Rockwell

Key issues: deep-dive on distributor destock and production inefficiencies

Reiterate Rating: NEUTRAL | PO: 300.00 USD | Price: 280.51 USD

26 February 2024

Equity

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Key concerns: destock, the cycle, margins

Rockwell's 2024 sales and margin guide hinges on a re-acceleration in orders from distributors and machine builders in its fiscal 2H. Our analysis suggests that the 2H ramp is feasible and consistent with competitors' comments. Investors have also been asking about margins given inconsistent execution over the past several years. In our opinion there is less visibility there, even as recent management commentary indicates execution is a top priority. We view this as an encouraging change in tone. For sustained stock performance, ROK needs to demonstrate more consistency. Our analysis of other manufacturing companies that struggled to ramp production suggests that while "buying the dip" on earnings misses tends to work as a trade, getting the execution right before the time runs out on the cycle is the key to stock outperformance. Recent comments at a competitor conference were interpreted by some investors as lowering Q2. We viewed the comments as consistent with Q1 conference call commentary (see page 3 for more detail). Our Neutral rating reflects our constructive view on the cycle and Rockwell's long-term strategy, offset by our concerns on execution in '24.

Proprietary destock analysis indicates 2H ramp is feasible

The risk to the 2H guide is timing; e.g., 1-2 more months of destock than expected. However, our view is that Rockwell has strong visibility on its distributor sales given its managed inventory program, and solid visibility on its OEM inventories. Our analysis suggests that despite the big increase in lead times and inventory levels over 2022-2023, the percent of inventory that distributors still need to work through is not extensive. We estimate lead times peaked in fiscal 2Q23 & distributor inventories peaked in fiscal 3Q23, and distributors are well underway with the destock already.

Case studies: Boeing, Caterpillar, Tesla

We look at examples of manufacturing companies that struggled to ramp production into a strong cycle and stock performance (BA late 1990s, CAT mid-2000s, and TSLA 2015/2016). Margin contraction while struggling with the ramp leads to de-rating & negative print reactions. The case studies suggest buying the dip on earnings does work, but that cyclical timing matters for longer term stock performance (i.e., whether companies fix their operations before the cycle turns).

Estimates (Sep) (US$)	2022A	2023A	2024E	2025E	2026E
EPS	9.50	12.15	13.38	14.67	16.03
GAAP EPS	7.97	11.98	12.88	13.58	14.94
EPS Change (YoY)	0.7%	27.9%	10.1%	9.6%	9.3%
Consensus EPS (Bloomberg)			12.30	13.60	14.61
DPS	4.48	4.72	5.00	5.24	5.48
Valuation (Sep)					
P/E	29.5x	23.1x	21.0x	19.1x	17.5x
GAAP P/E	35.2x	23.4x	21.8x	20.7x	18.8x
Dividend Yield	1.6%	1.7%	1.8%	1.9%	2.0%
EV / EBITDA*	23.2x	20.4x	17.7x	16.2x	15.0x
Free Cash Flow Yield*	2.2%	3.6%	4.3%	5.0%	5.5%

* For full definitions of *iQmethod*SM measures, see page 20.

Stock Data

Price	280.51 USD
Price Objective	300.00 USD
Date Established	16-Feb-2024
Investment Opinion	B-2-7
52-Week Range	252.11 USD - 348.52 USD
Mrkt Val (mn) / Shares Out (mn)	34,082 USD / 121.5
Free Float	99.8%
Average Daily Value (mn)	344.43 USD
BofA Ticker / Exchange	ROK / NYS
Bloomberg / Reuters	ROK US / ROK.N
ROE (2024E)	37.5%
Net Dbt to Eqty (Sep-2023A)	48.1%
ESGMeter™	High

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

BA: Boeing

CAT: Caterpillar

TSLA: Tesla

Refer to important disclosures on page 21 to 23. Analyst Certification on page 19. Price Objective Basis/Risk on page 19. **12663444**

Timestamp: 26 February 2024 05:00AM EST

iQprofile[SM] Rockwell

*iQ*method [SM] – **Bus Performance***

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	14.7%	17.4%	19.7%	19.5%	18.9%
Return on Equity	38.9%	41.6%	37.5%	33.7%	30.1%
Operating Margin	18.4%	18.9%	20.2%	21.1%	21.7%
Free Cash Flow	751	1,214	1,463	1,715	1,876

*iQ*method [SM] – **Quality of Earnings***

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	0.8x	1.0x	1.1x	1.1x	1.1x
Asset Replacement Ratio	0.6x	1.2x	1.3x	1.0x	0.8x
Tax Rate	15.8%	18.4%	17.0%	17.5%	17.5%
Net Debt-to-Equity Ratio	110.9%	48.1%	26.5%	1.2%	-17.6%
Interest Cover	12.0x	13.5x	16.4x	18.3x	20.3x

Income Statement Data (Sep)

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	7,760	9,058	9,635	10,138	10,731
% Change	10.9%	16.7%	6.4%	5.2%	5.8%
Gross Profit	3,102	3,717	3,932	4,148	4,401
% Change	7.1%	19.8%	5.8%	5.5%	6.1%
EBITDA	1,573	1,785	2,061	2,250	2,434
% Change	11.9%	13.5%	15.5%	9.1%	8.2%
Net Interest & Other Income	(119)	(127)	(119)	(117)	(115)
Net Income (Adjusted)	**1,111**	**1,406**	**1,540**	**1,689**	**1,846**
% Change	**0.4%**	**26.6%**	**9.6%**	**9.7%**	**9.3%**

Free Cash Flow Data (Sep)

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	1,111	1,406	1,540	1,689	1,846
Depreciation & Amortization	239	250	244	238	232
Change in Working Capital	(530)	(120)	(306)	(171)	(196)
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	72	(161)	149	81	91
Capital Expenditure	(141)	(161)	(164)	(122)	(97)
Free Cash Flow	**751**	**1,214**	**1,463**	**1,715**	**1,876**
% Change	**-34.2%**	**61.7%**	**20.5%**	**17.2%**	**9.4%**
Share / Issue Repurchase	(243)	(312)	(333)	8	3
Cost of Dividends Paid	(519)	(454)	(575)	(602)	(630)
Change in Debt	(150)	(876)	0	0	0

Balance Sheet Data (Sep)

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	491	1,072	1,687	2,807	4,056
Trade Receivables	1,737	2,167	2,306	2,426	2,568
Other Current Assets	1,383	1,672	1,423	1,462	1,511
Property, Plant & Equipment	587	684	718	714	688
Other Non-Current Assets	6,562	5,709	5,457	5,384	5,319
Total Assets	**10,759**	**11,304**	**11,591**	**12,793**	**14,142**
Short-Term Debt	968	9	0	0	0
Other Current Liabilities	2,604	3,357	3,087	3,237	3,416
Long-Term Debt	2,868	2,863	2,871	2,871	2,871
Other Non-Current Liabilities	1,302	1,332	1,162	1,146	1,121
Total Liabilities	**7,742**	**7,561**	**7,120**	**7,254**	**7,408**
Total Equity	**3,017**	**3,743**	**4,472**	**5,538**	**6,734**
Total Equity & Liabilities	**10,759**	**11,304**	**11,591**	**12,793**	**14,142**

* For full definitions of *iQmethod*[SM] measures, see page 20.

Company Sector

Industrials/Multi-Industry

Company Description

Rockwell Automation is a global supplier of industrial automation equipment, software, and services and is divided into two segments. The Architecture & Software segment contains integrated control and information architecture that allows the customer to connect its manufacturing enterprise. The Control Products & Solutions segment includes intelligent motor control and industrial control products that allow the customer to implement an automation or information solution on the plant floor.

Investment Rationale

We view ROK as a beneficiary from reshoring of US manufacturing. ROK has a strong position in the US and international automation markets. However, we lack visibility on the ability to navigate supply chain pressures.

Stock Data

Average Daily Volume	1,227,884

Quarterly Earnings Estimates

	2023	2024
Q1	2.46A	2.04E
Q2	3.01A	2.41E
Q3	3.01A	3.97E
Q4	3.64A	4.96E

Competitor conference: no change in guide

On the FQ1 earnings call, CFO Nick Gangestad stated, "We expect Q2 sales dollars and segment margin to be similar to Q1 levels." At a competitor conference last week (2/20), CEO Blake Moret stated, "We expect revenue dollars and EPS to be similar to Q1 in Q2." 2Q EPS number flat with 1Q is (9)% downside to consensus of $2.22. Moret provided segment-specific margin targets at the conference for both FQ2 & FY24. Using consensus sales forecasts, margin guide implies 2Q EBIT downside (~1%) but upside to FY24 (~2%). We view the framework as consistent with earnings commentary.

Our analysis indicates 2H ramp is reasonable

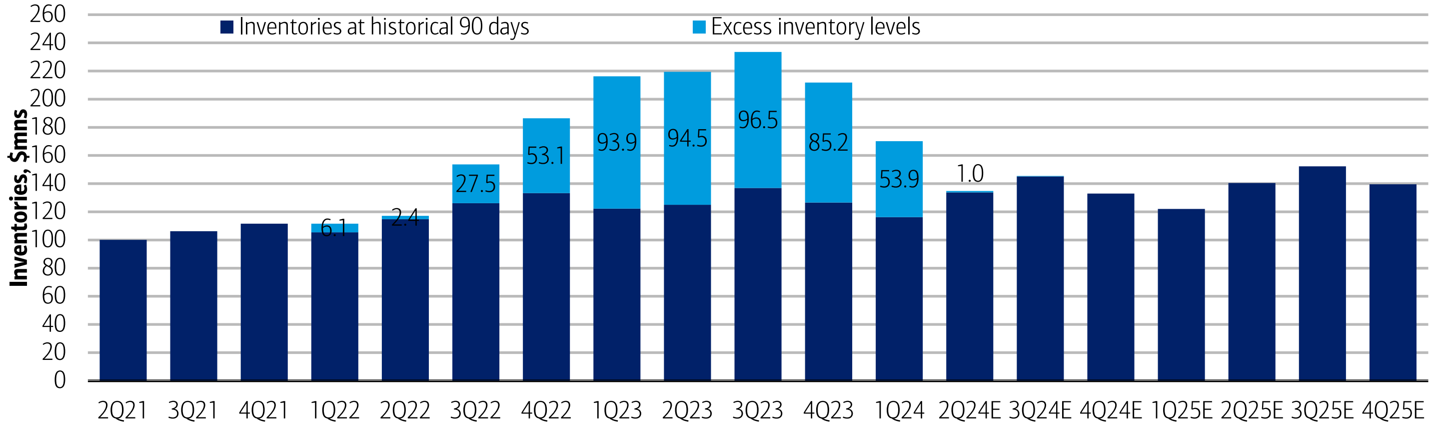
We constructed a proprietary model attempting to measure the dynamic of ROK inventories in the channel and both the sell-in and sell through. The question to answer was whether the 2H ramp suggested by the company is feasible following the end of destock. Our analysis indicates the 2H ramp is not unlikely. Our key assumptions:

- ~1/3 of ROK sales go through distribution. Another ~1/3 goes through machine builders, with less visibility. Another ~1/3 goes direct to the original equipment manufacturer (OEM).
- Historically, lead times were 60 days. During COVID, lead times exploded to a peak of ~135 days.
- Distributors carry 30 days of buffer stock. This means that with 60 day lead times, distributors carried ~90 days inventory
- We use publicly-traded industrial distributors to approximate historical sell-through levels.
- We assume sell-through is down 5% y/y from 4Q23-2Q24E and then returns to flat y/y in the remainder of 2024.
- Rockwell's 2024 guide sales and margin guides hinge on a re-acceleration in orders from distributors and machine builders in its fiscal 2H. We estimate roughly 1/3 of the company's sales is to distribution, 1/3 is to machine builders, and 1/3 is to OEMs. Our analysis suggests that despite the rapid rise in lead times and inventory levels over 2022-2023, the percent of inventory that distributors need to work through is not extensive.

ROK's guidance assumes that its distributors have mostly completed destock by the end of its 2Q24E and normal ordering resumes in 3Q24. Below we show our analysis on what it takes for distribution to sell through its excess inventory levels. For illustrative purposes we assume a single ~$2bn annual sales distributor starting in 2015 and approximate sell-through levels with publicly traded industrial distributors.

Exhibit 1: Illustrative distributor inventory estimate

We forecast excess inventory levels completely depleted by 3Q24E/ROK's fiscal 4Q24E



Source: BofA Global Research, company files
Below uses ROK quarterly numbers

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In order for inventory levels to be back to normal (as implied by 90 day lead times) by 2Q24E, we have to assume that 5.5% of quarterly distributor sales are working down inventory levels (e.g., no ordering) in 4Q23, 1Q24, and 2Q24. Following this period of destocking, distribution would need to resume ordering in 3Q24 to avoid inventories going below its historical days inventory levels. Given relatively fast distributor inventory turns (e.g., 6x normally on our estimate; 2-3x at the height of supply chain constraints) we view this as achievable provided sell-through rates do not collapse. Our estimates assume 0% sell-through.

Timing matters; risk is in a delay

One area of pushback we have heard from investors is that timing matters for ROK's guidance. A 1-quarter continuation of the destock would create difficulties in bridging to 2024E sales, margins, and orders. We note that Siemens has issued a similar guidance for its Digital Industries (DI) business, which we view as the best comparison to ROK. Siemens is guiding to DI destocking being completed by the end of 2QF24E (same fiscal quarter as ROK; March-end). However, other global competitors, namely Schneider and ABB, are guiding for discrete automation destock to complete by the end of their respective 2Q (June-end). We note that ROK's narrative has largely been that "most" of its destock will be done by the end of 2Q, which provides marginal buffer. However, the risk here is that 1 or 2 months of incremental destock causes a guidance cut.

Another way to look at inventories: sales pull-forward

The other way we look at inventories is through estimating the impact of sales pull-forward as order rates nearly doubled from 2020 levels. We estimate that 2/3 of ROK sales go through distribution or machine builders, with limited buffer stock at OEs. On a book-and-ship model, we estimate that each quarter the distributors/machine builders order $1.5bn each quarter.

We conservatively estimate order rates doubled due to supply chain constraints (in reality, orders were up for ROK closer to 22% y/y in 2023). On this number, this contributes an incremental 17% of y/y sales growth to ROK total sales (we assume normal OE ordering patterns). We assume that sales "normalize (e.g., order rates return; and sales return to pre-inflated levels as distributors destock). This contributes to (14)% y/y sales declines. The below analysis assumes completely flat demand, with the only change being the order rates as a result of lead times.

Exhibit 2: Scenario analysis of normal order environment vs. orders doubling because of lead times
We estimate 17% sales pull-forward and (14)% sales "give back"

In a normal environment...	**9,058**
Quarterly order rates from distributors	1,495
Extra orders	0
Total sales	9,058
Pull-forward of sales	**0.0%**
Order rates doubling scenario...	**9,058**
Quarterly order rates from distributors (double)	2,989
"Excess" orders	1,495
Total "inflated" sales	10,553
Pull-forward of sales	**16.5%**
Order rates normalize scenario...	
"Inflated" sales number	10,553
Quarterly order rates normalize	1,495
Return to normal sales	9,058
Giving back sales	**-14.2%**

Source: BofA Global Research

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Exhibit 3: Backlog illustration: why we don't see the order impact
Backlog obscures the order rate impact on sales

2Q24 beginning backlog	**$3,768**
2Q24E sales	$2,178
Intra-quarter orders (down 17% y/y)	$2,000
2Q24 ending backlog	**$3,590**

Source: BofA Global Research

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The order impact is obscured because of the backlog impact. Even with strong y/y order declines, the existing backlog can absorb the impact with $3.8bn of beginning backlog to start 2Q24 (on our estimate) vs. $2.2bn in sales.

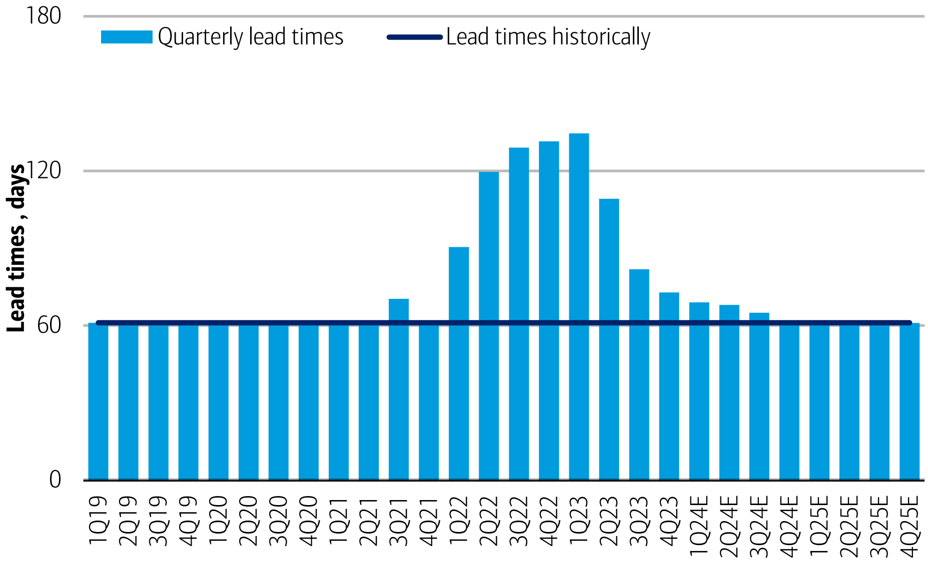
Lead times are inching closer to pre-pandemic levels

We estimate that lead times peaked in fiscal 2Q23 and distributor inventories peaked one quarter later, in fiscal 3Q23. We see a reasonable path to distributors only having 1% elevated inventory levels in F2Q24 (vs. ~70% in F1Q23-F4Q23). Our view is that ROK has strong visibility on over half of its distributor sales given its managed inventory program and strong visibility on its OEM customer inventory levels.

We use published lead times on ROK's website to gauge when lead times exploded. We drive our distributor inventory level estimates off of lead times, although we estimate distributor inventories lagged lead times by a quarter in reaching its peak. We estimate lead times peaked in CY1Q23/ROK 2Q23.

As of the current quarter, we estimate lead times are within a single-digit range of pre-COVID averages. We forecast lead times completely normalizing within YE24. We note that structurally, ROK lead times may remain higher than pre-COVID averages given higher process exposure and longer-lead time acquisitions.

Exhibit 4: ROK quarterly lead times, 1Q19-4Q25E, BofAe
Historical lead times averaged ~61 days on our estimate



Source: BofA Global Research, company files

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History suggests "buying the dip" works

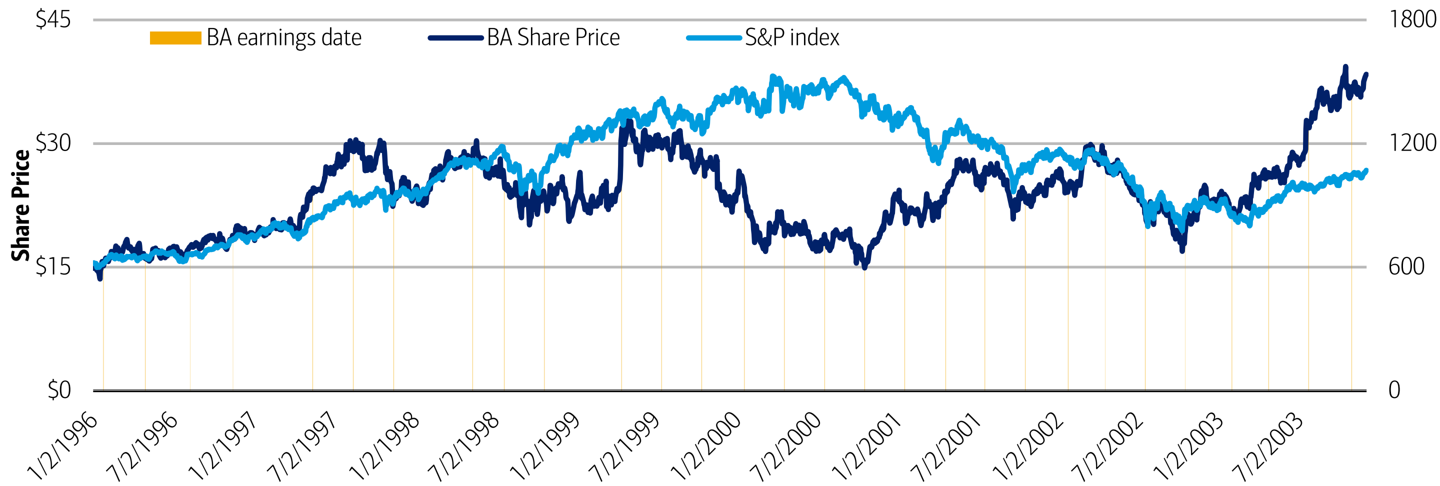
We look at examples of manufacturing companies that struggled to ramp production into a strong cycle and stock performance (BA late 1990s, CAT mid-2000s, and TSLA 2015/2016). Margin contraction while struggling with the ramp leads to de-rating & negative print reactions. The case studies suggest that buying the dip on earnings does work, but that cyclical timing matters for longer term stock performance (i.e., whether companies fix their operations before the cycle turns).

Boeing (BA), 1990s

Boeing (ticker: BA; covered by our colleague Ron Epstein) suffered a series of production issues while ramping production on its best-selling 737 jetliners and 747. Production issues began to surface in August 1997 given the overstretched supply chain. Boeing customized each of its planes, rather than an assembly line. This was complicated by an attempt to modernize the company's paper system to track its bill of materials. The company's emphasis on customization for the customer also complicated both the supply chain and the procurement process.

Exhibit 5: BA share price versus the S&P Index, 1996-2004

BA underperformed the S&P Index throughout its production ramp issues



Source: Bloomberg

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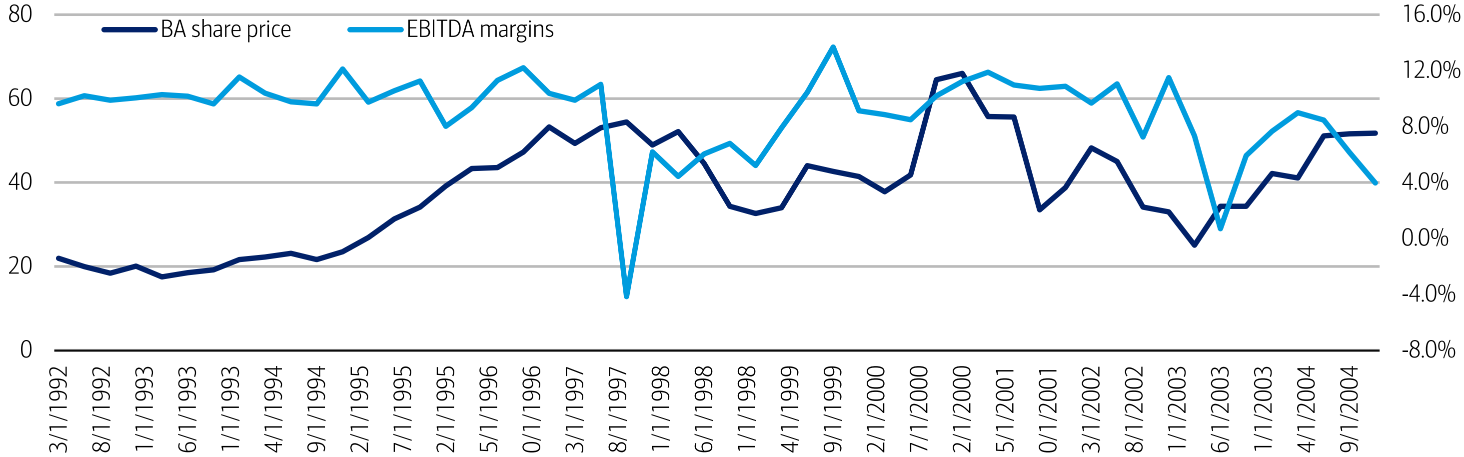
On its 4Q1997 earnings conference call, Boeing management stated that demand for 747 was so strong that it was not concerned about bird flu and Asia demand slowdown given its backlog build. When the company reported 2Q1998 earnings in August of 1998, the company announced it would fire 28,000 workers and investors began to fear the order peaks. In December 1998, BA fired another 20,000 employees due to bird flu. By the time supply chain was under control in 1999, the aerospace cycle was ready to turn down, although it leave room for a short period of BA stock outperformancev.

Exhibit 6: BA share price vs. EBITDA margins, 1992-2004
Shares did not rise past to 1997 levels until 2005



Source: Bloomberg

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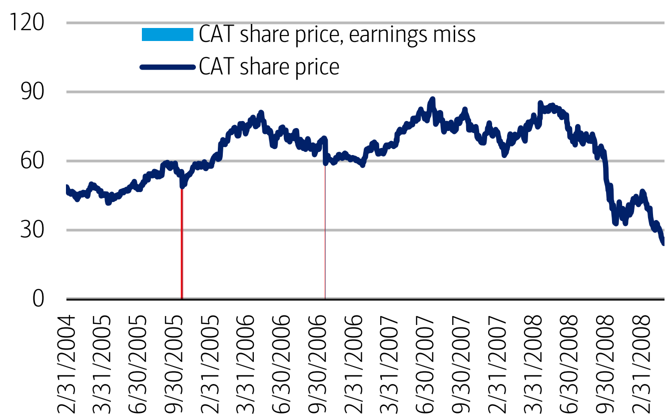
Caterpillar (CAT), 2004-2008

Caterpillar (ticker: CAT; covered by our colleague Michael Feniger) Caterpillar (ticker: CAT; covered by our colleague Michael Feniger) struggled to ramp production in 2004-2006. This led to a series of margin misses, even as the company saw revenue growth. For example, in 3Q05 earnings, CAT reported sales above consensus but $0.94 EPS missed consensus of $1.06. The company lowered its 2005 guide from $3.85-$4.00 from $4.00-$4.20.

Manufacturing inefficiencies were the key risk in 2005. The company was faced with structural issues in its supply chain, related to years ofs supplier underinvestment and reluctance to add fixed costs. Manufacturing and supply chain inefficiencies were coupled with strong revenue growth and backlog, as the company benefitted from secular trends in heavy construction, mining, oil & gas, and power gen. CAT prioritized high production volumes and market share over margin and production efficiency in order to guarantee high-margin parts business in 5-10 years.

Exhibit 7: CAT share price vs. earnings misses
Negative stock reactions as the company struggled to ramp capacity



Source: Bloomberg

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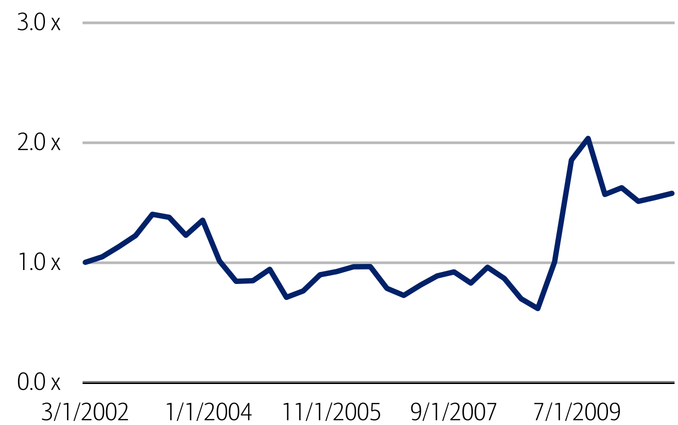
Exhibit 8: CAT relative P/E to SPX
CAT de-rated from 2003-2007 relative to the SPX



Source: Bloomberg

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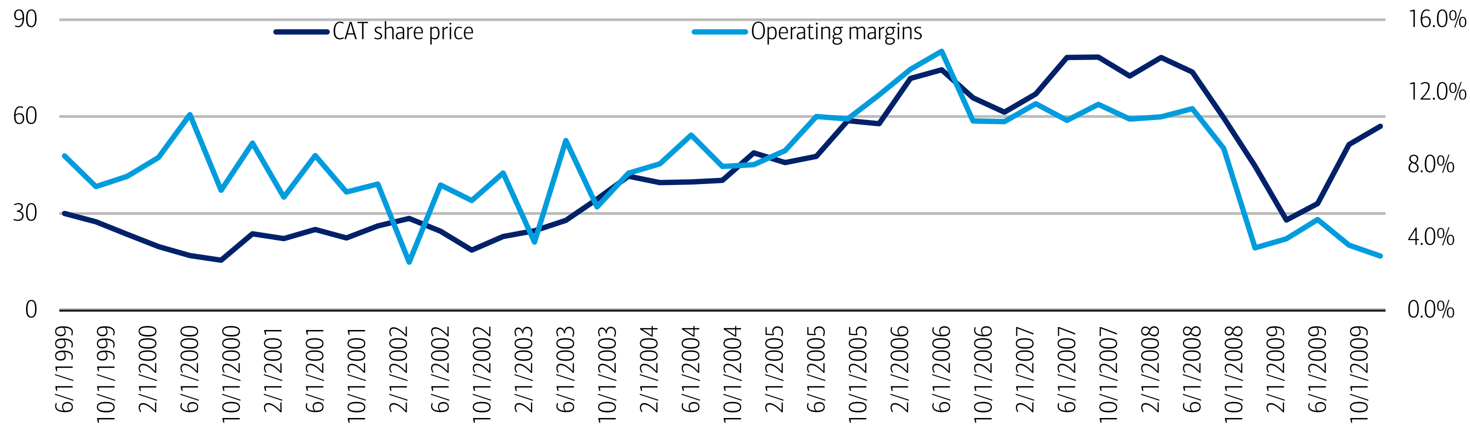
Exhibit 9: CAT share price vs. operating, margins, 1999-2009
CAT's share price improved as margins improved



Source: Bloomberg

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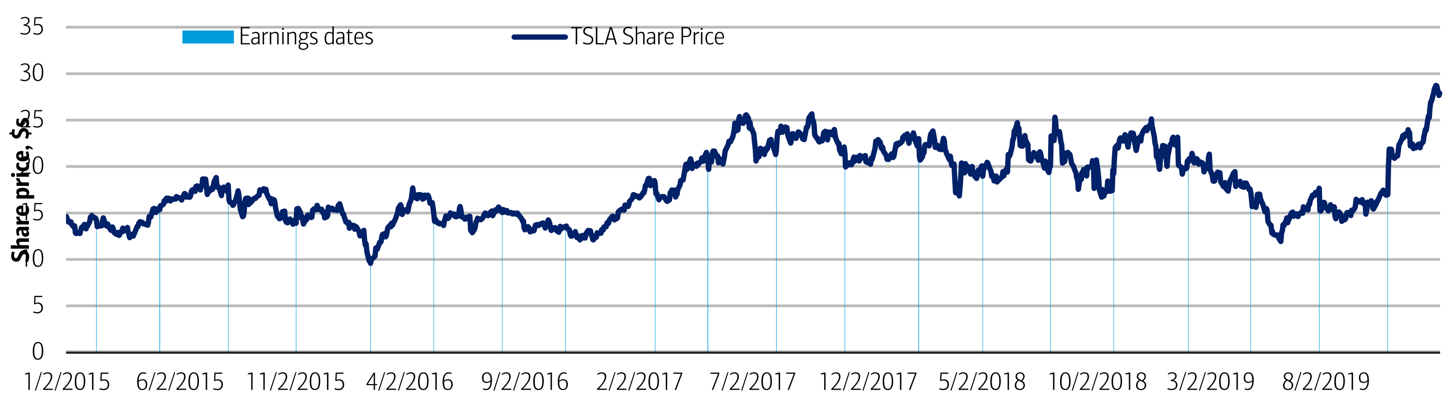
Tesla (TSLA), 2015-present

Tesla (ticker: TSLA; covered by our colleague John Murphy) has had a series of well-publicized difficulties with ramping production, particularly on its Model 3 production line. In March 2017, CEO Elon Musk stated that it would have 6 months of production inefficiencies on the Model 3. EBIT margins were negative from 4Q14 through 3Q18, with the exception being 4Q16 which saw positive EBIT margins.

In 3Q17 earnings, The company massively missed production forecasts (only manufacturing 260 vehicles in 3Q17 vs. the plan for 1,500). Shares fell 7% in reaction to the print.

4Q17 deliveries also missed forecasts. Shares fell 9% on the day of earnings. TSLA delivered just 1542 Model 3 cars, about 2,900 fewer than consensus estimates. Musk postponed the original 5,000 vehicle/week target to March of 2018.

Exhibit 10: TSLA share price, 2015-2019 vs. earnings dates
TSLA shares struggled to break out of a band until after Model 3 production issues were resolved



Source: Bloomberg

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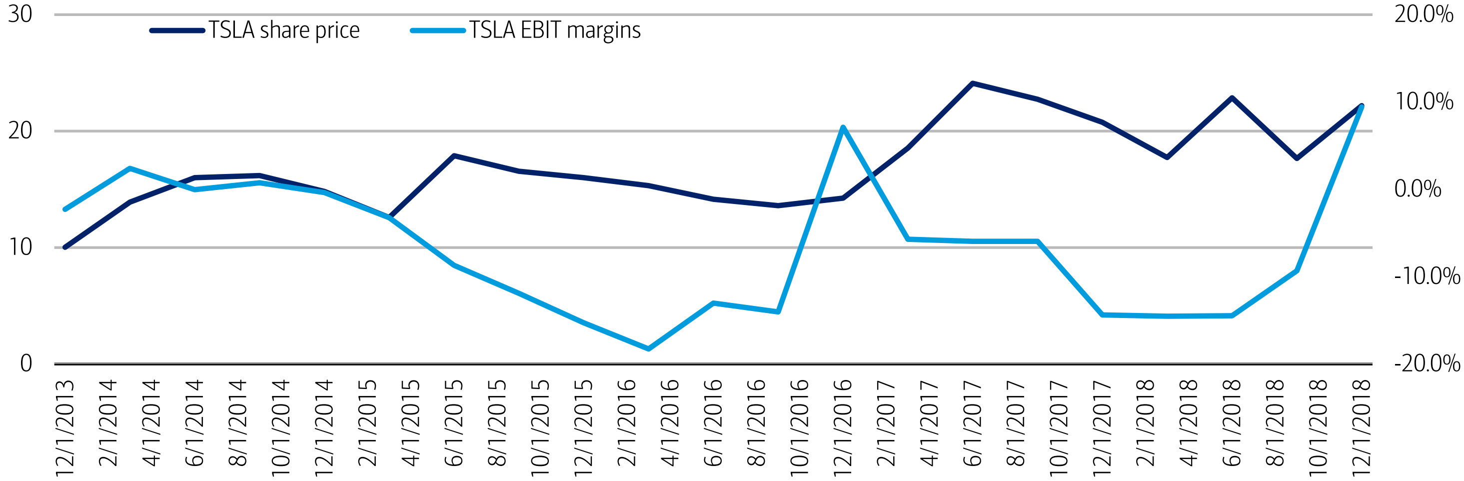
The company shutdown its production in April of 2018. Shares fell 6% on the day it reported 1Q18 earnings. That June, TSLA opened up a supplemental tent line in order to help with production issues.

Exhibit 11: TSLA share price vs. TSLA EBIT margins

TSLA share price is less reflective of margins than other manufacturing companies



Source: Bloomberg

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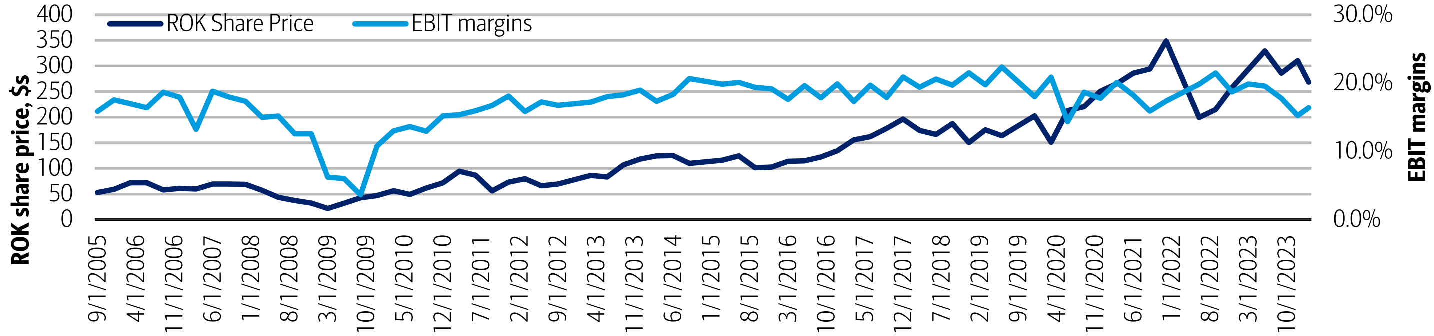
Analysis indicates that margins matter

Our review indicates that margin performance matters for manufacturing share prices. ROK shares have failed to move with choppy margin performance. We note that the company has not expanded EBIT margins since 2005.

Exhibit 12: ROK share price vs. EBIT margins
ROK shares have traded in line with EBIT margins



Source: BofA Global Research, Bloomberg

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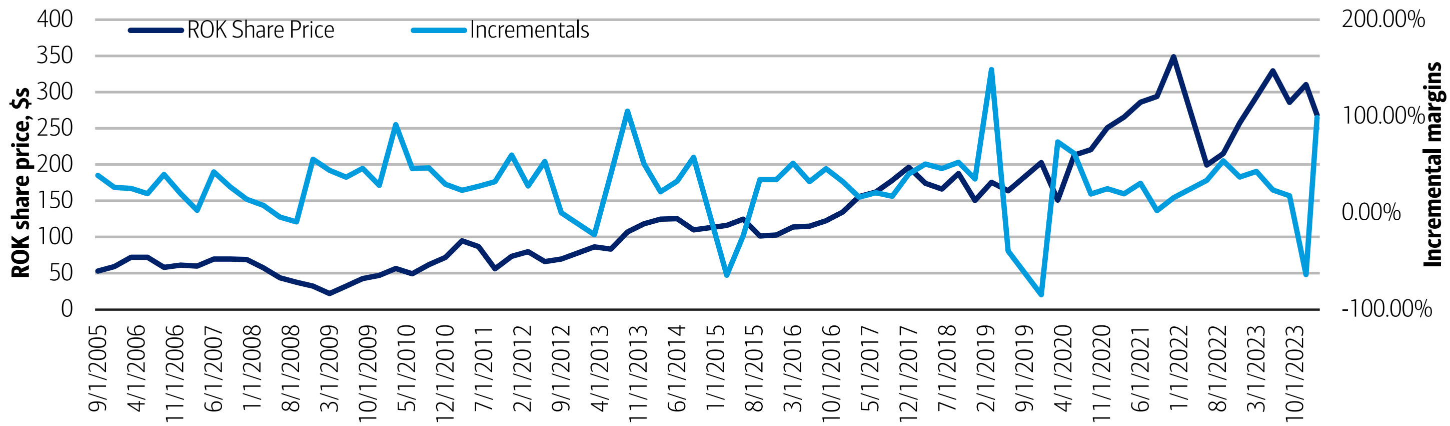
Exhibit 13: ROK share price vs. incremental margins
ROK shares do not perform in quarters with weaker incrementals



Source: BofA Global Research, Bloomberg

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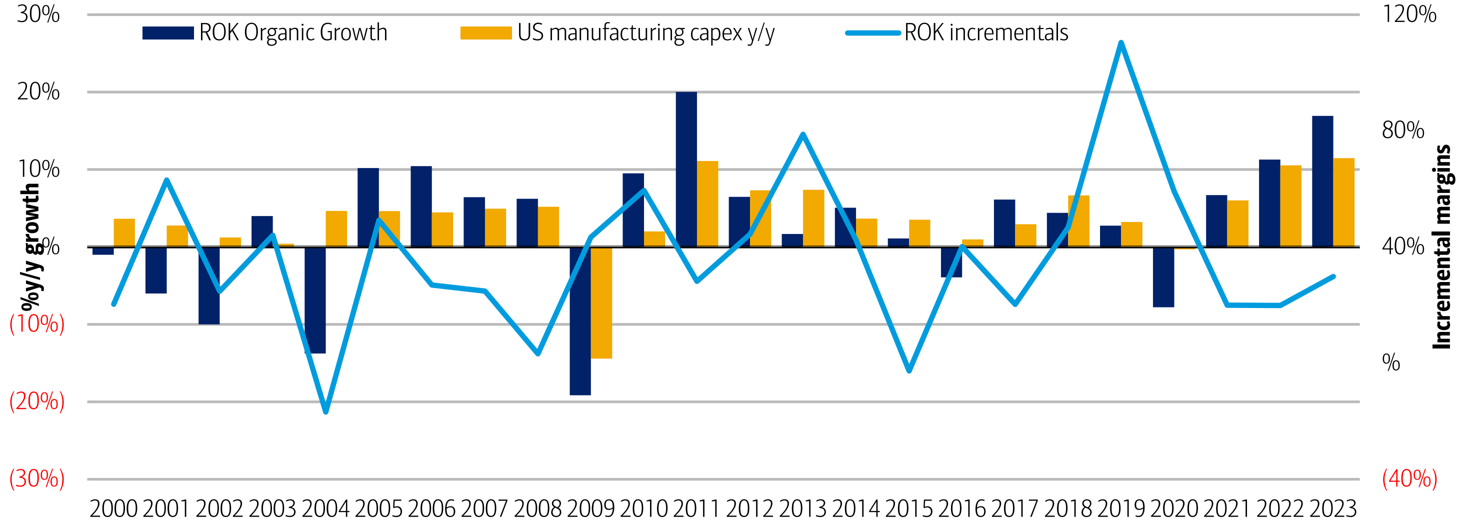
A key question we have is whether ROK can grow profitably in a faster capex environment. Over the past 25 years, ROK has delivered double-digit growth in 6 years – 2005/2006, 2010/2011, and 2022/2023. In the previous cycles – 2005/2006 and 2010/2011 – ROK was able to deliver ~41% incrementals on average. The company is confident it can deliver those incrementals or better as volumes come back and mix headwinds (100-150bp y/y in 1H24) dissipate.

Exhibit 14: ROK organic growth vs. US manufacturing capex y/y vs. ROK incrementals

In years of double-digit organic growth, ROK has consistently posted strong incrementals



Source: BofA Global Research, company files

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Management message indicates focus pivot to execution

On 2/20 Blake Moret noted in his presentation: "To be sure, the shocks of pandemic and semiconductor shortages introduced inefficiencies, and our margins have averaged a respectable 21% during this time, but it's clear we have a big opportunity to deliver consistent margin expansion. Also, we are not satisfied with our first quarter results, and we are taking actions to address the issues that led to the miss…The headwinds from these inefficiencies will reduce in the second half of the year. We see opportunities to reduce the total number of SKUs in this portfolio, while actually increasing customer service, and expect this work to have a fiscal year '25 impact."

On the FQ1 earnings call, CFO Nick Gangestad stated, "From a calenderization perspective, we expect Q2 sales dollars and segment margin to be similar to Q1 levels….We expect margins in Q2 to remain similar to what they were in Q1 and then increase to the mid-20s in Q3 and Q4."Our forecasts reflect similar margins in 1Q across the three segments.

At a competitor conference on Tuesday (2/20), CEO Blake Moret stated that "We expect revenue dollars and EPS to be similar to Q1 in Q2." While Software & Control margins are expected to be down y/y and sequentially in Q2, the "margin decline is expected to be offset by continued margin improvements in Lifecycle Services." We view the conference commentary as consistent with earnings. We are hearing more focus on execution and profitability, which we view as a positive given the strength of the cycle.

Exhibit 16: Segment 2Q margin guide vs. BofAe vs. Consensus
Consensus vs. guide suggests ~1% downside to 2Q EBITA Consensus

Segment margin 2Q	Guide	1QA	BofAe:	Consensus
Intelligent Devices	16.0%	16.2%	16.2%	16.5%
Software Control	22.0%	25.0%	25.6%	25.9%
Lifecycle Services	15.0%	10.4%	11.0%	10.5%

Source: BofA Global Research, company files

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Exhibit 17: Segment 2024 margin guide vs. BofAe vs. Consensus
Guide suggests ~2% upside to FY EBITA Consensus

Segment margin 2024	Guide	BofAe:	Consensus
Intelligent Devices	21.0%	21.9%	20.1%
Software Control	28.0%	29.2%	30.3%
Lifecycle Services	14.0%	11.2%	11.2%

Source: BofA Global Research, company files

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The company provided segment-specific margin targets at the conference for both FQ2 and FY24. Using consensus estimates for revenues and Visible Alpha margin numbers, the guidance implies slight downside to 2024 EBITA estimates (~1%) but upside to FY24 (~2%). We view the framework as broadly consistent with the FQ2 earnings call, particularly given that ROK has historically not provided such specific margin targets.

Macro backdrop remains favorable: capex outlook solid, PMIs have bottommed

PMIs have bottomed…

The US manufacturing PMI for January was 49.1. This is up from December at 47.1. It is relatively rare for the PMI to remain below 50 for more than three consecutive months without the US falling into a recession. In the past 65 years, it has happened just six times. So far, PMIs have been below 50 for 15 consecutive months (since Nov 2022). This would be the longest ever <50 period without a recession ever.

Exhibit 1: Six great escapes… plus one more?
Six prior times the US manufacturing PMI has been <50 for over three months without a recession

1st month <50	1st month >50	Months <50	Months before trough	Months after trough
January 1697	August 1967	7	3	4
February 1985	October 1985	8	4	4
May 1995	June 1996	13	8	5
June 1998	January 1999	7	6	1
October 2002	July 2003	9	6	3
October 2015	March 2016	5	3	2
Average		**8**	**5**	**3**
November 2022	*N/A*	*15+*	*7*	*8+*

Source: BofA Global Research

Exhibit 1: Six great escapes... plus one more?

Six prior times the US manufacturing PMI has been <50 for over three months without a recession

1st month <50	1st month >50	Months <50	Months before trough	Months after trough

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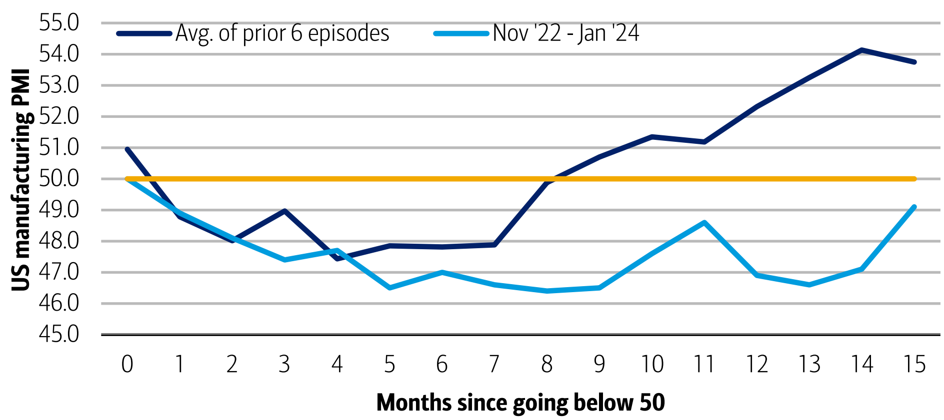
On average, these episodes have lasted 8 months (range: 5-13), with the trough PMI reading coming around the 5th month and then three months of improvement before going back above 50.

Exhibit 18: Historical average of episodes versus current

Current period of <50 PMI has lasted longer and fallen further than prior historical episodes



Source: BofA Global Research

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The US manufacturing PMI for January was 49.1. This is up from December at 47.1. The ISM calculates the "headline" PMI using an equal-weighted average of five series: new orders, production, employment, inventories, and supplier deliveries. While the ISM's Report on Business also has indexes for prices, customers' inventories, backlog, exports, and imports these do not factor into the headline PMI.

Lead times dropped below 80 for the first time since March 2021. We believe this is putting additional impact on the index given the impact of lead times on orders and inventories. Better lead times mean companies need to carry less buffer stock, which leads to lower orders.

Exhibit 7: "Headline" manufacturing PMI components & weightings

While the ISM Report on Business has other readings – only these five go into the headline PMI

Weight	Sub-index	Description
20%	New Orders	m/m change in units orders (not dollars)
20%	Production	m/m change in units produced (not dollars)
20%	Employment	m/m change in employment levels (not payroll dollars)
20%	Supplier deliveries	m/m change in supplier delivery times (lead times + transportation time)
20%	Inventories	m/m change in units of manufacturers' own inventory

Source: Institute for Supply Management, BofA Global Research

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Below are the TTM readings for the headline PMI and components. In January, Employment, supplier deliveries, and inventories were below 50. New orders were above 50 for the first time since August 2022.

The industries that reported month-over-month growth in production are: Apparel, Leather & Allied Products; Paper Products; Primary Metals; and Transportation Equipment. The eleven industries that reported a decrease in production in January are: Wood Products; Petroleum & Coal Products; Nonmetallic Mineral Products; Textile Mills; Plastics & Rubber Products; Machinery; Furniture & Related Products; Fabricated Metal Products; Computer & Electronic Products; Electrical Equipment, Appliances & Components; and Food, Beverage & Tobacco Products.

Exhibit 8: TTM US manufacturing PMI components
New orders went above 50 in January

	New orders	Production	Employment	Supplier deliveries	Inventories	Manufacturing PMI
2/28/2023	47.0	47.6	48.8	45.2	49.9	**47.7**
3/31/2023	44.6	48.0	47.8	44.8	47.6	**46.5**
4/30/2023	45.5	48.7	49.4	44.6	46.6	**47.0**
5/31/2023	42.9	50.5	50.3	43.5	45.8	**46.6**
6/30/2023	45.7	47.1	49.1	45.7	44.5	**46.4**
7/31/2023	47.0	48.4	45.0	46.1	45.8	**46.5**
8/31/2023	46.4	49.9	48.6	48.6	44.3	**47.6**
9/30/2023	48.6	51.9	50.9	46.4	45.4	**48.6**
10/31/2023	46.2	50.0	47.1	47.7	43.6	**46.9**
11/30/2023	47.8	48.8	46.1	46.2	44.3	**46.6**
12/31/2023	47.0	49.9	47.5	47.0	43.9	**47.1**
1/31/2024	52.5	50.4	47.1	49.1	46.2	**49.1**

Source: Institute for Supply Management, BofA Global Research

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Supplier deliveries and lead times ticked up sequentially in January. Lead times for production materials are back above 80 days after following below 80 days in November for the first time since March 2021. Lead times remain elevated relative to pre-COVID averages of ~62 levels, but below pre-COVID averages than 100 day peaks.

Exhibit 8: TTM US manufacturing PMI components
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	New orders	Production	Employment	Supplier deliveries	Inventories	Manufacturing PMI
2/28/2023	47.0	47.6	48.8	45.2	49.9	**47.7**
3/31/2023	44.6	48.0	47.8	44.8	47.6	**46.5**
4/30/2023	45.5	48.7	49.4	44.6	46.6	**47.0**
5/31/2023	42.9	50.5	50.3	43.5	45.8	**46.6**
6/30/2023	45.7	47.1	49.1	45.7	44.5	**46.4**
7/31/2023	47.0	48.4	45.0	46.1	45.8	**46.5**
8/31/2023	46.4	49.9	48.6	48.6	44.3	**47.6**
9/30/2023	48.6	51.9	50.9	46.4	45.4	**48.6**
10/31/2023	46.2	50.0	47.1	47.7	43.6	**46.9**
11/30/2023	47.8	48.8	46.1	46.2	44.3	**46.6**
12/31/2023	47.0	49.9	47.5	47.0	43.9	**47.1**
1/31/2024	52.5	50.4	47.1	49.1	46.2	**49.1**

Source: Institute for Supply Management, BofA Global Research

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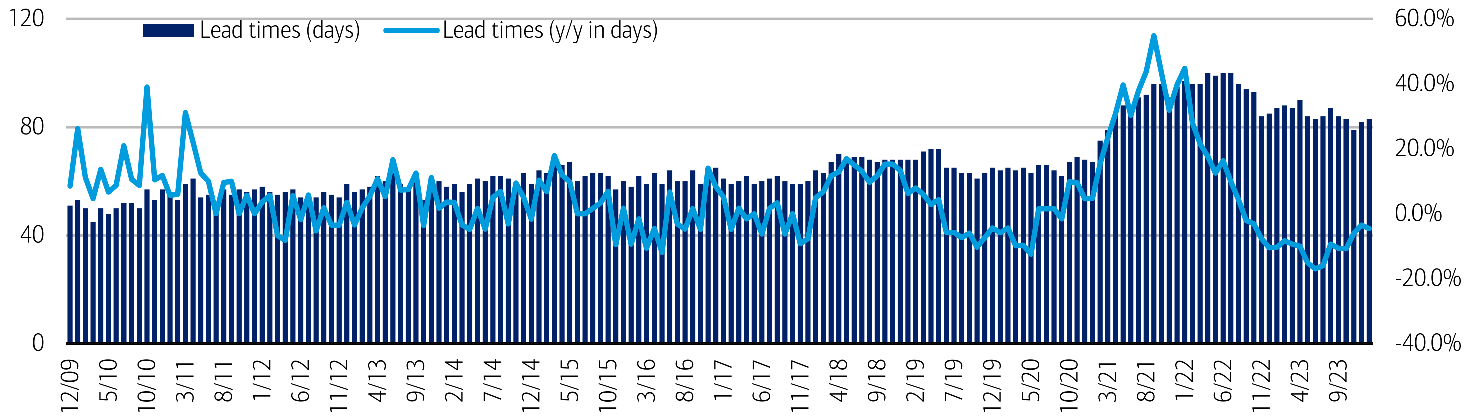
Supplier deliveries and lead times ticked up sequentially in January. Lead times for production materials are back above 80 days after following below 80 days in November for the first time since March 2021. Lead times remain elevated relative to pre-COVID averages of ~62 levels, but below pre-COVID averages than 100 day peaks.

Exhibit 22: Lead times for production materials, days
Lead times remain elevated versus history



Source: Institute for Supply Management, BofA Global Research

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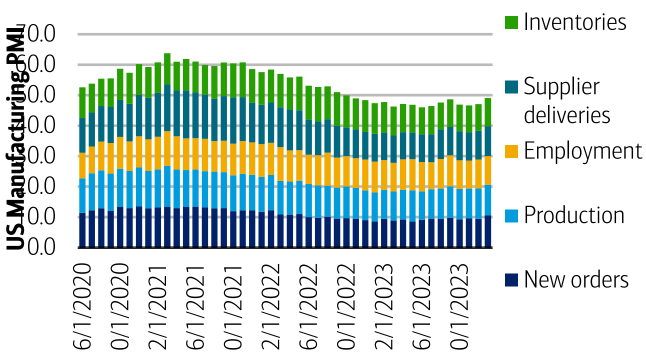
Exhibit 23: US manufacturing PMI was at 49.1 in January
Components of US manufacturing PMI



Source: Institute for Supply Management, BofA Global Research

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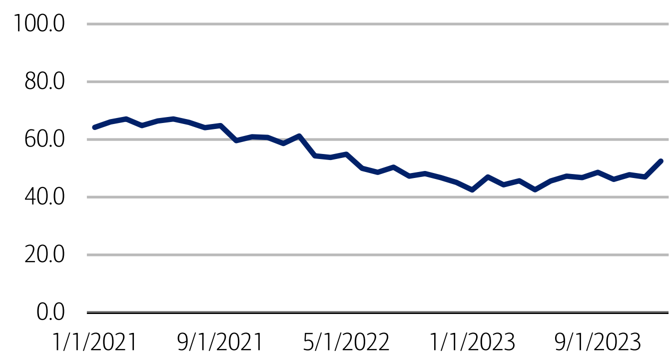
Exhibit 24: New Orders came in at 52.5 in January
ISM New Orders, 1/21 to 1/24



Source: Institute for Supply Management, BofA Global Research

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…with structural capex growth long-term

The exhibit below shows peak-to-peak CAGRs over the past four economic cycles. US manufacturing CapEx spending has slowed from mid-single digit to low-single digit pace. We argue a combination of semiconductor and EV investments, stable mix of imported components, and US government stimulus will drive faster growth over coming years.

Exhibit 7: US manufacturing CapEx trends by category (1980-2019)
Growth over economic cycles has slowed from mid-single digit to low-single digit

CAGRs	1980-1990	1990-2001	2001-2007	2007-2019
Structures	1.5%	4.4%	-0.6%	1.2%
Intellectual property	8.7%	7.7%	4.3%	3.5%
Equipment	4.5%	3.3%	3.6%	1.0%
Total	**5.6%**	**5.4%**	**3.6%**	**2.5%**

Source: Bureau of Economic Analysis, BofA Global Research

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We previously estimated US manufacturing CapEx to grow 7.8 – 8.9% CAGR from 2019-2025E. With the further capacity additions from semi fabs and EV battery plants we are now estimated US manufacturing CapEx to grow 8.1 – 9.2% CAGR from 2019 – 2025E. We do not include the Canadian EV capacity expansions in our CAGR estimates.

Exhibit 8: BofA view: US manufacturing CapEx at an inflection point
Key historical trends and prospective changes

Trend over last 20 years…	…inflection point
Shrinking tech capacity	~$177bn in announced semi CapEx
Globalization of supply chains	In-country/near shoring
Productivity capex	Capacity capex

Source: BofA Global Research

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Exhibit 9: Estimated impact of changes to US manufacturing capex
Semiconductor & EV investments are meaningful to overall capex spend

2007-2019 CAGR	**2.5%**
Semiconductor & EV investments	2.4-3.0%
Stable mix of imported intermediary goods	1.0%
American Rescue Plan Act of 2021	0.9-1.4%
Infrastructure Investment and Jobs Act	0.4%
Inflation Reduction Act	0.9%
2019-2025E CAGR	**8.1-9.2%**

Source: BofA Global Research, Bureau of Economic Analysis

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Valuation

We base our $300 price objective on a 16x multiple on our CY25 estimate. Our target multiple is at a one-turn premium to the 15x peer average on 2024. Our slight premium balances the improving macroeconomic outlook into 2H24 with our concerns about execution.

Exhibit 18: ROK valuation versus comparables
We base our $300 price objective on a 16x multiple on our CY25 estimate

		Stock Price	P/E		EV/EBITDA		EBITDA margin		EPS growth	
Company	**Ticker**	**2/23/2024**	**2024E**	**2025E**	**2024E**	**2025E**	**2024E**	**2025E**	**2024E**	**2025E**
ABB	ABLZF	$45.37	22.2 x	19.9 x	13.9 x	13.3 x	17.9%	17.8%	1.3%	11.2%
Eaton	ETN	$284.93	28.1 x	26.3 x	25.0 x	22.6 x	19.7%	20.4%	11.3%	6.8%
Emerson	EMR	$105.91	19.4 x	18.1 x	14.6 x	13.7 x	29.8%	31.9%	16.8%	7.6%
FANUC*	6N54 JT	¥4,207	29.7 x	25.4 x	17.5 x	16.8 x	25.1%	24.0%	-1.1%	16.9%
Honeywell	HON	$200.63	19.9 x	17.9 x	14.5 x	13.5 x	25.1%	25.3%	10.3%	11.0%
OMRON*	6645 JT	¥5,780	31.0 x	18.9 x	14.6 x	13.9 x	9.1%	8.9%	27.8%	63.6%
Schneider	SBGSF	€ 209.80	28.4 x	25.4 x	17.9 x	17.1 x	19.0%	18.7%	4.4%	11.9%
Siemens	SMAWF	€ 175.30	16.7 x	15.4 x	11.8 x	10.8 x	17.7%	18.3%	5.4%	8.7%
SMC Corp*	6273 JT	¥86,460	31.6 x	29.1 x	20.2 x	18.8 x	30.4%	30.0%	-5.4%	8.7%
Spectris	SEPJF	GBp 3,696	19.3 x	17.2 x	10.7 x	10.2 x	21.6%	21.3%	-1.5%	12.0%
Yokogawa*	6841 JT	¥3,054	16.7 x	16.8 x	8.8 x	8.3 x	15.9%	16.6%	0.3%	-0.9%
AVERAGE			**23.9 x**	**20.9 x**	**15.4 x**	**14.4 x**	**21.0%**	**21.2%**	**6.3%**	**14.3%**
Rockwell	**ROK**	**$280.51**	**20.5 x**	**18.7 x**	**16.2 x**	**14.9 x**	**21.6%**	**22.3%**	**10.0%**	**9.6%**
Rockwell at PO		**$300.00**	**21.9 x**	**20.0 x**	**17.3 x**	**15.9 x**				

Source: BofA Global Research estimates, Bloomberg
** indicates Bloomberg consensus estimates

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Price objective basis & risk

Rockwell (ROK)

We base our $300 price objective on a 16x EV/EBITDA multiple of our CY25 estimate, at a premium to peers trading at 15x on 2024E. We argue a 1-turn premium is warranted given the company's market share and exposure to secular themes, partially offset by destocking headwinds and a lack of near-term catalysts.

Upside risks are 1) supply chain improvement, 2) potentially accretive acquisitions.

Downside risks are 1) delays in global capex, 2) execution risks, 3) supply-chain constraints, and 4) greater competition.

Analyst Certification

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

US - Multi-Industrials/Engineering and Construction Coverage Cluster

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

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Business Performance	Numerator	Denominator
Return On Capital Employed	NOPAT = (EBIT + Interest Income) × (1 − Tax Rate) + Goodwill Amortization	Total Assets − Current Liabilities + ST Debt + Accumulated Goodwill Amortization
Return On Equity	Net Income	Shareholders' Equity
Operating Margin	Operating Profit	Sales
Earnings Growth	Expected 5 Year CAGR From Latest Actual	N/A
Free Cash Flow	Cash Flow From Operations − Total Capex	N/A
Quality of Earnings	**Numerator**	**Denominator**
Cash Realization Ratio	Cash Flow From Operations	Net Income
Asset Replacement Ratio	Capex	Depreciation
Tax Rate	Tax Charge	Pre-Tax Income
Net Debt-To-Equity Ratio	Net Debt = Total Debt − Cash & Equivalents	Total Equity
Interest Cover	EBIT	Interest Expense
Valuation Toolkit	**Numerator**	**Denominator**
Price / Earnings Ratio	Current Share Price	Diluted Earnings Per Share (Basis As Specified)
Price / Book Value	Current Share Price	Shareholders' Equity / Current Basic Shares
Dividend Yield	Annualised Declared Cash Dividend	Current Share Price
Free Cash Flow Yield	Cash Flow From Operations − Total Capex	Market Cap = Current Share Price × Current Basic Shares
Enterprise Value / Sales	EV = Current Share Price × Current Shares + Minority Equity + Net Debt + Other LT Liabilities	Sales
EV / EBITDA	Enterprise Value	Basic EBIT + Depreciation + Amortization

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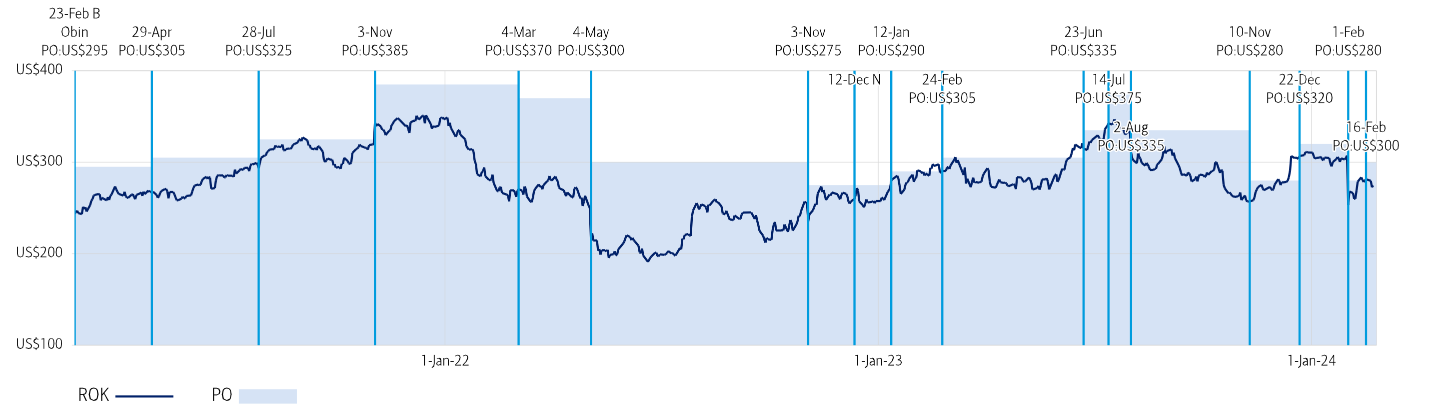
Disclosures

Important Disclosures

Rockwell (ROK) Price Chart



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

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

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

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

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

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

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

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

[R2]Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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