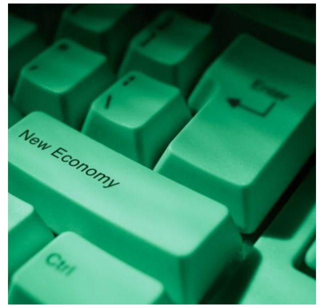
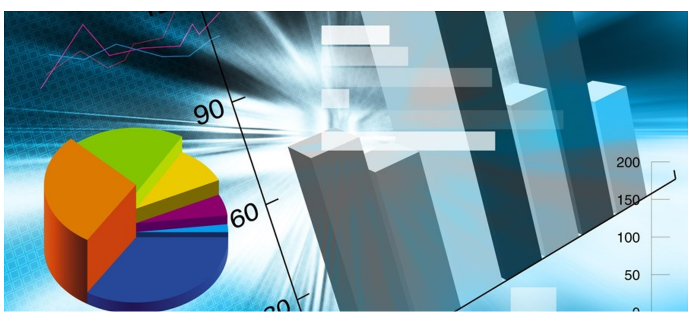




PMPA
PRECISION MACHINED PRODUCTS ASSOCIATION

February 2025

Economic Report

ITR ECONOMICS

Table of Contents

overview

Growth Lies Ahead; Here Are Some Key Drivers:

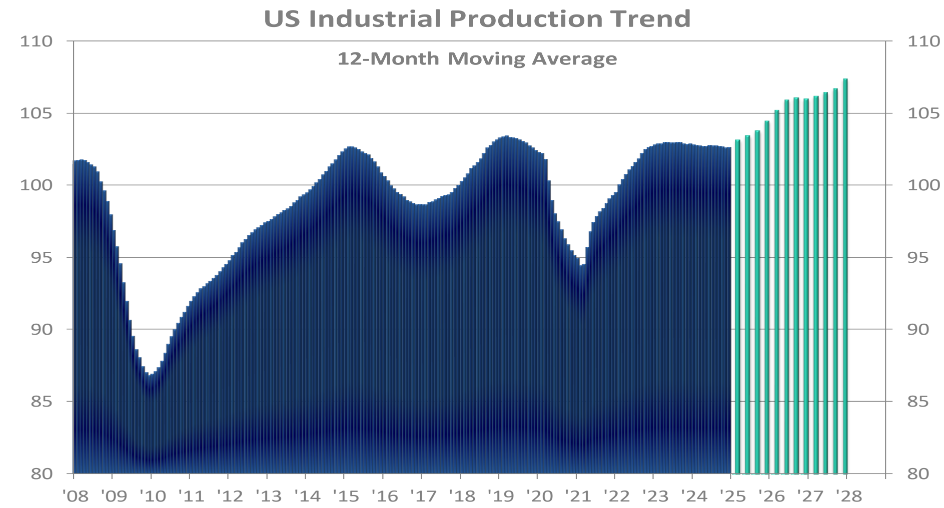
Consumers: Rising incomes and inflation-adjusted savings balances will help boost Retail Sales rise in the years ahead. Higher-income earners and those who saw their home prices rise and stock portfolios increase in value in recent years will likely drive much of the growth. Those demographics struggling with inflation should get some relief in 2025, but price sensitivity will linger. Retail Sales growth will start out sluggish in early 2025 but then ramp up later in the year.

Interest Rates: The Federal Reserve has shifted to a more accommodative monetary policy; however, a lower Federal Funds Rate (a short-term rate) does not necessarily equate to lower interest rates for businesses and consumers. Commercial loans and mortgage rates trend similarly to US Government Long Term Bond Yields, which we anticipate will likely generally rise this year. When deciding on capex, focus on timing the ROI to best align with your market trends. Aim to have the payback period completed ahead of the 2030s, as we anticipate tougher economic times in that decade.

Inflation: Prices will generally rise in the coming years, picking up the pace in the second half of 2025. Inflation will be temperate relative to 2021 and 2022 levels but not as low as in the 2010s. If further tariffs are put in place, they could pose an upside risk to our pricing outlooks.

Businesses: While borrowing costs are unlikely to come down, elevated corporate profits and corporate cash will allow businesses to spend more. We expect the investments in domestic capacity made in recent years will have a cumulative positive effect, helping the economy reach record heights. Rise will be driven both by higher volumes and higher dollar values. Efficiency gains will be necessary to maintain or improve margins.

The Labor Market: Labor challenges will persist in the upcoming years, as will the upward pressure on wages. While the labor market has softened, it will remain relatively tight in the coming years due in part to the aging population. It will be important to focus resources on attracting and retaining talent. Keep your wages and benefits competitive for your region and industry.



Tariffs: The state of tariffs is actively evolving. If widespread, they could result in higher prices and lower volume growth, but growth is still the likely trajectory. Tariffs typically have acute microeconomic impacts. Each business's exposure to tariff risks is unique. Analyze your supply chain to estimate your risk exposure. Build contingency plans both internally and, if possible, with your upstream and downstream business partners. Consider reaching out to a customs and duties specialist. Think back to previous tariffs and periods of supply chain volatility: What could you have done differently, and what worked well?

Key Industries and Takeaways for Your Business

It may feel difficult to be optimistic at this point in the business cycle, but there are green shoots. Leading indicators, including the ITR Leading Indicator™, point to upcoming business cycle rise. There will be areas of opportunity within nonresidential construction, notably data centers, as they are in high demand and likely to rise in the coming two years. Within the industrial sector, manufacturing related to technology will likely be an area of opportunity. What is your business doing to prepare for general macroeconomic rise in the second half of this decade? Do you have the capacity needed to take on more activity, or can you harness new technologies to increase productivity? Rising prices coupled with lingering price sensitivity could cause margin squeeze. Now is the time to focus on efficiencies to protect your margins.

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.**

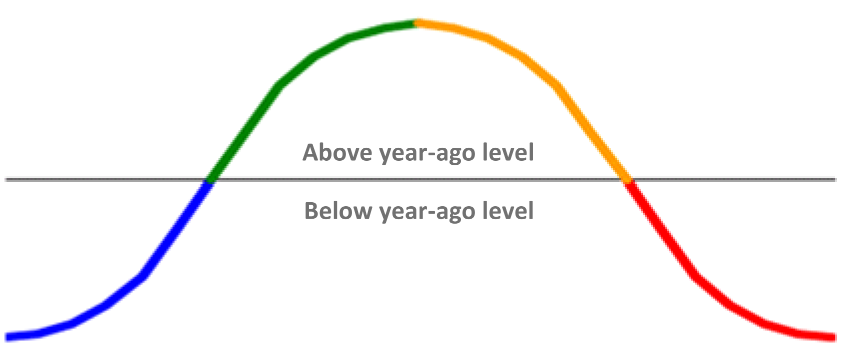
Rates-of-change reveal whether activity levels are rising or falling compared to last year. A rate-of-change trend illustrates and measures cyclical change and trends in the data.

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.

Business Cycle:

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



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.

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.

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	Current 12/12	Phase	2025	2026	2027
4	US Industrial Production Index	-0.2%	A	1.4%	1.5%	1.3%
5	North America Light Vehicle Production	0.3%	C	0.9%	3.7%	-0.3%
6	US Aircraft and Parts Production Index	-2.9%	D	2.0%	3.5%	2.5%
7	US Housing Starts	-3.9%	A	1.7%	5.2%	3.6%
8	US Heavy-Duty Truck Production Index	-1.2%	D	2.4%	5.1%	1.2%
9	US Medical Equipment and Supplies Production Index	-2.9%	D	0.7%	0.5%	0.9%
10	US Machinery New Orders	0.5%	C	5.0%	4.4%	-0.2%
11	US Ammunition, Small Arms, Ordnance, and Other Ordnance Accessories Production Index	1.8%	B	0.3%	7.0%	1.1%

A RECOVERY

B ACCELERATING GROWTH

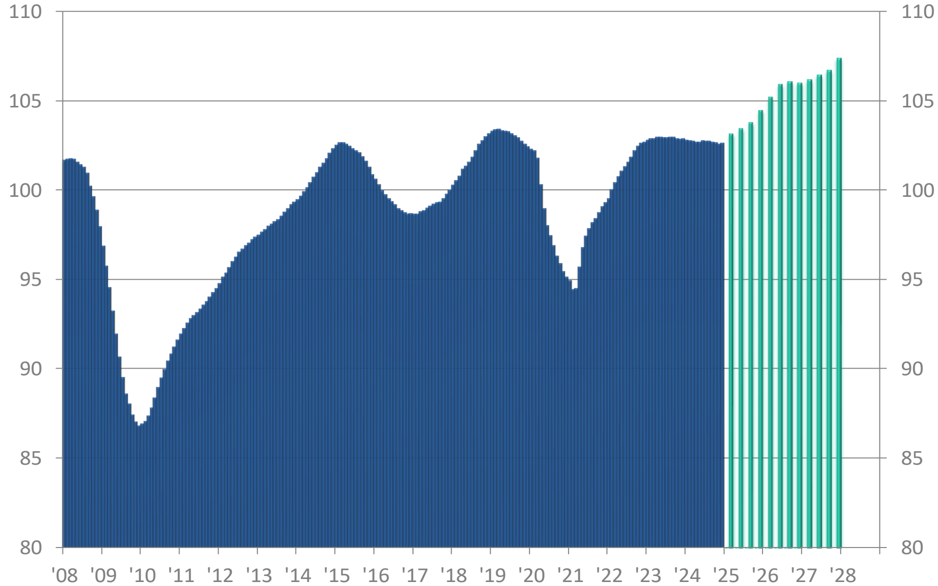
C SLOWING GROWTH

D RECESSION

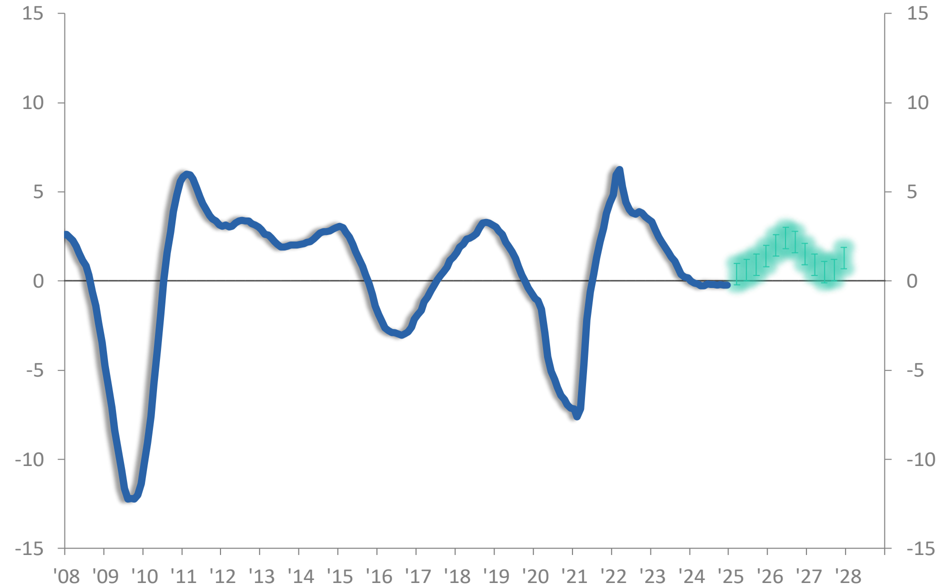
US Industrial Production Index

General Rise and Record Highs Upcoming, but High Interest Rates Pose a Lingering Downside Pressure

12-Month Moving Average



Year-over-Year Growth Rate



Industry Outlook

2025: 1.4%

2026: 1.5%

2027: 1.3%

Outlook & Supporting Evidence

- Industrial Production will break out of its plateau this year with the accumulation of near-shoring investments from recent years enabling record highs in the years ahead. Growth will be sluggish at first and then momentum will build into mid-2026. Growth rates will then wane into mid-2027, with a soft landing expected for that cyclical trough.
- Consumers and businesses alike remain in relatively solid financial positions, and rising incomes and elevated corporate profits will support higher spending in the years ahead.
- The Federal Reserve is easing monetary policy, but long-term interest rates - a closer match to what businesses and consumers pay- are likely to remain elevated. Downside pressure could linger in interest-rate sensitive markets.

Phase & Amplitudes

Phase A

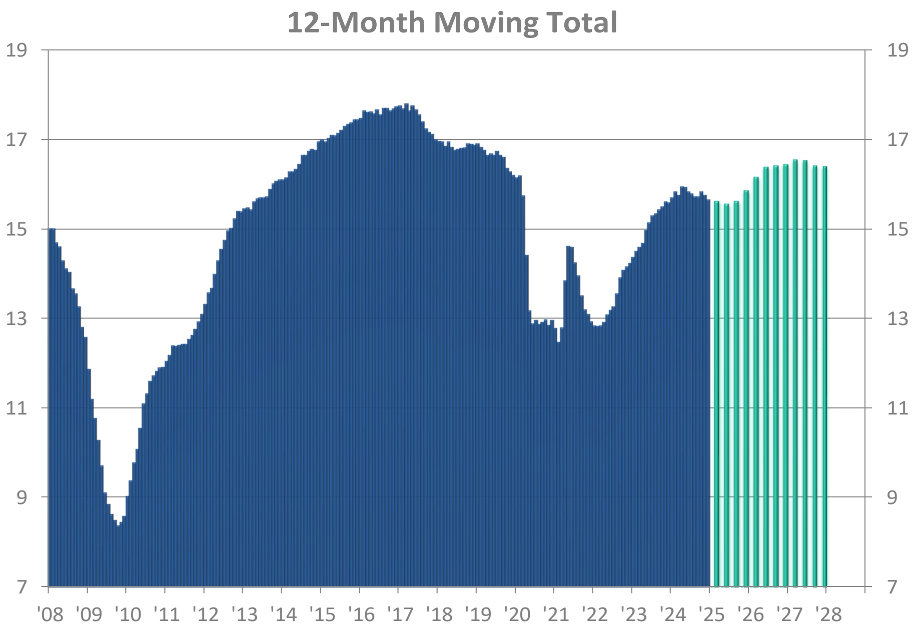
Recovery

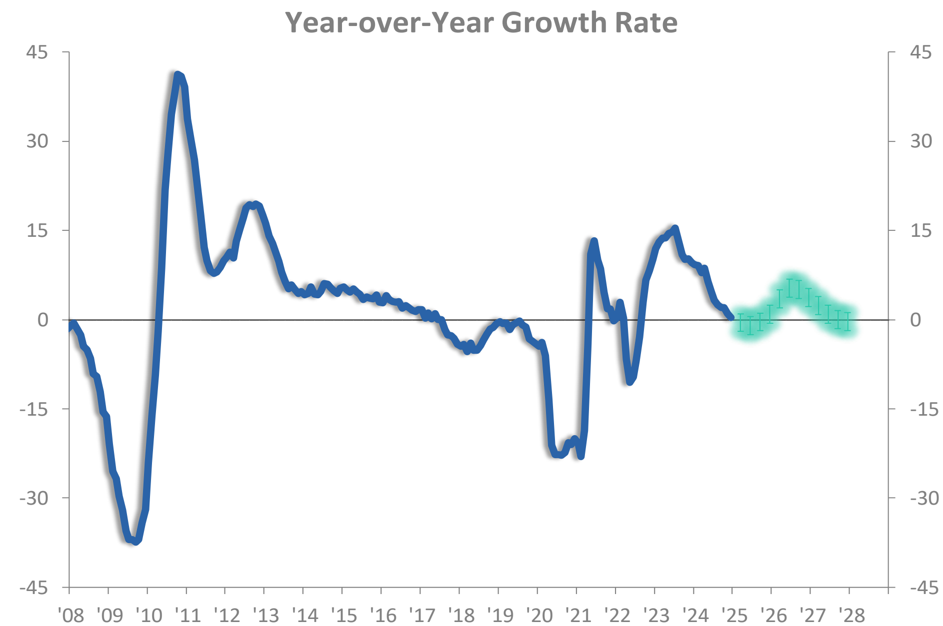
December 2024 Annual Growth Rate (12/12): -0.2%

December 2024 Annual Average (12MMA): 102.6

North America Light Vehicle Production

Rising Real Incomes Support Modest Growth Ahead, but Tariffs Present Risks





Industry Outlook

2025: 0.9%

2026: 3.7%

2027: -0.3%

Outlook & Supporting Evidence

- Annual Production will have a flat to mildly downward trajectory into the middle of this year before rising into the beginning of 2027 and flattening out again. The highest growth rates will be concentrated in 2026.
- Rising real income and ample employment opportunities support our outlook for upcoming growth, but high financing costs are impacting affordability, especially for lower-income consumers. Auto Loan Delinquency Rates are rising higher but remain below the pre-COVID level. Upcoming growth will be modest as a result of these factors.
- If implemented, proposed tariffs on our North American trade partners and on steel and aluminum imports would pose a risk to the auto sector - potentially causing supply chain shifts or higher prices. Tariffs could benefit some but hurt others.

Phase & Amplitudes

Phase C

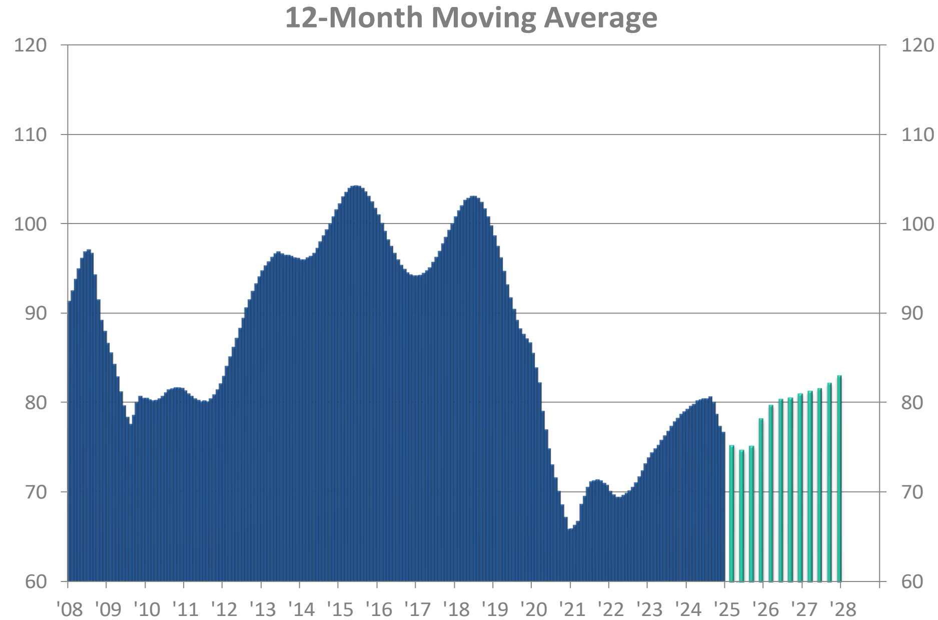
Slowing Growth

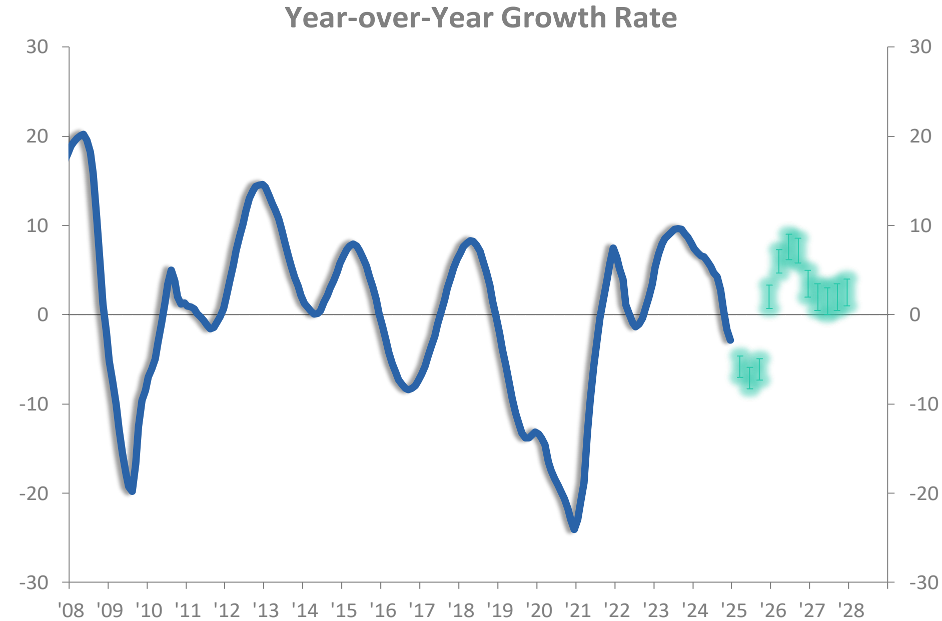
December 2024 Annual Growth Rate (12/12): 0.3%

December 2024 Annual Total (12MMT): 15.6 million units

US Aircraft and Parts Production Index

Forecast Revised on Machinist Strike; Expect Decline Into Mid-2025, Then Rise Through at least 2027





Industry Outlook

2025: 2.0%

2026: 3.5%

2027: 2.5%

Outlook & Supporting Evidence

- US Aircrafts and Parts Production activity in 2024 was 2.9% below the 2023 level of activity. Production was underperforming the forecast largely due to the Boeing machinist strike and other regulatory hurdles, indicating that an earlier low and steeper decline was likely. We revised the annual Production forecast downward by 3.4% for 2025 and 6.6% for 2026.
- Production will decline into the middle of 2025, then rise through at least 2027. Trough-to-peak rise through 2027 will be around 11%.
- Tariffs could result in higher prices for inputs in this industry. Balance the need to strengthen your relationships with suppliers with the benefits of nearshoring and onshoring to reduce tariff risks. Look to improve efficiencies to mitigate the potential inflationary impact of tariffs.

Phase & Amplitudes

Phase D

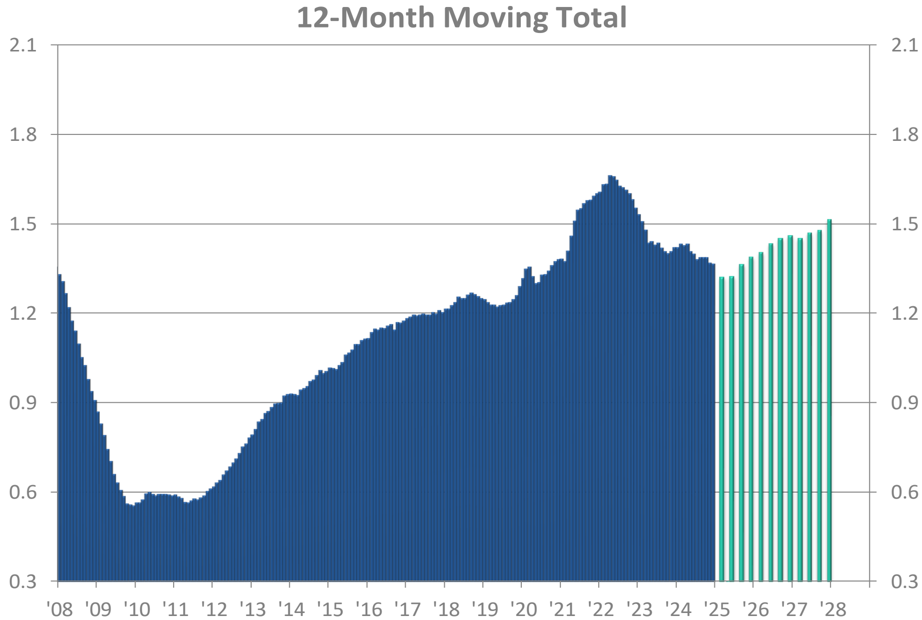
Recession

December 2024 Annual Growth Rate (12/12): -2.9%

December 2024 Annual Average (12MMA): 76.7

US Housing Starts

Downgraded on Multi-Unit Weakness; Expect Near-Term Low Followed by Rise Through 2027



Industry Outlook

2025: 1.7%

2026: 5.2%

2027: 3.6%

Outlook & Supporting Evidence

- We lowered the US Housing Starts forecast 5.4%-5.9% due to the multi-unit component. An uptick in rental vacancy, lingering financial strain on lower-income consumers, and elevated interest rates are limiting the attractiveness of multi-units as an investment. The single-unit segment is faring better, as it is now plateauing but above year-ago levels.
- Overall Starts will decline for another quarter, then generally rise through at least 2027.
- 30-Year Fixed Mortgage Rates rose in recent months and are trending around 7% as of early February. Affordability constraints are likely to weigh on the housing market, but home sales will likely increase incrementally as rising real incomes allow buyers acclimate to higher interest rates.

Phase & Amplitudes

Phase A

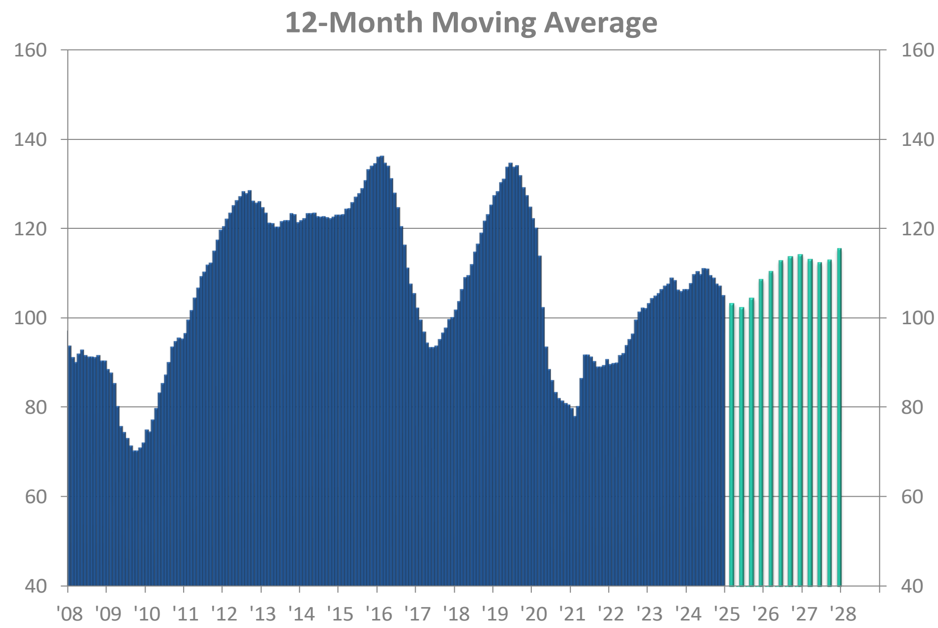
Recovery

December 2024 Annual Growth Rate (12/12): -3.9%

December 2024 Annual Total (12MMT): 1.4 million units

US Heavy-Duty Truck Production Index

Decline Expected to Be Brief, Rate-of-Change Rise in Trucking Indicators a Positive Sign



Industry Outlook

2025: 2.4%

2026: 5.1%

2027: 1.2%

Outlook & Supporting Evidence

- US Heavy-Duty Truck Production in 2024 was 1.2% below the 2023 level, transitioning to Phase D, Recession, in December.
- Production will decline into the middle of this year. Interest rates remain a downside pressure, but rise in US Total Wholesale Trade will help keep contraction mild. Subsequently, Production will generally rise through 2026. Production will dip briefly in the first half of 2027, but activity will recover by the end of that year.
- Freight rates, volumes, and revenues remain at or below year-ago levels. Still, Phase A, Recovery, for these same metrics support our view that businesses should look to use the current period of weaker activity to prepare for the next rising trend.

Phase & Amplitudes

Phase D

Recession

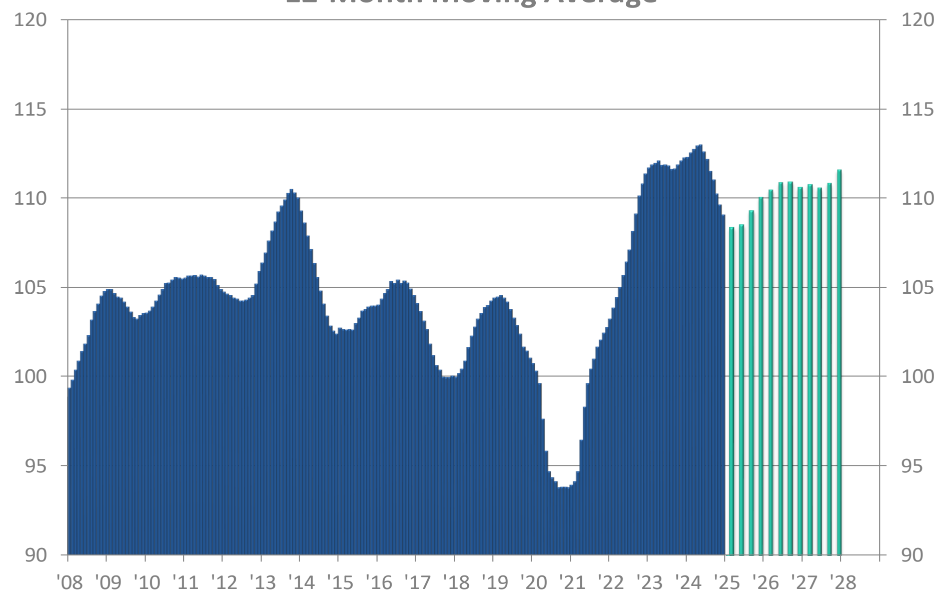
December 2024 Annual Growth Rate (12/12): -1.2%

December 2024 Annual Average (12MMA): 105.0

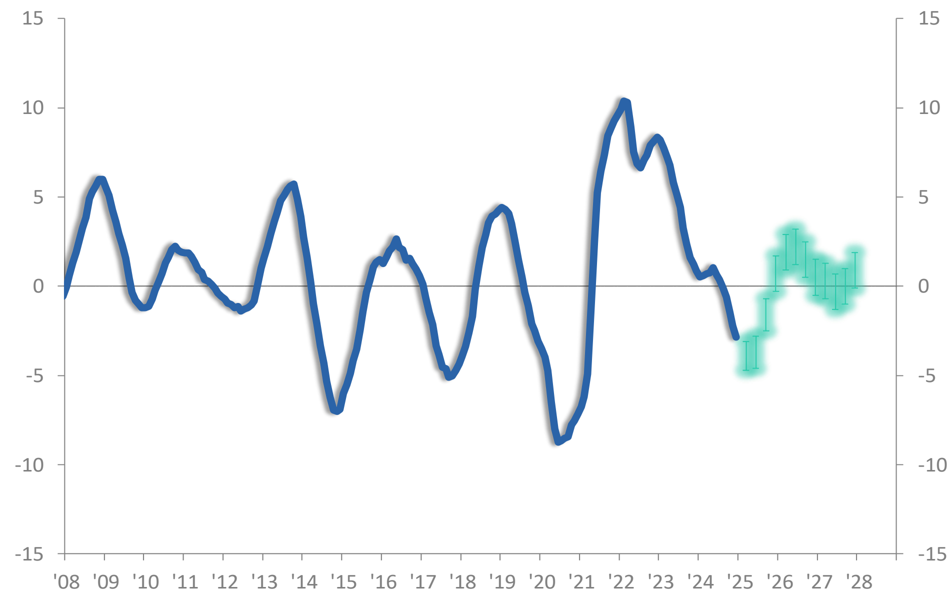
US Medical Equipment and Supplies Production Index

Forecast Adjusted; Production to Rise From the Near-Term Through Mid-2026

12-Month Moving Average



Year-over-Year Growth Rate



Industry Outlook

2025: 0.7%

2026: 0.5%

2027: 0.9%

Outlook & Supporting Evidence

- US Medical Equipment and Supplies Production in 2024 was 2.9% below the 2023 level. We adjusted the forecast to account for a recent downward deviation, but the growth rates for the coming years are little changed.
- Production will reach a low in the near term and then rise through mid-2026. Production is then expected to plateau through most of 2027.
- US dollar strength presents a downside risk to the outlook, as extended periods of US dollar strength may make cheaper foreign goods more attractive. However, trends in US Medical and Diagnostic Laboratories Services Revenue point to upcoming rise for Production in the latter half of this year and into at least early 2026.

Phase & Amplitudes

Phase D

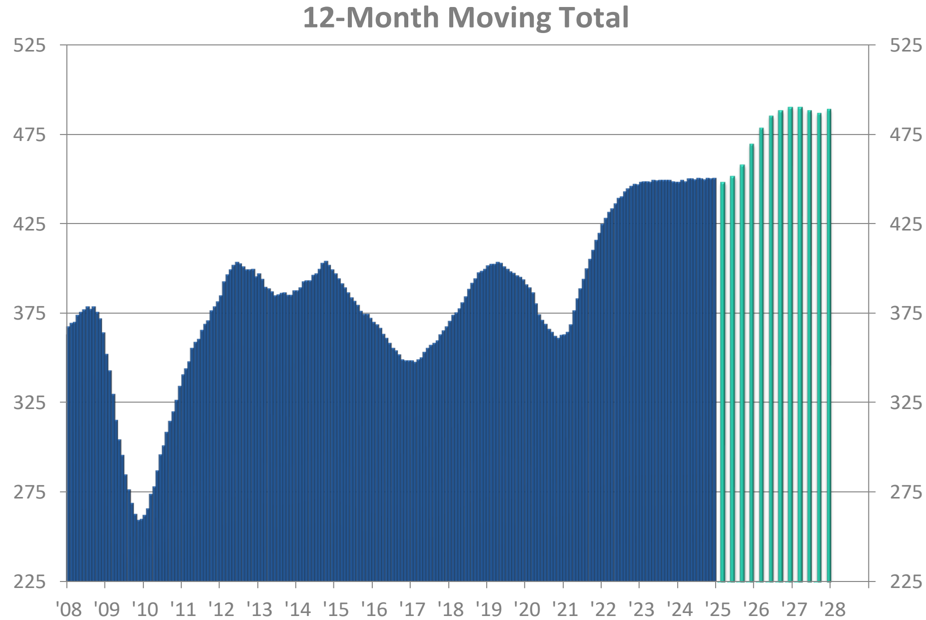
Recession

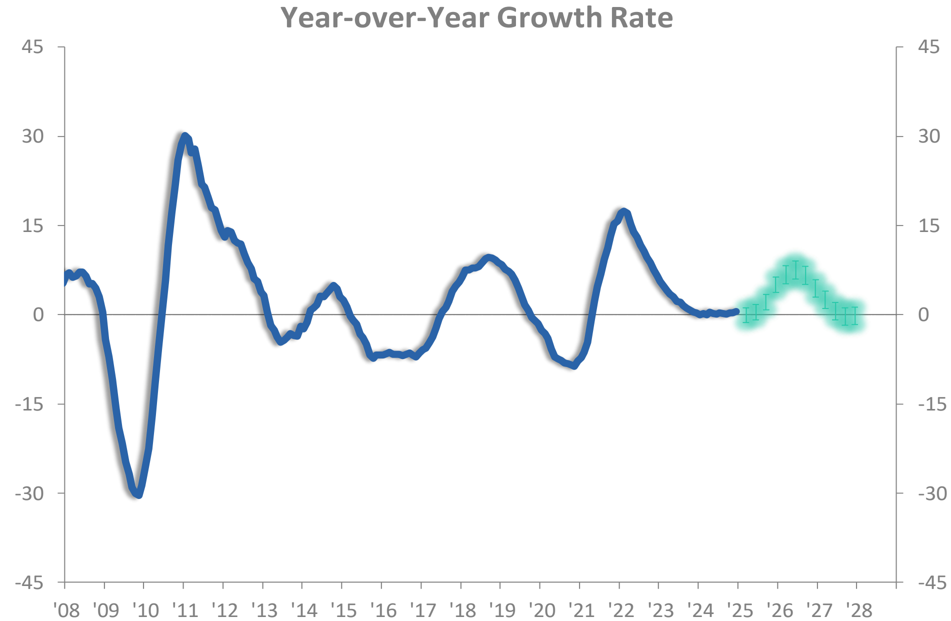
December 2024 Annual Growth Rate (12/12): -2.9%

December 2024 Annual Average (12MMA): 109.1

US Machinery New Orders

Broad Leading Indicator Support Suggests Rise Ahead





Industry Outlook

2025: 5.0%

2026: 4.4%

2027: -0.2%

Outlook & Supporting Evidence

- US Machinery New Orders totaled $450.5 billion in 2024, rising 0.5% from the 2023 level. New Orders will rise this year and through 2026, then plateau for most of 2027.
- The New Orders annual growth rate tentatively ticked up. We need more data to confirm a transition to Phase B, Accelerating Growth. Leading indicators such as the US ISM PMI (Purchasing Managers Index), the Machinery Manufacturing Capacity Utilization Rate, and the ITR Leading Indicator™ signal upcoming cyclical rise.
- Rising wage pressures and rise in certain commodity prices, including copper and aluminum, also signal rise ahead for New Orders, which are dollar-denominated. We expect New Orders will rise on both a volume and dollar-basis.

Phase & Amplitudes

Phase C

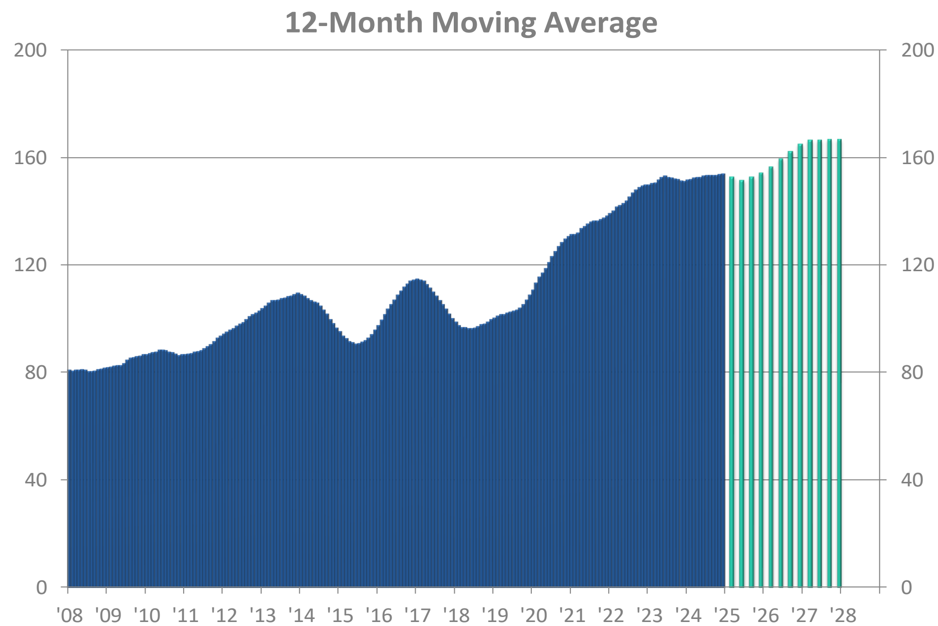
Slowing Growth

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

December 2024 Annual Total (12MMT): $450.5 billion

US Ammunition, Small Arms, Ordnance, and Other Ordnance Accessories Production Index

Forecast Revised; Production to Decline in Near-Term, Then Rise Through 2026



Industry Outlook

2025: 0.3%

2026: 7.0%

2027: 1.1%

Outlook & Supporting Evidence

- US Ammunition, Small Arms, Ordnance, and Other Ordnance Accessories Production in 2024 was 1.8% above the 2023 level. Production came in slightly lower than forecasted. We downgraded the forecast by 9.4% for 2025 and 1.3% for 2026.
- Annual Production will decline mildly in the first half of 2025 due in part to weaker demand on the consumer side. Production will then rise from the second half of 2025 through 2026. Forthcoming rise in Production is led by rise in US National Defense Expenditures. Production will subsequently plateau in 2027.
- If global conflicts, tensions, and uncertainty escalate, Production could increase beyond the expectations of this outlook, a potential upside risk to the outlook.

Phase & Amplitudes

Phase B

Accelerating Growth

December 2024 Annual Growth Rate (12/12): 1.8%

December 2024 Annual Average (12MMA): 153.7

US Leading Indicators

	1Q25	2Q25	3Q25
ITR Leading Indicator™	🟢	🟢	N/A
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.

- While signs are pointing toward rise in US Industrial Production in the coming quarters, rise will be modest due in part to still-elevated interest rates.

- The US ISM PMI (Purchasing Managers Index) monthly rate-of-change has risen for the third month in a row, but one quarter does not make a trend. We continue to monitor this leading indicator and others for their potential signals for the macroeconomy.

- We are at an inflection point for the industrial sector; rise is likely going forward, but some contradictory leading indicators indicate that the strength of rise is likely to be limited. Well-positioned consumers and businesses, however, will support a stronger 2025 than 2024, particularly in the second half of the year.

Leading indicators suggest that muted economic growth will be the prevailing trend for 2025. Capitalizing on growth may be tricky, as margins will come under pressure when inflation heats up in late 2025. Look to maximize efficiencies to protect margins. Preparing your supply chain for the potential of rising trade tensions is also advisable.

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 (FRB). Index, 2017 = 100, not seasonally adjusted (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 Aircraft & Parts Production Index — This US industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing or assembling complete aircraft; (2) developing and making aircraft prototypes; (3) aircraft conversion (i.e., major modifications to systems); and (4) complete aircraft overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications). It also includes manufacturing aircraft parts or auxiliary equipment and/or developing and making prototypes of aircraft parts and auxiliary equipment. Aircraft parts include such items as aircraft assemblies, brakes, fuselage wing tail assemblies, propellers and parts, wheels, airframe assemblies, engines, turbines, joints, targets, etc. Auxiliary equipment includes such items as crop dusting apparatus, armament racks, inflight refueling equipment, and external fuel tanks. Source: FRB. Index, 2017 = 100, NSA.

US Housing Starts — Total number of privately-owned housing units started in the United States. Start of construction occurs when excavation begins for the footings or foundation of a building. All housing units in a multi-family building are defined as being started when this excavation begins. Source: US Census Bureau. Measured in millions of units, NSA.

US Heavy-Duty Truck Production — 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: FRB, Index, 2017 = 100, NSA.

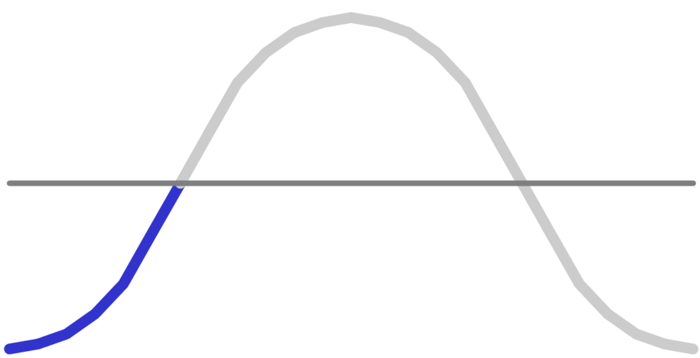
US Medical Equipment & Supplies Production Index — Medical equipment and supplies manufacturing index for the United States. Examples of products made by these establishments are surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, ophthalmic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

US Machinery New Orders — New orders for machinery in the United States. Industries in the machinery manufacturing subsector create end products that utilize mechanical force, for example, the application of gears and levers, to perform work. Some important processes for the manufacture of machinery are forging, stamping, bending, forming, and machining, which are used to shape individual pieces of metal. Processes such as welding and assembling are used to join separate parts together. Although these processes are similar to those used in metal fabricating establishments, machinery manufacturing is different because it typically employs multiple metal forming processes in manufacturing the various parts of the machine. Moreover, complex assembly operations are an inherent part of the production process. Source: US Census Bureau. Measured in billions of dollars, NSA.

US Ammunition, Small Arms, Ordnance, and Other Ordnance Accessories Production Index — Production index for the manufacture of ammunition, small arms, ordnance, and ordnance accessories. Includes bullets, shot, shells, ammunition cartridges, arming and fusing devices, bombs, detonators, missile warheads, torpedoes, guns, machine guns, cannons, small firearms, flame throwers, pellet guns, pistols, rifles, shotguns, rocket launchers, submachine guns, tank artillery, tranquilizer guns, etc. Source: FRB. Index, 2017 = 100, 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

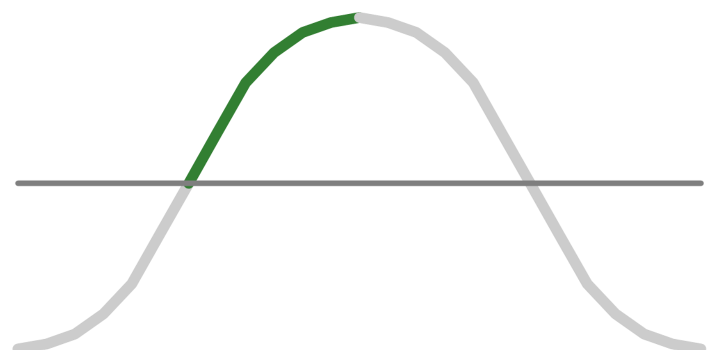
7 Improve corporate governance (rent a CFO; establish a board of advisors or board of directors)

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

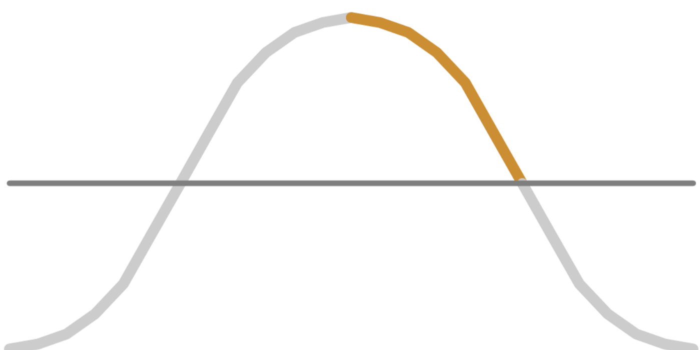
Phase



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

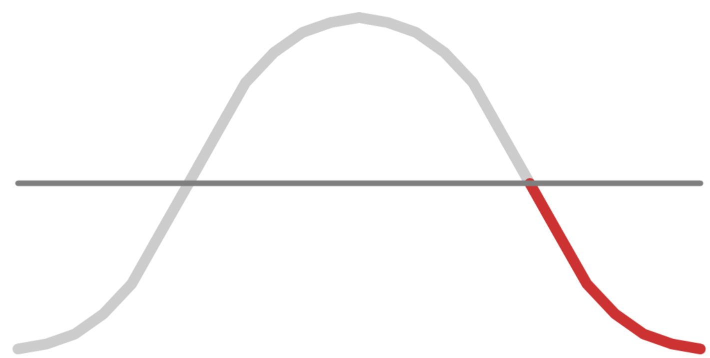
7 Consider capital equipment needs for the next cycle

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



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