Industrial Supply Association SEPTEMBER 2023

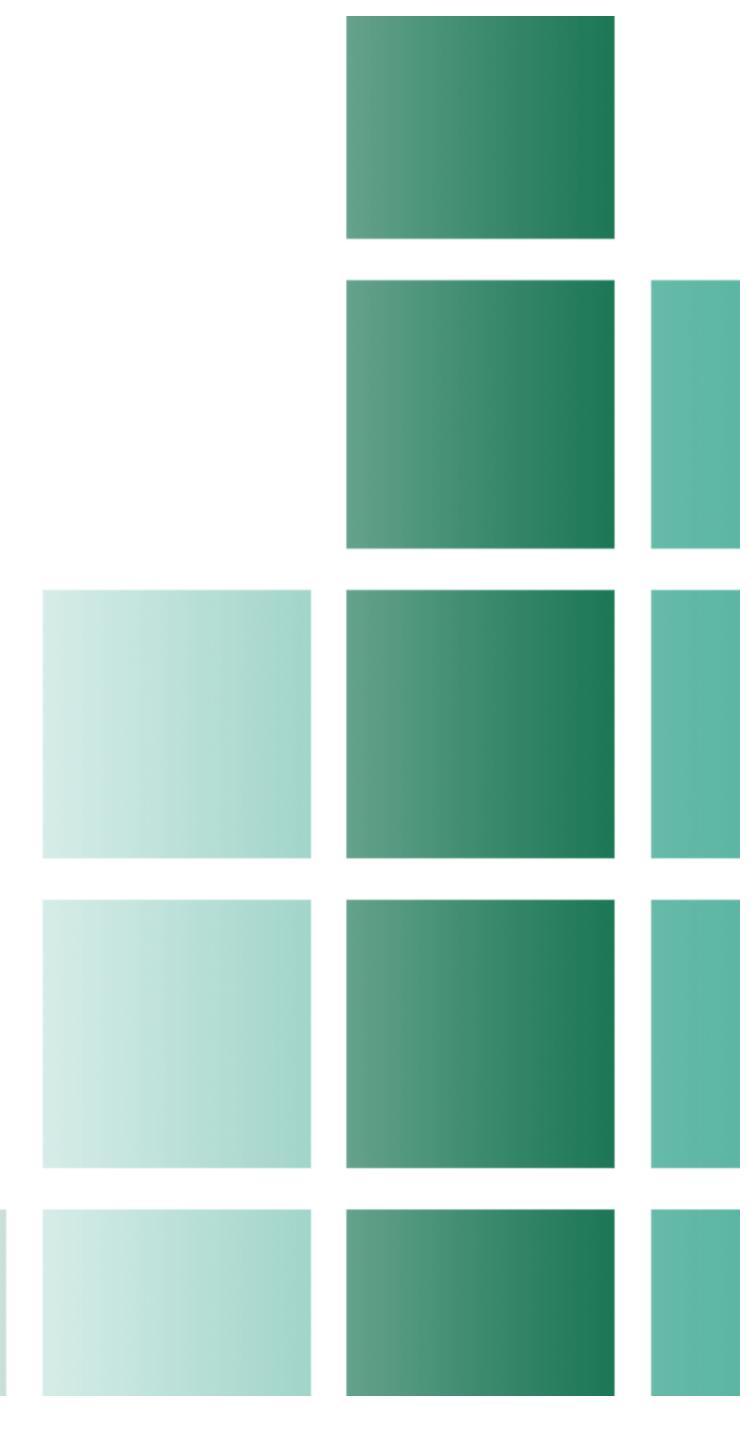






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Economic Overview

The State of the Economy Looking Forward

On the leading edge of the economy, we are seeing green shoots of recovery in single-family residential construction. The tight supply of existing homes supports strong demand, but affordability remains a constraint due largely to elevated interest rates. While more accommodating rates would be most impactful, inflationadjusted income is rising and will help prospective buyers save.

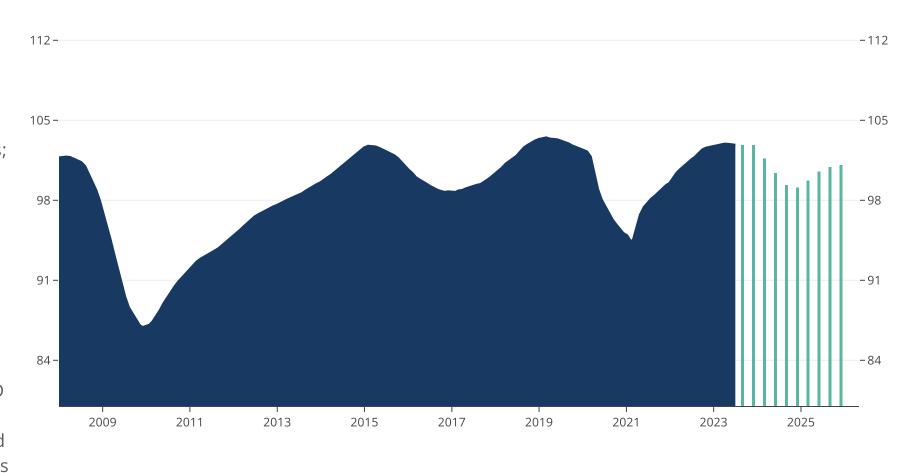
Core metrics of the macroeconomy such as Industrial Production, capex, and consumer spending are in late Phase C, Slowing Growth, and will contend with Phase D, Recession, in 2024. While it can be daunting to face a year of contraction, recovery in the housing market serves as an encouraging reminder that this decline is temporary. Rise will resume for most industries in 2025. Opportunity can be found in countercyclical and nondiscretionary markets; those which have received federal funding, such as semiconductors and renewables; and younger industries, such as e-commerce.

The lagging nonresidential construction sector is near its peak growth rate for this cycle and will soon slow. Decline is slightly further out on the horizon for nonresidential construction, occurring in late 2024 and into 2025.

Leading Indicators Are Mixed, the Fed Remains Hawkish

The ITR Leading Indicator™, US ISM PMI (Purchasing Managers Index) monthly rate-of-change, and the US OECD Leading Indicator rate-of-change have moved higher in recent quarters. In a typical business cycle, this burgeoning upward movement would suggest near-term recovery and rise for both the US industrial sector and the broader macroeconomy. However, when broadening the analysis to other key drivers, the consensus breaks down.

US Industrial Production Index Annual Average (12MMA)



Many metrics - from corporate profits to lower supply chain pressures to industry utilization rates - are still pointing to rate-of-change decline for US Industrial Production for the coming quarters at least. Major indicators of the upcoming downturn remain the inverted US Treasury yield curve and prior softening in inflation-adjusted consumer savings.

While we do not forecast what the Federal Reserve will do, their messaging remains hawkish as they try to tamp down inflation to their 2% long-run target. While many headlines suggest the US economy may be able to avoid a recession after all, our analysis suggests that is not likely. While the leading indicators remain mixed, the most convincing evidence still points toward a mild recession with a late-2024 low. The impact of contractionary monetary policy takes time to unfold, and further pursuit of this policy risks pushing out the timing of the business cycle low into early 2025.

Form Your Action Plan Looking at Least Half a Business Cycle Ahead

For 2024, have a plan for a median outcome and have contingency plans for both the upside and downside. In addition, think back to previous economic booms – what do you wish you had done during the downturn to set your business up for success? Time those actions so you can capitalize on the general rise during 2025 and much of the second half of this decade. Look for ways to lean into your competitive advantages and take the time to address any competitive disadvantages you may have. Extra time may afford an opportunity for system upgrades or efficiency improvements. Lastly, we expect the labor market to remain relatively tight. Look to retain and cross-train key, high-performing employees to keep the business running, and look for ways to minimize your dependency on labor through efficiency gains.





Terminology and Methodology

Data Trends: Moving Averages and Totals

Quarterly Average (Three-Month Moving Average, or 3MMA)

The average of the latest three months of data, updated every month. In the example, \$57.79 is the quarterly average for the three months ending in March 2021 (i.e., the average for January, February, and March 2021).

Example: Monthly US Crude Oil Spot Prices averaged \$57.79 in the first quarter of 2021, a 26.3% increase from the first quarter of 2020.

Quarterly Total (Three-Month Moving Total, or 3MMT)

The total of the latest three months of data, updated every month. In the example, \$257.8 billion is the quarterly total for the three months ending in February 2021 (i.e., the total for December 2020, January 2021, and February 2021).

Example: Quarterly US Capital Goods New Orders totaled \$257.8 billion in February 2021.

Annual Average (12-Month Moving Average, or 12MMA)

The average of the latest 12 months of data, updated every month. In the example, 119.0 million is the annual average for February 2021 (i.e., the average for the 12-month period from March 2020 through February 2021).

Example: US Private Sector Employment averaged 119.0 million workers during the 12 months through February 2021, down 7.5% from one year earlier.

Annual Total (12-Month Moving Total, or 12MMT)

The total of the latest 12 months of data, updated every month. In the example, \$5.849 trillion is the annual total for February 2021 (i.e., the total for the 12-month period from March 2020 through February 2021).

Example: US Wholesale Trade totaled \$5.849 trillion during the 12 months through February 2021.

Growth Rates

Monthly Growth Rate (1/12 Rate-of-Change)

The percentage change between a given month and the same month one year earlier. In the example, 79.3% is the monthly growth rate for March 2021.

Example: Monthly US Copper Futures Prices were at \$4.00 per pound in March 2021, 79.3% above the March 2020 level of \$2.29.

Quarterly Growth Rate (3/12 Rate-of-Change)

The percentage change between a three-month period and the same three-month period from one year earlier. In the example, 26.3% is the quarterly growth rate for March 2021.

Example: US Crude Oil Spot Prices averaged \$57.79 in the first quarter of 2021, a 26.3% increase from the first quarter of 2020.

Annual Growth Rate (12/12 Rate-of-Change)

The percentage change between a 12-month period and the same 12-month period from one year earlier. In the example, -7.5% is the annual growth rate for February 2021; that is, US Private Sector Employment during March 2020 through February 2021 came in 7.5% below Employment from March 2019 through February 2020.

Example: US Private Sector Employment averaged 119.0 million workers during the 12 months through February 2021, down 7.5% from one year earlier.

Business Cycle Phases



Recovery (A)

The annual growth rate (12/12) is rising, but the rate of growth is still negative. We denote this phase with blue (for improving).



Accelerating Growth (B)

The annual growth rate (12/12) is rising, and the rate of growth is positive. We denote this phase with green (for go).



Slowing Growth (C)

The annual growth rate (12/12) is positive, but the rate of growth is declining. We denote this phase with yellow (for caution).



Recession (D)

The annual growth rate (12/12) is declining, and the rate of growth is negative. We denote this phase with red (for warning).





Industrial Supply Association Markets Dashboard

		Current		Annual Gro	wth Rate Forecast (12/12), Year-End*
Page Number	Indicator	Growth Rate**	Phase	2023**	2024**	2025**
4	US Industrial Production Index	1.3%	С	0.2%	-3.6%	2.0%
5	US Civilian Aircraft Equipment Production Index	5.9%	С	3.3%	7.2%	-1.3%
6	US Automobile Production Index	24.2%	С	11.3%	-6.7%	5.5%
7	US Private Nonresidential Construction	18.1%	В	19.3%	1.8%	-6.3%
8	US Primary Metals Production Index	-2.5%	D	-3.7%	-3.6%	2.9%
9	US Real Gross Domestic Product (Quarterly Growth Rate)	2.5%	С	0.9%	-0.3%	2.5%

^{*}Coloring denotes the business cycle phase at year-end. For example, if a value in the 2021 column is colored blue, the corresponding indicator is forecasted to be in Phase A, Recovery, at year-end 2021.

Green denotes Phase B, yellow Phase C, and red Phase D.

**Annual growth rate (12/12) except where otherwise noted.



Recovery (A)



Accelerating Growth (B)



Slowing Growth (C)



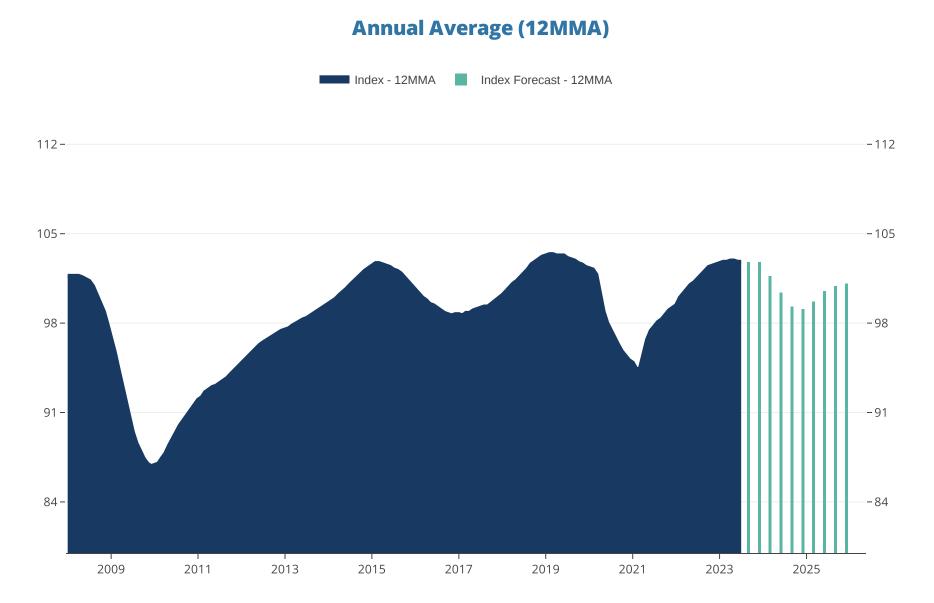
Recession (D)





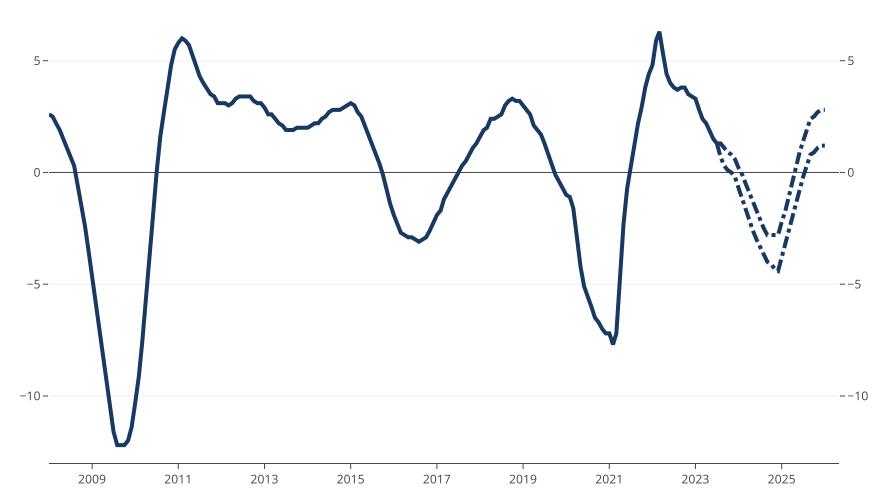
US Industrial Production Index

Forecast Lowered 1%-2%; Contractionary Monetary Policy and Supply Chain Slack Signal Decline Ahead



Annual Growth Rate (12/12)





Current Phase



Phase C Slowing Growth

Current Indicator Amplitude

- July 2023 Annual Growth Rate (12/12): 1.3%
- July 2023 Annual Average (12MMA), 2017=100: 102.8

Industry Outlook	

Year Annual Growth Rate

2023 0.2%2024 -3.6%2025 2.0%

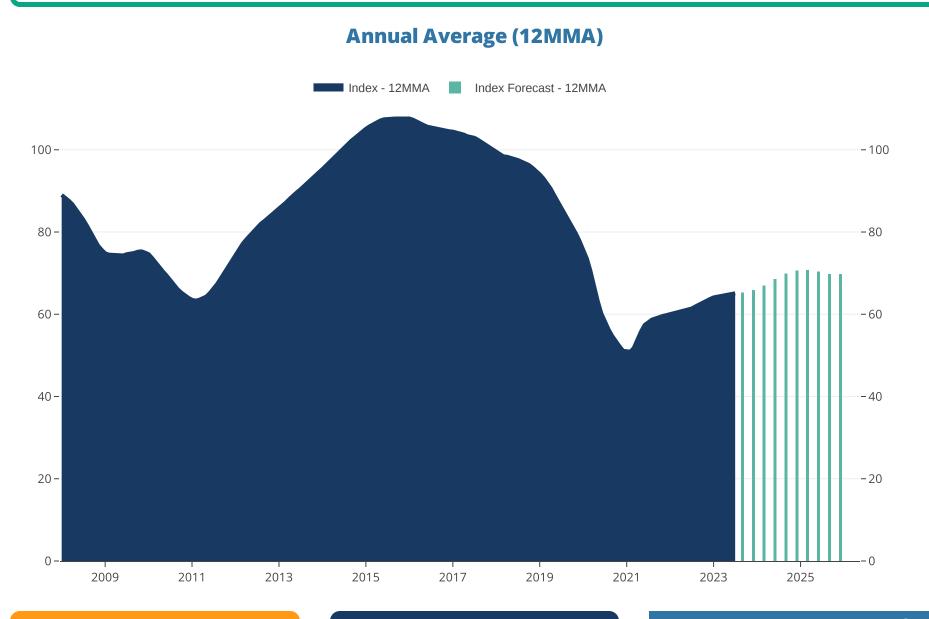
	Sep- 23	Dec- 23	Mar- 24	Jun- 24	Sep- 24	Dec- 24	Mar- 25	Jun- 25	Sep- 25	Dec- 25
Lower Forecast Range	0.3	-0.2	-1.7	-3.0	-4.0	-4.4	-2.7	-0.7	0.8	1.2
Annual Growth Rate (%)	0.7	0.2	-1.1	-2.4	-3.4	-3.6	-1.9	0.1	1.6	2.0
Upper Forecast Range	1.1	0.6	-0.5	-1.8	-2.8	-2.8	-1.1	0.9	2.4	2.8
Lower Forecast Range	102.4	102.4	101.0	99.8	98.7	98.3	98.9	99.7	100.1	100.3
Annual Average Index (2017=100)	102.8	102.8	101.7	100.4	99.3	99.1	99.7	100.5	100.9	101.1
Upper Forecast Range	103.2	103.2	102.3	101.0	100.0	99.9	100.5	101.3	101.7	101.9

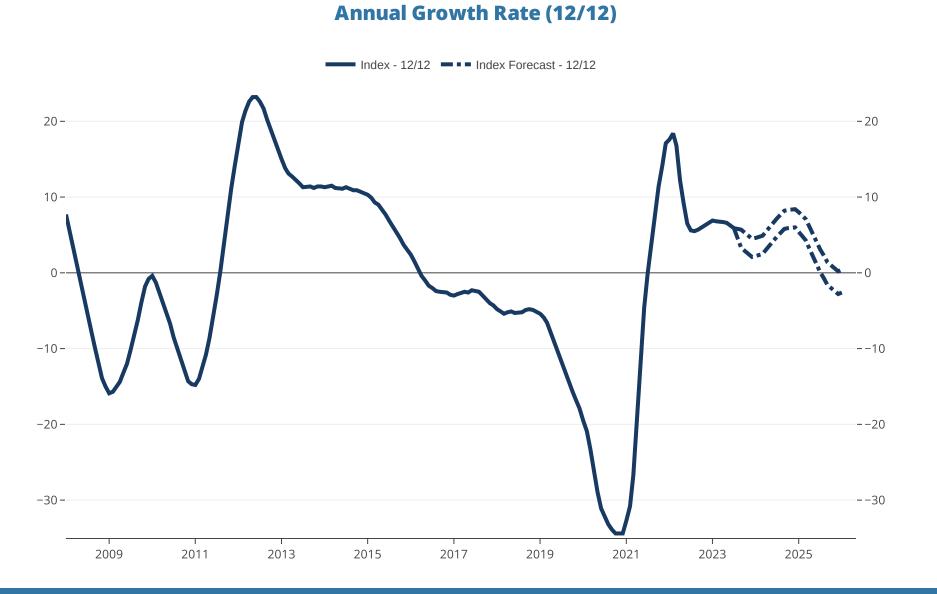




US Civilian Aircraft Equipment Production Index

Forecast Lowered 3%-4% on Data Revision; Backlogs to Fuel Rise in Annual Production Into Early 2025





Current Phase

Ph SI

Phase C
Slowing Growth

Current Indicator Amplitude

- July 2023 Annual Growth Rate (12/12): 5.9%
- July 2023 Annual Average (12MMA), 2017=100: 65.1

Industry Outlook	

Year Annual Growth Rate

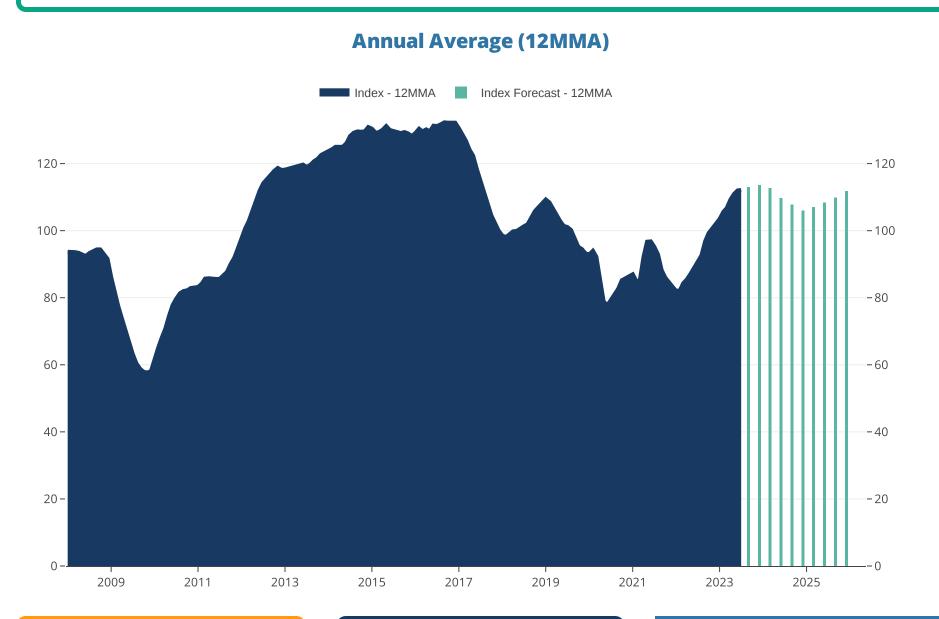
2023 3.3% 2024 7.2% 2025 -1.3%

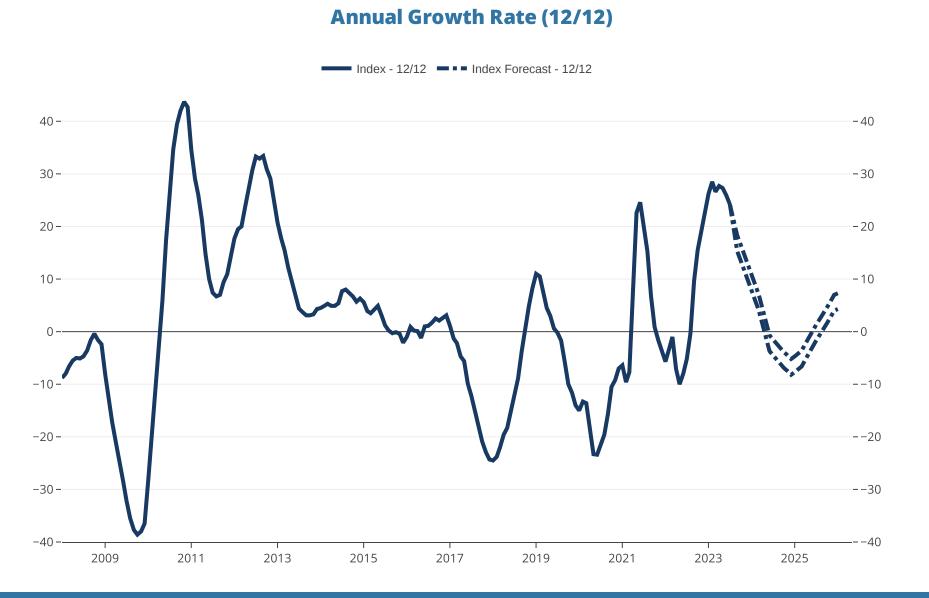
	Sep- 23	Dec- 23	Mar- 24	Jun- 24	Sep- 24	Dec- 24	Mar- 25	Jun- 25	Sep- 25	Dec- 25	
Lower Forecast Range	3.3	2.1	2.5	4.3	5.8	6.0	4.3	1.0	-1.6	-2.8	
Annual Growth Rate (%)	4.5	3.3	3.7	5.5	7.0	7.2	5.7	2.5	-0.1	-1.3	
Upper Forecast Range	5.7	4.5	4.9	6.7	8.2	8.4	7.1	4.0	1.4	0.2	
Lower Forecast Range	64.5	65.1	66.2	67.8	69.0	69.8	69.8	69.2	68.6	68.6	
Annual Average Index (2017=100)	65.2	65.8	66.9	68.5	69.8	70.6	70.7	70.3	69.7	69.7	
Upper Forecast Range	65.9	66.6	67.7	69.3	70.5	71.4	71.7	71.3	70.7	70.7	



US Automobile Production Index

Forecast Revised; Decline Ahead in 2024 Given Tighter Lending and Softening Economy





Current Phase



Phase C
Slowing Growth

Current Indicator Amplitude

- July 2023 Annual Growth Rate (12/12): 24.2%
- July 2023 Annual Average (12MMA), 2017=100: 112.1

ı	ndustry Outlook
<u>Year</u>	<u>Annual Growth Rate</u>
2023	11.3%
2024	-6.7%
2025	5.5%

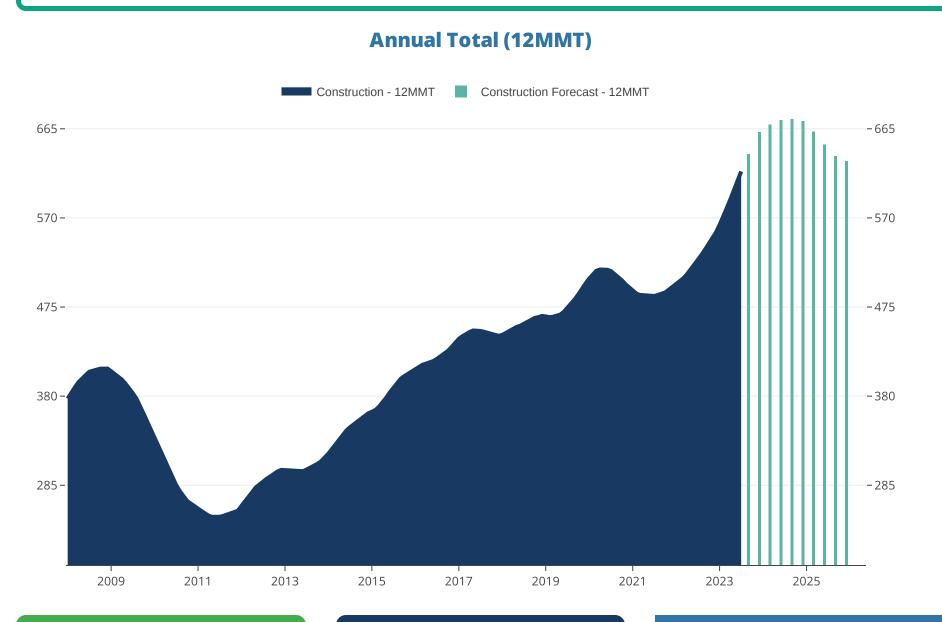
	Sep- 23	Dec- 23	Mar- 24	Jun- 24	Sep- 24	Dec- 24	Mar- 25	Jun- 25	Sep- 25	Dec- 25
Lower Forecast Range	15.3	9.8	4.1	-3.7	-6.2	-8.2	-6.6	-2.7	0.4	4.0
Annual Growth Rate (%)	16.8	11.3	5.6	-2.2	-4.7	-6.7	-5.1	-1.2	1.9	5.5
Upper Forecast Range	18.3	12.8	7.1	-0.7	-3.2	-5.2	-3.6	0.3	3.4	7.0
Lower Forecast Range	111.6	112.1	111.1	107.9	106.0	104.3	105.3	106.6	108.2	110.2
Annual Average Index (2017=100)	113.0	113.6	112.7	109.6	107.7	106.0	107.0	108.3	109.8	111.8
Upper Forecast Range	114.5	115.1	114.3	111.3	109.4	107.7	108.7	109.9	111.4	113.4

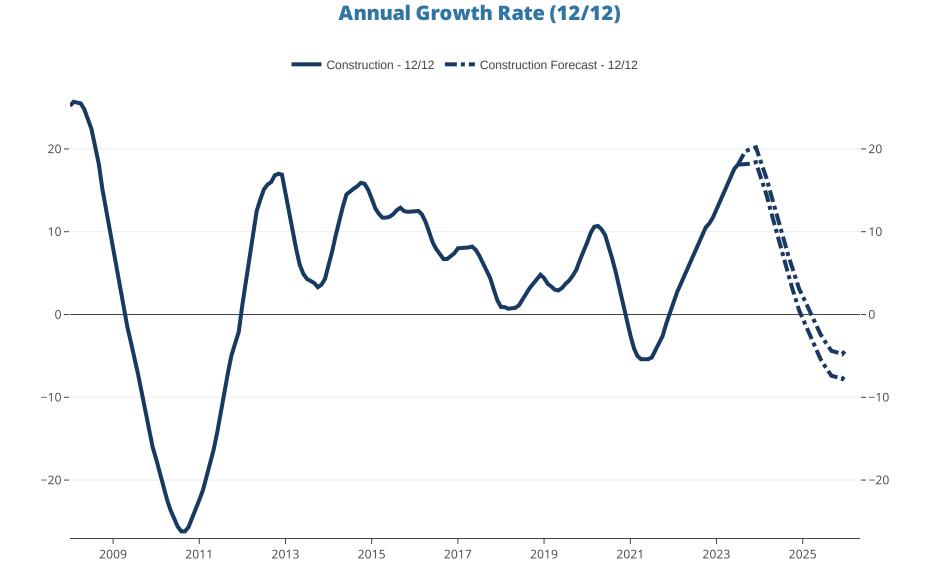




US Private Nonresidential Construction

Forecast Revised; Construction to Rise Into Late 2024, Decline in 2025 Following Prior Macro Trends





Current Phase



Phase B Accelerating Growth

Current Indicator Amplitude

- July 2023 Annual Growth Rate (12/12): 18.1%
- July 2023 Annual Total (12MMT), Billions of \$: 619.5

Industry Outlook

Year Annual Growth Rate 2023 19.3% 2024 1.8% 2025

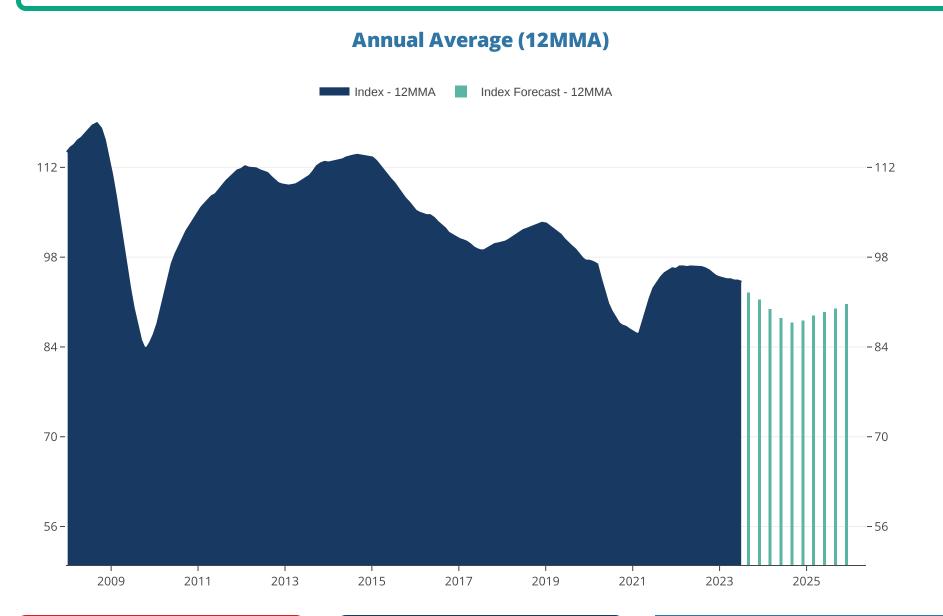
-6.3%

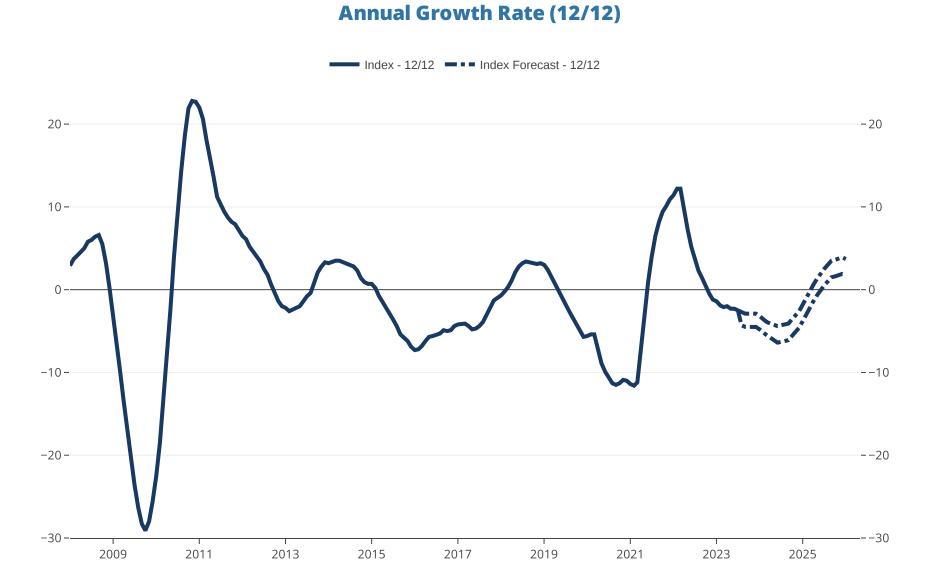
	Sep- 23	Dec- 23	Mar- 24	Jun- 24	Sep- 24	Dec- 24	Mar- 25	Jun- 25	Sep- 25	Dec- 25
Lower Forecast Range	18.1	18.4	14.4	9.4	4.7	0.5	-2.5	-5.4	-7.4	-7.8
Annual Growth Rate (%)	18.9	19.3	15.4	10.5	5.9	1.8	-1.1	-3.9	-5.9	-6.3
Upper Forecast Range	19.7	20.2	16.4	11.6	7.1	3.1	0.3	-2.4	-4.4	-4.8
Lower Forecast Range	633.5	656.2	663.8	667.6	667.8	664.5	652.8	637.9	625.5	620.6
Annual Total Construction (Billions of \$)	637.8	661.2	669.6	674.4	675.5	673.1	662.2	648.1	635.6	630.7
Upper Forecast Range	642.1	666.2	675.4	681.1	683.1	681.7	671.6	658.2	645.7	640.8



US Primary Metals Production Index

Further Production Decline Ahead as Declining Profits and Consumer Savings Impact Goods Demand





Current Phase



Recession

Current Indicator Amplitude

- July 2023 Annual Growth Rate (12/12): -2.5%
- July 2023 Annual Average (12MMA), 2017=100: 94.0

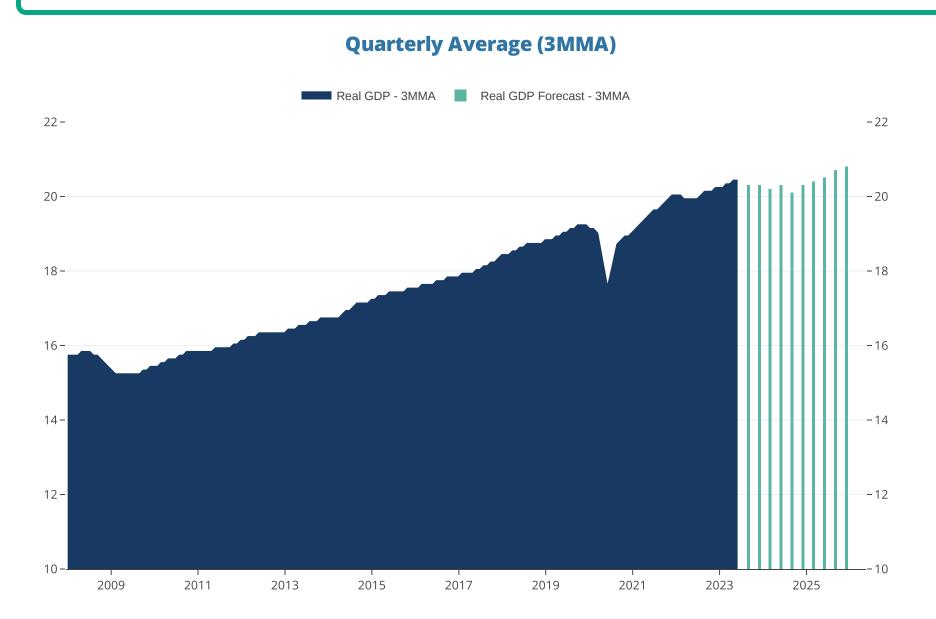
l	ndustry Outlook
<u>Year</u>	<u>Annual Growth Rate</u>
2023	-3.7%
2024	-3.6%
2025	2.9%

	Sep- 23	Dec- 23	Mar- 24	Jun- 24	Sep- 24	Dec- 24	Mar- 25	Jun- 25	Sep- 25	Dec- 25
Lower Forecast Range	-4.5	-4.5	-5.5	-6.4	-6.1	-4.6	-2.1	0.0	1.5	1.9
Annual Growth Rate (%)	-3.7	-3.7	-4.7	-5.4	-5.1	-3.6	-1.1	1.0	2.5	2.9
Upper Forecast Range	-2.9	-2.9	-3.9	-4.4	-4.1	-2.6	-0.1	2.0	3.5	3.9
Lower Forecast Range	91.8	90.6	89.1	87.6	86.9	87.2	88.0	88.5	89.1	89.8
Annual Average Index (2017=100)	92.5	91.4	89.9	88.5	87.8	88.1	88.9	89.4	90.0	90.7
Upper Forecast Range	93.3	92.2	90.6	89.4	88.7	89.0	89.8	90.3	90.9	91.5



US Real Gross Domestic Product

Leading Indicator Evidence Is Mixed, but Mild GDP Decline Remains Probable for Part of 2024



Quarterly Growth Rate (3/12) Real GDP - 3/12 --- Real GDP Forecast - 3/12



Current Phase



Phase C
Slowing Growth

Current Indicator Amplitude

- June 2023 Quarterly Growth Rate (3/12): 2.5%
- June 2023 Quarterly
 Average (3MMA), Trillions of
 Chained 2012 \$: 20.4

	ndustry Outlook
<u>Year</u>	<u>Quarterly Growth Rate</u>
2023	0.9%
2024	-0.3%
2025	2.5%

	Sep- 23	Dec- 23	Mar- 24	Jun- 24	Sep- 24	Dec- 24	Mar- 25	Jun- 25	Sep- 25	Dec- 25	
Lower Forecast Range	1.3	0.7	-0.4	-0.6	-1.3	-0.7	0.3	0.6	2.3	2.1	
Quarterly Growth Rate (%)	1.5	0.9	-0.1	-0.2	-0.9	-0.3	0.7	1.0	2.7	2.5	
Upper Forecast Range	1.7	1.2	0.2	0.2	-0.5	0.1	1.1	1.4	3.1	2.9	
Lower Forecast Range	20.3	20.3	20.2	20.2	20.1	20.2	20.3	20.4	20.6	20.7	
Quarterly Average Real GDP (Trillions of Chained 2012 \$)	20.3	20.3	20.2	20.3	20.1	20.3	20.4	20.5	20.7	20.8	
Upper Forecast Range	20.4	20.4	20.3	20.4	20.2	20.4	20.4	20.6	20.8	20.9	





US Leading Indicators

Indicator	Direction						
	3Q23	4Q23	1Q24				
ITR LEADING INDICATOR™							
ITR RETAIL SALES LEADING INDICATOR™							
US OECD LEADING INDICATOR							
US ISM PMI (PURCHASING MANAGERS INDEX)							
US TOTAL CAPACITY UTILIZATION RATE			N/A				
Green denotes that the indicator signals cyclical rise for the economy in the given quarter. Red denotes the opposite.							

What It Means for the US Economy

- The US Total Industry Capacity Utilization Rate declined further in June.
 Descent in this leading indicator suggests that the US industrial sector will remain on the back side of the business cycle into at least the beginning of 2024.
- Both the US OECD Leading Indicator and US ISM PMI (Purchasing Managers Index) moved higher. However, numerous economic headwinds suggest that the annual rate-of-change for US Industrial Production is likely to continue declining into 2024.
- Ongoing decline in the ITR Retail Sales Leading Indicator™ suggests that the Retail Sales annual rate-of-change will decline further in the coming quarters.

Leading indicators are mixed, but overall evidence suggests recession ahead for the US economy. While contraction can be stressful, maintain a focus on the longer term, and communicate your plans openly and regularly with your team. What can you do now to prepare for the next rising trend? Can you improve your competitive advantages and address your competitive disadvantages? How can you improve margins in the longer term?





Market Definitions

US Industrial Production Index

Index of total industrial production in the United States; includes manufacturing, mining, and utilities. Source: Federal Reserve Board (FRB). 2017 = 100, not seasonally adjusted (NSA).

US Automobile Production Index

Automobile Production. This U.S. industry comprises establishments primarily engaged in (1) manufacturing complete automobiles (i.e., body and chassis or unibody) or (2) manufacturing automobile chassis only. Source: FRB. Index, 2017 = 100, NSA.

US Primary Metals Production Index

Industries in the Primary Metal Manufacturing subsector smelt and/or refine ferrous and nonferrous metals from ore, pig or scrap, using electrometallurgical and other process metallurgical techniques. Establishments in this subsector also manufacture metal alloys and superalloys by introducing other chemical elements to pure metals. The output of smelting and refining, usually in ingot form, is used in rolling, drawing, and extruding operations to make sheet, strip, bar, rod, or wire, and in molten form to make castings and other basic metal products. Source: FRB. Index, 2017 = 100, NSA.

US Civilian Aircraft Equipment Production Index

Index for US establishments primarily engaged in one or more of the following: (1) manufacturing aircraft engines and engine parts; (2) developing and making prototypes of aircraft engines and engine parts; (3) aircraft propulsion system conversion (i.e., major modifications to systems); (4) aircraft propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft propulsion system to original design specifications). Source: FRB. NAICS Code: 336412,3. Index, 2017 = 100, NSA.

US Private Nonresidential Construction

Private nonresidential construction in the United States. Includes private construction of the following types: office, commercial, automotive, lodging, dining, retail, warehouse, storage facilities, schools, dormitories, sports facilities, galleries, museums, hospitals, medical buildings, special care facilities, religious buildings, fitness centers, amusement parks, movie theaters, social centers, transportation facilities, power facilities, and manufacturing facilities. Source: US Census Bureau. Measured in billions of dollars, NSA.

US Real Gross Domestic Product

Real (inflation-adjusted) gross domestic product (GDP) in the United States. GDP is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. GDP includes all private and public consumption, government outlays, investments and exports minus imports that occur within a defined territory. Put simply, GDP is a broad measurement of a nation's overall economic activity. Source: Bureau of Economic Analysis. Measured in trillions of 2012 chained dollars, seasonally adjusted annual rate (SAAR).





Management Objectives™

Phase A



Recovery

- Scrupulously evaluate the supply chain
- Model positive leadership (culture turns to behavior)
- Start to phase out marginal opportunities
 (products, processes, people); repair margins
- Perform due diligence on customers and extend credit
- Be on good terms with a banker; you will need the cash more now than in any other phase
- Invest in customer market research; know what they value and market/price accordingly
- Hire key people and implement company-wide training programs ahead of Phase B
- Allocate additional resources to sales and marketing
- Invest in system/process efficiencies
- Make opportunistic capital and business acquisitions; use pessimism to your advantage

Phase B



Accelerating Growth

- Ensure quality control keeps pace with increasing volume
- Invest in workforce development: hiring, training, retention
- Ensure you have the right price escalator; space out price increases
- Maximize your profit margins through differentiation; stand out from the crowd and set yourself apart
- Use improved cash flow to strategically position the business to beat the business cycle
- Expand credit to customers
- Improve corporate governance (rent a CFO; establish a board of advisors or board of directors)
- Communicate competitive advantages; build the brand
- Query users for what they want and what is important to them
- Sell the business in a climate of maximum goodwill

Phase C



Slowing Growth

- Know if your markets are headed for a soft landing or a hard landing
- Cash is king; beware of unwarranted optimism
- Stay on top of aging receivables
- Revisit capital expenditure plans
- Lose the losers: if established business segments are not profitable during this phase, eliminate them
- Use competitive pricing to manage your backlog through the coming slowdown
- Avoid committing yourself to long-term expenses at the top of the price cycle, but lock in revenue
- Go entrepreneurial and/or counter-cyclical
- Evaluate your vendors for financial strength; if needed, look for additional vendors as a safety net
- If the cycle looks recessionary, cross-train key people to prepare for workforce attrition/reduction

Phase D



Recession

- Implement aggressive cost-cutting measures
- Offer alternative products with a lower cost basis
- Perform due diligence on acquisitions while valuations are falling
- Reduce advertising as consumers become more price conscious
- Enter or renegotiate long-term leases
- Negotiate labor contracts
- Consider capital equipment needs for the next cycle
- Tighten credit policies
- Develop programs for advertising, training, and marketing to implement in Phase A
- Lead with optimism, remembering that Phase D is temporary

