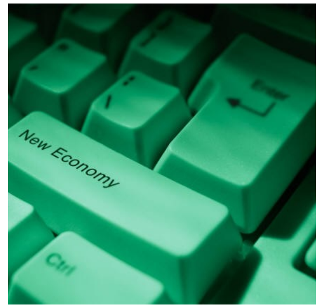
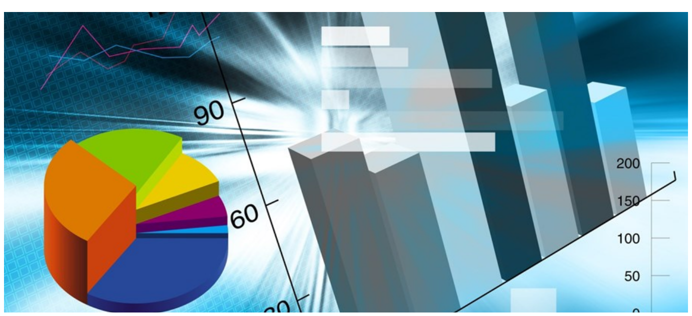


MTI
SINCE 1933



Forecast Report
August 2024

ITR ECONOMICS
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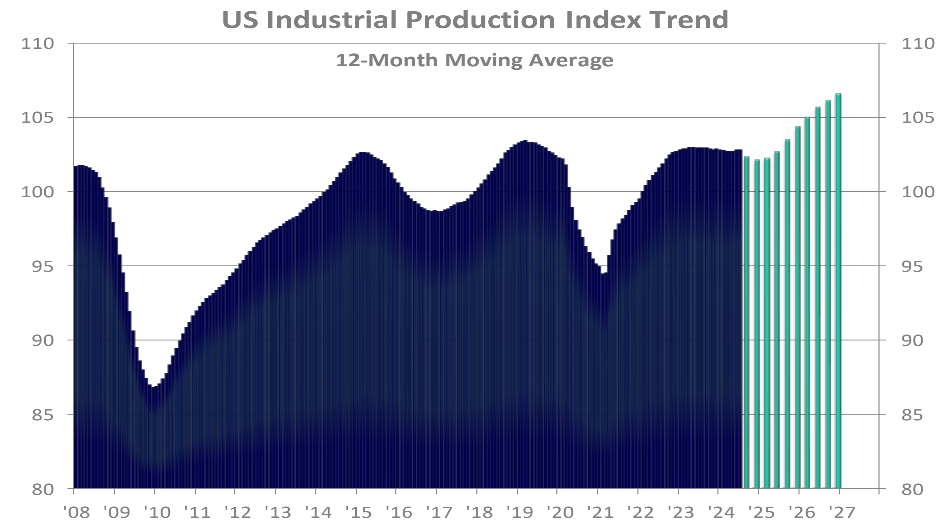
overview



Economic prospects have taken a positive turn, and we have adjusted many of our forecasts upward. On net, the economic evidence indicates that a plateau in 2024 is more likely than the previously forecasted mild recession for B2B spending and industrial activity, though this plateau may have a slight downward bias. Consumer- and services-heavy US Real GDP and US Total Retail Sales will slow in growth in 2024. Leading indicators signal a stronger year for the US macroeconomy come 2025.

Stimulating Factors and How to Harness These Trends

1.) Nearshoring and onshoring: While semiconductor and chip manufacturing dominate the news on onshoring efforts, manufacturers across the economy are moving supply chains closer to home at an accelerated pace post-COVID. Producing closer to home can improve agility, protection of intellectual property, and environmental compliance. Look for opportunities to gain market share from this trend of de-globalization; however, be aware that higher costs are a likely side effect. Margin-improvement is a must to sustain profitability in the coming years.

2.) Government spending: Federal government spending has increased considerably from 2020 onward. Knock-on effects to the private sector have shifted over the course of this business cycle in a milder direction. While the longer-term impacts remain to be seen, the near-term impacts are higher manufacturing and nonresidential construction activity than we would have otherwise seen. Consider targeting markets with exposure to government investments, either directly or indirectly.

3.) Corporate cash balances are elevated: Many businesses were able to pass along costs during the inflationary burst following the pandemic and were therefore able to build up cash holdings. This cash buffer makes the 2022-23 jump in interest rates less of an issue for some. If you are flush with cash, put it to use with a focus on reducing your dependency on labor, embracing new technology to improve efficiency, and prepping for an environment of higher inflation in the years ahead. Consider new products or markets to expand into over the longer term to buck some of the headwinds we see coming in the 2030s.

4.) Resilient consumers: The tight labor market has kept upside pressure on wages. As a result, US Real Personal Incomes are rising, allowing consumers to continue spending at a pace exceeding inflation. Like in the business world, outcomes are divergent. Look for ways to cater to consumers with more discretionary spending. Lower-income consumers are feeling the pinch of inflation and high interest rates more acutely.

Planning for Challenges Ahead

With large amounts of government spending, inflation is likely to be "sticky." Persistent inflation poses financial planning challenges and could increase the difficulty of passing along price increases. A further consequence of inflation is its impact on Federal Reserve policy; a rate cut is still on the table for later this year, but slow progress on inflation increases the risk of higher-for-longer rates. A delayed lowering of rates could prolong economic pain for industries most sensitive to rates.

Additionally, while the tight labor market will likely be a boon for consumers in the coming years, it will constrain opportunities for growth if your business is unable to staff up to meet demand. To that end, efficiency gains in your business—whether through implementation of AI, automation, or process improvements—will allow you to remain competitive.

These challenges are not insurmountable; advanced planning can you help manage risks and get a step ahead of your competition. Remember to zoom out from the day-to-day to reflect on your competitive advantages and your longer-term strategy.

Terminology & Methodology

Data Trends:

Monthly Moving Total (MMT) vs Monthly Moving Average (MMA):

Totals are used when it makes sense to add the data together, as with units sold or total dollars spent. Averages are used when the data cannot be compounded, such as with an index, percent, price level, or interest rates.

3MMT/A and 12MMT/A:

A 3-month or 12-month moving total/average is the total/average of the monthly data for the most recent 3 and 12 months, respectively. The 3MMT/A illustrates the seasonal changes inherent to the data series. The 12MMT/A removes seasonal variation in order to derive the underlying cyclical trend. It is also referred to as the annual total or annual average.

Rates-of-Change:

A rate-of-change figure is the ratio comparing a data series during a specified time period to the same period one year ago. **Rates-of-change** are expressed in terms of the **annual percent change in a 12MMT/A, 3MMT/A, and actual monthly data.**

Rates-of-change reveal whether activity levels are rising or falling compared to last year. A rate-of-change trend illustrates and measures cyclical change and trends in the data.

ITR Economics' three commonly used rates-of-change are the **1/12**, **3/12**, and **12/12**, which represent the year-over-year percent change of a single month, 3MMT/A, and 12MMT/A (respectively).

A rate-of-change above 0 indicates the data is higher than one year prior, while a rate-of-change below 0 indicates the data is below one year earlier.

Our video tutorials offer step-by-step instruction for

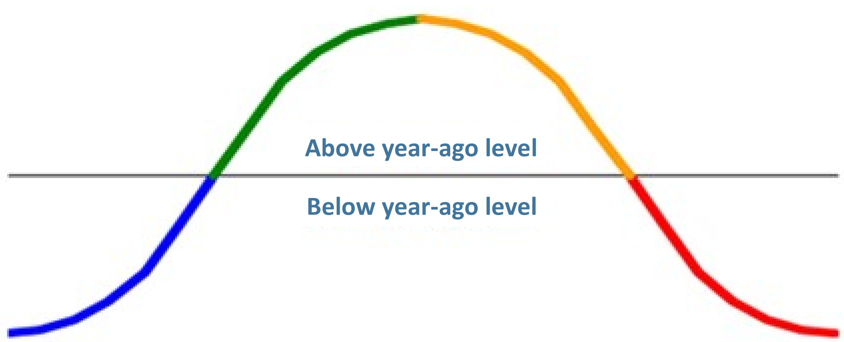
calculating rates-of-change and using leading indicators to see the future.

Business Cycle:

The data trends and rates-of-change identify positions in the business cycle. Those positions are:

Accelerating Growth (B): 12/12 is rising and is above zero; the data trend is accelerating in its ascent and is above the year-ago level. This is the second positive phase of the business cycle.

Recovery (A): 12/12 is rising but is below zero; the data trend is below the year-ago level and is either heading toward a low or is in the early stages of rise. This is the first positive phase of the business cycle.



Slowing Growth (C): 12/12 is declining but remains above zero; the data trend ascent is slowing or has stopped its rise, but it is still above the year-ago level. This is the first negative phase of the business cycle.

Recession (D): 12/12 is declining and is below zero; the data trend is below the year-ago level and the rate of decline is increasing. This is the second and final negative phase of the business cycle.

Business Cycle

Page Number	Industry	Phase	Current	2024	2025	2026
4	MTI Average Monthly Sales	C	2.3%	-2.1%	3.0%	4.0%
6	US Industrial Production Index	D	-0.1%	-0.8%	2.2%	2.1%
7	US Nondefense Capital Goods New Orders (excluding aircraft)	C	0.5%	-0.6%	3.4%	2.4%
8	US Construction Machinery New Orders	C	7.5%	2.3%	1.7%	3.0%
9	North America Light Vehicle Production	C	3.3%	0.5%	0.9%	3.7%
10	US Heavy-Duty Truck Production	C	1.6%	-3.9%	2.7%	2.6%
11	US Oil and Gas Extraction Production	C	5.2%	2.8%	2.2%	4.2%
12	US Medical Equipment and Supplies Production	C	0.5%	-1.1%	0.9%	0.8%
13	US Civilian Aircraft Equipment Production	A	-5.5%	3.1%	5.7%	3.1%
14	US Computers and Electronics New Orders	C	3.1%	-0.9%	2.0%	1.4%
15	US Farm Machinery Shipments	A	-4.2%	6.6%	13.5%	-1.5%

A RECOVERY

B ACCELERATING GROWTH

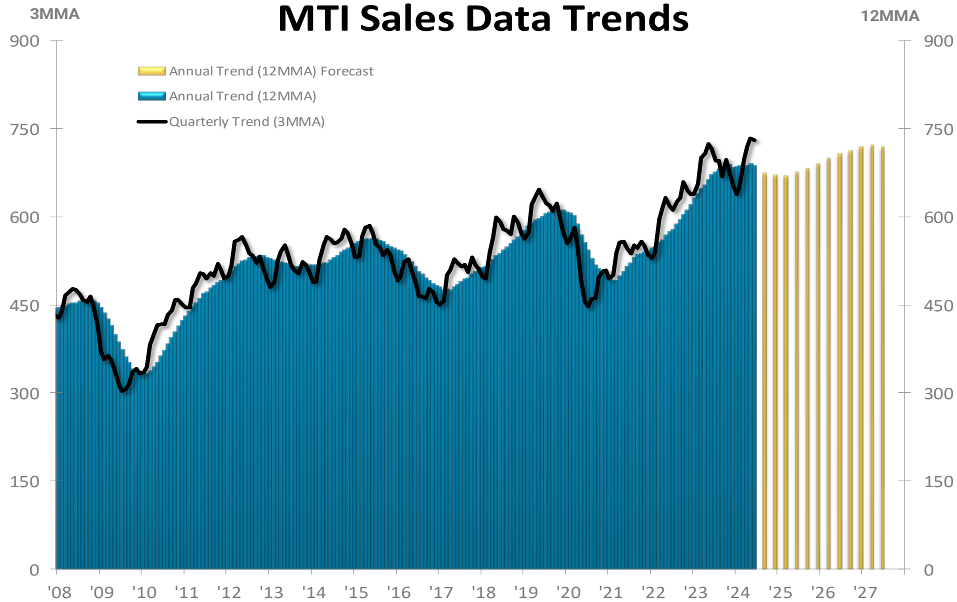
C SLOWING GROWTH

D RECESSION

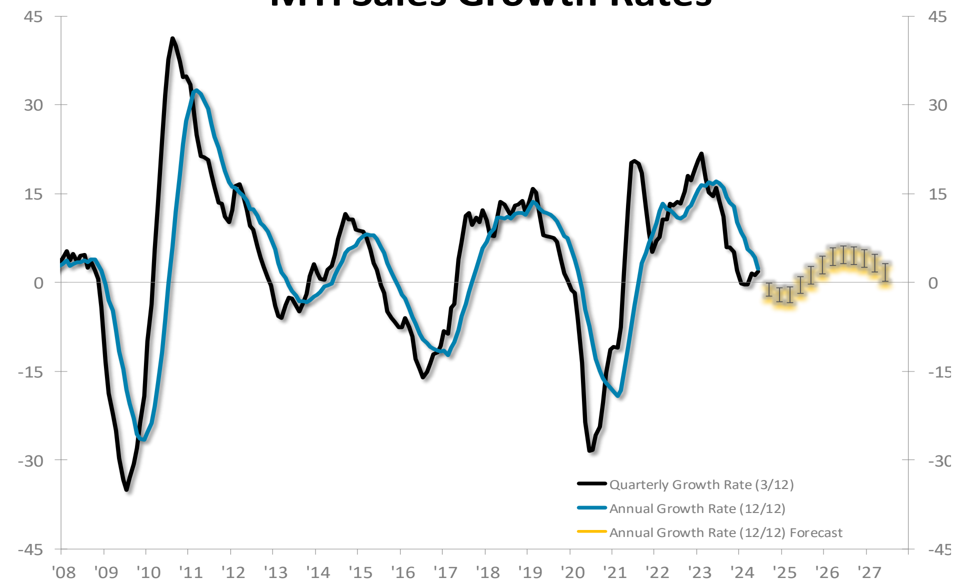
MTI Average Monthly Sales

MTI Sales Likely to Plateau This Year; Rise Into Early 2027 Alongside the Macroeconomy

MTI Sales Data Trends



MTI Sales Growth Rates



Industry Outlook

2024: -2.1%

2025: 3.0%

2026: 4.0%

Outlook & Supporting Evidence

- Average MTI Monthly Sales in the 12 months through June were 2.3% above the year-ago level. Expect MTI Sales to trend closer to the upper range of our forecast in the near term, potentially plateauing in the coming quarters rather than our median expectation of mild decline.
- With inflation cooling and incomes rising, most consumers are stable and spending at record levels. Businesses have elevated levels of cash holdings, which can serve as a buffer when the macroeconomy softens. Monetary policy and borrowing conditions remain downside pressures.
- Leading indicators are pointing in a positive direction. MTI Sales will rise beginning by mid-2025, with rise lasting into at least early 2027. During that time we expect the industrial sector, B2B spending, and the retail sector to rise, supporting demand for metal treating.

Phase & Amplitudes

Phase C

Slowing Growth

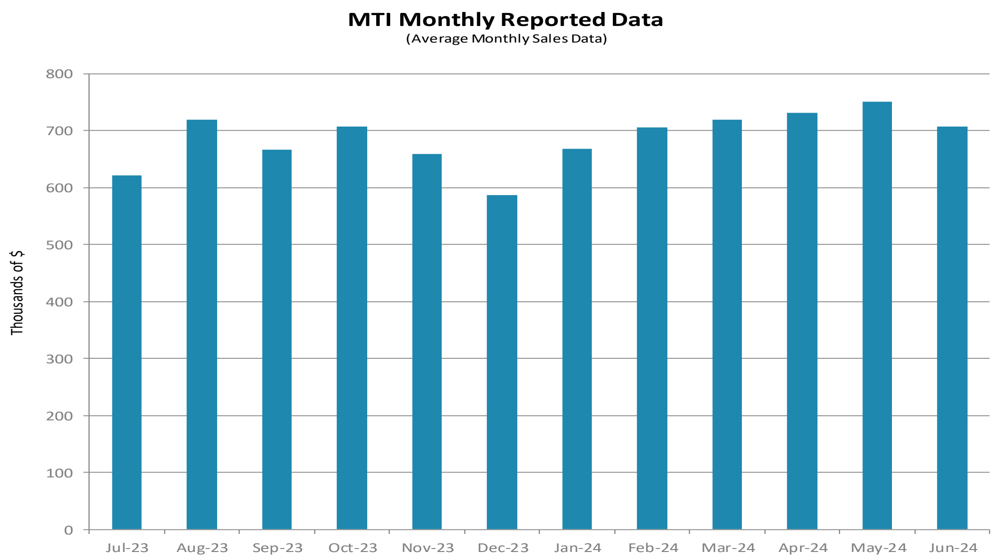
June 2024 Annual Growth Rate (12/12): 2.3%

June 2024 Annual Average (12MMA): $686.9 thousand

MTI Average Monthly Sales Forecast

	3Q24	4Q24	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26	3Q26	4Q26	1Q27	2Q27
3MMA*	652.0	638.5	695.7	711.2	678.2	674.3	728.2	743.5	700.1	698.0	739.7	734.4
3/12	**-2.5%**	**-1.9%**	**-0.3%**	**3.0%**	**4.0%**	**5.6%**	**4.7%**	**4.5%**	**3.2%**	**3.5%**	**1.6%**	**-1.2%**
12MMA*	672.8	669.8	669.2	674.4	680.9	689.9	698.0	706.1	711.5	717.4	720.3	718.1
12/12	**-1.2%**	**-2.1%**	**-2.1%**	**-0.4%**	**1.2%**	**3.0%**	**4.3%**	**4.7%**	**4.5%**	**4.0%**	**3.2%**	**1.7%**

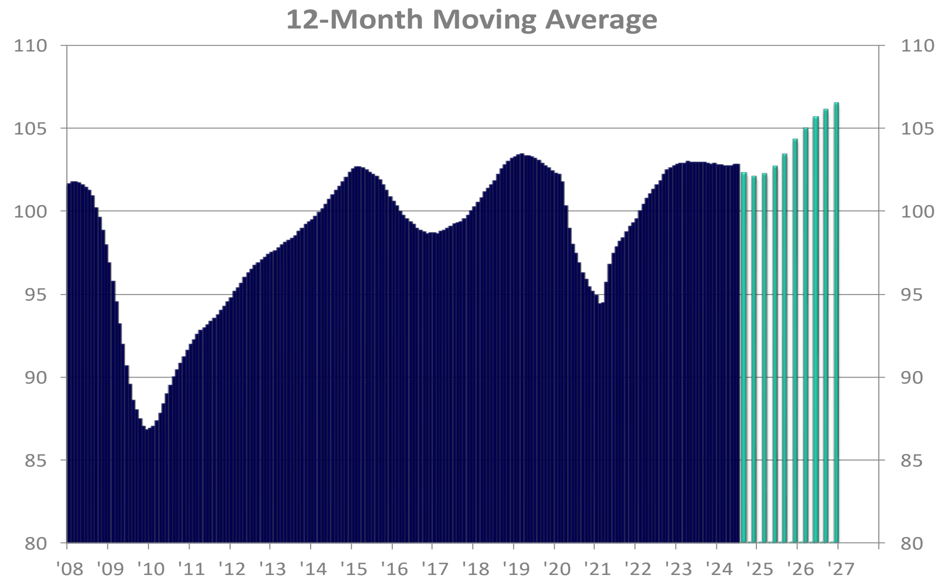
MTI Reported Average Monthly Sales Data

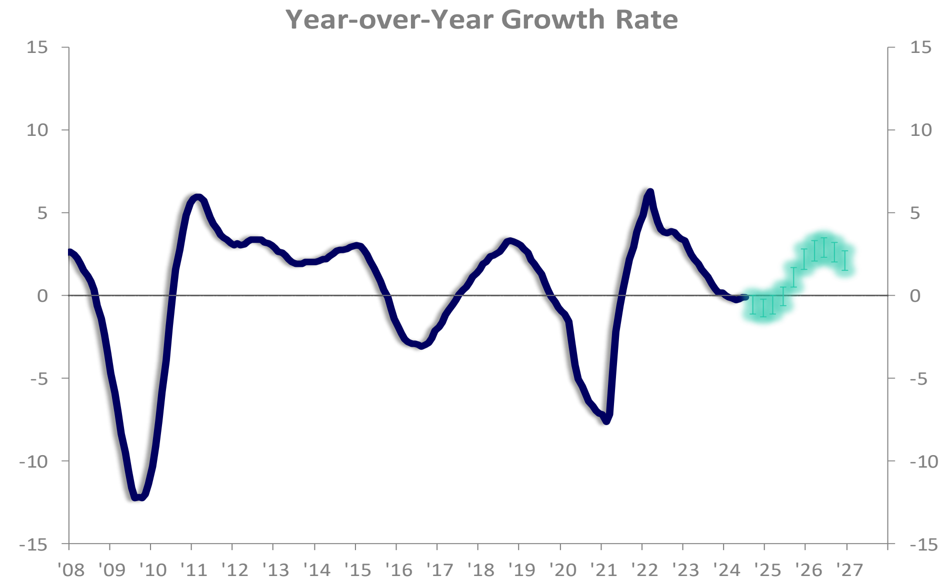


	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
Monthly*	621.9	719.0	666.2	707.1	658.3	586.8	668.7	705.9	718.9	731.7	751.1	707.5
1/12	**7.5%**	**8.4%**	**1.9%**	**7.2%**	**6.3%**	**-7.7%**	**0.9%**	**5.5%**	**-6.4%**	**6.7%**	**4.3%**	**-4.9%**
3MMA*	695.3	694.9	669.0	697.4	677.2	650.7	638.0	653.8	697.8	718.8	733.9	730.1
3/12	**13.7%**	**11.1%**	**5.9%**	**5.8%**	**5.1%**	**2.0%**	**-0.2%**	**-0.4%**	**-0.3%**	**1.6%**	**1.3%**	**1.9%**
12MMA*	675.3	680.0	681.0	685.0	688.2	684.1	684.6	687.7	683.6	687.4	690.0	686.9
12/12	**16.8%**	**15.9%**	**14.4%**	**13.5%**	**12.8%**	**10.2%**	**8.5%**	**7.5%**	**5.6%**	**5.0%**	**4.1%**	**2.3%**

US Industrial Production Index

Plateau in Near Term to Give Way to Rise in 2025 and 2026 as Macroeconomy Rebounds





Industry Outlook

2024: -0.8%

2025: 2.2%

2026: 2.1%

Outlook & Supporting Evidence

- US Industrial Production in the 12 months through July was roughly even with year-ago levels. We anticipate a general plateau for the remainder of this year with Production tracking the upper end of the forecast range.
- Despite the high-interest-rate environment, which would typically be a hindrance, Production has exhibited relative resilience, due in part to elevated corporate cash and relatively steady capex. Middle-to-upper-income consumers are generally stable given easing inflation and rising incomes, leading to consumer spending holding up well.
- Rise will commence in 2025, extending through at least 2026. During this time, we anticipate a reinvigorated macroeconomy and an improved consumer base, as the labor market will remain tight. Use this year to prepare your processes and employees to take advantage of record highs in the coming years.

Phase & Amplitudes

Phase D

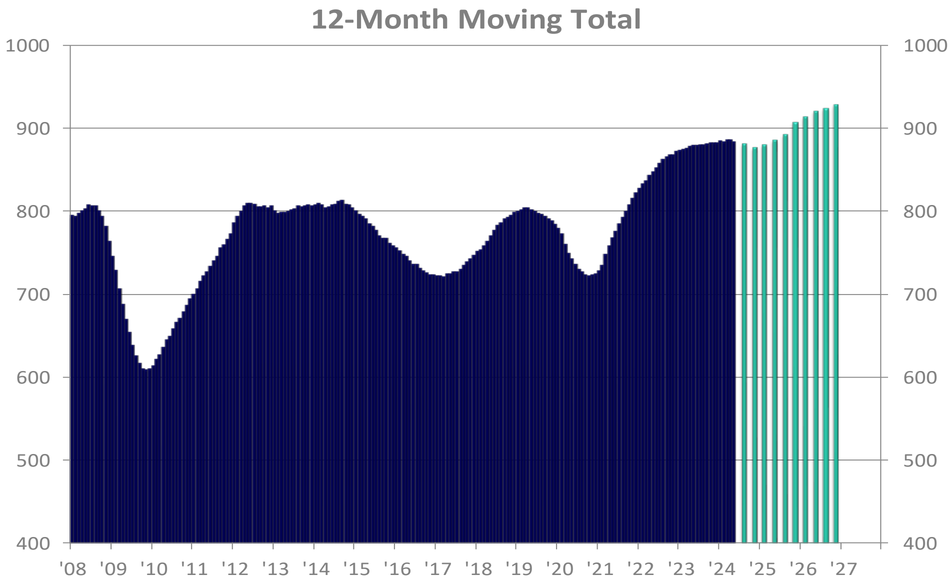
Recession

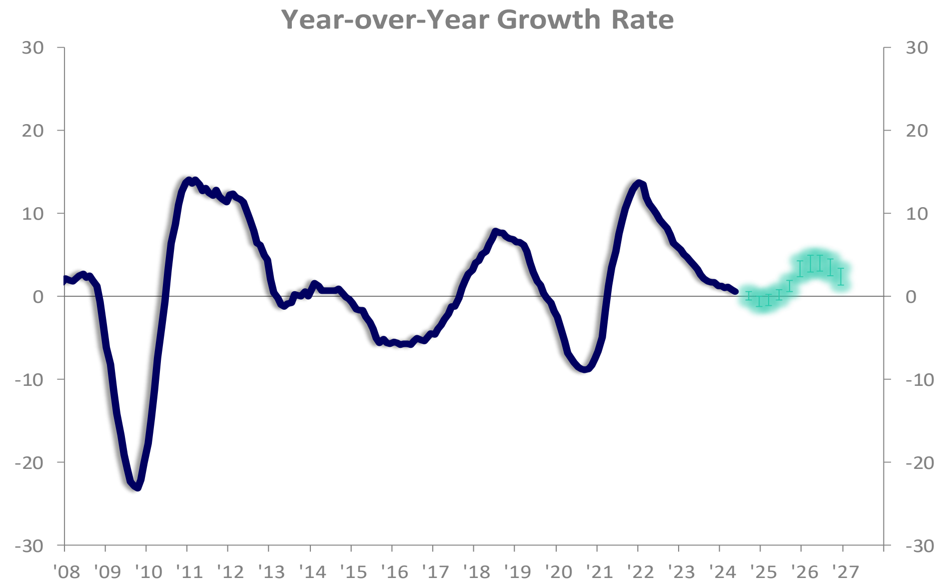
July 2024 Annual Growth Rate (12/12): -0.1%

July 2024 Annual Average (12MMA): 102.8

US Nondefense Capital Goods New Orders (excluding aircraft)

End Markets Within New Orders Trending Differently; Tech-Related Markets Faring Best





Industry Outlook

2024: -0.6%

2025: 3.4%

2026: 2.4%

Outlook & Supporting Evidence

- Annual US Nondefense Capital Goods New Orders (excluding aircraft) is generally flat, but is still slightly above the year-ago level. Annual New Orders will plateau, with a downward bias, for the remainder of this year. B2B spending is still softened, as businesses contend with high borrowing costs and business confidence ticks down given uncertain prospects.
- End markets within New Orders are performing differently. Certain components, such as metalworking machinery, industrial machinery, and farm equipment, have already undergone a hard landing this cycle and are in tentative Phase A, Recovery, trends. Tech-related indicators, such as electronics and computers, are faring better. Discretionary and interest-rate-sensitive markets are likely to feel downward pressure this cycle.
- New Orders will rise in 2025 and 2026 as the industrial sector strengthens and B2B spending rebounds.

Phase & Amplitudes

Phase C

Slowing Growth

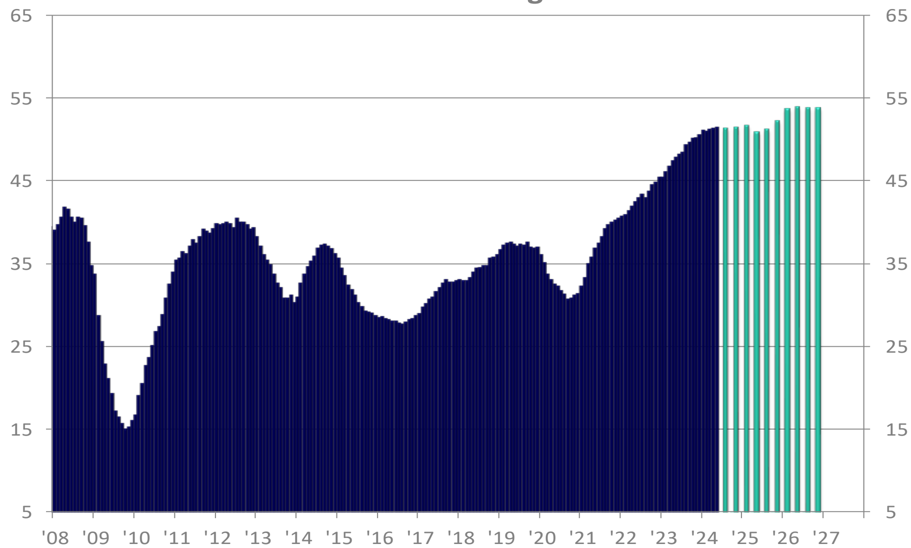
June 2024 Annual Growth Rate (12/12): 0.5%

June 2024 Annual Total (12MMT): $883.7 billion

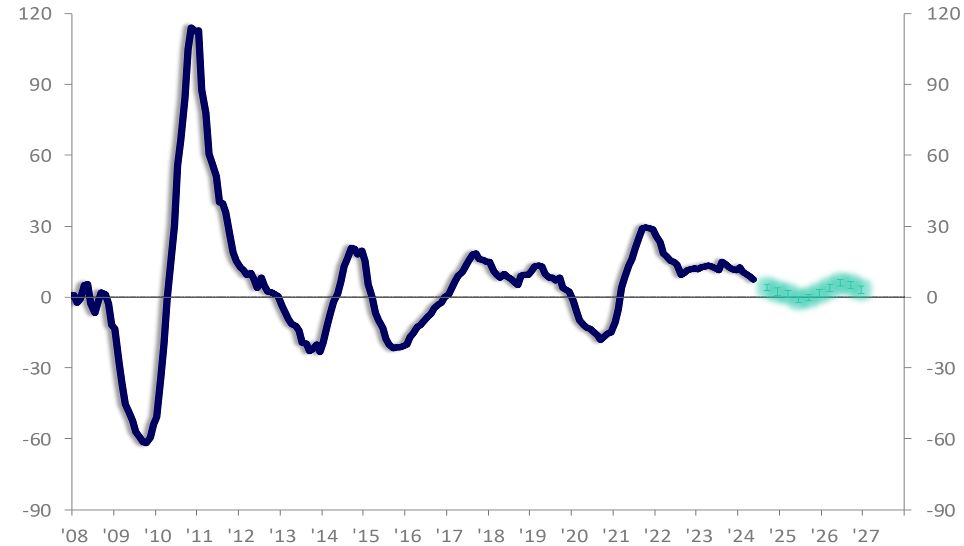
US Construction Machinery New Orders

Forecast Revised Upward; Inflation and Public Sector Are Upsides, Interest Rates a Downside

12-Month Moving Total



Year-over-Year Growth Rate



Industry Outlook

2024: 2.3%

2025: 1.7%

2026: 3.0%

Outlook & Supporting Evidence

- We revised our forecast for US Construction Machinery New Orders upward by 5.4% in 2024, 6.1% in 2025, and 3.5% in 2026. This was primarily driven by the larger-than-anticipated boost stemming from government spending and the effects of cumulative inflation.
- Annual US Construction Machinery Production, a volume-based series, is declining as elevated interest rates weigh on private construction while public construction rises. Inflation is bolstering dollar-denominated annual Construction Machinery New Orders and will contribute to the expected plateau through mid-2025.
- Annual New Orders will subsequently rise into early 2026 as likely lower interest rates spur growth in construction markets. New Orders will plateau for the remainder of 2026.

Phase & Amplitudes

Phase C

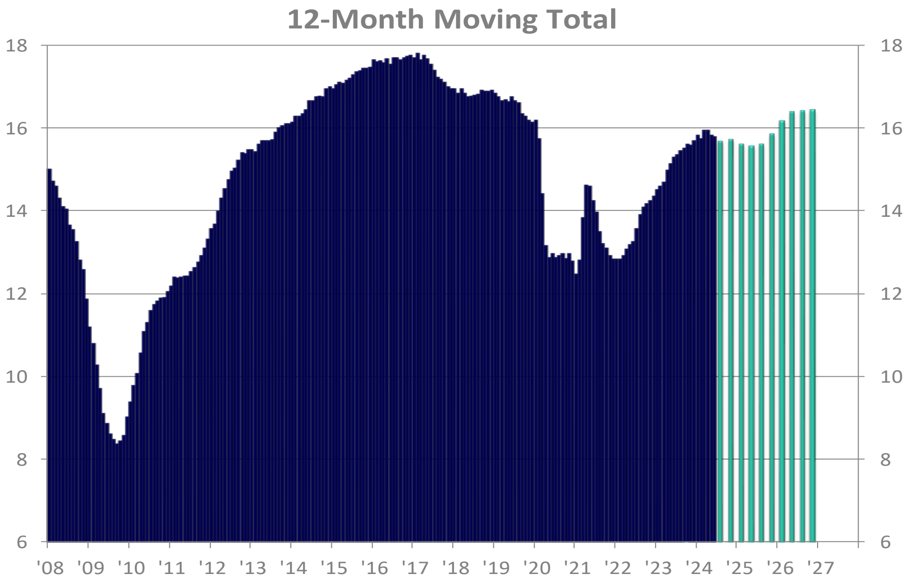
Slowing Growth

June 2024 Annual Growth Rate (12/12): 7.5%

June 2024 Annual Total (12MMT): $51.4 billion

North America Light Vehicle Production

Production to Skew Downward on Weaker Sales and High Interest Rates; Rise Expected by Late 2025



Industry Outlook

2024: 0.5%

2025: 0.9%

2026: 3.7%

Outlook & Supporting Evidence

- Annual North America Light Vehicle Production is slowing in growth and will plateau, skewing somewhat downward into mid-2025.
- Quarterly US Light Vehicle Retail Sales, measured in units, have fallen just below the year-ago level. Auto loan delinquency rates are steadily rising, signaling some pain among consumers, likely lower-income, who are struggling with cumulative inflation and elevated interest rates. Dealers may continue to rebuild inventories, an upside for Production, but likely not up to pre-pandemic levels given the higher-interest-rate environment.
- Rise will take hold around the second half of 2025 and extend through at least 2026, surpassing the current level. Rise will be characterized by easing borrowing conditions and a more financially robust consumer, backed by a tight labor market.

Phase & Amplitudes

Phase C

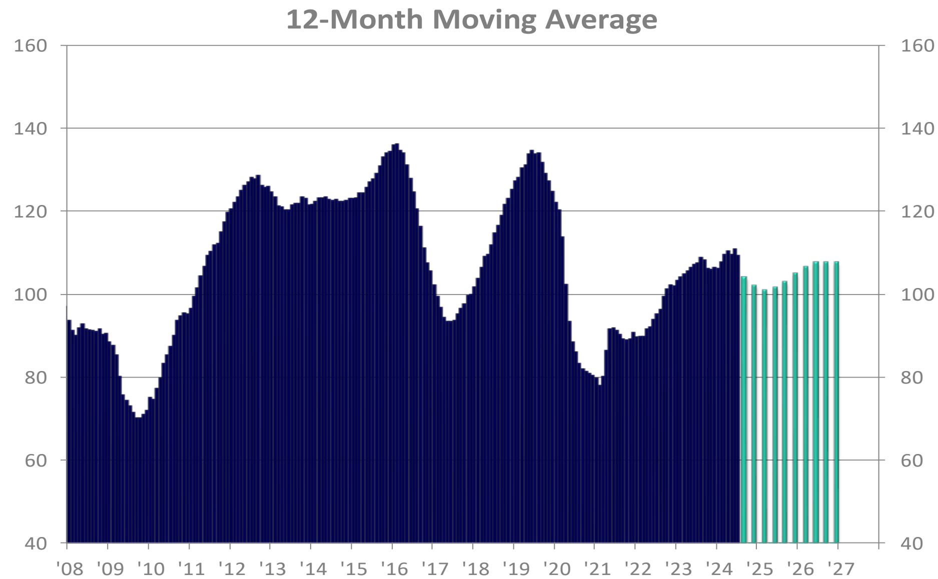
Slowing Growth

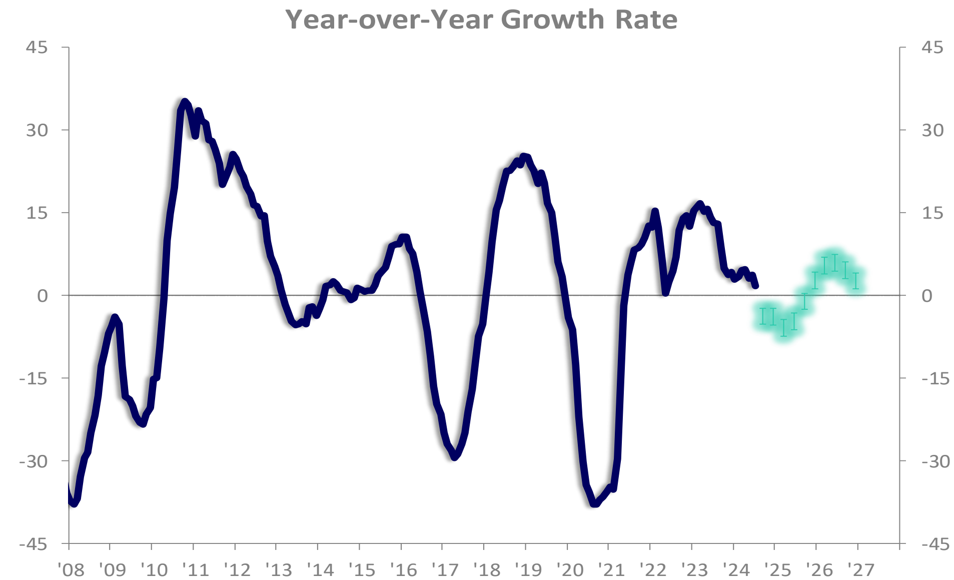
July 2024 Annual Growth Rate (12/12): 3.3%

July 2024 Annual Total (12MMT): 15.8 million units

US Heavy-Duty Truck Production Index

Softening Macroeconomy to Weigh on Production Into Early 2025 Before Rise Takes Hold





Industry Outlook

2024: -3.9%

2025: 2.7%

2026: 2.6%

Outlook & Supporting Evidence

- Annual US Heavy-Duty Truck Production declined in July but was 1.6% above its year-ago level. A near-term transition to Phase D, Recession, is likely given the softening macroeconomy and weak freight markets.
- High interest rates, which have a lagged impact on Production, will continue to pose a downside pressure in the coming quarters. Annual Production will decline into early 2025.
- A stronger B2B environment coupled with a recovering macroeconomy will lead to annual rise for Production in early 2025, extending through 2026. Early signs of improvement in US Total Wholesale Trade are a promising signal that freight activity will begin to recover, which will help boost demand for new trucks.

Phase & Amplitudes

Phase C

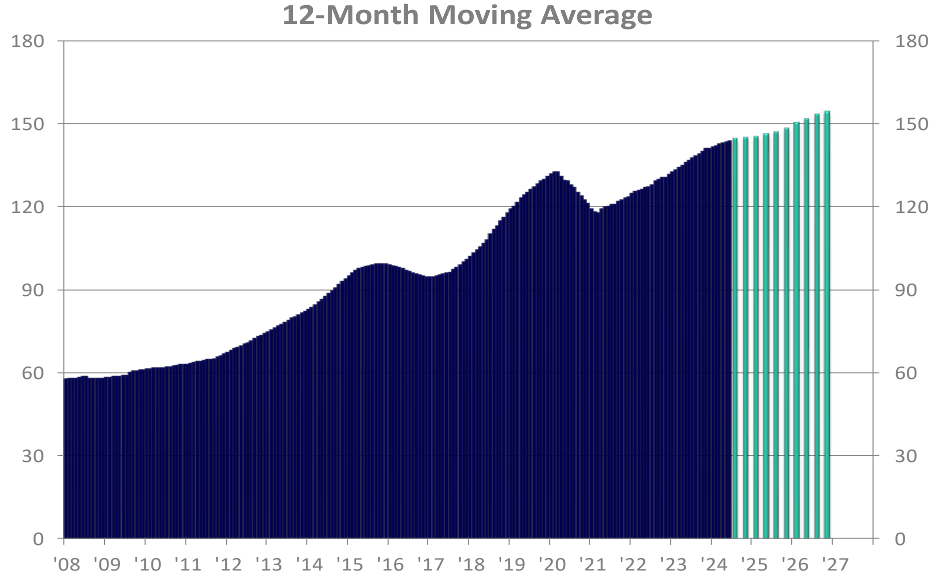
Slowing Growth

July 2024 Annual Growth Rate (12/12): 1.6%

July 2024 Annual Average (12MMA): 109.4

US Oil and Gas Extraction Production Index

Annual Production Is Rising, but at a Slowing Pace; Production to Undergo a Soft Landing



Industry Outlook

2024: 2.8%

2025: 2.2%

2026: 4.2%

Outlook & Supporting Evidence

- Annual US Oil and Gas Extraction Production through July was 5.2% above the year-ago level. While annual Production is rising, it is at a slowing pace, which is projected to be the trend into the middle of 2025.
- Slowing growth is the result of subdued growth in global oil demand. Annual US Crude Oil Exports measured in barrels are at record highs, but growth is slowing. World Industrial Production illustrates a similar trend. Our global macro outlook suggests further slowing growth in domestic Production in the coming quarters.
- Production will undergo a soft landing and begin to accelerate in growth beginning in the latter half of 2025. Global economies are generally expected to pick up in 2025 and 2026, which will positively impact Production.

Phase & Amplitudes

Phase C

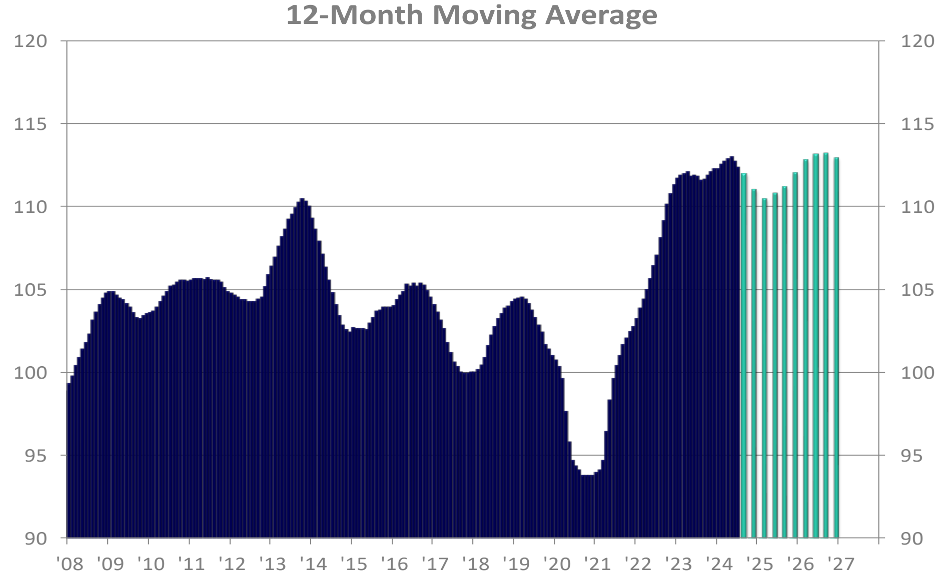
Slowing Growth

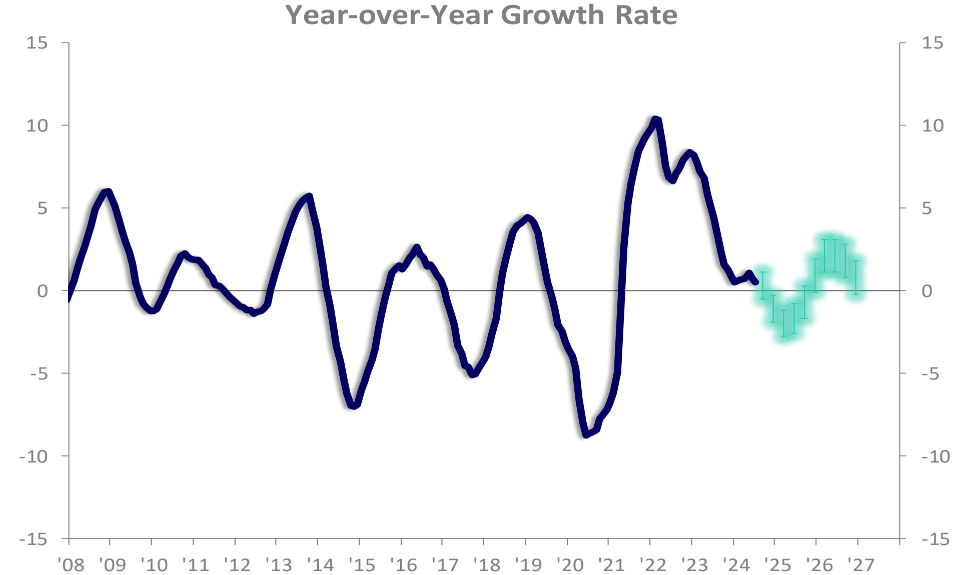
July 2024 Annual Growth Rate (12/12): 5.2%

July 2024 Annual Average (12MMA): 143.8

US Medical Equipment and Supplies Production Index

Forecast Revised; Mild Decline Likely in Near Term Before Rise Takes Hold





Industry Outlook

2024: -1.1%

2025: 0.9%

2026: 0.8%

Outlook & Supporting Evidence

- We revised our forecast for US Medical Equipment and Supplies Production primarily due to a revision to historical data and slight underperformance relative to our prior forecast. The overall trajectory of the forecast is little changed.
- Annual Production will mildly decline into the beginning of 2025, given a softening consumer. A multitude of factors including the aging population, nearshoring, and tariffs on some Chinese medical goods will keep Production relatively elevated in the coming quarters. Peak-to-trough decline will be about 2%.
- Rise will then commence by mid-2025 and persist into the second half of 2026, with annual Production trending at elevated levels relative to pre-pandemic norms.

Phase & Amplitudes

Phase C

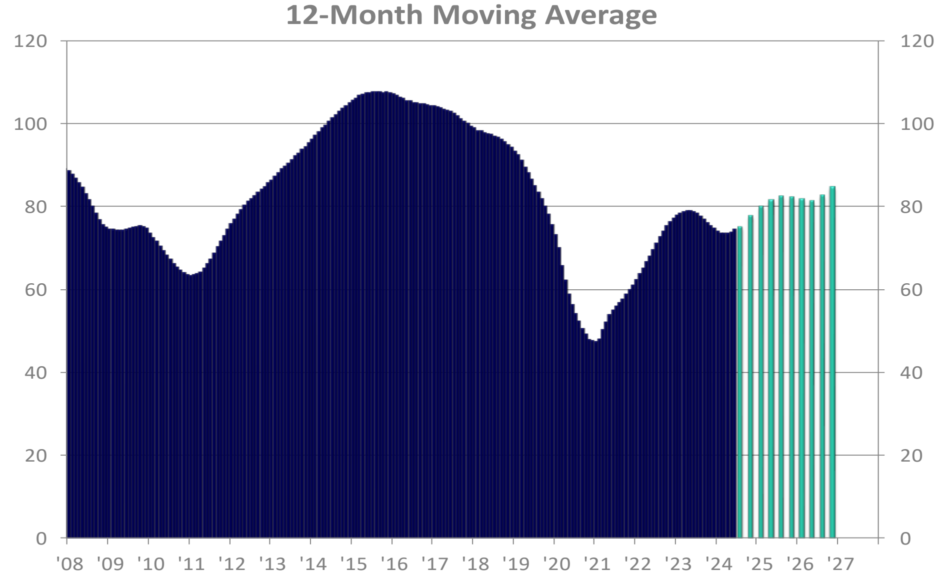
Slowing Growth

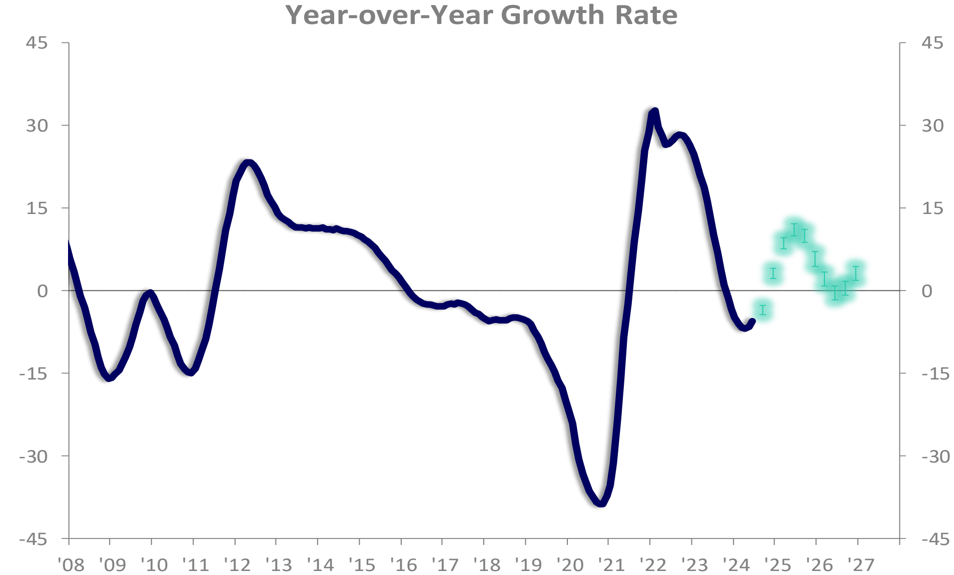
July 2024 Annual Growth Rate (12/12): 0.5%

July 2024 Annual Average (12MMA): 112.4

US Civilian Aircraft Equipment Production Index

Forecast Revised on Data Revision, but Shape Is Little Changed; Expect Rise Into Mid-2025





Industry Outlook

2024: 3.1%

2025: 5.7%

2026: 3.1%

Outlook & Supporting Evidence

- We revised our forecast for US Civilian Aircraft Equipment Production due to a revision to historical data by the Federal Reserve Board. The general shape of the forecast is largely unchanged.
- Annual Production is in a tentative rising trend that we expect will last into late 2025. Downside pressures from a cooling macroeconomy and softening industrial sector during 2024 will likely manifest in the aircraft industry as a plateau from mid-2025 to mid-2026. Given the lengthy production times in this industry, we often see a delayed impact from macroeconomic changes. US Nondefense Aircraft and Parts New Orders corroborate this outlook.
- Quality issues, government investigations, and leadership changes at Boeing pose a risk to the Production forecast.

Phase & Amplitudes

Phase A

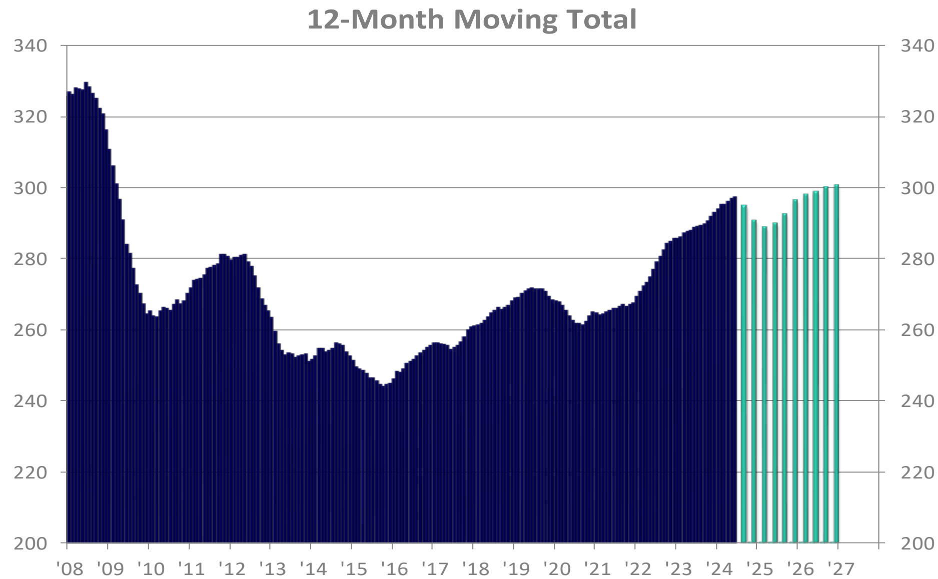
Recovery

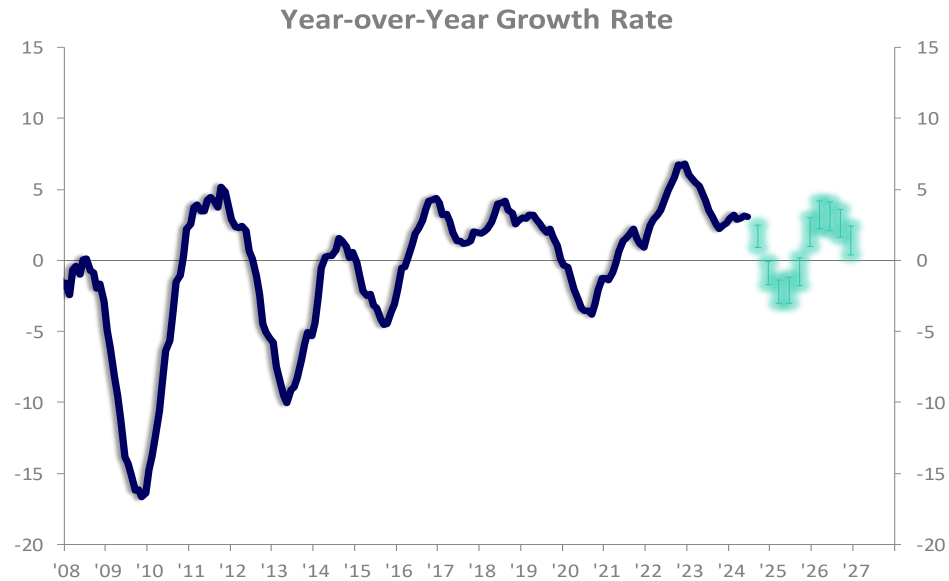
July 2024 Annual Growth Rate (12/12): -5.5%

July 2024 Annual Average (12MMA): 74.4

US Computers and Electronics New Orders

New Orders Likely to Mildly Decline in Near Term, Rise by Mid-2025 From Tech Sector Boon





Industry Outlook

2024: -0.9%

2025: 2.0%

2026: 1.4%

Outlook & Supporting Evidence

- In the past few quarters, annual US Computers and Electronics New Orders have been resilient, likely due to strength in semiconductor production, data centers, and AI. While our median outlook is for mild decline into mid-2025, New Orders may trend closer to the upper forecast range in the near term.
- Stalling capex and slowing retail spending are expected to dampen demand for computers and electronics in the near term, which is further corroborated by a slowing growth in quarterly US Computers, Peripherals, and Software Personal Consumption Expenditures.
- Annual New Orders rise will resume by mid-2025 and extend through at least year-end 2026. During this time, the macroeconomy will be rising, as tentatively signaled by leading indicators.

Phase & Amplitudes

Phase C

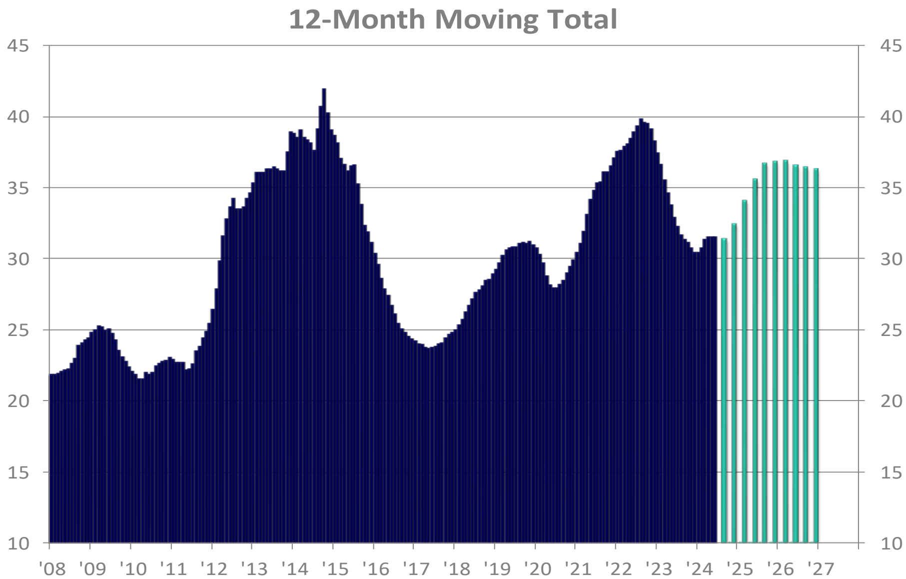
Slowing Growth

June 2024 Annual Growth Rate (12/12): 3.1%

June 2024 Annual Total (12MMT): $297.5 billion

US Farm Machinery Shipments

Shipments Are Nearing Phase B; Expect a Robust 2025 Then Mild Decline in 2026



Industry Outlook

2024: 6.6%

2025: 13.5%

2026: -1.5%

Outlook & Supporting Evidence

- Annual US Farm Machinery Shipments through June were 4.2% below the year-ago level. Shipments are expected to transition to Phase B, Accelerating Growth, in the latter part of this year.
- Annual Shipments are projected to rise through 2025. The annual Shipments climb from the current level to the next peak is expected to be by about 16.7%. General rise in leading indicators, including the ITR Leading Indicator™ and the US ISM PMI (Purchasing Managers Index), are signaling further rise in Shipments, at least in the near term.
- Most of 2026 will end up being a slower year for annual Shipments. Expect mild decline of 1.5% from early 2026 to the end of the forecast period.

Phase & Amplitudes

Phase A

Recovery

June 2024 Annual Growth Rate (12/12): -4.2%

June 2024 Annual Total (12MMT): $31.5 billion

INDICATORS

US Leading Indicators

Indicator	Direction 3Q24	Direction 4Q24	Direction 1Q25
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

• We continue to expect upward momentum in 2025, as most leading indicators are pointing upward for this period. A few others, however, are sending mixed messages on the trajectory of the macroeconomy for later that year.

• Mild rise in the ITR Leading Indicator™ signals that businesses that align closely with US Industrial Production should see a mild upturn in growth rates moving into next year.

• The US ISM PMI (Purchasing Managers Index) monthly rate-of-change is in a nascent downward trend after exhibiting fairly consistent rise since late 2022. Should this weakness continue, it would pose a downside pressure to the industrial sector in the second half of 2025 based on its median lead time of roughly one year.

While generally all indicators are flashing green, we likely won't see that translate to stronger activity until early 2025. Economic conditions, such as still-elevated interest rates and a price-conscious consumer, are not favorable this year. We are expecting improved B2B spending, a rebounding industrial sector, and stable consumers in 2025 and 2026; activate plans now to capitalize on this stronger macroeconomy in the years to come.

Appendix — Market Definitions

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

US Nondefense Capital Goods New Orders (excluding aircraft)— New orders for nondefense capital goods, excluding aircraft, in the United States. Includes farm machinery and equipment, construction machinery, mining machinery, nondefense small arms and ordnance, industrial machinery, commercial and service industry equipment, other general purpose machinery, photographic equipment, metalworking machinery, turbine and generator manufacturing, power transmission equipment, pumps and compressors, material handling equipment, electronic computers, computer storage devices and peripheral equipment, communications equipment, nondefense search and navigation equipment, electrometrical equipment, electrical equipment, heavy duty truck manufacturing, railroad rolling stock, nondefense ship and boat building, office and institutional furniture, and medical equipment and supplies. Source: US Census Bureau. Measured in billions of dollars, NSA.

US Construction Machinery New Orders — New Orders for construction machinery in the United States. This industry comprises establishments primarily engaged in manufacturing construction machinery, surface mining machinery, and logging equipment. Source: US Census Bureau. NAICS Code: 33312. Measured in billions of dollars, NSA.

North America Light Vehicle Production — Passenger car and light-duty truck production (classes 1-3) in the US, Canada, and Mexico combined, including transplants. A passenger car is a road motor vehicle, other than a motorcycle, intended for the carriage of passengers and designed to seat no more than nine persons (including the driver). Source: WardsAuto. Measured in millions of units, NSA.

US Heavy Duty Truck Production Index — Production index for heavy duty trucks in the US. This industry comprises establishments primarily engaged in (1) manufacturing heavy duty truck chassis and assembling complete heavy duty trucks, buses, heavy duty motor homes, and other special purpose heavy duty motor vehicles for highway use or (2) manufacturing heavy duty truck chassis only. Includes trucks weighing 14,000 pounds or more. Source: Federal Reserve Board. NAICS code: 33612. Index, 2017 = 100, NSA.

Appendix — Market Definitions

US Oil and Gas Extraction Production Index — Includes exploration and extraction of crude petroleum and natural gas; drilling, completing, and equipping wells; operating separators, emulsion breakers, desilting equipment, and field gathering lines for crude petroleum and natural gas; and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. Also includes the production of crude petroleum, the mining and extraction of oil from oil shale and oil sands, and the production of natural gas, sulfur recovery from natural gas, and recovery of hydrocarbon liquids. Source: Federal Reserve Board. NAICS Code: 211. Index, 2017 = 100, NSA.

US Medical Equipment and Supplies Production Index — Medical equipment and supplies manufacturing index for the United States. Examples of products made by these establishments are surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, ophthalmic goods, dentures, and orthodontic appliances. Source: Federal Reserve Board. NAICS Code: 3391. Index, 2017 = 100, NSA.

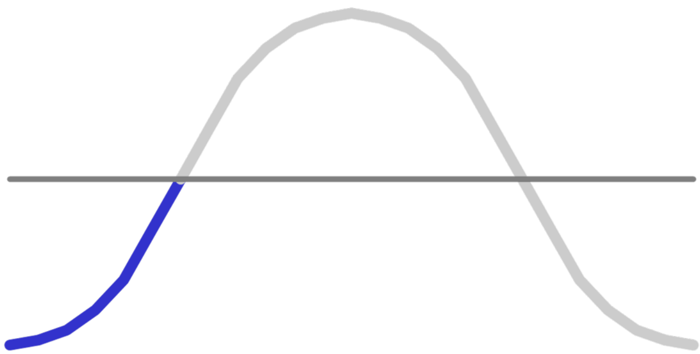
US Civilian Aircraft Equipment Production Index — Index for US establishments primarily engaged in one or more of the following: (1) manufacturing aircraft engines and engine parts; (2) developing and making prototypes of aircraft engines and engine parts; (3) aircraft propulsion system conversion (i.e.,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

US Computers and Electronics New Orders — New orders for computer and electronic products (excluding semiconductors) in the United States. Industries in the Computer and Electronic Product Manufacturing subsector aggregate establishments that manufacture computers, computer peripherals, communications equipment, and similar electronic products, and establishments that manufacture components for such products. Source: US Census Bureau. NAICS Code: 334. Measured in billions of dollars, NSA.

US Farm Machinery Shipments — Total shipments in the United States includes agricultural and farm machinery and equipment, and other turf and grounds care equipment, including planting, harvesting, and grass mowing equipment (except lawn and garden-type). Source: US Census Bureau. NAICS: 333111. Measured in billions of dollars, NSA.

Management Objectives™

Phase



A

1 Scrupulously evaluate the supply chain

2 Model positive leadership (culture turns to behavior)

3 Start to phase out marginal opportunities (products, processes, people); repair margins

4 Perform due diligence on customers and extend credit

5 Be on good terms with a banker; you will need the cash more now than in any other phase

6 Invest in customer market research; know what they value and market/price accordingly

7 Hire key people and implement company-wide training programs ahead of Phase B

8 Allocate additional resources to sales and marketing

9 Invest in system/process efficiencies

10 Make opportunistic capital and business acquisitions; use pessimism to your advantage

Management Objectives™

1 Ensure quality control keeps pace with increasing volume

2 Invest in workforce development: hiring, training, retention

3 Ensure you have the right price escalator; space out price increases

4 Maximize your profit margins through differentiation; stand out from the crowd and set yourself apart

5 Use improved cash flow to strategically position the business to beat the business cycle

6 Expand credit to customers

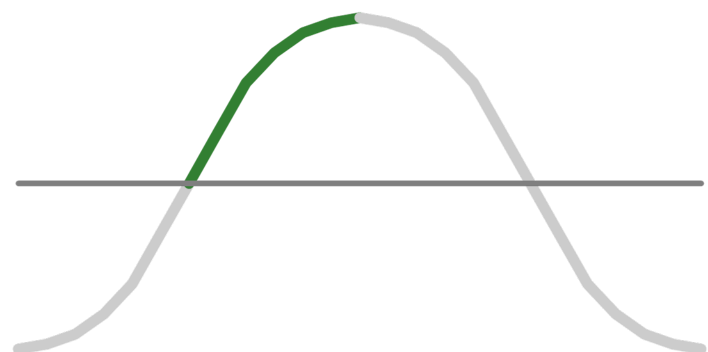
7 Improve corporate governance (rent a CFO; establish a board of advisors or board of directors)

8 Communicate competitive advantages; build the brand

9 Query users for what they want and what is important to them

10 Sell the business in a climate of maximum goodwill

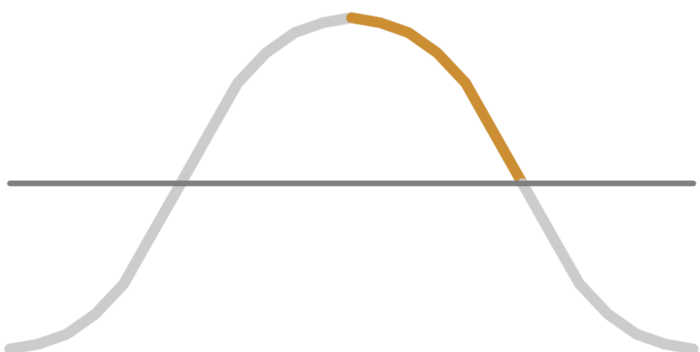
Phase



B

Management Objectives™

Phase



C

1 Know if your markets are headed for a soft landing or a hard landing

2 Cash is king; beware of unwarranted optimism

3 Stay on top of aging receivables

4 Revisit capital expenditure plans

5 Lose the losers: if established business segments are not profitable during this phase, eliminate them

6 Use competitive pricing to manage your backlog through the coming slowdown

7 Avoid committing yourself to long-term expenses at the top of the price cycle, but lock in revenue

8 Go entrepreneurial and/or counter-cyclical

9 Evaluate your vendors for financial strength; if needed, look for additional vendors as a safety net

10 If the cycle looks recessionary, cross-train key people to prepare for workforce attrition/reduction

Management Objectives™

1 Implement aggressive cost-cutting measures

2 Offer alternative products with a lower cost basis

3 Perform due diligence on acquisitions while valuations are falling

4 Reduce advertising as consumers become more price conscious

5 Enter or renegotiate long-term leases

6 Negotiate labor contracts

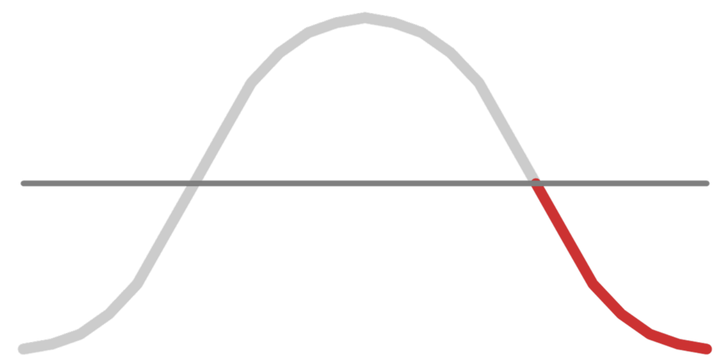
7 Consider capital equipment needs for the next cycle

8 Tighten credit policies

9 Develop programs for advertising, training, and marketing to implement in Phase A

10 Lead with optimism, remembering that Phase D is temporary

Phase



D