Krause Fund Research
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**Industrials – Commercial Building Systems**

# Johnson Controls (NYSE: JCI)

| Stock Rating | BUY |
|---|---|

Headquartered in Cork, Ireland, Johnson Controls is a global leader in smart, healthy, and sustainable building solutions. The company provides a broad portfolio of products, technologies, and services including HVAC systems, building automation, fire and security solutions, and energy management. Founded in 1885, Johnson Controls has evolved through strategic innovation and acquisitions to become a key player in the global building technologies market, serving customers across more than 150 countries with a workforce of over 100,000 employees.

## Target Price: $84.31

| | |
|---|---|
| Discounted Cash Flow: | $84.31 |
| Relative (P/E EPS25): | $52.54 |
| Dividend Discount: | $27.90 |

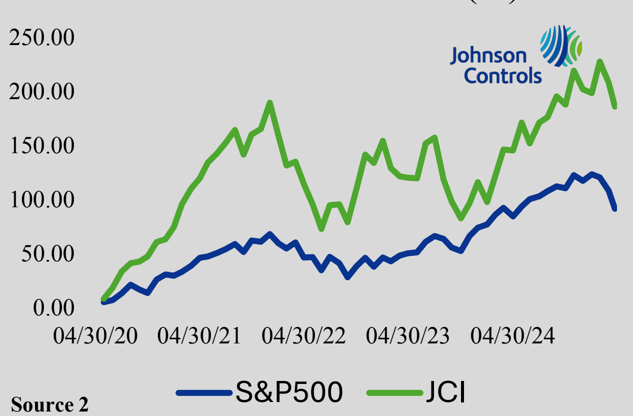
## Statistical Highlights

Current Price: $74.45 (As of 4/21/25)
52-week range: $59.83-$91.14
YTD Performance: (5.68%)
Current P/E: 36.07x
WACC: 9.10%
Beta: 1.33

Market Cap: $49,137.36 M
Shares Outstanding: 660,594,161
EPS (FY24): $2.53

EPS 2025E: $2.48
EPS 2026E: $2.76

S&P500 vs JCI Return (%)




**Source 2**

## Investment Thesis

We rate Johnson Controls a **Moderate Buy** with **13.2% upside**. The company is positioned to benefit from long-term trends in energy efficiency, building modernization, and smart infrastructure, though near-term execution and margin risks warrant a balanced outlook.

**Drivers:**

•Strong demand for smart, energy-efficient building systems driven by ***global automation trends prominently within AI infrastructure*** (projected ~11% CAGR through 2028).
•One-third of revenue comes from services, with half recurring, providing ***stable and resilient cash flow***
•OpenBlue platform ***enhances margins and customer retention through software-led automation*** and high switching costs
•Expanding service demand across North America and high-growth Asia-Pacific markets like Southeast Asia and India
•Despite margin gains and rising backlog/orders***, JCI trades at a discount to peers, presenting a value opportunity*** with structural growth in its favor.

**Risks:**

•Input cost volatility or tariffs could ***pressure gross margins*** in hardware-driven segments.
•Slower-than-expected progress in scaling digital offerings or ***achieving cost efficiencies***.
•Prolonged weakness in commercial construction or private sector capex ***could soften demand for upgrades***.
•Risk in successfully executing OpenBlue and expanding into emerging markets

# Company Analysis

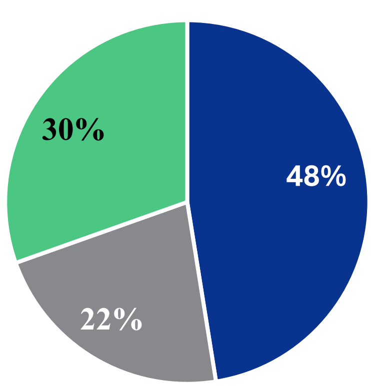
## Company Outlook: Moderately Positive

Johnson Controls (NYSE: JCI) is a global leader in building technologies, delivering products and services that improve energy efficiency, safety, and sustainability in commercial, industrial, and institutional buildings. Its business model centers on designing, manufacturing, and servicing HVAC systems, building automation platforms, fire and security systems, and energy management solutions for a broad global customer base[4].

### Revenue Analysis & Decomposition:

Johnson Controls generates revenue across three primary segments: Systems, Services, and Products. In FY2024, the company reported $22.95 billion in total revenue, with Systems contributing the largest share, driven by its Building Solutions divisions across North America, EMEA/LA, and Asia Pacific. These businesses primarily focus on designing, installing, and maintaining HVAC, fire, security, and building automation systems[2]. Services revenue includes recurring maintenance, retrofit projects, and energy performance contracts, while the Products segment consists of sales of HVAC equipment, controls, and components through its Global Products division. This balanced mix of project-based and recurring revenue positions JCI as a key player in the global building technologies market.

Revenue by Segment



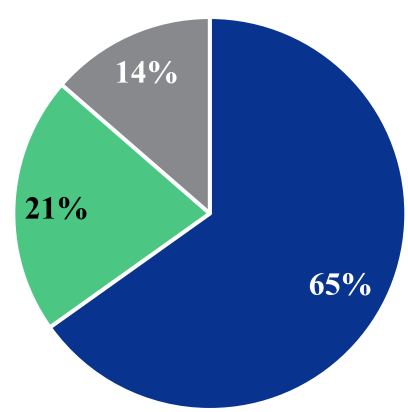

**Source 26**

### Systems:

Systems is Johnson Controls' largest revenue driver, accounting for approximately $10.9 billion in FY2024, with a projected mid-to-high single-digit CAGR through FY2029, according to our model. Historically, this segment has been relatively stable, supported by long-cycle installation projects and strong public sector demand. It includes full-scale building system installations in HVAC, fire protection, access control, and automation solutions, delivered through the company's regional Building Solutions units[3].

Recent growth has been underpinned by rising investment in smart and energy-efficient infrastructure, particularly in education, healthcare, and government markets. Looking ahead, we expect a growing share of Systems revenue to come from retrofit and modernization projects rather than new construction, especially as higher interest rates delay greenfield activity[12]. Developed markets like North America and Western Europe present significant opportunity, as aging infrastructure and stricter energy codes drive facility upgrades. Johnson Controls is well-positioned to lead in this environment, leveraging its integration expertise and installed base to deliver complex retrofits at scale. We believe this will support durable Systems growth, even amid a more uncertain construction backdrop.

Systems Revenue by Region




**Source 26**

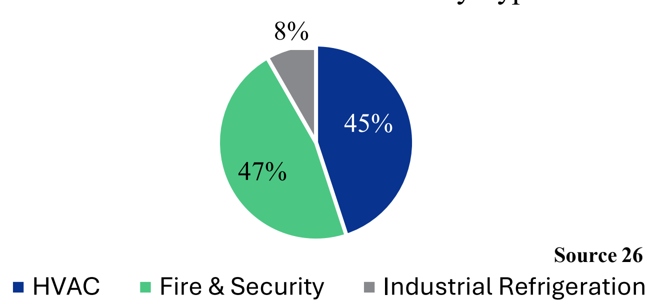
## Services:

Services generated approximately $7.0 billion in FY2024 revenue, representing about 26% of Johnson Controls' mix[12]. This segment has grown steadily, with a CAGR near 5% over the last several years, and is projected to continue on a similar trajectory in our forecast. Services revenue is driven by multi-year maintenance agreements, retrofit projects, and energy performance contracting across the installed base. With increasing demand for lifecycle building solutions, smart analytics, and uptime guarantees, Services is becoming a higher-margin, stickier revenue stream. In our view, this segment offers significant upside through digital integrations (such as their OpenBlue platform), recurring software subscriptions, and long-term energy optimization contracts. We expect continued expansion as energy-efficiency retrofits and decarbonization goals drive public and private clients to partner with trusted providers offering end-to-end performance guarantees[16].

## Products:

The Products segment contributed nearly $5.1 billion in FY2024, largely composed of manufactured HVAC equipment, controls, security devices, and fire detection systems[1]. Historically more cyclical, Products revenue has rebounded in recent years following supply chain normalization and increased demand for energy-efficient systems. In the past five years, growth has averaged a low-to-mid single-digit CAGR, but our model forecasts acceleration toward 4–6% annually, driven by innovation in variable-speed systems, global electrification trends, and regulatory tightening on emissions and indoor air quality. Johnson Controls' global manufacturing scale and ability to feed its own building systems and services channels position this segment to benefit from cross-platform synergies. We view continued investment in connected products and partnerships with Original Equipment Manufacturers (OEMs) as key levers for improving margins and capturing share in a fragmented competitive landscape.

Global Products Revenue by Type



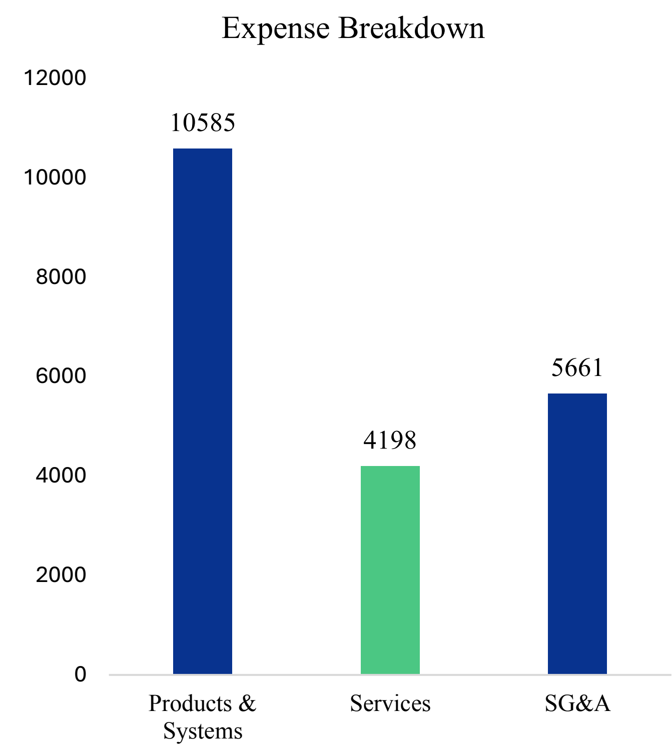

**Source 26**

## Revenue by Geography

Johnson Controls generates revenue across a diverse global footprint, with the majority of sales concentrated in North America, which accounted for approximately 63% of total revenue in FY2024[12]. This region serves as the company's operational base for its Building Solutions North America division and benefits from stable demand across commercial, institutional, and government sectors.

EMEA and Latin America contributed about 21% of revenue, supported by growth in retrofit projects and sustainability-driven upgrades in mature European markets. Asia Pacific made up the remaining 16%[24], with demand driven by urbanization, infrastructure investment, and government-led energy efficiency programs. While North America remains the core, we view international regions as strategic growth opportunities, particularly as governments outside the U.S. adopt more aggressive climate goals and funding for smart infrastructure accelerates. Management has signaled intent to deepen international penetration, especially in Asia-Pacific, where urban development and electrification trends present long-term tailwinds.

# Expense Proportions




**Source 26**

## Costs of Goods Sold & Segment Margins

Johnson Controls' cost structure is closely tied to its three operating segments: Building Solutions North America, Building Solutions EMEA/LA, and Global Products. Across these businesses, total cost of goods sold (COGS) represented approximately 69% of revenue in FY2024, according to our model. The company's largest cost driver is materials and components, particularly within Global Products, where sourcing, supply chain, and manufacturing expenses are most concentrated.[2]

The Global Products segment carries higher COGS intensity due to its production-heavy profile, but benefits from scalability and a global customer base. In contrast, the Building Solutions segments (particularly North America) benefit from service-oriented revenues and recurring contracts, yielding stronger margins. In FY2024, we estimate gross margins in North America were approximately 33%, compared to 29–30% in the other divisions. Looking forward, we project gradual improvement in gross margin, rising to ~31% company-wide by FY2026, supported by operational efficiencies and improving mix.

## SG&A and Overhead Costs

SG&A expenses remain the second-largest cost category for Johnson Controls, totaling approximately $4.6 billion or 24.6% of revenue in FY2024.[2] This includes costs related to personnel, marketing, digital infrastructure, and other administrative functions. The company has made investments in its OpenBlue platform and field automation tools, which we believe will create SG&A leverage over time.

Our model projects SG&A as a percentage of revenue to decline modestly to ~23.7% by FY2026, as digital investments scale and legacy overhead is streamlined. We also view JCI's focus on service contracts and software-enhanced offerings as key levers in driving better cost efficiency and customer retention.

## R&D & Integration Costs

Although not as large a component as COGS or SG&A, Johnson Controls invests meaningfully in R&D, with around $300 million annually, or 1.6% of revenue in FY2024.[2] This spending supports innovation in HVAC systems, building automation, and energy optimization solutions. We expect this investment to remain relatively steady, as JCI continues to differentiate through software-enabled, sustainable building platforms.

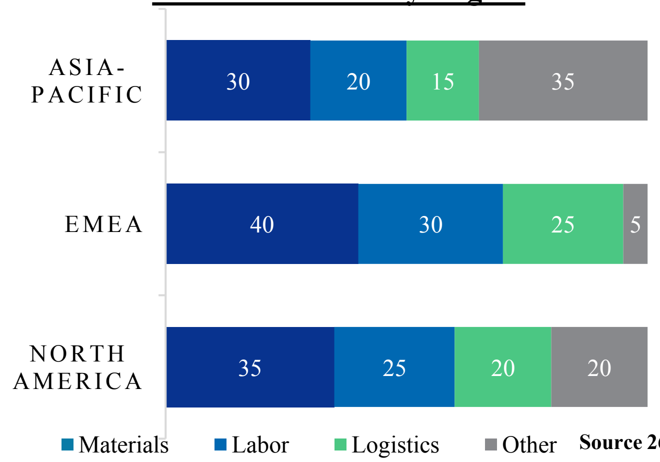
In addition, the company occasionally incurs restructuring and integration expenses tied to portfolio optimization. These costs are non-recurring but have trended downward in recent years, signaling a more stable business footprint post-divestitures.

## Additional Cost Commentary

Johnson Controls' cost structure reflects both the capital intensity of its product manufacturing and the labor-driven nature of its building solutions services. Material and component costs are significant in the Global Products segment, while regional dynamics influence overall cost pressures. North America benefits from scale and higher-margin service contracts. EMEA has experienced elevated energy and logistics costs, while Asia-Pacific operates with a leaner footprint, relying more on local sourcing and subcontracting.[2]

To manage cost pressures, JCI is executing on pricing, supply chain efficiency, and standardization initiatives. Investments in digital platforms like OpenBlue are also reducing service costs by improving technician productivity and enabling remote diagnostics. As labor, energy, and freight costs stabilize and restructuring winds down, we expect modest operating leverage and incremental margin expansion.

## Cost Breakdown by Region



Source 26

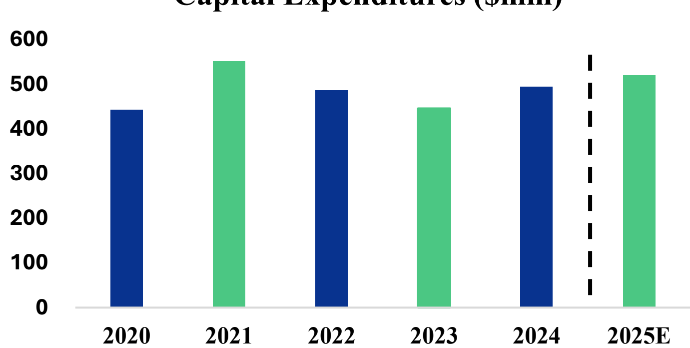
## Capital Expenditures

Johnson Controls maintains a disciplined capital allocation strategy, with capital expenditures primarily directed toward sustaining and optimizing its global manufacturing base and advancing its digital capabilities. In fiscal year 2024, the company is projected to spend approximately $520 million on capital expenditures, with a modest increase to $596 million in 2025 according to our model.[29] This level of investment represents about 2.3% of revenue, consistent with historical capex intensity and reflective of the company's asset-light orientation in its service-heavy segments.

The majority of capex is directed toward plant maintenance, facility upgrades, and productivity enhancements within the Global Products business. Incremental spending supports growth initiatives tied to connected building technologies and OpenBlue platform expansion. Unlike industrial peers with higher fixed infrastructure demands, Johnson Controls benefits from a relatively flexible cost base and does not require large-scale capital outlays to support its core operations.

Looking ahead, we expect capital expenditures to trend upward modestly through the end of the decade, reaching approximately $745 million by 2028, in line with revenue growth and JCI's continued digital transition.[29] We view the current capex profile as appropriate, balancing reinvestment with free cash flow preservation, and allowing Johnson Controls to maintain competitive positioning without overextending its asset base.

**Capital Expenditures ($mm)**




**Source 2**

## Capital Structure

Johnson Controls maintains a stable and conservative capital structure. As of fiscal year 2024, the company reported approximately $8.0 billion in long-term debt and $17.4 billion in total equity, implying a net debt-to-equity ratio of 0.46x.[29] This reflects a balanced approach to leverage, supported by consistent free cash flow generation and investment-grade credit ratings of Baa1 (Moody's) and BBB+ (S&P).

Compared to peers, Johnson Controls' leverage is in line with similarly rated industrial companies such as Trane Technologies, and more conservative than Carrier Global, which operates with higher net leverage following recent acquisitions.

Looking ahead, debt is forecasted to decline modestly while equity increases through retained earnings and stock buybacks. By 2026, long-term debt is projected to fall to $7.5 billion, with equity surpassing $18.9 billion. Cash reserves are also expected to rise to over $3.7 billion.

As part of its footprint optimization, Johnson Controls continues to incur modest restructuring charges, projected at $100 million in 2024 and trending down over time.[26] We view Johnson Controls' capital structure as balanced and resilient, offering sufficient flexibility to support both disciplined growth and capital returns, while preserving its investment-grade profile.

Debt Maturity Schedule

| | 2024D | 2025E | 2026E | 2027E | 2028E | 2029E |
|---|---|---|---|---|---|---|
| LT Debt Maturity Schedule (from 10k notes) | | 536 | 544 | 776 | 676 | 707 |

**Source 26**

## WACC

Johnson Controls generates returns comfortably above its cost of capital, with a 2024 WACC of approximately 9.1% based on our model. This reflects the company's balanced capital structure, moderate leverage, and stable credit profile.

Our estimate includes an 11.08% cost of equity[24], supported by JCI's beta, end-market cyclicality, and capital structure. The after-tax cost of debt is 3.23%, derived from a 3.81% pre-tax cost of debt and a 15.26% marginal tax rate.[29] While an American company, JCI enjoys a considerably lower marginal tax rate thanks to being domiciled in Ireland.

We do not expect material shifts in WACC over the near term. JCI's debt maturity profile and cash generation provide insulation from refinancing risk, while rate normalization could moderately reduce its cost of equity. In our view, this reinforces JCI's ability to reinvest at attractive spreads or pursue value-accretive M&A when strategically appropriate.

## Payout Policy

Johnson Controls returns capital to shareholders through a balanced mix of dividends and share repurchases. In FY2024, the company returned over $1.3 billion, including $795 million in dividends and $535 million in buybacks, amounting to over 90 percent of free cash flow.

Dividends remain the centerpiece of JCI's payout strategy, with a quarterly dividend of $0.37 per share and a yield near 2.4%.[27] While growth has been modest, the dividend is well-covered.

Share repurchases have been used more opportunistically, with a slower pace in FY2024 amid higher rates and macro caution.[29] However, we expect buybacks to remain a useful tool for offsetting dilution and enhancing shareholder value.

Looking ahead, our model projects $1.4 billion in total capital returns for FY2025. With strong free cash flow and manageable debt maturities, we believe JCI's capital return strategy is sustainable by offering a steady yield and leaving the door open for reinvestment or strategic M&A.

# SWOT Analysis

## Strengths

Johnson Controls is a global leader in building automation, HVAC systems, and energy efficiency solutions, with a strong portfolio of products and services driven by digital platforms like OpenBlue. The company benefits from high recurring revenue from service contracts and long product lifecycles, which contribute to margin stability. With an investment-grade balance sheet, durable free cash flow, and strong presence in institutional markets. JCI is well-positioned to withstand macro volatility. In our view, its exposure to long-term secular trends like decarbonization and smart infrastructure enhances its long-run strategic positioning.

## Weaknesses

Despite its global scale, JCI's margins trail some peers, partly due to a lower mix of proprietary tech and persistent supply chain and geographic execution challenges, particularly in Asia. Periodic restructuring charges and one-time items have also weighed on earnings consistency. While cost discipline has improved post-COVID, we believe further gains in efficiency and product mix are needed to unlock stronger operating leverage.

## Opportunities

JCI is positioned to benefit from long-term trends in smart buildings, electrification, and sustainability. Demand for automation, controls, and energy-efficient systems continues to grow, supported by programs like the Inflation Reduction Act and tightening ESG regulations. We believe JCI is well-suited to capture this momentum, especially through continued expansion of its OpenBlue platform, which creates higher-margin and recurring revenue opportunities. Strategic M&A in adjacent technologies or international markets could further enhance its position.

## Threats

Johnson Controls faces exposure to macroeconomic slowdowns, particularly in commercial construction and capital investment cycles. Rising labor costs and lingering supply chain issues may strain service operations. Competition from cloud-native and tech-driven building automation providers also presents a risk if JCI does not continue advancing its innovation and value proposition.

# Economic Analysis

## Outlook: Mixed

While macroeconomic uncertainty presents headwinds, Johnson Controls is well-positioned to weather the environment due to its essential role in building operations and energy efficiency. Its exposure to long-cycle commercial and institutional projects, especially in infrastructure and government, lends some stability. However, continued inflation in materials and labor, alongside elevated rates, could delay certain non-critical upgrades or retrofits. That said, sustainability initiatives, decarbonization mandates, and smart building demand offer secular tailwinds that support medium- to long-term growth.

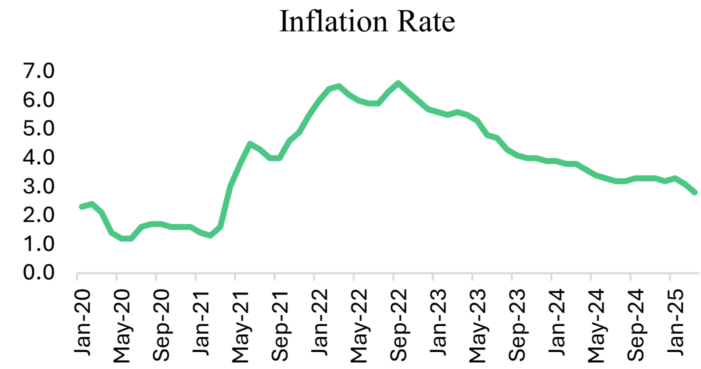
### Real GDP

The broader macro-outlook is somewhat tempered entering 2025, with real GDP growth expected to range between 1–2%. S&P forecasts 1.9% and Fitch sees 1.2%, both reflecting deceleration from 2024.[13] Slower growth could weigh on demand for new commercial construction and discretionary upgrades. However, large-scale public investment through the Inflation Reduction Act and Infrastructure Investment and Jobs Act continues to drive HVAC modernization and building efficiency retrofits.[28] JCI's backlog and government exposure should help cushion any slowdown in private-sector activity.

### Inflation

Inflation has eased modestly, but Johnson Controls continues to face cost pressure across key inputs. Electronics and semiconductors, essential to JCI's building automation systems, remain elevated due to lingering supply chain imbalances and geopolitical risks.[29] Additionally, core HVAC materials like steel, copper, and next-gen refrigerants continue to experience pricing volatility. Labor inflation also poses a risk, particularly in skilled trades that support project execution.

Potential tariffs on Chinese goods could further increase input costs, especially for JCI's Products and Systems segment, which relies on globally sourced components.[9] While inflation remains a headwind, we believe JCI's pricing power, supply chain diversification, and growing mix of software and services should help defend margins through 2025.

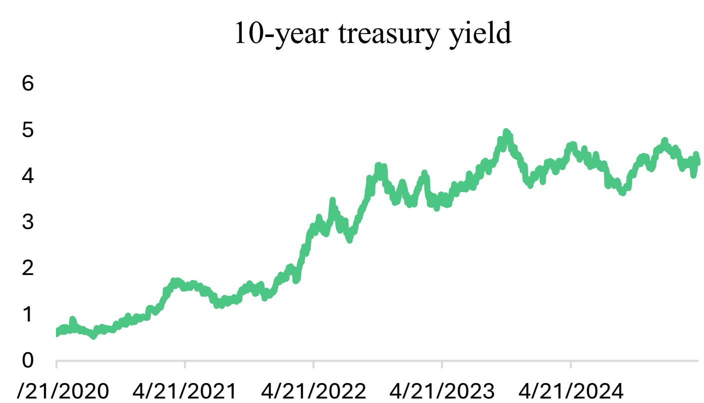



**Source 13**

### Interest Rates

Elevated interest rates have a mixed effect on JCI. On one hand, higher financing costs may delay some non-essential building upgrades or new construction. On the other hand, high energy costs and sustainability mandates are pushing organizations to invest in smart building systems that lower long-term utility bills, which overall strengthens the business case for Johnson Controls' energy-efficient solutions.[11]

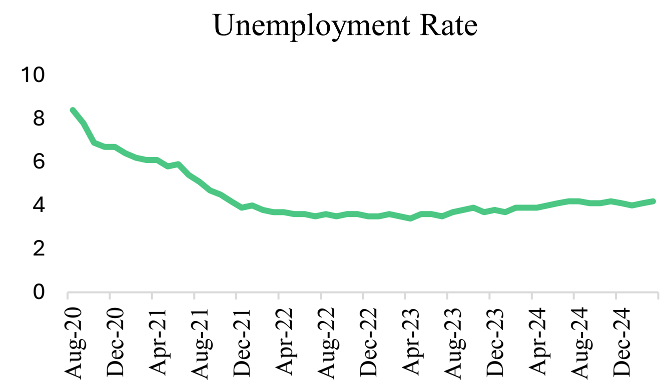
We anticipate rates to stay relatively elevated in the near term, but as rate normalization occurs, JCI's exposure to long-cycle retrofits and public-sector clients should drive a gradual recovery in order flow. Interest rate dynamics are not a primary driver of JCI's demand but remain a factor in commercial building investment sentiment.




**Source 13**

## Unemployment

Unemployment remains low in the U.S. at around 4.2%, supporting overall economic stability and continued demand for commercial and industrial services. For Johnson Controls, strong labor markets help drive building construction, HVAC upgrades, and infrastructure investment.[11] While rising wages may slow some project starts, JCI is relatively protected due to its long-term service contracts and energy-efficient solutions that help customers manage labor costs. We expect unemployment to rise modestly in the coming quarters, but JCI's model is well-positioned as clients focus on automation and cost-saving upgrades.




Source 13

## Tariffs

Johnson Controls may face moderate risk from new or increased tariffs, particularly on imported electronics, HVAC components, and building automation technologies sourced from Asia. Many of JCI's products rely on globally sourced inputs such as sensors, control panels, and semiconductors, which could be subject to higher duties under evolving U.S. trade policy. While the company has taken steps to diversify its supply chain, tariffs could raise input costs and compress margins in its Products and Systems segment.[9] However, JCI's scale, pricing power, and ability to pass through some costs, especially in service-based contracts, help reduce this exposure. The true impact of tariffs remains uncertain and will depend on their scope, duration, and whether exemptions are granted for specific components. We view tariff policy as a manageable but relevant factor in JCI's near-term margin outlook.

# Industry Analysis

## Industry Outlook: Positive

The building technologies sector is poised for steady growth, driven by global demand for energy efficiency, decarbonization, and smart infrastructure. Government policies like the Inflation Reduction Act and EU Green Deal continue to fund sustainable upgrades, directly supporting JCI's HVAC and automation offerings. Although high interest rates may weigh on new construction, Johnson Controls benefits from stable retrofit and service demand, giving it solid footing in a shifting macro environment.

## Industry Overview

Johnson Controls operates in the global building solutions and technologies industry, which spans HVAC systems, fire and security, and digital building management. The market is increasingly focused on energy performance and sustainability. JCI serves commercial, industrial, and institutional customers, with a presence in over 150 countries.[27] This global footprint, combined with a strong portfolio of smart building technologies, positions the company to capture long-term growth as buildings become more connected, efficient, and regulated.

## Industry Trends[11]

### Energy Efficiency and Decarbonization:

Global regulations and corporate sustainability goals are driving demand for energy-efficient HVAC systems and building automation, aligning directly with JCI's product strategy.

### Growth in Retrofit and Modernization:

Aging building infrastructure and a shift away from new construction are fueling demand for upgrades, creating steady revenue opportunities across JCI's systems and services.

### Digital Transformation of Buildings:

Adoption of smart technologies like IoT sensors, cloud platforms, and AI-driven controls is accelerating. JCI's OpenBlue platform positions the company well to lead in smart building innovation.

## Porter's Five Forces

Threat of New Entrants: **Low**

Entering the building systems and solutions industry at Johnson Controls' scale requires significant capital investment, engineering expertise, and deep regulatory compliance. With entrenched customer relationships, brand trust, and service integration, new competitors would face steep barriers. As a result, we assess the threat of new entrants as low.[11]

Bargaining Power of Buyers: **Low**

Large enterprise customers and governments can negotiate pricing and service levels, particularly for commoditized HVAC or controls hardware.[29] However, JCI's deep integration across systems, long-term service contracts, and high switching costs reduce buyer leverage. Customers often value bundled offerings and reliability over marginal cost savings.

Threat of Substitutes: **Moderate**

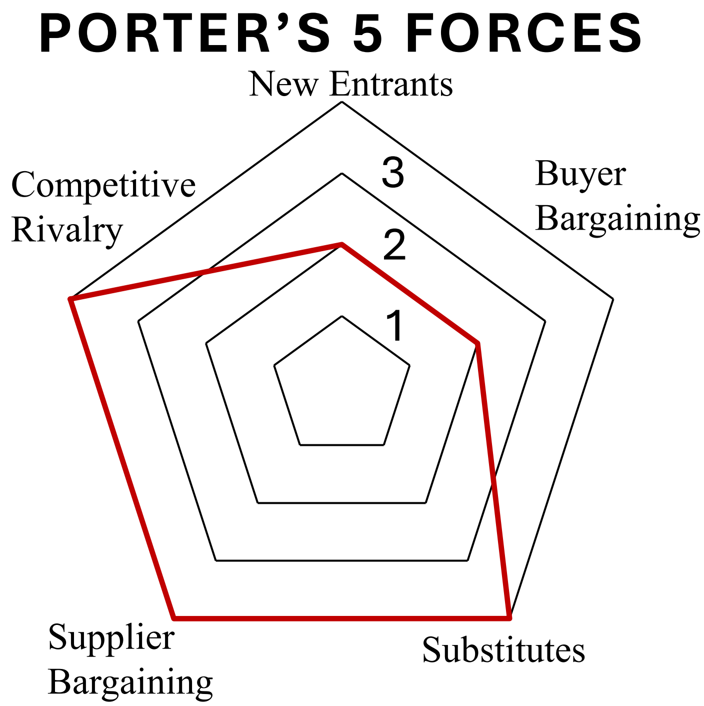
While JCI's solutions are comprehensive, there are viable substitutes in the form of standalone products, software-only alternatives, or DIY smart building platforms. The growth of modular IoT startups and open-source solutions raises the substitution risk.[29] That said, JCI's ability to provide end-to-end systems, ongoing service, and enterprise-level reliability helps mitigate this pressure.

Bargaining Power of Suppliers: **Moderate**

JCI sources specialized components like semiconductors, sensors, and building automation modules, some of which experienced price and availability pressure during global supply chain disruptions.[29] Although this gives suppliers moderate leverage, JCI's global purchasing scale and multi-sourcing strategies help maintain negotiation power and flexibility.

Intensity of Competitive: **Moderate**

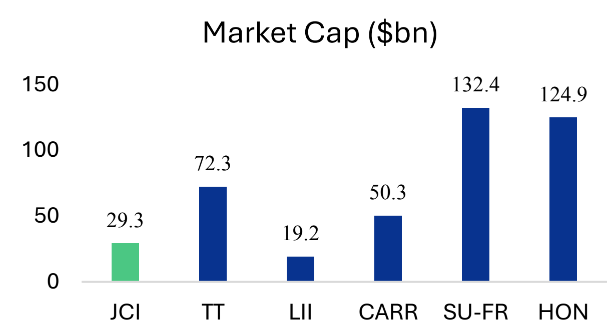
The building systems industry is highly competitive, with large players like Honeywell, Siemens, Carrier, and Schneider Electric offering overlapping solutions. Innovation cycles in building automation, sustainability targets, and pricing pressure intensify rivalry. JCI competes through integration, brand, and scale, but competition remains aggressive, particularly in commercial and international markets.[29]




## Peer Comparison

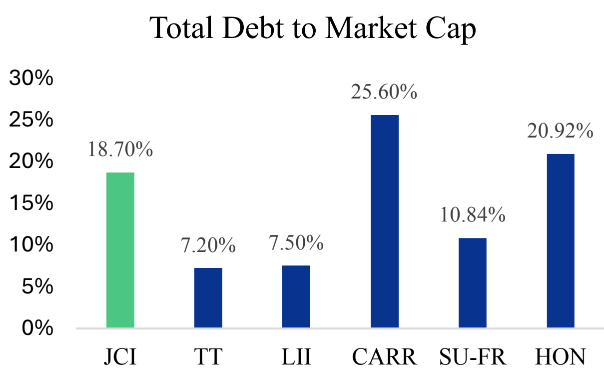
Johnson Controls competes in the global building products and systems market, with peers spanning HVAC, building automation, fire and security, and energy solutions. Key competitors include Carrier Global (CARR), Trane Technologies (TT), Honeywell (HON), and Siemens Smart Infrastructure.[27] While each peer has varying levels of exposure across JCI's verticals, they collectively offer a meaningful benchmark for evaluating JCI's positioning in scale, growth, and profitability.

JCI's revenue base of $22.95 billion in FY2024 is second only to Honeywell within this set, with a diversified product mix and strong presence in North America, EMEA, and Asia Pacific. Among this group, Carrier and Trane are more HVAC-focused, while Honeywell and Siemens overlap more in building automation and energy management.




**Source 27**

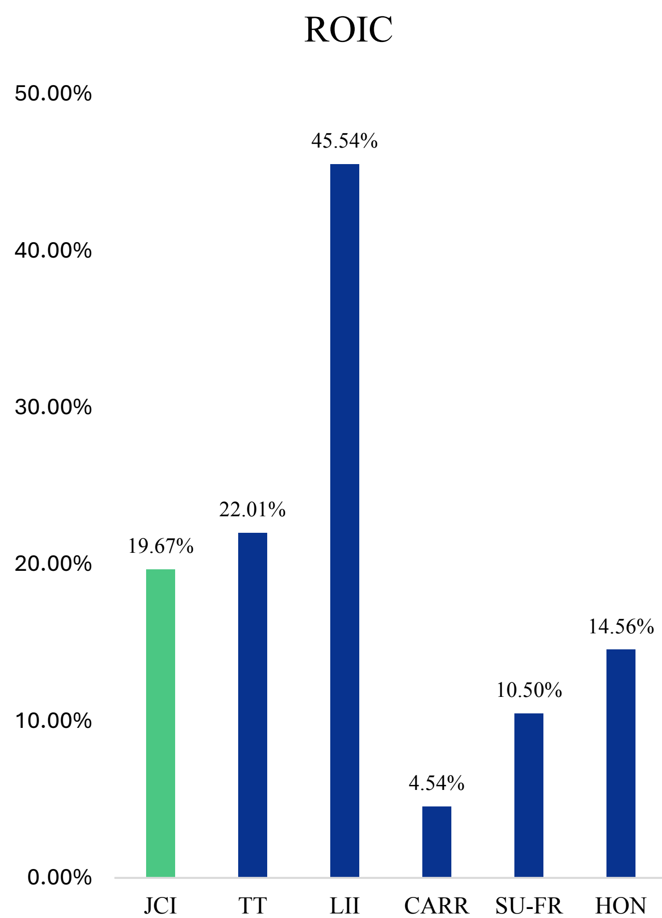
From a margin standpoint, JCI's FY2024 adjusted EBITDA margin of ~14.7% trails Trane's best-in-class 18%+ but is ahead of Carrier's ~13% and in line with Siemens' building segment. JCI trades at a 2025E P/E multiple of ~15x, which is slightly below Trane and Honeywell despite similar long-term earnings CAGR projections. This valuation discount may reflect recent execution challenges and restructuring efforts but also presents an opportunity if the company executes on margin expansion and backlog conversion.



**Source 27**

Capital structure comparisons show JCI to be conservatively positioned, with net leverage near 1.5x, offering flexibility for future investment or shareholder returns. In contrast, Carrier has modestly higher leverage (~2x), while Trane and Honeywell maintain similarly low ratios. JCI's investment-grade credit rating (Baa2/BBB+) aligns with peers and underscores its balanced financial profile.[27]

Johnson Controls benefits from a well-diversified geographic footprint, with approximately 45% of revenue generated outside North America.[12] This global exposure gives JCI a unique hedge against regional economic slowdowns and positions it to capitalize on long-term trends in building modernization across Europe, Asia, and the Middle East. For example, energy efficiency regulations in the EU and urban infrastructure buildouts in Asia are supportive of demand for smart building systems and HVAC retrofits.[18] Compared to peers like Carrier and Trane Technologies, which derive a larger share of sales from the U.S., JCI's international mix offers greater access to fast-growing and underpenetrated markets. From our perspective, this balanced footprint not only provides margin stability through the cycle but also creates long-term upside as sustainability-focused infrastructure spending gains traction globally.



**Source 27**

JCI's 2025E ROIC of approximately 10.6%,[27] according to our model, reflects solid capital efficiency in a sector that requires significant investment in R&D, manufacturing, and service networks. While this return is modestly lower than peers like Honeywell, which benefit from more asset-light aerospace and automation segments, it compares favorably to companies like Carrier, whose ROIC remains depressed due to heavier capital intensity and restructuring drag. Importantly, JCI's return profile is improving as the company scales its higher-margin digital services and software solutions under the OpenBlue platform. We believe continued investment in connected technologies, paired with disciplined M&A and cost optimization, could support gradual expansion of ROIC going forward.

Overall, Johnson Controls is competitively positioned across its peer set, with a balanced global footprint, solid capital efficiency, and growing exposure to high-margin digital solutions. The company offers both resilience and upside as execution continues to improve.

# Company Valuation

***Discounted Cash Flow and Economic Profit Model***

Estimated Share Price: $**84.31**

Our DCF and EP model is the most accurate reflection of JCI's intrinsic value. These models forecast JCI's free cash flow through 2034E, incorporating assumptions about a long-term transition to stable growth. We also considered operational risks and industry dynamics, particularly in smart building solutions and energy efficiency, that could influence JCI's ability to sustain profitability.

Given current macroeconomic volatility, our model is sensitive to near-term fluctuations in WACC (currently estimated at 9.1%). However, we believe this risk is mitigated by JCI's diversified global presence, its expanding role in sustainable infrastructure, and its leadership in building automation technologies.

***Relative Valuation***

Estimated Share Price: **$52.19 - $52.54**

Our valuation is driven by EPS (2025E-2026E) and P/E (2025E – 2026E).

The list of comparable companies: Trane Technologies (TT), Lennox (LII), Carrier Global (CARR), Schneider Electric (SU-FR), Honeywell International (HON)

Johnson Controls operates within a relatively uniform competitive landscape, alongside peers such as Trane, Carrier, and Honeywell, all of which share exposure to building technologies, automation, and energy efficiency. These similarities in end markets, capital intensity, and operating structure make a relative valuation approach appropriate in assessing JCI's equity value. However, when applying peer average P/E multiples to JCI's projected earnings, the implied share price range of **$52.19 to $52.54** falls well below its current market price.

This suggests that the stock is trading at a premium to its near-term fundamentals, likely reflecting investor expectations around longer-term strategic initiatives or margin expansion not yet captured in earnings projections.

***Dividend Discount Model***

Estimated Share Price: $**27.90**

Our dividend discount model (DDM) produced the weakest valuation at $27.90, and we view it as the least reliable method for valuing Johnson Controls. While JCI does pay a consistent dividend, its moderate yield and earnings retention strategy reduce the relevance of a dividend-based framework. The model fails to account for the company's reinvestment in high-growth segments like smart buildings and energy systems, leading to a valuation that significantly understates the company's long-term potential.

# Sensitivity Analysis

**Risk-Free Rate vs Beta**

| | | Beta | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 84.31 | 1.03 | 1.13 | 1.23 | 1.33 | 1.43 | 1.53 | 1.63 |
| Risk-Free Rate | 3.96% | 105.82 | 98.85 | 92.70 | 87.23 | 82.34 | 77.92 | 73.92 |
| | 4.06% | 104.39 | 97.59 | 91.58 | 86.24 | 81.44 | 77.11 | 73.19 |
| | 4.16% | 102.99 | 96.36 | 90.49 | 85.26 | 80.56 | 76.32 | 72.46 |
| | 4.26% | 101.63 | 95.16 | 89.43 | 84.31 | 79.70 | 75.54 | 71.75 |
| | 4.36% | 100.31 | 93.99 | 88.38 | 83.37 | 78.86 | 74.77 | 71.05 |
| | 4.46% | 99.01 | 92.85 | 87.36 | 82.45 | 78.03 | 74.02 | 70.37 |
| | 4.56% | 97.75 | 91.73 | 86.36 | 81.56 | 77.22 | 73.28 | 69.69 |

In this table, we analyzed the effects of changing Johnson Controls' (JCI) beta and the risk-free rate on the stock price, which ends up being far more sensitive to changes in beta. As beta increases, the cost of equity rises sharply, leading to a notable drop in valuation. These variables may fluctuate based on interest rate decisions by the Federal Reserve.

## WACC vs CV Growth of NOPLAT

CV Growth of NOPLAT

| WACC \ 84.31 | 2.02% | 2.12% | 2.22% | 2.32% | 2.42% | 2.52% | 2.62% |
|---|---|---|---|---|---|---|---|
| 8.80% | 86.46 | 87.11 | 87.78 | 88.47 | 89.19 | 89.92 | 90.69 |
| 8.90% | 85.12 | 85.74 | 86.39 | 87.06 | 87.74 | 88.45 | 89.18 |
| 9.00% | 83.82 | 84.42 | 85.04 | 85.68 | 86.34 | 87.02 | 87.72 |
| 9.10% | 82.55 | 83.13 | 83.73 | 84.34 | 84.98 | 85.63 | 86.30 |
| 9.20% | 81.31 | 81.87 | 82.45 | 83.04 | 83.65 | 84.28 | 84.92 |
| 9.30% | 80.11 | 80.65 | 81.20 | 81.77 | 82.36 | 82.96 | 83.58 |
| 9.40% | 78.94 | 79.46 | 79.99 | 80.54 | 81.11 | 81.69 | 82.28 |

In this table, we examined how changes in WACC and the CV growth rate of NOPLAT affect the stock price. Both inputs play a critical role in determining the terminal value within a DCF model, but the stock price is substantially more sensitive to WACC. As WACC increases, valuation drops significantly due to the heavier discounting of future cash flows. These findings reinforce that JCI's valuation is more exposed to changes in the market's required rate of return than to adjustments in long-term growth assumptions.

## Pre-Tax Cost of Debt vs Marginal Tax Rate

Marginal Tax Rate

| Pre-Tax Cost of Debt \ 84.31 | 14.96% | 15.06% | 15.16% | 15.26% | 15.36% | 15.46% | 15.56% |
|---|---|---|---|---|---|---|---|
| 3.51% | 85.28 | 85.21 | 85.15 | 85.09 | 85.02 | 84.96 | 84.90 |
| 3.61% | 85.01 | 84.95 | 84.89 | 84.82 | 84.76 | 84.70 | 84.64 |
| 3.71% | 84.75 | 84.69 | 84.63 | 84.56 | 84.50 | 84.44 | 84.38 |
| 3.81% | 84.49 | 84.43 | 84.37 | 84.31 | 84.25 | 84.18 | 84.12 |
| 3.91% | 84.23 | 84.17 | 84.11 | 84.05 | 83.99 | 83.93 | 83.87 |
| 4.01% | 83.97 | 83.91 | 83.85 | 83.79 | 83.73 | 83.68 | 83.62 |
| 4.11% | 83.72 | 83.66 | 83.60 | 83.54 | 83.48 | 83.42 | 83.36 |

In this table, we tested how changes in JCI's pre-tax cost of debt and marginal tax rate affect the stock price. While both variables influence the after-tax cost of debt and therefore WACC, changes in the pre-tax cost of debt have a noticeably greater impact on valuation. As the cost of debt rises, the stock price consistently declines, reflecting a higher weighted average cost of capital. These variables may shift based on macroeconomic interest rate trends or changes in corporate tax policy, especially given the new Presidential administration.

## Costs of Products & Systems (% of sales) vs Cost of SG&A Expenses (% of sales)

Cost of SG&A Expenses (% of sales)

| Cost of Prod. & Syster \ 84.31 | 20.29% | 21.29% | 22.29% | 23.29% | 24.29% | 25.29% | 26.29% |
|---|---|---|---|---|---|---|---|
| 60.13% | 116.28 | 110.07 | 103.85 | 97.64 | 91.43 | 85.21 | 79.00 |
| 61.13% | 111.85 | 105.63 | 99.42 | 93.21 | 86.99 | 80.78 | 74.56 |
| 62.13% | 107.41 | 101.20 | 94.98 | 88.77 | 82.56 | 76.34 | 70.13 |
| 63.13% | 102.98 | 96.76 | 90.55 | 84.34 | 78.12 | 71.91 | 65.69 |
| 64.13% | 98.54 | 92.33 | 86.11 | 79.90 | 73.69 | 67.47 | 61.26 |
| 65.13% | 94.11 | 87.89 | 81.68 | 75.47 | 69.25 | 63.04 | 56.82 |
| 66.13% | 89.67 | 83.46 | 77.25 | 71.03 | 64.82 | 58.60 | 52.38 |

In this table, we tested the impact of SG&A expenses and cost of products & systems, each as a percent of sales. Both variables directly affect operating margins and ultimately free cash flow. However, the valuation is more sensitive to changes in the cost of products & systems. As it rises, stock price declines rapidly due to reduced gross profitability.

## Cost of SG&A Expenses (% of sales) vs Cost of Services (% of sales)

Cost of Services (% of sales)

| Cost of SG&A Expense \ 84.31 | 56.67% | 57.17% | 57.67% | 58.17% | 58.67% | 59.17% | 59.67% |
|---|---|---|---|---|---|---|---|
| 20.29% | 105.62 | 104.73 | 103.84 | 102.95 | 102.06 | 101.17 | 100.28 |
| 21.29% | 99.41 | 98.52 | 97.63 | 96.74 | 95.85 | 94.96 | 94.07 |
| 22.29% | 93.19 | 92.30 | 91.41 | 90.52 | 89.64 | 88.75 | 87.86 |
| 23.29% | 86.98 | 86.09 | 85.20 | 84.31 | 83.42 | 82.53 | 81.64 |
| 24.29% | 80.77 | 79.88 | 78.99 | 78.10 | 77.21 | 76.32 | 75.43 |
| 25.29% | 74.55 | 73.66 | 72.77 | 71.88 | 70.99 | 70.10 | 69.21 |
| 26.29% | 68.34 | 67.45 | 66.56 | 65.67 | 64.78 | 63.89 | 63.00 |

In this table, we evaluated how changes in SG&A expenses and cost of services as a percent of sales affect JCI's stock price. While both inputs influence operating profitability, the stock price is more sensitive to SG&A expense levels. This suggests that margins at the corporate and administrative level plays a more crucial role.

# Important Disclaimer:

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**Johnson Controls, Inc.**
*Revenue Decomposition*
In millions $

| *Fiscal Years Ending Sep. 30* | 2022 | 2023 | 2024 | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Systems*** | | | | | | | | | | | | | |
| Building Solutions North America | 5,708 | 6,368 | 7,099 | 8,022 | 8,984 | 9,883 | 10,871 | 11,741 | 12,563 | 13,442 | 14,249 | 14,847 | 15,471 |
| *Growth Rate (%)* | 7.45% | 11.56% | 11.48% | 13.00% | 12.00% | 10.00% | 10.00% | 8.00% | 7.00% | 7.00% | 6.00% | 4.20% | 4.20% |
| Building Solutions EMEA/LA | 2,188 | 2,275 | 2,314 | 2,346 | 2,480 | 2,584 | 2,683 | 2,792 | 2,873 | 2,980 | 3,075 | 3,174 | 3,275 |
| *Growth Rate (%)* | 13.43% | 3.98% | 1.71% | 1.40% | 5.70% | 4.20% | 3.80% | 4.10% | 2.90% | 3.70% | 3.20% | 3.20% | 3.20% |
| Building Solutions Asia Pacific | 2,005 | 1,987 | 1,483 | 1,364 | 1,296 | 1,264 | 1,281 | 1,319 | 1,362 | 1,415 | 1,455 | 1,496 | 1,537 |
| *Growth Rate (%)* | 35.66% | -0.90% | -25.36% | -8.00% | -5.00% | -2.50% | 1.40% | 2.90% | 3.30% | 3.90% | 2.80% | 2.80% | 2.80% |
| **Total Systems** | **9,901** | **10,630** | **10,896** | **11,733** | **12,761** | **13,731** | **14,835** | **15,852** | **16,798** | **17,837** | **18,779** | **19,516** | **20,283** |
| *Segment Growth Rate (%)* | 11.94% | 6.86% | 2.44% | 7.68% | 8.76% | 7.60% | 8.04% | 6.85% | 5.97% | 6.18% | 5.28% | 3.93% | 3.93% |
| **Global Products** | | | | | | | | | | | | | |
| HVAC | 6,756 | 2,358 | 2,280 | 2,383 | 2,549 | 2,674 | 2,829 | 2,988 | 3,083 | 3,157 | 3,268 | 3,382 | 3,501 |
| *Growth Rate (%)* | 11.60% | -65.10% | -3.31% | 4.50% | 7.00% | 4.90% | 5.80% | 5.60% | 3.20% | 2.40% | 3.50% | 3.50% | 3.50% |
| Fire & Security | 2,367 | 2,446 | 2,370 | 2,320 | 2,483 | 2,632 | 2,790 | 2,929 | 3,046 | 3,119 | 3,213 | 3,309 | 3,408 |
| *Growth Rate (%)* | 7.98% | 3.34% | -3.11% | -2.10% | 7.00% | 6.00% | 6.00% | 5.00% | 4.00% | 2.40% | 3.00% | 3.00% | 3.00% |
| Industrial Refrigeration | 250 | 355 | 421 | 560 | 722 | 867 | 1,005 | 1,156 | 1,330 | 1,516 | 1,698 | 1,834 | 1,980 |
| *Growth Rate (%)* | 5.49% | 42.00% | 18.59% | 33.00% | 29.00% | 20.00% | 16.00% | 15.00% | 15.00% | 14.00% | 12.00% | 8.00% | 8.00% |
| **Total Products** | **9,373** | **5,159** | **5,071** | **5,263** | **5,754** | **6,173** | **6,624** | **7,073** | **7,459** | **7,793** | **8,179** | **8,525** | **8,890** |
| *Segment Growth Rate (%)* | 10.49% | -44.96% | -1.71% | 3.78% | 9.34% | 7.27% | 7.32% | 6.77% | 5.46% | 4.47% | 4.95% | 4.24% | 4.27% |
| ***Services*** | | | | | | | | | | | | | |
| Building Solutions North America | 3,659 | 3,962 | 4,249 | 4,534 | 4,847 | 5,176 | 5,549 | 5,954 | 6,275 | 6,627 | 6,879 | 7,140 | 7,411 |
| *Growth Rate (%)* | 8.48% | 8.28% | 7.24% | 6.70% | 6.90% | 6.80% | 7.20% | 7.30% | 5.40% | 5.60% | 3.80% | 3.80% | 3.80% |
| Building Solutions EMEA/LA | 1,657 | 1,821 | 1,982 | 2,079 | 2,187 | 2,310 | 2,444 | 2,588 | 2,743 | 2,858 | 2,958 | 3,062 | 3,169 |
| *Growth Rate (%)* | -15.24% | 9.90% | 8.84% | 4.90% | 5.20% | 5.60% | 5.80% | 5.90% | 6.00% | 4.20% | 3.50% | 3.50% | 3.50% |
| Building Solutions Asia Pacific | 709 | 759 | 754 | 748 | 752 | 764 | 781 | 802 | 827 | 850 | 869 | 889 | 910 |
| *Growth Rate (%)* | -37.70% | 7.05% | -0.66% | -0.80% | 0.60% | 1.60% | 2.10% | 2.80% | 3.10% | 2.70% | 2.30% | 2.30% | 2.30% |
| **Total Services** | **6,025** | **6,542** | **6,985** | **7,361** | **7,786** | **8,250** | **8,773** | **9,344** | **9,846** | **10,335** | **10,706** | **11,091** | **11,490** |
| *Segment Growth Rate (%)* | -6.82% | 8.58% | 6.77% | 5.38% | 5.78% | 5.96% | 6.34% | 6.51% | 5.37% | 4.97% | 3.59% | 3.60% | 3.60% |
| **Total Revenues** | **25,299** | **22,331** | **22,952** | **24,356** | **26,301** | **28,154** | **30,233** | **32,269** | **34,103** | **35,964** | **37,663** | **39,132** | **40,663** |
| *Growth Rate (%)* | 6.89% | -11.73% | 2.78% | 6.12% | 7.99% | 7.04% | 7.38% | 6.74% | 5.68% | 5.46% | 4.72% | 3.90% | 3.91% |

**Johnson Controls, Inc.**
*Income Statement*
In millions $

| | 2022 | 2023 | 2024 | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenues: | | | | | | | | | | | | | |
| Products and systems | 19,274 | 15,789 | 15,967 | 16,995 | 18,515 | 19,904 | 21,460 | 22,925 | 24,258 | 25,630 | 26,957 | 28,041 | 29,173 |
| Services | 6,025 | 6,542 | 6,985 | 7,361 | 7,786 | 8,250 | 8,773 | 9,344 | 9,846 | 10,335 | 10,706 | 11,091 | 11,490 |
| **Total Revenue** | **25,299** | **22,331** | **22,952** | **24,356** | **26,301** | **28,154** | **30,233** | **32,269** | **34,103** | **35,964** | **37,663** | **39,132** | **40,663** |
| Cost of Sales: | | | | | | | | | | | | | |
| Products and systems | 10,684 | 10,656 | 10,585 | 10,730 | 11,689 | 12,566 | 13,548 | 14,474 | 15,315 | 16,181 | 17,019 | 17,704 | 18,418 |
| Services | 3,423 | 3,791 | 4,198 | 4,281 | 4,529 | 4,799 | 5,103 | 5,435 | 5,727 | 6,011 | 6,227 | 6,451 | 6,683 |
| **Total cost of Sales** | **14,107** | **14,447** | **14,783** | **15,011** | **16,218** | **17,365** | **18,651** | **19,909** | **21,042** | **22,192** | **23,246** | **24,155** | **25,101** |
| **Gross Profit** | **7,090** | **7,804** | **8,077** | **9,345** | **10,083** | **10,789** | **11,581** | **12,361** | **13,062** | **13,772** | **14,417** | **14,978** | **15,562** |
| Selling, general and administrative expenses | 5,078 | 5,387 | 5,661 | 5673 | 6126 | 6558 | 7042 | 7516 | 7943 | 8377 | 8773 | 9115 | 9471 |
| Depreciation & Amortization | 717 | 745 | 816 | 597 | 578 | 582 | 597 | 619 | 651 | 678 | 711 | 744 | 775 |
| Restructuring and impairment costs | 701 | 1,049 | 510 | 657 | 632 | 710 | 712 | 644 | 671 | 674 | 682 | 676 | 669 |
| Net financing charges | 205 | 258 | 342 | 362 | 330 | 342 | 364 | 378 | 391 | 397 | 411 | 424 | 433 |
| Equity Income (loss) | 6 | 3 | (42) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Income from continuing operations before income taxes** | **1,112** | **1,113** | **1,522** | **2,056** | **2,418** | **2,597** | **2,867** | **3,203** | **3,406** | **3,647** | **3,840** | **4,019** | **4,212** |
| Income tax provision (benefit) | (182) | (468) | 111 | 314 | 369 | 396 | 437 | 489 | 520 | 557 | 586 | 613 | 643 |
| **Income from continuing operations** | **1,294** | **1,581** | **1,411** | **1,742** | **2,049** | **2,201** | **2,429** | **2,715** | **2,886** | **3,090** | **3,254** | **3,406** | **3,570** |
| Income from discontinued operations, net of tax | 429 | 452 | 489 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Net Income** | **1,723** | **2,033** | **1,900** | **1,742** | **2,049** | **2,201** | **2,429** | **2,715** | **2,886** | **3,090** | **3,254** | **3,406** | **3,570** |
| Basic Earnings Per Share (EPS) | **$ 2.20** | **$ 2.70** | **$ 2.53** | **$ 2.48** | **$ 2.76** | **$ 2.96** | **$ 3.27** | **$ 3.65** | **$ 3.89** | **$ 4.16** | **$ 4.38** | **$ 4.58** | **$ 4.81** |
| Total Basic Shares Outstanding | 687 | 681 | 662 | 743 | 743 | 743 | 743 | 743 | 743 | 743 | 743 | 743 | 743 |
| Weighted Average Shares Outstanding | 696 | 684 | 672 | 702 | 743 | 743 | 743 | 743 | 743 | 743 | 743 | 743 | 743 |
| Annual Dividends per Share | $ 1.32 | $ 1.43 | $ 1.49 | $ 2.29 | $ 2.55 | $ 2.74 | $ 3.02 | $ 3.38 | $ 3.59 | $ 3.85 | $ 4.05 | $ 4.24 | $ 4.44 |

**Johnson Controls, Inc.**
*Balance Sheet*
$ in millions

| *Fiscal Years Ending Sep. 30* | 2022 | 2023 | 2024 | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Assets** | | | | | | | | | | | | | |
| Cash & Short-Term Investments | 2,031 | 835 | 606 | 3,370 | 3,762 | 4,223 | 4,509 | 5,570 | 7,906 | 10,517 | 14,142 | 19,150 | 26,212 |
| Accounts Receivables, Net | 5,727 | 6,006 | 6,051 | 5,995 | 6,518 | 7,035 | 7,700 | 8,141 | 8,540 | 9,031 | 9,478 | 9,859 | 10,226 |
| Inventories | 2,665 | 2,776 | 1,774 | 2,223 | 2,502 | 2,751 | 2,966 | 2,996 | 3,265 | 3,469 | 3,650 | 3,781 | 3,914 |
| Other Current Assets | 1,262 | 1,120 | 2,748 | 1,495 | 1,689 | 1,931 | 2,189 | 2,457 | 2,356 | 2,529 | 2,686 | 2,808 | 2,914 |
| **Total Current Assets** | **11,685** | **10,737** | **11,179** | **13,082** | **14,471** | **15,940** | **17,364** | **19,164** | **22,067** | **25,546** | **29,956** | **35,599** | **43,267** |
| Net Property, Plant & Equipment | 3,131 | 3,136 | 2,403 | 2,326 | 2,344 | 2,404 | 2,494 | 2,619 | 2,730 | 2,864 | 2,994 | 3,121 | 3,244 |
| Goodwill | 17,350 | 17,936 | 16,725 | 16,725 | 16,725 | 16,725 | 16,725 | 16,725 | 16,725 | 16,725 | 16,725 | 16,725 | 16,725 |
| Operating Lease Right-of-Use Assets | 1,271 | 1,301 | 1,170 | 1133 | 1141 | 1170 | 1214 | 1275 | 1329 | 1394 | 1458 | 1520 | 1580 |
| Other Intangible Assets | 5,155 | 4,888 | 4,130 | 3677 | 3277 | 2912 | 2636 | 2453 | 2311 | 2199 | 2121 | 2067 | 2035 |
| Other Non-Current Assets | 3,566 | 4,244 | 7,088 | 4,521 | 5,098 | 5,739 | 6,543 | 7,155 | 6,967 | 7,482 | 7,942 | 8,307 | 8,598 |
| **Total Long-Term Investments** | **30,473** | **31,505** | **31,516** | **28,382** | **28,586** | **28,951** | **29,612** | **30,227** | **30,062** | **30,664** | **31,240** | **31,740** | **32,181** |
| **Total Assets** | **42,158** | **42,242** | **42,695** | **41,464** | **43,057** | **44,891** | **46,976** | **49,391** | **52,129** | **56,210** | **61,196** | **67,339** | **75,448** |
| **Liabilities & Shareholders' Equity** | | | | | | | | | | | | | |
| Short-term debt | 669 | 385 | 953 | 875 | 965 | 1,056 | 1,159 | 1,225 | 1,276 | 1,355 | 1,425 | 1,483 | 1,537 |
| Current Portion of LT-Debt | 865 | 645 | 536 | 536 | 544 | 776 | 676 | 707 | 728 | 740 | 752 | 729 | 751 |
| Accounts Payable | 4,368 | 4,268 | 3,389 | 3,943 | 4,443 | 4,956 | 5,473 | 6,160 | 7,324 | 8,774 | 10,599 | 12,912 | 16,017 |
| Accrued Compensation | 1,003 | 958 | 1,048 | 1,015 | 1,139 | 1,250 | 1,408 | 1,627 | 1,889 | 2,263 | 2,734 | 3,342 | 4,149 |
| Deferred Revenue | 1,804 | 1,996 | 2,160 | 1,891 | 2,144 | 2,414 | 2,761 | 3,161 | 3,629 | 4,365 | 5,292 | 6,471 | 8,022 |
| Other Current Liabilities | 2,530 | 2,832 | 3,869 | 2,994 | 3,332 | 3,746 | 4,360 | 5,094 | 5,731 | 6,888 | 8,362 | 10,252 | 12,718 |
| **Current Liabailities** | **11,239** | **11,084** | **11,955** | **11,255** | **12,567** | **14,197** | **15,837** | **17,975** | **20,577** | **24,386** | **29,165** | **35,188** | **43,195** |
| Long-Term Debt | 7,426 | 7,818 | 8,004 | 7,244 | 7,473 | 7,734 | 8,076 | 8,333 | 8,410 | 8,689 | 8,948 | 9,164 | 9,363 |
| Pension and Retirement Benefits | 358 | 278 | 217 | 195 | 173 | 151 | 129 | 107 | 85 | 63 | 41 | 19 | 0 |
| Other Non-Current Liabilities | 5,733 | 5,368 | 5,158 | 5,757 | 6,194 | 6,552 | 7,073 | 7,507 | 7,988 | 8,409 | 8,793 | 9,142 | 9,497 |
| **Long-Term Liabilities** | **13,517** | **13,464** | **13,379** | **13,196** | **13,840** | **14,437** | **15,278** | **15,948** | **16,483** | **17,162** | **17,783** | **18,326** | **18,860** |
| **Total Liabilities** | **24,756** | **24,548** | **25,334** | **24,452** | **26,408** | **28,634** | **31,114** | **33,923** | **37,061** | **41,547** | **46,948** | **53,513** | **62,055** |
| Common Stock Par/Carry Value | 17,231 | 17,356 | 17,482 | 18,224 | 18,966 | 19,708 | 20,450 | 21,192 | 21,935 | 22,677 | 23,419 | 24,161 | 24,903 |
| Retained Earnings | 1,151 | 1,384 | 848 | 980 | 1,134 | 1,300 | 1,484 | 1,689 | 1,907 | 2,140 | 2,386 | 2,643 | 2,912 |
| Cumulative Translation Adjustment/Unrealized For. Exch. Gain | (901) | (970) | (956) | (956) | (956) | (956) | (956) | (956) | (956) | (956) | (956) | (956) | (956) |
| Other Appropriated Reserves | (10) | 15 | (8) | (8) | (8) | (8) | (8) | (8) | (8) | (8) | (8) | (8) | (8) |
| Treasury Stock | (1,203) | (1,240) | (1,268) | (2,490) | (3,750) | (5,051) | (6,372) | (7,712) | (9,072) | (10,453) | (11,855) | (13,277) | (14,721) |
| Accumulated Minority Interest | 1,134 | 1,149 | 1,263 | 1,263 | 1,263 | 1,263 | 1,263 | 1,263 | 1,263 | 1,263 | 1,263 | 1,263 | 1,263 |
| **Common Equity** | **17,402** | **17,694** | **17,361** | **17,013** | **16,649** | **16,257** | **15,862** | **15,468** | **15,068** | **14,663** | **14,249** | **13,825** | **13,393** |
| **Total Equity** | **17,402** | **17,694** | **17,361** | **17,013** | **16,649** | **16,257** | **15,862** | **15,468** | **15,068** | **14,663** | **14,249** | **13,825** | **13,393** |
| **Total Liabilities & Shareholders' Equity** | **42,158** | **42,242** | **42,695** | **41,464** | **43,057** | **44,891** | **46,976** | **49,391** | **52,129** | **56,210** | **61,196** | **67,339** | **75,448** |

**Johnson Controls, Inc.**
*Historical Cash Flow Statement*
($ in millions)

| *Fiscal Years Ending Sep. 30* | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **Operating Activities of Continuing Operations** | | | | | |
| **Income from continuing operations attributable to Johnson Controls** | **$631** | **$1,513** | **$1,279** | **$1,562** | **$1,407** |
| Income from continuing operations attributable to noncontrolling interest | 164 | 233 | 15 | 19 | 4 |
| Income from continuing operations | 795 | 1,746 | 1,294 | 1,581 | 1,411 |
| Adjustments to reconcile net income to cash provided by operating activities: | | | | | |
| Depreciation and amortization | 822 | 845 | 717 | 745 | 816 |
| Pension and postretirement benefit expense (income) | 118 | (551) | (219) | 58 | (43) |
| Pension and postretirement contributions | (61) | (68) | (69) | (48) | (6) |
| Equity in earnings of partially-owned affiliates, net of dividends received | (36) | (117) | 0 | (3) | 44 |
| Deferred income taxes | (537) | 36 | (190) | (602) | (403) |
| Non-cash restructuring and impairment charges | 582 | 98 | 555 | 827 | 411 |
| Equity-based compensation expense | 74 | 76 | 98 | 107 | 107 |
| Other - net | (90) | (85) | (59) | (117) | (112) |
| **Changes in assets and liabilities, excluding acquisitions and divestitures:** | | | | | |
| Accounts receivable | 534 | (143) | (409) | (259) | (537) |
| Inventories | 45 | (219) | (539) | (58) | (17) |
| Other assets | (52) | (164) | (349) | (187) | (482) |
| Restructuring reserves | (29) | (44) | (9) | 57 | (76) |
| Accounts payable and accrued liabilities | (717) | 813 | 847 | (85) | 645 |
| Accrued income taxes | 1,031 | 328 | (431) | (160) | (190) |
| **Cash provided by operating activities from continuing operations** | **2,479** | **2,551** | **1,237** | **1,856** | **1,568** |
| **Investing Activities of Continuing Operations** | | | | | |
| Capital expenditures | (443) | (552) | (487) | (446) | (494) |
| Sales of property, plant and equipment | 127 | 124 | 127 | 30 | 1 |
| Acquisitions of businesses, net of cash acquired | (77) | (725) | (269) | (726) | (3) |
| Business divestitures, net of cash divested | 135 | 19 | 0 | 28 | 345 |
| Other - net | | 44 | 41 | 21 | (33) |
| **Cash used by investing activities from continuing operations** | **(258)** | **(1,090)** | **(588)** | **(1,093)** | **(184)** |
| **Financing Activities of Continuing Operations** | | | | | |
| Net proceeds (payments) from borrowings with maturities less than three months | (33) | (18) | 379 | (75) | 48 |
| Proceeds from debt | 1,804 | 734 | 1,771 | 1,173 | 1,281 |
| Repayments of debt | (1,386) | (744) | (184) | (1,555) | (924) |
| Stock repurchases and retirements | (2,204) | (1,307) | (1,441) | (625) | (1,246) |
| Payment of cash dividends | (790) | (762) | (916) | (980) | (1,000) |
| Other - net | (215) | (34) | (4) | 3 | (107) |
| **Cash used by financing activities from continuing operations** | **(2,824)** | **(2,131)** | **(395)** | **(2,059)** | **(1,948)** |
| **Discontinued Operations:** | | | | | |
| Cash provided by operating activities | (260) | (64) | 753 | 365 | 530 |
| Cash used by investing activities | | | (105) | (91) | (37) |
| Cash used by financing activities | (113) | | (121) | (115) | (132) |
| Cash provided by discontinued operations | (373) | (64) | 527 | 159 | 361 |
| Effect of exchange rate changeso n cacsh, cash equivalents and restricted cash | 115 | 116 | (53) | (5) | 59 |
| Change in cash, cash equivalents and restricted cash held for sale | | | (3) | (5) | (6) |
| **Increase (decrease) in cash, cash equivalents and restricted cash** | **(861)** | **(618)** | **725** | **(1,147)** | **(150)** |
| Cash, cash equivalents and restricted cash at beginning of period | 2,821 | 1,960 | 1,339 | 2,064 | 917 |
| Cash, cash equivalents and restricted cash at end of period | 1,960 | 1,342 | 2,064 | 917 | 767 |
| Less: Restricted cash | 9 | 6 | 35 | 89 | 161 |
| **Cash and cash equivalents at end of period** | **1,951** | **1,336** | **2,029** | **828** | **606** |

**Johnson Controls, Inc.**
*Forecasted Cash Flow Statement*

| *Fiscal Years Ending Sep. 30* | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|
| **Operating Activities of Continuing Operations** | | | | | | | | | | |
| **Net Income** | **1,742** | **2,049** | **2,201** | **2,429** | **2,715** | **2,886** | **3,090** | **3,254** | **3,406** | **3,570** |
| Depreciation & Amortization | 597 | 578 | 582 | 597 | 619 | 651 | 678 | 711 | 744 | 775 |
| Change in Accounts Receivable | 56 | (523) | (518) | (664) | (441) | (400) | (491) | (447) | (381) | (367) |
| Change in Inventories | (449) | (279) | (249) | (215) | (30) | (269) | (204) | (181) | (131) | (133) |
| Change in Other Current Assets | 1,253 | (194) | (242) | (258) | (269) | 102 | (173) | (157) | (122) | (106) |
| Change in Operating Leases Right-of-Uses Assets | 37 | -9 | -29 | -44 | -61 | -54 | -65 | -64 | -62 | -60 |
| Change in Accounts Payable | 554 | 500 | 513 | 517 | 687 | 1,164 | 1,450 | 1,825 | 2,313 | 3,105 |
| Change in Accrued Compensation | (33) | 124 | 110 | 158 | 220 | 262 | 374 | 471 | 607 | 808 |
| Change in Deferred Revenue | (269) | 253 | 270 | 347 | 400 | 468 | 736 | 926 | 1,179 | 1,551 |
| Change in Other Current Liabilites | (875) | 337 | 414 | 615 | 734 | 637 | 1,158 | 1,474 | 1,890 | 2,466 |
| **Net cash flows from operating activities:** | **2,615** | **2,836** | **3,052** | **3,483** | **4,574** | **5,446** | **6,553** | **7,813** | **9,442** | **11,610** |
| | | | | | | | | | | |
| **Cash flows from Investing** | | | | | | | | | | |
| Capital Expenditures | (520) | (596) | (642) | (687) | (745) | (761) | (812) | (842) | (871) | (898) |
| Change in Other Intangible Assets Net | 453 | 400 | 365 | 276 | 183 | 142 | 112 | 78 | 54 | 32 |
| Change in Other Long-term Investments | 2,567 | (577) | (641) | (804) | (611) | 187 | (515) | (460) | (365) | (291) |
| **Net Cash Flows from Investing Activities:** | **2,500** | **(773)** | **(918)** | **(1,215)** | **(1,173)** | **(432)** | **(1,215)** | **(1,224)** | **(1,182)** | **(1,157)** |
| | | | | | | | | | | |
| **Financing Activities of Continuing Operations** | | | | | | | | | | |
| Change in Short-term debt | (78) | 90 | 91 | 102 | 67 | 51 | 78 | 71 | 57 | 55 |
| Change in Current Portion of LT Term | 0 | 8 | 232 | (100) | 31 | 21 | 12 | 12 | (23) | 22 |
| Change in Pension and Retirement Benefits | (22) | (22) | (22) | (22) | (22) | (22) | (22) | (22) | (22) | (19) |
| Change in long-term debt | (760) | 228 | 261 | 342 | 258 | 76 | 280 | 259 | 216 | 199 |
| Change in other long-term liabilities | 599 | 438 | 358 | 521 | 435 | 481 | 421 | 384 | 349 | 355 |
| Change in cumulative Translation Adjustment/Unrealized For. Exch. Gain | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Common Stock | 742 | 742 | 742 | 742 | 742 | 742 | 742 | 742 | 742 | 742 |
| Share Repurchase | (1,222) | (1,260) | (1,301) | (1,321) | (1,340) | (1,360) | (1,381) | (1,402) | (1,423) | (1,444) |
| Dividends | (1,611) | (1,894) | (2,035) | (2,246) | (2,510) | (2,668) | (2,857) | (3,009) | (3,148) | (3,300) |
| **Net Cash Flows from Financing Activities:** | **(2,351)** | **(1,670)** | **(1,674)** | **(1,981)** | **(2,340)** | **(2,679)** | **(2,727)** | **(2,964)** | **(3,252)** | **(3,391)** |
| | | | | | | | | | | |
| **Net Increase (Decrease in Cash and Cash Equivalents** | 2,764 | 393 | 460 | 287 | 1,061 | 2,335 | 2,611 | 3,625 | 5,008 | 7,062 |
| | | | | | | | | | | |
| **Cash and cash equivalents at beginning of year** | 606 | 3,370 | 3,762 | 4,223 | 4,509 | 5,570 | 7,906 | 10,517 | 14,142 | 19,150 |
| | | | | | | | | | | |
| **Cash and cash equivalents at end of year** | **3,370** | **3,762** | **4,223** | **4,509** | **5,570** | **7,906** | **10,517** | **14,142** | **19,150** | **26,212** |

**Johnson Controls, Inc.**
*Common Size Income Statement*
(All line items are a percentage of Sales for their respective FY)

| *Fiscal Years Ending Sep. 30* | 2022 | 2023 | 2024 | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenues: | | | | | | | | | | | | | |
| Products and systems | 76.18% | 70.70% | 69.57% | 69.78% | 70.40% | 70.70% | 70.98% | 71.04% | 71.13% | 71.26% | 71.57% | 71.66% | 71.74% |
| Services | 23.82% | 29.30% | 30.43% | 30.22% | 29.60% | 29.30% | 29.02% | 28.96% | 28.87% | 28.74% | 28.43% | 28.34% | 28.26% |
| **Total Revenue** | **100.00%** | **100.00%** | **100.00%** | **100.00%** | **100.00%** | **100.00%** | **100.00%** | **100.00%** | **100.00%** | **100.00%** | **100.00%** | **100.00%** | **100.00%** |
| | | | | | | | | | | | | | |
| Cost of Sales: | | | | | | | | | | | | | |
| Products and systems | 42.23% | 47.72% | 46.12% | 44.05% | 44.44% | 44.63% | 44.81% | 44.85% | 44.91% | 44.99% | 45.19% | 45.24% | 45.29% |
| Services | 13.53% | 16.98% | 18.29% | 17.58% | 17.22% | 17.04% | 16.88% | 16.84% | 16.79% | 16.71% | 16.53% | 16.49% | 16.44% |
| **Total cost of Sales** | **55.76%** | **64.69%** | **64.41%** | **61.63%** | **61.66%** | **61.68%** | **61.69%** | **61.70%** | **61.70%** | **61.71%** | **61.72%** | **61.73%** | **61.73%** |
| | | | | | | | | | | | | | |
| **Gross Profit** | **28.02%** | **34.95%** | **35.19%** | **38.37%** | **38.34%** | **38.32%** | **38.31%** | **38.30%** | **38.30%** | **38.29%** | **38.28%** | **38.27%** | **38.27%** |
| | | | | | | | | | | | | | |
| Selling, general and administrative expenses | 20.07% | 24.12% | 24.66% | 23.29% | 23.29% | 23.29% | 23.29% | 23.29% | 23.29% | 23.29% | 23.29% | 23.29% | 23.29% |
| Depreciation & Amortization | 2.83% | 3.34% | 3.56% | 2.45% | 2.20% | 2.07% | 1.98% | 1.92% | 1.91% | 1.89% | 1.89% | 1.90% | 1.91% |
| Restructuring and impairment costs | 2.77% | 4.70% | 2.22% | 2.70% | 2.40% | 2.52% | 2.35% | 2.00% | 1.97% | 1.87% | 1.81% | 1.73% | 1.65% |
| Net financing charges | 0.81% | 1.16% | 1.49% | 1.48% | 1.25% | 1.22% | 1.21% | 1.17% | 1.15% | 1.10% | 1.09% | 1.08% | 1.07% |
| Equity Income (loss) | 0.02% | 0.01% | -0.18% | -0.17% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | | | | | | | | | | | | |
| **Income from continuing operations before income taxes** | **4.40%** | **4.98%** | **6.63%** | **8.44%** | **9.19%** | **9.23%** | **9.48%** | **9.93%** | **9.99%** | **10.14%** | **10.20%** | **10.27%** | **10.36%** |
| Income tax provision (benefit) | -0.72% | -2.10% | 0.48% | 1.29% | 1.40% | 1.41% | 1.45% | 1.51% | 1.52% | 1.55% | 1.56% | 1.57% | 1.58% |
| **Income from continuing operations** | **5.11%** | **7.08%** | **6.15%** | **7.15%** | **7.79%** | **7.82%** | **8.03%** | **8.41%** | **8.46%** | **8.59%** | **8.64%** | **8.70%** | **8.78%** |
| Income from discontinued operations, net of tax | 1.70% | 2.02% | 2.13% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | | | | | | | | | | | | |
| **Net Income** | **6.81%** | **9.10%** | **8.28%** | **7.15%** | **7.79%** | **7.82%** | **8.03%** | **8.41%** | **8.46%** | **8.59%** | **8.64%** | **8.70%** | **8.78%** |

**Johnson Controls, Inc.**
*Balance Sheet*
$ in millions

| *Fiscal Years Ending Sep. 30* | 2022 | 2023 | 2024 | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Assets** | | | | | | | | | | | | | |
| Cash & Short-Term Investments | 8.03% | 3.74% | 2.64% | 13.84% | 14.31% | 15.00% | 14.92% | 17.26% | 23.18% | 29.24% | 37.55% | 48.94% | 64.46% |
| Accounts Receivables, Net | 22.64% | 26.90% | 26.36% | 24.61% | 24.78% | 24.99% | 25.47% | 25.23% | 25.04% | 25.11% | 25.17% | 25.20% | 25.15% |
| Inventories | 10.53% | 12.43% | 7.73% | 9.13% | 9.51% | 9.77% | 9.81% | 9.28% | 9.57% | 9.65% | 9.69% | 9.66% | 9.63% |
| Other Current Assets | 4.99% | 5.02% | 11.97% | 6.14% | 6.42% | 6.86% | 7.24% | 7.62% | 6.91% | 7.03% | 7.13% | 7.18% | 7.17% |
| **Total Current Assets** | **46.19%** | **48.08%** | **48.71%** | **53.71%** | **55.02%** | **56.62%** | **57.43%** | **59.39%** | **64.71%** | **71.03%** | **79.54%** | **90.97%** | **106.40%** |
| Net Property, Plant & Equipment | 12.38% | 14.04% | 10.47% | 9.55% | 8.91% | 8.54% | 8.25% | 8.12% | 8.00% | 7.96% | 7.95% | 7.98% | 7.98% |
| Goodwill | 68.58% | 80.32% | 72.87% | 68.67% | 63.59% | 59.41% | 55.32% | 51.83% | 49.04% | 46.50% | 44.41% | 42.74% | 41.13% |
| Operating Lease Right-of-Use Assets | 5.02% | 5.83% | 5.10% | 4.65% | 4.34% | 4.16% | 4.02% | 3.95% | 3.90% | 3.88% | 3.87% | 3.88% | 3.88% |
| Other Intangible Assets | 20.38% | 21.89% | 17.99% | 15.10% | 12.46% | 10.34% | 8.72% | 7.60% | 6.78% | 6.11% | 5.63% | 5.28% | 5.00% |
| Other Long-Term Investments | 14.10% | 19.00% | 30.88% | 18.56% | 19.38% | 20.39% | 21.64% | 22.17% | 20.43% | 20.80% | 21.09% | 21.23% | 21.14% |
| Total Long-Term Investments | 120.45% | 141.08% | 137.31% | 116.53% | 108.69% | 102.83% | 97.95% | 93.67% | 88.15% | 85.26% | 82.95% | 81.11% | 79.14% |
| **Total Assets** | **166.64%** | **189.16%** | **186.02%** | **170.24%** | **163.71%** | **159.45%** | **155.38%** | **153.06%** | **152.85%** | **156.29%** | **162.48%** | **172.08%** | **185.55%** |
| **Liabilities & Shareholders' Equity** | | | | | | | | | | | | | |
| **Short-term debt** | **2.64%** | **1.72%** | **4.15%** | 3.59% | **3.67%** | **3.75%** | **3.83%** | **3.80%** | **3.74%** | **3.77%** | **3.78%** | **3.79%** | **3.78%** |
| Current Portion of LT-Debt | 3.42% | 2.89% | 2.34% | 2.20% | 2.07% | 2.76% | 2.24% | 2.19% | 2.13% | 2.06% | 2.00% | 1.86% | 1.85% |
| Accounts Payable | 17.27% | 19.11% | 14.77% | 16.19% | 16.89% | 17.60% | 18.10% | 19.09% | 21.48% | 24.40% | 28.14% | 32.99% | 39.39% |
| Accrued Compensation | 3.96% | 4.29% | 4.57% | 4.17% | 4.33% | 4.44% | 4.66% | 5.04% | 5.54% | 6.29% | 7.26% | 8.54% | 10.20% |
| Deferred Revenue | 7.13% | 8.94% | 9.41% | 7.77% | 8.15% | 8.57% | 9.13% | 9.80% | 10.64% | 12.14% | 14.05% | 16.54% | 19.73% |
| Other Current Liabilities | 10.00% | 12.68% | 16.86% | 12.29% | 12.67% | 13.30% | 14.42% | 15.79% | 16.80% | 19.15% | 22.20% | 26.20% | 31.28% |
| Current Liabailities | 44.42% | 49.64% | 52.09% | 46.21% | 47.78% | 50.43% | 52.38% | 55.70% | 60.34% | 67.80% | 77.44% | 89.92% | 106.23% |
| **Long-Term Debt** | **29.35%** | **35.01%** | **34.87%** | **29.74%** | **28.41%** | **27.47%** | **26.71%** | **25.82%** | **24.66%** | **24.16%** | **23.76%** | **23.42%** | **23.03%** |
| Pension and Retirement Benefits | 1.42% | 1.24% | 0.95% | 0.80% | 0.66% | 0.54% | 0.43% | 0.33% | 0.25% | 0.18% | 0.11% | 0.05% | 0.00% |
| Other Non-Current Liabilities | 22.66% | 24.04% | 22.47% | 23.64% | 23.55% | 23.27% | 23.39% | 23.26% | 23.42% | 23.38% | 23.35% | 23.36% | 23.36% |
| Long-Term Liabilities | 53.43% | 60.29% | 58.29% | 54.18% | 52.62% | 51.28% | 50.53% | 49.42% | 48.33% | 47.72% | 47.22% | 46.83% | 46.38% |
| Total Liabilities | 97.85% | 109.93% | 110.38% | 100.39% | 100.40% | 101.71% | 102.92% | 105.13% | 108.67% | 115.52% | 124.65% | 136.75% | 152.61% |
| **Common Stock Par/Carry Value** | **68.11%** | **77.72%** | **76.17%** | **74.82%** | **72.11%** | **70.00%** | **67.64%** | **65.67%** | **64.32%** | **63.05%** | **62.18%** | **61.74%** | **61.24%** |
| Retained Earnings | 4.55% | 6.20% | 3.69% | 4.02% | 4.31% | 4.62% | 4.91% | 5.23% | 5.59% | 5.95% | 6.33% | 6.75% | 7.16% |
| Cumulative Translation Adjustment/Unrealized For. Exch. Gain | -3.56% | -4.34% | -4.17% | -3.93% | -3.63% | -3.40% | -3.16% | -2.96% | -2.80% | -2.66% | -2.54% | -2.44% | -2.35% |
| Other Appropriated Reserves | -0.04% | 0.07% | -0.03% | -0.03% | -0.03% | -0.03% | -0.03% | -0.02% | -0.02% | -0.02% | -0.02% | -0.02% | -0.02% |
| Treasury Stock | -4.76% | -5.55% | -5.52% | -10.22% | -14.26% | -17.94% | -21.08% | -23.90% | -26.60% | -29.07% | -31.48% | -33.93% | -36.20% |
| Accumulated Minority Interest | 4.48% | 5.15% | 5.50% | 5.19% | 4.80% | 4.49% | 4.18% | 3.91% | 3.70% | 3.51% | 3.35% | 3.23% | 3.11% |
| Common Equity | 68.79% | 79.24% | 75.64% | 69.85% | 63.30% | 57.74% | 52.47% | 47.94% | 44.18% | 40.77% | 37.83% | 35.33% | 32.94% |
| Total Equity | 68.79% | 79.24% | 75.64% | 69.85% | 63.30% | 57.74% | 52.47% | 47.94% | 44.18% | 40.77% | 37.83% | 35.33% | 32.94% |
| **Total Liabilities & Shareholders' Equity** | **166.64%** | **189.16%** | **186.02%** | **170.24%** | **163.71%** | **159.45%** | **155.38%** | **153.06%** | **152.85%** | **156.29%** | **162.48%** | **172.08%** | **185.55%** |

**Johnson Controls, Inc.**
*Value Driver Estimation*

| *Fiscal Years Ending Sep. 30* | 2022 | 2023 | 2024 | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NOPLAT:** | | | | | | | | | | | | | |
| EBITA | | | | | | | | | | | | | |
| Revenue | 25,299 | 22,331 | 22,952 | 24,356 | 26,301 | 28,154 | 30,233 | 32,269 | 34,103 | 35,964 | 37,663 | 39,132 | 40,663 |
| Costs of Products & Systems | 10,684 | 10,656 | 10,585 | 10,730 | 11,689 | 12,566 | 13,548 | 14,474 | 15,315 | 16,181 | 17,019 | 17,704 | 18,418 |
| Costs of Services | 3,423 | 3,791 | 4,198 | 4,281 | 4,529 | 4,799 | 5,103 | 5,435 | 5,727 | 6,011 | 6,227 | 6,451 | 6,683 |
| Selling, general and administrative expenses | 5,078 | 5,387 | 5,661 | 5,673 | 6,126 | 6,558 | 7,042 | 7,516 | 7,943 | 8,377 | 8,773 | 9,115 | 9,471 |
| Depreciation & Amortization | 717 | 745 | 816 | 597 | 578 | 582 | 597 | 619 | 651 | 678 | 711 | 744 | 775 |
| Plus: PV of implied interest on operating leases | 52 | 48 | 50 | 45 | 43 | 43 | 45 | 46 | 49 | 51 | 53 | 56 | 58 |
| **EBITA** | **5,449** | **1,800** | **1,742** | **3,120** | **3,422** | **3,693** | **3,987** | **4,271** | **4,516** | **4,768** | **4,986** | **5,175** | **5,373** |
| Less: Adjusted Taxes | | | | | | | | | | | | | |
| Income tax provision (benefit) | (182) | (468) | 111 | 314 | 369 | 396 | 437 | 489 | 520 | 557 | 586 | 613 | 643 |
| Plus: Tax on implied interest on operating leases | 8 | 7 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 9 |
| Plus: Tax Shield on Net financing charges | 31 | 39 | 52 | 55 | 50 | 52 | 56 | 58 | 60 | 61 | 63 | 65 | 66 |
| Plus: Tax on restructuring and impairment costs | 107 | 159 | 78 | 100 | 96 | 108 | 109 | 98 | 102 | 103 | 104 | 103 | 102 |
| Minus: Tax on Equity Income (loss) | 1 | 0 | (6) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total Adjusted Taxes** | **(37)** | **(262)** | **255** | **476** | **522** | **564** | **608** | **652** | **689** | **728** | **761** | **790** | **820** |
| **Plus: Change in Deferred Taxes** | **(132)** | **(644)** | **(580)** | **(2)** | **(133)** | **(127)** | **(143)** | **(140)** | **(126)** | **(128)** | **(116)** | **(101)** | **(105)** |
| **NOPLAT:** | **5,355** | **1,419** | **907** | **2,642** | **2,767** | **3,002** | **3,236** | **3,480** | **3,701** | **3,913** | **4,109** | **4,284** | **4,448** |
| | | | | | | | | | | | | | |
| **Invested Capital (IC)** | | | | | | | | | | | | | |
| **Net Operating Working Capital:** | | | | | | | | | | | | | |
| Normal Cash | 2,031 | 835 | 606 | 643 | 694 | 743 | 798 | 852 | 900 | 950 | 994 | 1,033 | 1,074 |
| Plus: Accounts Receivable, Net | 5,727 | 6,006 | 6,051 | 5,995 | 6,518 | 7,035 | 7,700 | 8,141 | 8,540 | 9,031 | 9,478 | 9,859 | 10,226 |
| Plus: Inventory | 2,665 | 2,776 | 1,774 | 2,223 | 2,502 | 2,751 | 2,966 | 2,996 | 3,265 | 3,469 | 3,650 | 3,781 | 3,914 |
| Plus: Other Current Assets | 1,262 | 1,120 | 2,748 | 1,495 | 1,689 | 1,931 | 2,189 | 2,457 | 2,356 | 2,529 | 2,686 | 2,808 | 2,914 |
| **Total Operating Current Assets** | **11,685** | **10,737** | **11,179** | **10,356** | **11,403** | **12,461** | **13,652** | **14,446** | **15,062** | **15,979** | **16,809** | **17,482** | **18,128** |
| Less: Accounts Payable | 4,368 | 4,268 | 3,389 | 3,943 | 4,443 | 4,956 | 5,473 | 6,160 | 7,324 | 8,774 | 10,599 | 12,912 | 16,017 |
| Less: Accrued Compensation | 1,003 | 958 | 1,048 | 1,015 | 1,139 | 1,250 | 1,408 | 1,627 | 1,889 | 2,263 | 2,734 | 3,342 | 4,149 |
| Less: Deferred Revenue | 1,804 | 1,996 | 2,160 | 1,891 | 2,144 | 2,414 | 2,761 | 3,161 | 3,629 | 4,365 | 5,292 | 6,471 | 8,022 |
| Less: Other Current Liabilities | 2,530 | 2,832 | 3,869 | 2,994 | 3,332 | 3,746 | 4,360 | 5,094 | 5,731 | 6,888 | 8,362 | 10,252 | 12,718 |
| **Total Operating Current Liabilities** | **9,705** | **10,054** | **10,466** | 9,844 | **11,058** | **12,365** | **14,002** | **16,043** | **18,573** | **22,291** | **26,987** | **32,976** | **40,906** |
| **Net Operating Working Capital:** | **1,980** | **683** | **713** | **512** | **345** | **96** | **(350)** | **(1,597)** | **(3,512)** | **(6,312)** | **(10,178)** | **(15,494)** | **(22,778)** |
| | | | | | | | | | | | | | |
| **Plus: Net Property, Plant, and Equipment (PPE)** | | | | | | | | | | | | | |
| Net Property, Plant & Equipment | 3,131 | 3,136 | 2,403 | 2,326 | 2,344 | 2,404 | 2,494 | 2,619 | 2,730 | 2,864 | 2,994 | 3,121 | 3,244 |
| **Plus: Net Other Operating Assets** | | | | | | | | | | | | | |
| Other Intangible Assets | 5,155 | 4,888 | 4,130 | 3,677 | 3,277 | 2,912 | 2,636 | 2,453 | 2,311 | 2,199 | 2,121 | 2,067 | 2,035 |
| Capitalized PV of Operating Leases | 1,376 | 1,271 | 1,301 | 1,301 | 1,301 | 1,301 | 1,301 | 1,301 | 1,301 | 1,301 | 1,301 | 1,301 | 1,301 |
| **Net Other Operating Assets** | **6,531** | **6,159** | **5,431** | **4,978** | **4,578** | **4,213** | **3,937** | **3,754** | **3,612** | **3,500** | **3,422** | **3,368** | **3,336** |
| **Less: Other Operating Liabilities** | | | | | | | | | | | | | |
| Other non-current liabilities | 5,733 | 5,368 | 5,158 | 5,757 | 6,194 | 6,552 | 7,073 | 7,507 | 7,988 | 8,409 | 8,793 | 9,142 | 9,497 |
| **Total Other Operating Liabilities** | **5,733** | **5,368** | **5,158** | **5,757** | **6,194** | **6,552** | **7,073** | **7,507** | **7,988** | **8,409** | **8,793** | **9,142** | **9,497** |
| **Total Invested Capital:** | **5,909** | **4,610** | **3,389** | **2,060** | **1,073** | **161** | **(991)** | **(2,731)** | **(5,158)** | **(8,357)** | **(12,555)** | **(18,147)** | **(25,695)** |
| | | | | | | | | | | | | | |
| **Return on Invested Capital (ROIC):** | | | | | | | | | | | | | |
| NOPLAT | 5,355 | 1,419 | 907 | 2,642 | 2,767 | 3,002 | 3,236 | 3,480 | 3,701 | 3,913 | 4,109 | 4,284 | 4,448 |
| Beginning IC | 5,196 | 5,909 | 4,610 | 3,389 | 2,060 | 1,073 | 161 | (991) | (2,731) | (5,158) | (8,357) | (12,555) | (18,147) |
| **ROIC** | **103.05%** | **24.01%** | **19.67%** | **77.95%** | **134.34%** | **279.86%** | **2015.50%** | **-350.98%** | **-135.54%** | **-75.86%** | **-49.16%** | **-34.12%** | **-24.51%** |
| | | | | | | | | | | | | | |
| **Free Cash Flow (FCF)** | | | | | | | | | | | | | |
| NOPLAT | 5,355 | 1,419 | 907 | 2,642 | 2,767 | 3,002 | 3,236 | 3,480 | 3,701 | 3,913 | 4,109 | 4,284 | 4,448 |
| Change in IC | 713 | (1,299) | (1,221) | (1,329) | (987) | (912) | (1,152) | (1,739) | (2,427) | (3,199) | (4,198) | (5,591) | (7,549) |
| **FCF** | **4,642** | **2,718** | **2,128** | **3,971** | **3,754** | **3,914** | **4,388** | **5,219** | **6,129** | **7,112** | **8,307** | **9,875** | **11,997** |
| | | | | | | | | | | | | | |
| **Economic Profit (EP):** | | | | | | | | | | | | | |
| Beginning IC | 5,196 | 5,909 | 4,610 | 3,389 | 2,060 | 1,073 | 161 | (991) | (2,731) | (5,158) | (8,357) | (12,555) | (18,147) |
| x (ROIC - WACC) | 93.98% | 14.94% | 10.59% | 68.87% | 125.26% | 270.78% | 2006.42% | -360.05% | -144.61% | -84.93% | -58.24% | -43.20% | -33.59% |
| **EP** | **4883** | **883** | **488** | **2334** | **2580** | **2905** | **3222** | **3570** | **3949** | **4381** | **4867** | **5424** | **6095** |

**Johnson Controls, Inc.**

*Weighted Average Cost of Capital (WACC) Estimation*

| | | |
|---|---|---|
| **Cost of Equity:** | | *ASSUMPTIONS:* |
| Risk-Free Rate | 4.26% | *10-year Treasury Bond* |
| Beta | 1.33 | *Bloomberg* |
| Equity Risk Premium | 5.13% | *Damodaran Ireland ERP (JCI is domiciled in Ireland)* |
| **Cost of Equity** | **11.08%** | |
| | | |
| **Cost of Debt:** | | |
| Risk-Free Rate | 4.26% | *10-year Treasury Bond* |
| Implied Default Premium | -0.45% | |
| Pre-Tax Cost of Debt | 3.81% | *Factset* |
| Marginal Tax Rate | 15% | |
| **After-Tax Cost of Debt** | **3.23%** | |

| | | |
|---|---|---|
| **Market Value of Common Equity:** | | **MV Weights** |
| Total Shares Outstanding | 386 | |
| Current Stock Price | $74.45 | |
| **MV of Equity** | **28,737.70** | 74.44% |
| | | |
| **Market Value of Debt:** | | |
| Short-Term Debt | 953 | |
| Current Portion of LTD | 536 | |
| Long-Term Debt | 8,004 | |
| PV of Operating Leases | 377 | |
| **MV of Total Debt** | **9,870.00** | 25.56% |
| | | |
| **Market Value of the Firm** | **38,607.70** | 100.00% |
| | | |
| | **Estimated WACC** | **9.07%** |

| Fiscal Years Ending Sep. 30 | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|
| **DCF Model:** | | | | | | | | | | |
| Free Cash Flow (FCF) | 3,971 | 3,754 | 3,914 | 4,388 | 5,219 | 6,129 | 7,112 | 8,307 | 9,875 | 11,997 |
| Continuing Value (CV) | | | | | | | | | | 63,890 |
| PV of FCF | 3,641 | 3,155 | 3,016 | 3,100 | 3,381 | 3,639 | 3,872 | 4,146 | 4,519 | 29,235 |
| | | | | | | | | | | |
| Value of Operating Assets: | 61,704 | | | | | | | | | |
| Non-Operating Adjustments | | | | | | | | | | |
| Long-Term Debt | (8,004) | | | | | | | | | |
| Pension and Retirement Benefits | (217) | | | | | | | | | |
| Current Portion of LT-Debt | (536) | | | | | | | | | |
| Value of Equity | 52,947 | | | | | | | | | |
| Shares Outstanding | 662 | | | | | | | | | |
| Intrinsic Value of Last FYE | $ 79.98 | | | | | | | | | |
| **Implied Price as of Today** | $ 84.80 | | | | | | | | | |
| | | | | | | | | | | |
| **EP Model:** | | | | | | | | | | |
| Economic Profit (EP) | 2,334 | 2,580 | 2,905 | 3,222 | 3,570 | 3,949 | 4,381 | 4,867 | 5,424 | 6,095 |
| Continuing Value (CV) | | | | | | | | | | 82,037 |
| PV of EP | 2,140 | 2,168 | 2,238 | 2,276 | 2,312 | 2,345 | 2,385 | 2,429 | 2,482 | 37,539 |
| | | | | | | | | | | |
| Total PV of EP | 58,315 | | | | | | | | | |
| Invested Capital (last FYE) | 3,389 | | | | | | | | | |
| Value of Operating Assets: | 61,704 | | | | | | | | | |
| Non-Operating Adjustments | | | | | | | | | | |
| Long-Term Debt | (8,004) | | | | | | | | | |
| Pension and Retirement Benefits | (217) | | | | | | | | | |
| Current Portion of LT-Debt | (536) | | | | | | | | | |
| Value of Equity | 52,947 | | | | | | | | | |
| Shares Outstanding | 662 | | | | | | | | | |
| Intrinsic Value of Last FYE | $ 79.98 | | | | | | | | | |
| **Implied Price as of Today** | $ 84.80 | | | | | | | | | |

**Johnson Controls, Inc.**

*Dividend Discount Model (DDM) or Fundamental P/E Valuation Model*

| ***Fiscal Years Ending*** | **2025E** | **2026E** | **2027E** | **2028E** | **2029E** | **2030E** | **2031E** | **2032E** | **2033E** | **2034E** |
|---|---|---|---|---|---|---|---|---|---|---|
| EPS | $ 2.48 | $ 2.76 | $ 2.96 | $ 3.27 | $ 3.65 | $ 3.89 | $ 4.16 | $ 4.38 | $ 4.58 | $ 4.81 |
| ***Key Assumptions*** | | | | | | | | | | |
| CV growth of EPS | 2.43% | | | | | | | | | |
| CV Year ROE | 4.20% | | | | | | | | | |
| Cost of Equity | 11.08% | | | | | | | | | |
| ***Future Cash Flows*** | | | | | | | | | | |
| P/E Multiple (CV Year) | | | | | | | | | | 4.87x |
| EPS (CV Year) | | | | | | | | | | $ 4.81 |
| Future Stock Price | | | | | | | | | | $ 23.42 |
| Dividends Per Share | $ 2.29 | $ 2.55 | $ 2.74 | $ 3.02 | $ 3.38 | $ 3.59 | $ 3.85 | $ 4.05 | $ 4.24 | |
| Discounted Cash Flows | $ 2.06 | $ 2.07 | $ 2.00 | $ 1.99 | $ 2.00 | $ 1.91 | $ 1.84 | $ 1.75 | $ 1.65 | $ 9.09 |
| Intrinsic Value as of Last FYE | $ 26.35 | | | | | | | | | |
| **Implied Price as of Today** | $ 27.94 | | | | | | | | | |

**Johnson Controls, Inc.**

*Relative Valuation Models*

| Ticker | Company | Price | EPS 2025E | EPS 2026E | P/E 25 | P/E 26 |
|---|---|---|---|---|---|---|
| TT | Trane Technologies | $318.11 | $12.81 | $14.31 | 24.83 | 22.23 |
| LII | Lennox | $531.30 | $23.02 | $25.61 | 23.08 | 20.75 |
| CARR | Carrier Global | $57.18 | $3.00 | $3.44 | 19.06 | 16.62 |
| SU-FR | Schneider Electric | $234.31 | $26.83 | $30.19 | 20.59 | 18.30 |
| HON | Honeywell International | $190.99 | $10.42 | $11.43 | 18.33 | 16.71 |
| | | | | Average | **21.18** | **18.92** |
| | | | | | | |
| JCI | Johnson Controls, Inc. | $74.45 | $ 2.48 | $ 2.76 | 30.0 | 27.0 |

**Implied Relative Value:**

| | |
|---|---|
| **P/E (EPS25)** | **$ 52.54** |
| **P/E (EPS26)** | **$ 52.19** |

**Johnson Controls, Inc.**
*Key Management Ratios*

| *Fiscal Years Ending Sep. 30* | 2020 | 2021 | 2022 | 2023 | 2024 | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Liquidity Ratios:*** | | | | | | | | | | | | | | | |
| Current Ratio (Current Assets/Current Liabilites) | 1.22x | 1.10x | 1.04x | 0.97x | 0.94x | 1.16x | 1.15x | 1.12x | 1.10x | 1.07x | 1.07x | 1.05x | 1.03x | 1.01x | 1.00x |
| Quick Ratio (Cash + Mkt. Securities + A/R)/Current Liabilites | 1.00x | 0.87x | 0.80x | 0.72x | 0.79x | 0.96x | 0.95x | 0.93x | 0.91x | 0.90x | 0.91x | 0.91x | 0.90x | 0.90x | 0.91x |
| Cash Ratio (Cash / Current Liabilities) | 0.24x | 0.15x | 0.18x | 0.08x | 0.05x | 0.30x | 0.30x | 0.30x | 0.28x | 0.31x | 0.38x | 0.43x | 0.48x | 0.54x | 0.61x |
| CFO / CL Ratio (Cash from Operations / Current Liabilities) | 0.30x | 0.28x | 0.11x | 0.17x | 0.13x | 0.23x | 0.23x | 0.21x | 0.22x | 0.25x | 0.26x | 0.27x | 0.27x | 0.27x | 0.27x |
| ***Asset-Management Ratios:*** | | | | | | | | | | | | | | | |
| Asset Turnover (Sales / Total Assets) | 0.55x | 0.57x | 0.60x | 0.53x | 0.54x | 0.59x | 0.61x | 0.63x | 0.64x | 0.65x | 0.65x | 0.64x | 0.62x | 0.58x | 0.54x |
| Days Sales Outstanding (A/R / Sales)*365 | 86.58x | 86.56x | 82.63x | 98.17x | 96.23x | 89.84x | 90.45x | 91.21x | 92.96x | 92.08x | 91.41x | 91.66x | 91.86x | 91.96x | 91.79x |
| Working Capital Turnover Sales/(CA-CL) | 12.36x | 26.30x | 56.72x | -64.35x | -29.58x | 13.33x | 13.82x | 16.15x | 19.80x | 27.13x | 22.90x | 30.99x | 47.59x | 95.22x | 564.49x |
| ***Financial Leverage Ratios:*** | | | | | | | | | | | | | | | |
| Debt to Equity Ratio | 0.42x | 0.41x | 0.51x | 0.50x | 0.55x | 0.51x | 0.54x | 0.59x | 0.62x | 0.66x | 0.69x | 0.74x | 0.78x | 0.82x | 0.87x |
| Interest Coverage Ratio (EBITDA / Int Exp) | 7.47x | 16.79x | 8.92x | 7.20x | 6.84x | 7.34x | 9.08x | 9.29x | 9.50x | 10.12x | 10.37x | 10.90x | 11.08x | 11.24x | 11.51x |
| Leverage Ratio (Debt / EBITDA) | 4.53x | 2.24x | 4.90x | 4.76x | 4.06x | 0.78x | 0.81x | 0.82x | 0.83x | 0.84x | 0.84x | 0.84x | 0.84x | 0.84x | 0.84x |
| Total Payout Ratio | | | | | | | | | | | | | | | |
| ***Profitability Ratios:*** | | | | | | | | | | | | | | | |
| Return on Equity (NI/Beg TSE) | 1.95% | 4.46% | 4.09% | 4.81% | 4.45% | 4.20% | 4.76% | 4.90% | 5.17% | 5.50% | 5.54% | 5.50% | 5.32% | 5.06% | 4.73% |
| Gross Margin (Gross Profit/Sales) | 36.89% | 34.05% | 28.02% | 34.95% | 35.19% | 38.37% | 38.34% | 38.32% | 38.31% | 38.30% | 38.30% | 38.29% | 38.28% | 38.27% | 38.27% |
| Operating Margin (Operating Income/Sales) | 4.05% | 11.04% | 4.40% | 4.98% | 6.63% | 8.44% | 9.19% | 9.23% | 9.48% | 9.93% | 9.99% | 10.14% | 10.20% | 10.27% | 10.36% |
| Net Profit Margin (Net Income / Sales) | 3.56% | 7.90% | 6.81% | 9.10% | 8.28% | 7.15% | 7.79% | 7.82% | 8.03% | 8.41% | 8.46% | 8.59% | 8.64% | 8.70% | 8.78% |
| ***Payout Policy Ratios:*** | | | | | | | | | | | | | | | |
| Dividend Payout Ratio (Dividend/EPS) | 2.44x | 0.47x | 0.60x | 0.53x | 0.59x | 0.92x | 0.92x | 0.92x | 0.92x | 0.92x | 0.92x | 0.92x | 0.92x | 0.92x | 0.92x |
| Total Payout Ratio (dividends + share repurchases)/Net Income | 3.77x | 1.11x | 1.37x | 0.79x | 1.18x | 1.63x | 1.54x | 1.52x | 1.47x | 1.42x | 1.40x | 1.37x | 1.36x | 1.34x | 1.33x |

**Johnson Controls, Inc.**

*Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding*

| | | |
|---|---|---|
| Number of Options Outstanding (shares): | 4,244,782 | ESOP |
| Average Time to Maturity (years): | 5.72 | |
| Expected Annual Number of Options Exercised: | 742,095 | |
| | | |
| Current Average Strike Price: | $ 46.51 | |
| Cost of Equity: | 11.08% | |
| Current Stock Price: | $74.45 | |

| *Fiscal Years Ending Sep. 30* | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | 2034E |
|---|---|---|---|---|---|---|---|---|---|---|
| Increase in Shares Outstanding: | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 |
| Average Strike Price: | $ 46.51 | $ 46.51 | $ 46.51 | $ 46.51 | $ 46.51 | $ 46.51 | $ 46.51 | $ 46.51 | $ 46.51 | $ 46.51 |
| **Increase in Common Stock Account:** | **34,514,827** | **34,514,827** | **34,514,827** | **34,514,827** | **34,514,827** | **34,514,827** | **34,514,827** | **34,514,827** | **34,514,827** | **34,514,827** |
| | | | | | | | | | | |
| Share Repurchases ($) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Expected Price of Repurchased Shares: | $ 74.45 | $ 82.70 | $ 91.87 | $ 102.05 | $ 113.36 | $ 125.92 | $ 139.88 | $ 155.38 | $ 172.60 | $ 191.73 |
| **Number of Shares Repurchased:** | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | |
| Shares Outstanding (beginning of the year) | 662 | 743 | 743 | 743 | 743 | 743 | 743 | 743 | 743 | 743 |
| Plus: Shares Issued Through ESOP | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 | 742,095 |
| Less: Shares Repurchased in Treasury | - | - | - | - | - | - | - | - | - | - |
| **Shares Outstanding (end of the year)** | **742,757** | **742,838** | **742,838** | **742,838** | **742,838** | **742,838** | **742,838** | **742,838** | **742,838** | **742,838** |

**Johnson Controls, Inc.**

*Valuation of Options Granted under ESOP*

| | |
|---|---|
| Current Stock Price | $74.45 |
| Risk Free Rate | 4.26% |
| Current Dividend Yield | 2.77% |
| Annualized St. Dev. of Stock Returns | 27.72% |

| Range of Outstanding Options | Number of Shares | Average Exercise Price | Average Remaining Life (yrs) | B-S Option Price | Value of Options Granted |
|---|---|---|---|---|---|
| Range 1 | 4,244,782 | 46.51 | 5.72 | $ 30.56 | $ 129,708,408 |
| Range 2 | | | | | |
| Range 3 | | | | | |
| Range 4 | | | | | |
| Range 5 | | | | | |
| Range 6 | | | | | |
| Range 7 | | | | | |
| Range 8 | | | | | |
| Range 9 | | | | | |
| Total | 4,244,782 | $ 46.51 | 5.72 | $ 40.15 | **$ 129,708,408** |

**Johnson Controls, Inc.**
*Sensitivity Tables*

Beta (columns) / Risk-Free Rate (rows)

| 84.80 | 1.03 | 1.13 | 1.23 | 1.33 | 1.43 | 1.53 | 1.63 |
|---|---|---|---|---|---|---|---|
| 3.96% | 106.38 | 99.38 | 93.21 | 87.73 | 82.82 | 78.39 | 74.38 |
| 4.06% | 104.94 | 98.12 | 92.10 | 86.73 | 81.92 | 77.58 | 73.64 |
| 4.16% | 103.54 | 96.89 | 91.00 | 85.75 | 81.04 | 76.78 | 72.91 |
| 4.26% | 102.18 | 95.68 | 89.93 | 84.80 | 80.18 | 76.00 | 72.20 |
| 4.36% | 100.85 | 94.51 | 88.89 | 83.86 | 79.33 | 75.23 | 71.50 |
| 4.46% | 99.55 | 93.36 | 87.86 | 82.94 | 78.50 | 74.47 | 70.81 |
| 4.56% | 98.28 | 92.24 | 86.86 | 82.04 | 77.68 | 73.73 | 70.13 |

CV Growth of NOPLAT (columns) / WACC (rows)

| 84.80 | 2.02% | 2.12% | 2.22% | 2.32% | 2.42% | 2.52% | 2.62% |
|---|---|---|---|---|---|---|---|
| 8.80% | 86.58 | 87.23 | 87.91 | 88.60 | 89.32 | 90.05 | 90.82 |
| 8.90% | 85.24 | 85.87 | 86.52 | 87.18 | 87.87 | 88.58 | 89.31 |
| 9.00% | 83.94 | 84.54 | 85.16 | 85.80 | 86.46 | 87.14 | 87.85 |
| 9.10% | 82.67 | 83.25 | 83.85 | 84.46 | 85.10 | 85.75 | 86.43 |
| 9.20% | 81.43 | 81.99 | 82.57 | 83.16 | 83.77 | 84.40 | 85.05 |
| 9.30% | 80.23 | 80.77 | 81.32 | 81.89 | 82.48 | 83.08 | 83.71 |
| 9.40% | 79.06 | 79.58 | 80.11 | 80.66 | 81.22 | 81.80 | 82.40 |

Marginal Tax Rate (columns) / Pre-Tax Cost of Debt (rows)

| 84.80 | 14.96% | 15.06% | 15.16% | 15.26% | 15.36% | 15.46% | 15.56% |
|---|---|---|---|---|---|---|---|
| 3.51% | 85.78 | 85.72 | 85.66 | 85.60 | 85.53 | 85.47 | 85.41 |
| 3.61% | 85.51 | 85.45 | 85.39 | 85.33 | 85.26 | 85.20 | 85.14 |
| 3.71% | 85.25 | 85.18 | 85.12 | 85.06 | 85.00 | 84.94 | 84.88 |
| 3.81% | 84.98 | 84.92 | 84.86 | 84.80 | 84.73 | 84.67 | 84.61 |
| 3.91% | 84.71 | 84.65 | 84.59 | 84.53 | 84.47 | 84.41 | 84.35 |
| 4.01% | 84.45 | 84.39 | 84.33 | 84.27 | 84.21 | 84.15 | 84.09 |
| 4.11% | 84.19 | 84.13 | 84.07 | 84.01 | 83.95 | 83.89 | 83.83 |

Cost of SG&A Expenses (% of sales) (columns) / Cost of Prod. & Syste (rows)

| 84.80 | 20.29% | 21.29% | 22.29% | 23.29% | 24.29% | 25.29% | 26.29% |
|---|---|---|---|---|---|---|---|
| 60.13% | 116.95 | 110.71 | 104.46 | 98.21 | 91.96 | 85.71 | 79.46 |
| 61.13% | 112.49 | 106.24 | 100.00 | 93.75 | 87.50 | 81.25 | 75.00 |
| 62.13% | 108.03 | 101.78 | 95.54 | 89.29 | 83.04 | 76.79 | 70.54 |
| 63.13% | 103.57 | 97.32 | 91.07 | 84.83 | 78.58 | 72.32 | 66.07 |
| 64.13% | 99.11 | 92.86 | 86.61 | 80.36 | 74.11 | 67.86 | 61.61 |
| 65.13% | 94.65 | 88.40 | 82.15 | 75.90 | 69.65 | 63.40 | 57.15 |
| 66.13% | 90.19 | 83.94 | 77.69 | 71.44 | 65.19 | 58.94 | 52.69 |

Cost of Services (% of sales) (columns) / Cost of SG&A Expens (rows)

| 84.80 | 56.67% | 57.17% | 57.67% | 58.17% | 58.67% | 59.17% | 59.67% |
|---|---|---|---|---|---|---|---|
| 20.29% | 106.23 | 105.34 | 104.44 | 103.55 | 102.65 | 101.76 | 100.86 |
| 21.29% | 99.98 | 99.09 | 98.19 | 97.30 | 96.40 | 95.51 | 94.62 |
| 22.29% | 93.73 | 92.84 | 91.94 | 91.05 | 90.15 | 89.26 | 88.37 |
| 23.29% | 87.48 | 86.59 | 85.69 | 84.80 | 83.91 | 83.01 | 82.12 |
| 24.29% | 81.23 | 80.34 | 79.44 | 78.55 | 77.66 | 76.76 | 75.87 |
| 25.29% | 74.98 | 74.09 | 73.19 | 72.30 | 71.40 | 70.51 | 69.61 |
| 26.29% | 68.73 | 67.84 | 66.94 | 66.05 | 65.15 | 64.26 | 63.36 |