that factoring balances in 2023 was a \$205mn tailwind. In 4Q23 factoring was a \$284mn benefit. During JCI's 1Q24 earnings it maintained its FCF guide of ~85% conversion. Our understanding is that factoring balance will be neutral in 2024 and is embedded within the FCF guide.

Restructuring program and other impairment costs

During 1Q24 JCI took a charge of \$39mn primarily related to its latest restructuring program, finalized in 4Q23. Restructuring and impairment charges in 2023 were \$1,064mn. Restructuring was \$237mn and non-cash impairments was \$827mn. We believe that relatively low quality of earnings is one of the reasons for JCI's lower valuation multiple. Over the past 29 quarters, there are only 7 quarters JCI did not have charges related to restructuring and impairment costs. The charges in the 22 quarters total \$3,282mn. JCI's restructuring and impairment charges totaled \$1,280mn and \$2,002mn respectively, representing 21% in total of the GAAP net income (which includes discontinued operations) during the period.

JC Capital, the adjustments to FCF

Another impact to JCI's FCF in 2023 was JC Capital which the company has adjusted out of FCF since Jan 1, 2023. In 2023, JC Capital took up 8% of FCF. JC Capital offers asset-based financing to customers in the form of loans, leases, installment purchase arrangements, and "as a service" arrangements.

Estimates (Sep) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	2.95	3.50	3.66	4.12	4.60
GAAP EPS	2.14	2.69	3.53	3.97	4.44
EPS Change (YoY)	11.3%	18.6%	4.6%	12.6%	11.7%
Consensus EPS (Bloomberg)			3.60	4.11	4.61
DPS	1.39	1.45	1.48	1.56	1.64
Valuation (Sep)					
P/E	18.5x	15.6x	14.9x	13.2x	11.8x
GAAP P/E	25.4x	20.2x	15.4x	13.7x	12.3x
Dividend Yield	2.6%	2.7%	2.7%	2.9%	3.0%
EV / EBITDA*	13.7x	12.3x	11.6x	10.8x	10.1x
Free Cash Flow Yield*	3.8%	4.5%	5.6%	6.5%	6.9%

* For full definitions of *IQmethod*SM measures, see page 10.

05 February 2024

Equity

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Stock Data

Price	54.45 USD
Price Objective	60.00 USD
Date Established	15-Dec-2023
Investment Opinion	B-2-7
52-Week Range	47.90 USD - 70.43 USD
Mkt Val (mn) / Shares Out (mn)	37,106 USD / 681.5
Free Float	99.6%
Average Daily Value (mn)	338.67 USD
BofA Ticker / Exchange	JCI / NYS
Bloomberg / Reuters	JCI US / JCI.N
ROE (2024E)	13.6%
Net Dbt to Eqty (Sep-2023A)	45.3%
ESGMeter™	High

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to ["BofA ESGMeter Methodology"](#).

HVAC: heating, ventilation, and air conditioning

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Timestamp: 05 February 2024 05:00AM EST

iQprofileSM Johnson Controls International PLC

iQmethodSM – Bus Performance*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	7.6%	8.8%	9.4%	10.0%	10.6%
Return on Equity	11.4%	13.7%	13.6%	14.4%	15.0%
Operating Margin	11.4%	12.2%	12.6%	13.2%	13.8%
Free Cash Flow	1,398	1,682	2,093	2,421	2,570

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.0x	0.9x	1.1x	1.1x	1.1x
Asset Replacement Ratio	0.7x	0.6x	0.7x	0.8x	0.8x
Tax Rate	13.7%	13.5%	13.7%	14.5%	15.5%
Net Debt-to-Equity Ratio	39.8%	45.3%	41.3%	36.9%	33.1%
Interest Cover	11.6x	11.7x	8.4x	9.3x	10.2x

Income Statement Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	25,299	26,793	28,038	29,319	30,585
% Change	6.9%	5.9%	4.6%	4.6%	4.3%
Gross Profit	8,343	8,971	9,344	9,858	10,376
% Change	3.4%	7.5%	4.2%	5.5%	5.2%
EBITDA	3,706	4,127	4,360	4,690	5,026
% Change	5.0%	11.4%	5.7%	7.6%	7.1%
Net Interest & Other Income	(248)	(281)	(420)	(418)	(415)
Net Income (Adjusted)	2,062	2,405	2,470	2,739	3,003
% Change	7.9%	16.7%	2.7%	10.9%	9.6%

Free Cash Flow Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	2,062	2,405	2,470	2,739	3,003
Depreciation & Amortization	830	848	831	814	798
Change in Working Capital	(739)	(705)	(714)	(551)	(599)
Deferred Taxation Charge	(141)	(676)	0	0	0
Other Adjustments, Net	(22)	349	83	38	30
Capital Expenditure	(592)	(539)	(578)	(619)	(661)
Free Cash Flow	1,398	1,682	2,093	2,421	2,570
% Change	-30.1%	20.3%	24.4%	15.7%	6.2%
Share / Issue Repurchase	(1,424)	(583)	(746)	(897)	(1,079)
Cost of Dividends Paid	(1,037)	(1,129)	(999)	(1,036)	(1,071)
Change in Debt	1,966	(433)	(494)	(472)	(556)

Balance Sheet Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	2,031	835	688	704	568
Trade Receivables	5,528	6,006	6,308	6,572	6,856
Other Current Assets	4,126	3,896	4,173	4,419	4,657
Property, Plant & Equipment	3,042	3,136	3,383	3,683	4,036
Other Non-Current Assets	27,431	28,369	28,106	27,885	27,672
Total Assets	42,158	42,242	42,658	43,264	43,789
Short-Term Debt	1,534	1,030	1,020	1,020	1,020
Other Current Liabilities	9,705	10,054	9,920	9,879	9,801
Long-Term Debt	7,426	7,818	7,334	6,862	6,306
Other Non-Current Liabilities	6,091	5,646	5,839	6,035	6,222
Total Liabilities	24,756	24,548	24,113	23,795	23,349
Total Equity	17,402	17,694	18,545	19,468	20,440
Total Equity & Liabilities	42,158	42,242	42,658	43,264	43,789

* For full definitions of iQmethodSM measures, see page 10.

Company Sector

Industrials/Multi-Industry

Company Description

JCI is a leading global provider of HVAC, building controls, fire & security equipment, services, and software. The company also provides data-driven "smart building" services and solutions powered by its OpenBlue software platform and capabilities. The company's North American operational headquarters are in Milwaukee, Wisconsin. JCI employs approximately 101,000 people worldwide.

Investment Rationale

We see the JCI story as combining self-help and structural outgrowth driven by smart buildings controls and software. However we see near-term risks from slowing non-residential construction. While JCI shares trade at a discount to peers, we believe this reflects elevated execution risk.

Stock Data

Average Daily Volume

6,219,780

Quarterly Earnings Estimates

	2023	2024
Q1	0.67A	0.51A
Q2	0.75A	0.76E
Q3	1.03A	1.17E
Q4	1.05A	1.22E

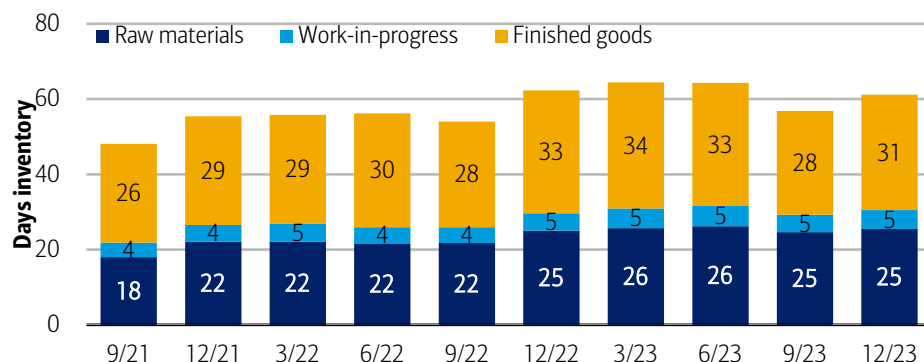
Inventories: higher raw material, but lower finished goods

Inventory was a \$(203)mn drag on 1Q24's FCF. Management's public commentary has pointed to residential distributors destocking, which would suggest a higher finished goods inventory, however finished goods inventory was down 2 inventory days y/y.

Actual raw material inventory is up y/y, however raw material inventory days are flat y/y at 5 days. We believe the key factor is JCI had ramped capacity to meet the improved demand for applied HVAC.

Exhibit 1: Inventories build sequentially, but down y/y

Days inventory is down by 1 day y/y



Source: BofA Global Research, company filings

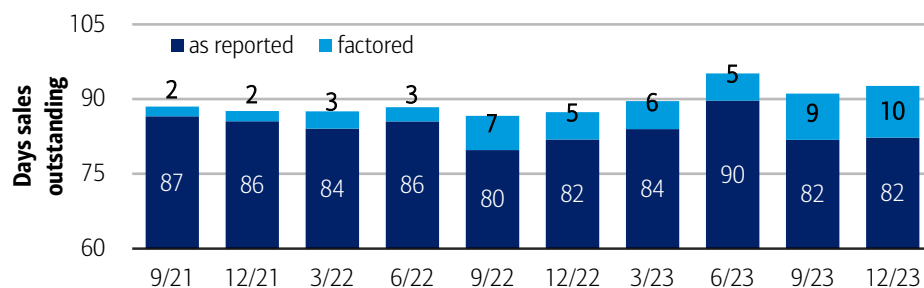
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Accounts receivable still a drag

While inventory has been the focus of management's commentary on FCF headwinds, we find that higher accounts receivable have been a \$(0.7)bn drag on FCF y/y. Days sales outstanding are flat y/y at 82 days..

Exhibit 2: JCI's days sales outstanding as reported and factored

Factored balances made reported DSOs 10 days lower on a reported basis at Dec 2023.



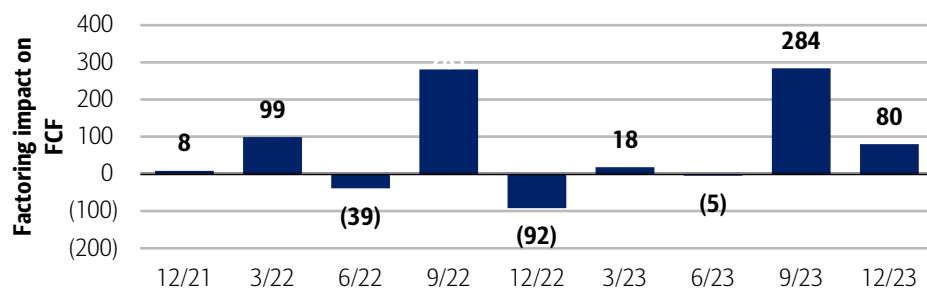
Source: BofA Global Research, company filings

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JCI has factoring agreements with financial institutions for a portion of its accounts receivable balances. As of 1QF24, these factored balances stood \$761mn, or ~11% of "gross" receivables. These factored balances made reported DSOs 10 days lower on a reported basis at 1QF24-end. Factoring was a net \$80mn benefit in 1Q24.

Exhibit 3: Factoring impact on free cash flow

Factoring was a benefit in 1Q24



Source: BofA Global Research, company filings

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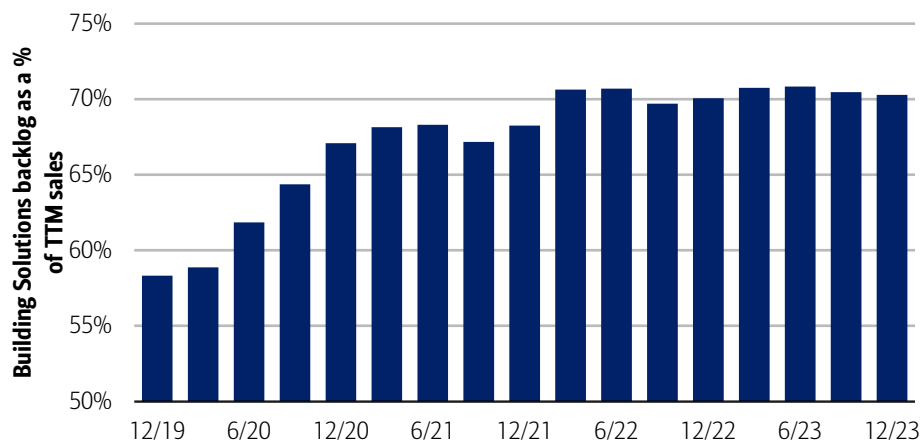
Building Solutions service contracts come with down payments (i.e., deferred revenue) as well as contract assets (i.e., unbilled receivables and costs in excess of billings). Contract assets are recorded as part of accounts receivable balances on the balance sheet. In 1Q24, the net change in contract assets/liabilities was a tailwind to FCF, contributing +\$326mn. In 2023, the net change in contract assets/liabilities was a headwind to FCF, a \$122mn drag.

Building Solutions backlog still growing

Building Solutions backlog of \$12.1bn at 1QF24-end was up 7% y/y on an organic basis. Backlog typically converts <12 months, as only the current year of orders from multi-year contracts are placed into backlog. Backlog coverage (as a % of TTM Building Solutions revenue) has increased from 58% at 1QF20 to 70% currently. However, as a percent of revenue it has remained flat at 70% y/y.

Exhibit 4: Building Solutions backlog as a % of TTM sales

Backlog as a % of TTM sales is flat y/y and sequentially.



Source: BofA Global Research, company filings

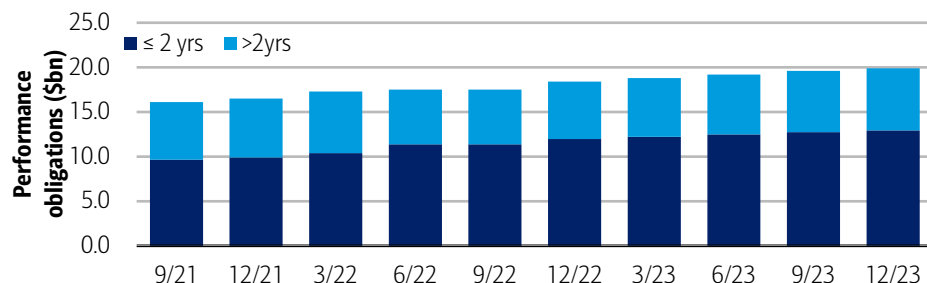
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As mentioned above, these contracts come with down payments (i.e., deferred revenue) as well as contract assets. In 1Q24, the net change in contract assets/liabilities was a tailwind to FCF, contributing +\$326mn.

Performance obligations are a GAAP measure of backlog. These have increased to \$19.9bn in December 2023 versus \$18.4bn a year ago, or +8% y/y. Unlike the Building Solutions backlog metric, these include long-term service contracts (25-35 years) for institutional buildings.

Exhibit 5: Performance obligations continue to grow

Performance obligations are up +8% y/y

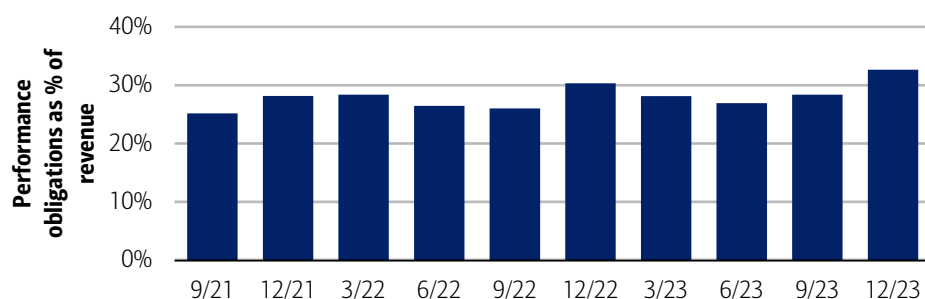


Source: BofA Global Research, company filings

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Exhibit 6: Performance obligations as a percentage of revenue

Performance obligations as a % of revenue increased y/y



Source: BofA Global Research, company filings

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JCI historical impairments and restructuring

Below we itemize JCI's restructuring and impairment charges that totaled \$1,280mn and \$2,002mn respectively, representing 21% in total of the GAAP net income (which includes discontinued operations) during the period.

Exhibit 7: JCI historical charges related to restructuring and impairment costs

During 1Q24 JCI took a charge of \$39mn primarily related to its restructuring program

	Amount (mn)	Non-cash impairments	Restructuring
1Q17	\$78	\$16	\$62
2Q17	\$99	\$23	\$76
3Q17	\$49	\$31	\$18
4Q17	\$141	\$8	\$133
1Q18	\$154	\$30	\$124
2Q18	-		
3Q18	-		
4Q18	\$101	\$12	\$89
1Q19	-		
2Q19	-		
3Q19	\$235	\$235	\$0
4Q19	-		
1Q20	\$111	\$54	\$57
2Q20	\$62	\$62	\$0
3Q20	\$186	\$42	\$144
4Q20	-		
1Q21	-		
2Q21	\$96	\$54	\$42
3Q21	\$79	\$40	\$39
4Q21	\$67	\$4	\$63
1Q22	\$49	\$0	\$49
2Q22	\$384	\$361	\$23
3Q22	\$121	\$69	\$52
4Q22	\$167	\$125	\$42
1Q23	\$345	\$294	\$51
2Q23	\$418	\$397	\$21
3Q23	\$81	\$10	\$71
4Q23	\$220	\$126	\$94
1Q24	\$39	\$9	\$30
Total	\$3,282	\$2,002	\$1,280

Source: BofA Global Research, company filings

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Latest restructuring

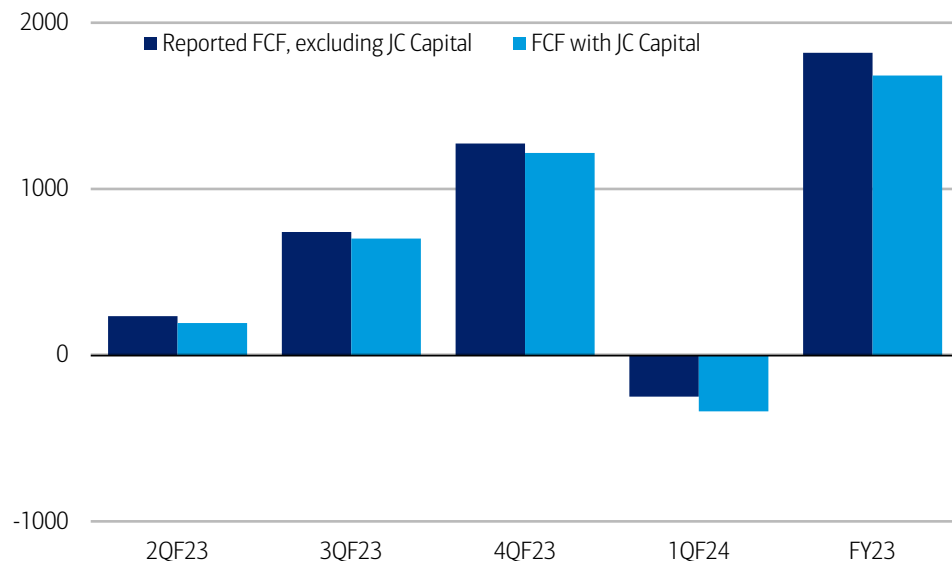
In 3Q23 JCI began developing a restructuring plan with certain actions focused on continued scaling of SG&A expenses to its planned growth. The plan was finalized in 4QF23, and certain actions related to this plan were committed and executed during 4Q, primarily related to workforce reductions.

JC Capital

JCI starting Jan 1, 2023, began adjusting out JC Capital from the calculation of FCF. JC Capital offers asset-based financing to customers in the form of loans, leases, installment purchase arrangements, and “as a service” arrangements. These financing programs are designed to drive sales by improving affordability for customers. While some financing might be held on balance sheet for a limited amount of time, JC Capital financing transactions are not intended to be held to maturity but are generally assigned to third-party lenders and investors. For transactions that temporarily remain in our portfolio, JC Capital applies a disciplined credit policy that is based on market standards for asset-based finance.

Exhibit 8: JCI's FCF adjusted FCF vs FCF with JC Capital

In 2023, JC Capital took up 8% of FCF



Source: Company filings, BofA Global Research

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Valuation

We base our \$60 price objective on 10x EV/EBITDA of our 2025 estimates. Our 10x target multiple is below the peer group average trading at 14x on 2024 estimates. We think the discount valuation is warranted given risk from slowdown in the non-residential cycle.

Exhibit 9: JCI comparable valuation analysis

We base our \$60 PO on 10x EV/EBITDA on 2025E

Company	Stock Price	P/E		EV/EBITDA		EBITDA margin		EPS Growth		P/FCF	
	2/2/2024	2024E	2025E	2024E	2025E	2024E	2025E	2024E	2025E	2024E	2025E
ATLPF	SEK169.30	29.5x	27.8x	18.4x	17.1x	26.2%	26.5%	-0.3%	6.1%	27.5x	25.6x
EMR	\$93.98	17.8x	24.2x	13.9x	N/A	25.8%	N/A	14.5%	-26.5%	20.1x	18.1x
HON	\$196.11	19.4x	17.5x	13.6x	12.7x	26.7%	27.1%	9.9%	11.2%	21.2x	18.7x
CARR	\$56.78	19.8x	18.4x	13.3x	12.2x	17.4%	18.4%	5.6%	7.8%	20.7x	21.2x
LII*	\$419.98	21.3x	18.9x	15.8x	13.7x	19.5%	20.1%	10.4%	12.5%	25.8x	20.6x
TT	\$276.78	27.1x	25.0x	19.4x	17.8x	18.5%	18.9%	12.9%	8.4%	27.5x	25.4x
DKILF	JPY 22,715.00	21.8x	20.0x	10.6x	9.7x	14.2%	14.3%	15.2%	8.8%	25.7x	26.6x
SMAWF	€177.75	17.4x	15.3x	11.1x	9.9x	19.2%	19.7%	3.8%	13.4%	17.9x	15.8x
SBGSF	€204.98	27.4x	24.7x	16.2x	14.7x	20.4%	20.8%	8.8%	10.9%	26.9x	25.8x
Average		22.4x	21.3x	14.7x	13.5x	20.9%	20.7%	9.0%	5.8%	23.7x	22.0x
JCI	\$54.45	14.4x	12.8x	10.0x	9.3x	15.7%	16.1%	6.6%	12.4%	17.6x	14.9x
JCI at PO	\$60.00	15.9x	14.1x	11.2x	10.4x	15.7%	16.1%	6.6%	12.4%	19.4x	16.5x

Source: BofA Global Research estimates, Bloomberg

*Bloomberg consensus estimates

Note: all fiscal-year estimates are calendarized

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Price objective basis & risk

Johnson Controls International PLC (JCI)

We base our \$60 price objective on 10x EV/EBITDA of our 2025 estimates. Our 10x target multiple is below the peer group average trading at 14x on 2024 estimates. We think the discount valuation is warranted given risk from slowdown in the non-residential cycle.

Downside risks to our price objective are 1) potential loss of market share to peer and building automation competitors, 2) execution risks, particularly on the cost takeout plan, and 3) risks from the aqueous film forming foam litigation.

Analyst Certification

I, Andrew Obin, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

US - Multi-Industrials/Engineering and Construction Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	APi Group	APG	APG US	Andrew Obin
	AspenTech	AZPN	AZPN US	Andrew Obin
	Atmus Filtration	ATMU	ATMU US	Andrew Obin
	Dover Corp	DOV	DOV US	Andrew Obin
	Eaton Corp PLC	ETN	ETN US	Andrew Obin
	Emerson Electric Co	EMR	EMR US	Andrew Obin
	Flowserve	FLS	FLS US	Andrew Obin
	General Electric Company	GE	GE US	Andrew Obin
	Honeywell International Inc.	HON	HON US	Andrew Obin
	ITT Inc.	ITT	ITT US	Andrew Obin
	Montrose Environmental Group, Inc.	MEG	MEG US	Andrew Obin
	Parker Hannifin Corporation	PH	PH US	Andrew Obin
	PTC Inc.	PTC	PTC US	Andrew Obin
	Rush	RUSHA	RUSHA US	Andrew Obin
	Vertiv	VRT	VRT US	Andrew Obin
	Vontier	VNT	VNT US	Andrew Obin
NEUTRAL				
	3M Company	MMM	MMM US	Andrew Obin
	AMETEK Inc	AME	AME US	Andrew Obin
	Fortive Corporation	FTV	FTV US	Andrew Obin
	Johnson Controls International PLC	JCI	JCI US	Andrew Obin
	Pentair plc	PNR	PNR US	Andrew Obin
	Rockwell	ROK	ROK US	Andrew Obin
	Trane Technologies PLC	TT	TT US	Andrew Obin
UNDERPERFORM				
	Allegion	ALLE	ALLE US	Andrew Obin
	Carrier Global Corp.	CARR	CARR US	Andrew Obin
	Core & Main	CNM	CNM US	Andrew Obin
	Illinois Tool Works	ITW	ITW US	Andrew Obin
	John Bean Technologies	JBT	JBT US	Andrew Obin
	Keysight	KEYS	KEYS US	David Ridley-Lane, CFA



iQmethodSM Measures Definitions

Business Performance

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

EV / EBITDA

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash & Equivalents

EBIT

Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill

Amortization

Shareholders' Equity

Sales

N/A

N/A

Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

Basic EBIT + Depreciation + Amortization

iQmethodSM is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

iQdatabase[®] is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by BofA Global Research.

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Disclosures

Important Disclosures

Johnson Controls Int (JCI) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Equity Investment Rating Distribution: Industrials/Multi-Industry Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	45	50.56%	Buy	25	55.56%
Hold	26	29.21%	Hold	13	50.00%
Sell	18	20.22%	Sell	7	38.89%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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