AMERICAN MOLD BUILDERS ASSOCIATION

ARPM

ASSOCIATION FOR RUBBER PRODUCTS MANUFACTURERS

MAPP

MANUFACTURERS ASSOCIATION FOR PLASTICS PROCESSORS

JANUARY 2024

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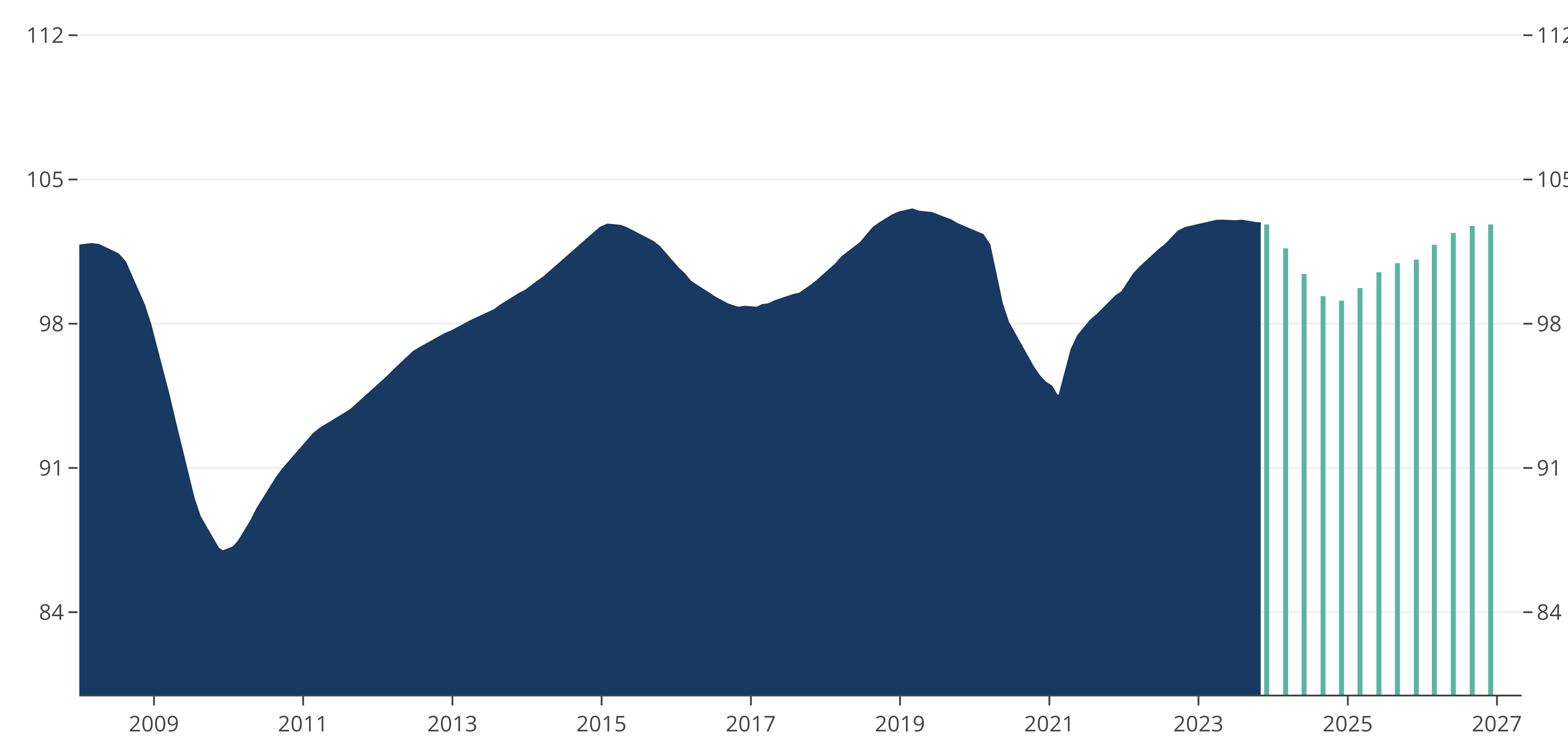
Economic Overview

Downward pressure is pervasive and intensifying as consumers struggle with the cumulative impact of elevated inflation and tighter financial conditions. Wholesalers and manufacturers are already contending with year-over-year contraction, while retail and business-to-business spending growth is slowing to a crawl. US Single-Unit Housing Starts, which typically lead the economy, are an exception to this widespread weakness; Starts are in the early stages of recovery. The nonresidential construction sector is also an outlier, but the current acceleration will soon give way to slowing growth.

Supply chains continue to adapt to the ripple effects of 2020. A few industries – such as automotive and aerospace – are still rebuilding inventories, while others have overbuilt inventories and are now correcting course. We are keeping a close eye on inventory-to-sales ratios and the state of the supply chain. We are encouraging our clients to try to improve communications along their supply chains in order to minimize any bullwhip effect.

US Industrial Production Index

Annual Average (12MMA)



Evidence for the Mild Decline in 2024

For many markets, mild decline will be the predominant trend in 2024. Consumers, who are a driving force of the US economy, are facing budget challenges. Credit card delinquencies are trending around the highest level in a decade, and savings balances (adjusted for inflation) are running below the long-term trend. The cumulative effect of prior high inflation and elevated borrowing costs will put further pressure on consumers' budgets into 2024, impacting many retail markets and the broader economy.

On the business side, corporate profits are below the year-ago level, corporate bond yields are elevated, and bank lending standards are tightening. Amid these financial factors, coupled with softening economic data, businesses will likely be more conservative in their capital goods investments. However, it is important to note that Corporate Cash Holdings are well-above pre-2020 levels, and businesses are so far managing their debts relatively well. These factors suggest the economic decline will be relatively mild. How 2024 feels to your company will depend on its exposure to the more budget-constrained consumer, its sensitivity to interest rates, its inventory levels, and any market share changes.

Opportunities Lie Ahead – Plan for Rise in 2025 and 2026

Try not to get caught up in the volatility and pessimistic bent of the media. Instead, follow data-driven economic analysis and apply the strategies that align with the pertinent phase of the business cycle. Check out the Management Objectives™ on the last page of this report for some ideas, and be sure to look ahead to the Phase A, Recovery, strategies so that you are ready to implement them for maximum benefit when the time comes.

The US is still a great place to do business, and we expect the economy to resume its ascent in 2025 and rise through at least 2026. A shift in monetary policy to something more accommodative will likely be a contributing factor. Additionally, we think a 2024 characterized by disinflation and reduced spending will help consumers regain stronger financial funding.

As the volatility of the early 2020s recedes further into the past, the economic ripples will slowly dissipate. Businesses will adapt to new conditions. Still, some challenges will remain. We expect inflation and borrowing costs will remain higher than in the 2010s, so have a plan to protect your margins and do not expect cheap money. Demographic trends will keep the labor market relatively tight, so look for ways to reduce your dependency on labor and increase your efficiency.

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).

First Resource, Inc. Markets Dashboard

		Current		Annual Growth Rate Forecast (12/12), Year-End*		
Page Number	**Indicator**	**Growth Rate****	**Phase**	**2024****	**2025****	**2026****
4	US Total Retail Sales	3.4%	C	-0.7%	4.8%	4.2%
5	North America Light Vehicle Production	10.7%	C	-4.3%	8.3%	2.2%
6	US Medical Equipment and Supplies Production Index	2.2%	C	-0.9%	3.5%	-0.2%
7	US Private Nonresidential Construction	21.3%	B	8.1%	-5.0%	2.5%
8	US Agriculture, Construction and Mining Machinery Production Index	0.3%	C	-9.8%	10.9%	2.9%

**Coloring denotes the business cycle phase at year-end. For example, if a value in the first column under "Annual Growth Rate Forecast (12/12), Year-End" is colored blue, the corresponding indicator is forecasted to be in Phase A, Recovery, at the year-end indicated by the column. Green denotes Phase B, yellow Phase C, and red Phase D.*

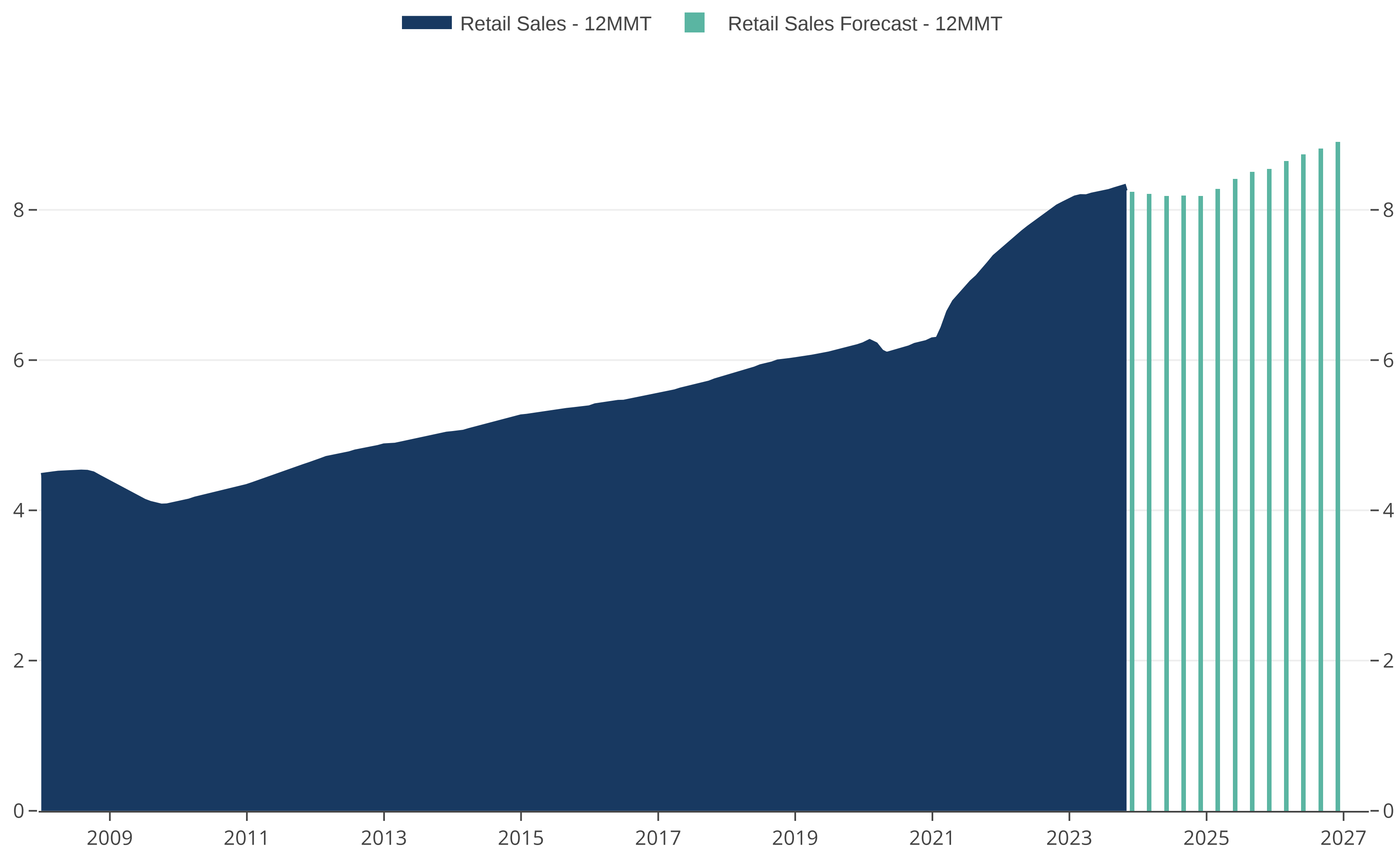
***Annual growth rate (12/12) except where otherwise noted.*

Recovery (A) Accelerating Growth (B) Slowing Growth (C) Recession (D)

US Total Retail Sales

Financial Headwinds to Stifle Consumer Spending; Imminent Decline Expected Through 2024

Annual Total (12MMT)



Annual Growth Rate (12/12)

Current Phase

Phase C
Slowing Growth

Current Indicator Amplitude

- November 2023 Annual Growth Rate (12/12): 3.4%
- November 2023 Annual Total (12MMT), Trillions of USD: $8.305

Industry Outlook

Year	Annual Growth Rate
2023	2.1%
2024	-0.7%
2025	4.8%
2026	4.2%

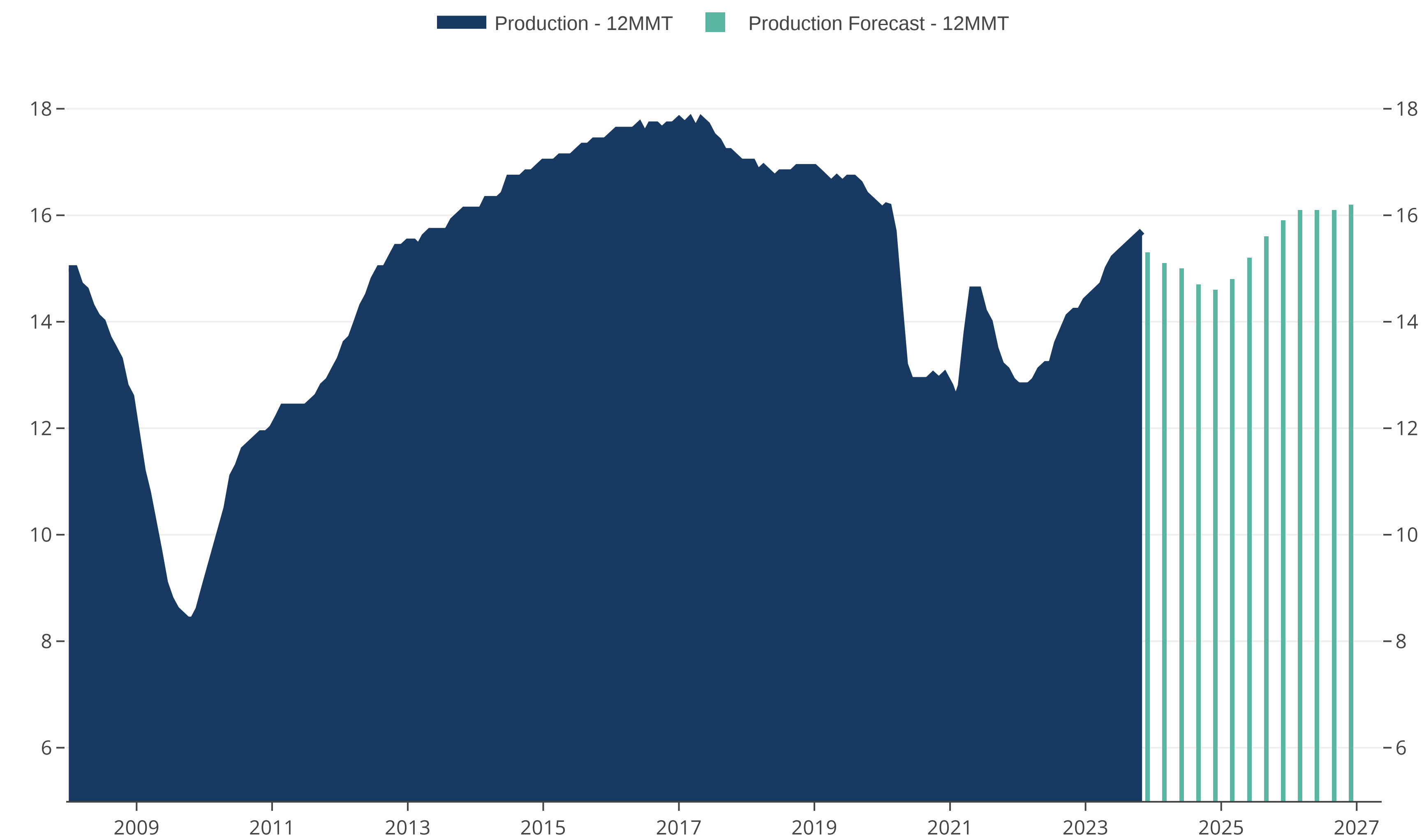
Outlook & Supporting Evidence

- Annual US Total Retail Sales were $8.305 trillion in November, up 3.4% from one year ago. Consumers are spending record amounts on a dollar-value basis, while Retail Sales are relatively flat on a volume basis.
- Consumer financial metrics are not as strong as they were during 2021-2022. Spending has come at the cost of saving; the Savings Rate of 4.1% in November was well below the roughly 6% that was normal in the decade preceding the pandemic. Total Household Credit Card Debt has returned to record highs as consumers battle the cumulative impacts of high inflation, and delinquency rates are creeping higher. Additionally, with tighter lending standards and elevated interest rates, borrowing is harder and more costly than consumers have become accustomed to.
- We expect annual Retail Sales to peak in the near term, then mildly decline throughout 2024 due to these tighter financial conditions. Annual Retail Sales will return to their normal rising trend in 2025 as these imbalances resolve, and rise will extend through at least 2026.

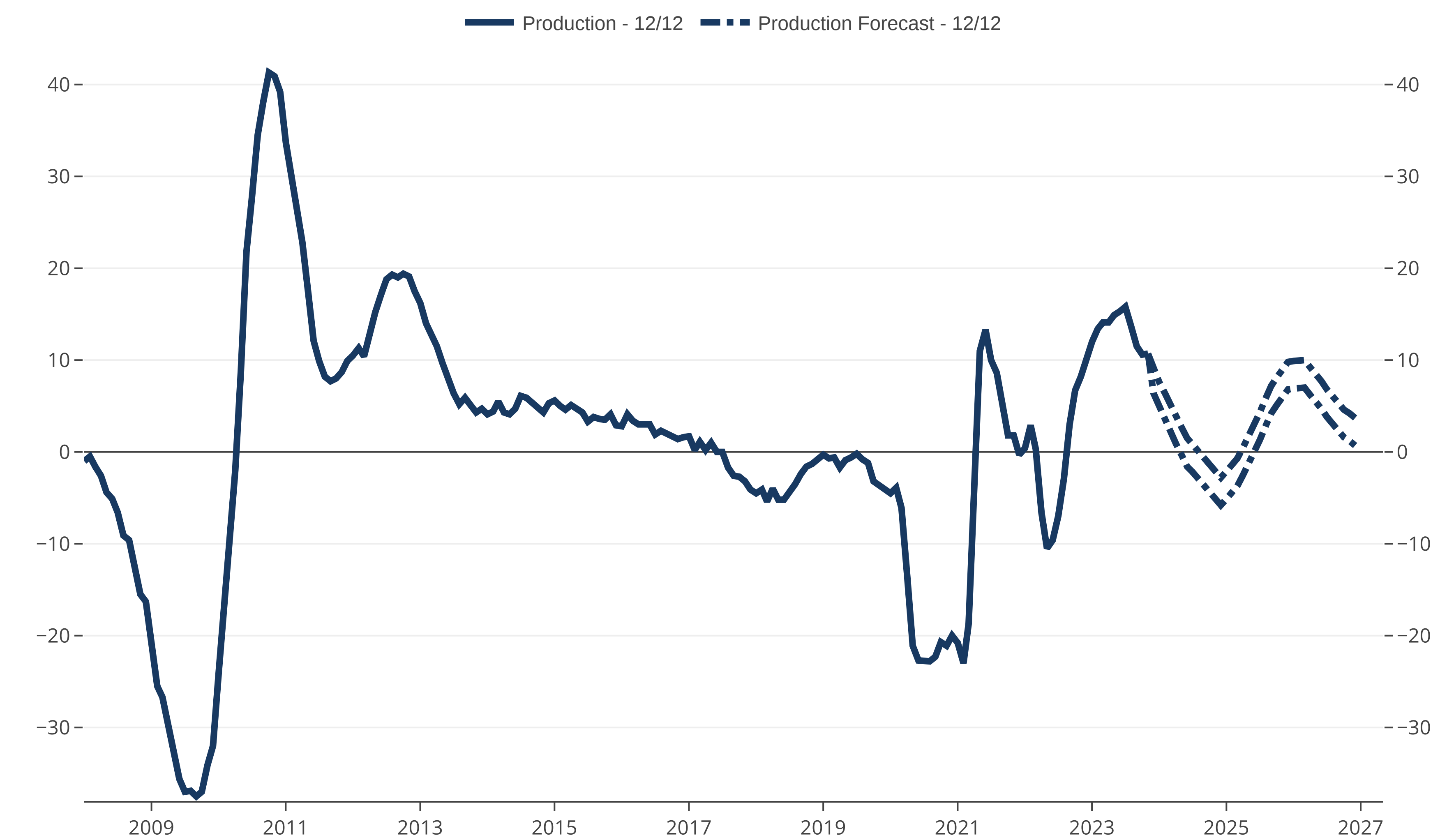
North America Light Vehicle Production

Annual Production to Decline for Much of 2024 Given Consumer Financials; Expect Rise in 2025-26

Annual Total (12MMT)



Annual Growth Rate (12/12)



Current Phase

Phase C
Slowing Growth

Current Indicator Amplitude

- November 2023 Annual Growth Rate (12/12): 10.7%
- November 2023 Annual Total (12MMT), Millions of Units: 15.7

Industry Outlook

Year	Annual Growth Rate
2023	7.7%
2024	-4.3%
2025	8.3%
2026	2.2%

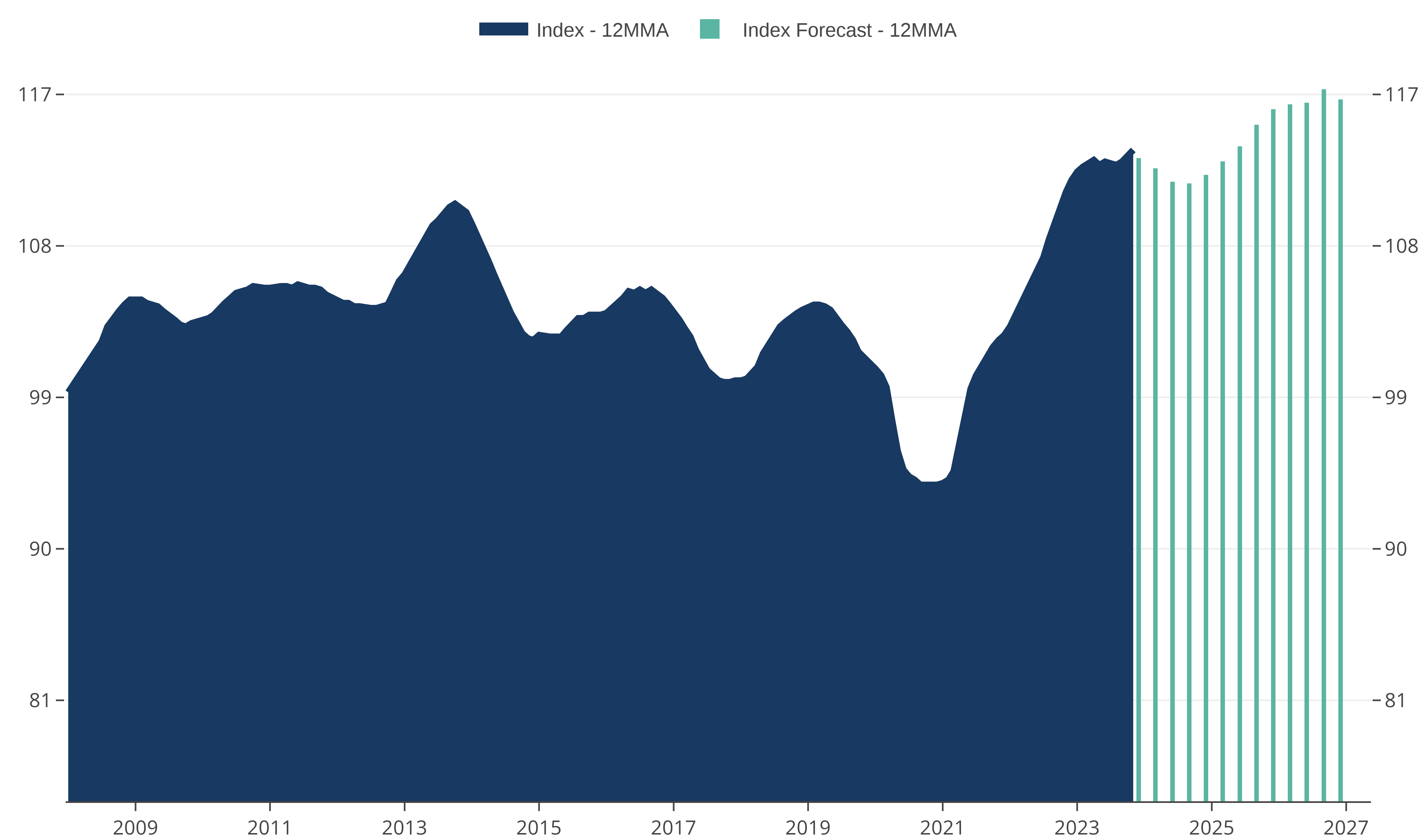
Outlook & Supporting Evidence

- Annual US North America Light Vehicle Production totaled 15.7 million units in November, 10.7% above the year-ago level.
- Production had been trending asynchronously from many industrial markets as the semiconductor shortage delayed recovery in Production relative to the macroeconomy. However, this market is still sensitive to macroeconomic and consumer conditions, both of which are weakening. As a result, Production has moved into Phase C, Slowing Growth, and faces likely decline in 2024.
- We expect annual Production will begin declining in early 2024, a trend which will extend through the end of this year. 2025 and 2026 will be characterized by rise, due in part to anticipated lower interest rates and improvements in real income that will increase affordability for consumers.

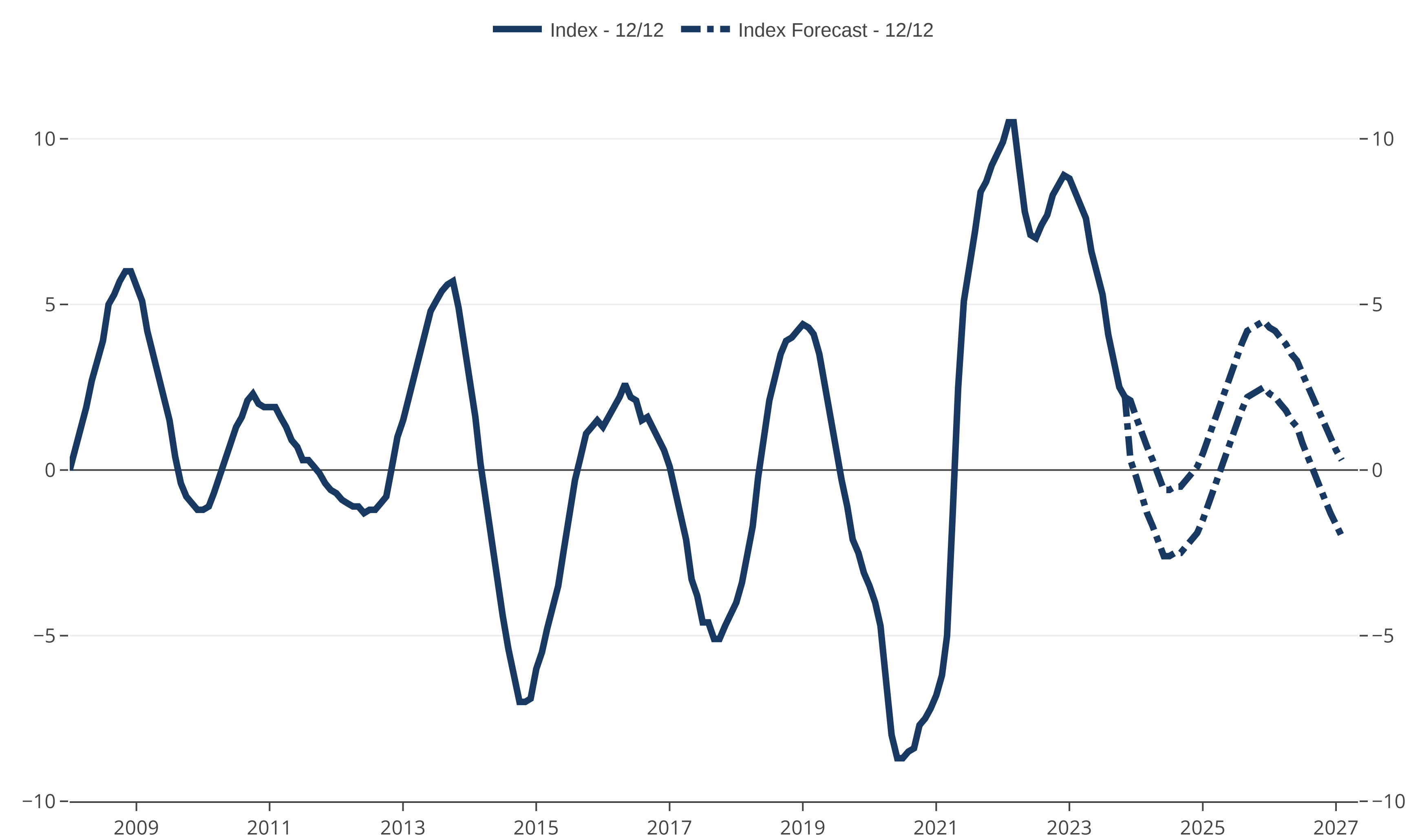
US Medical Equipment and Supplies Production Index

Mild Decline Expected in 2024 Marked by Waning Consumer Financials

Annual Average (12MMA)



Annual Growth Rate (12/12)



Current Phase

Phase C
Slowing Growth

Current Indicator Amplitude

- November 2023 Annual Growth Rate (12/12): 2.2%
- November 2023 Annual Average (12MMA), 2017=100: 113.7

Industry Outlook

Year	Annual Growth Rate
2023	1.2%
2024	-0.9%
2025	3.5%
2026	-0.2%

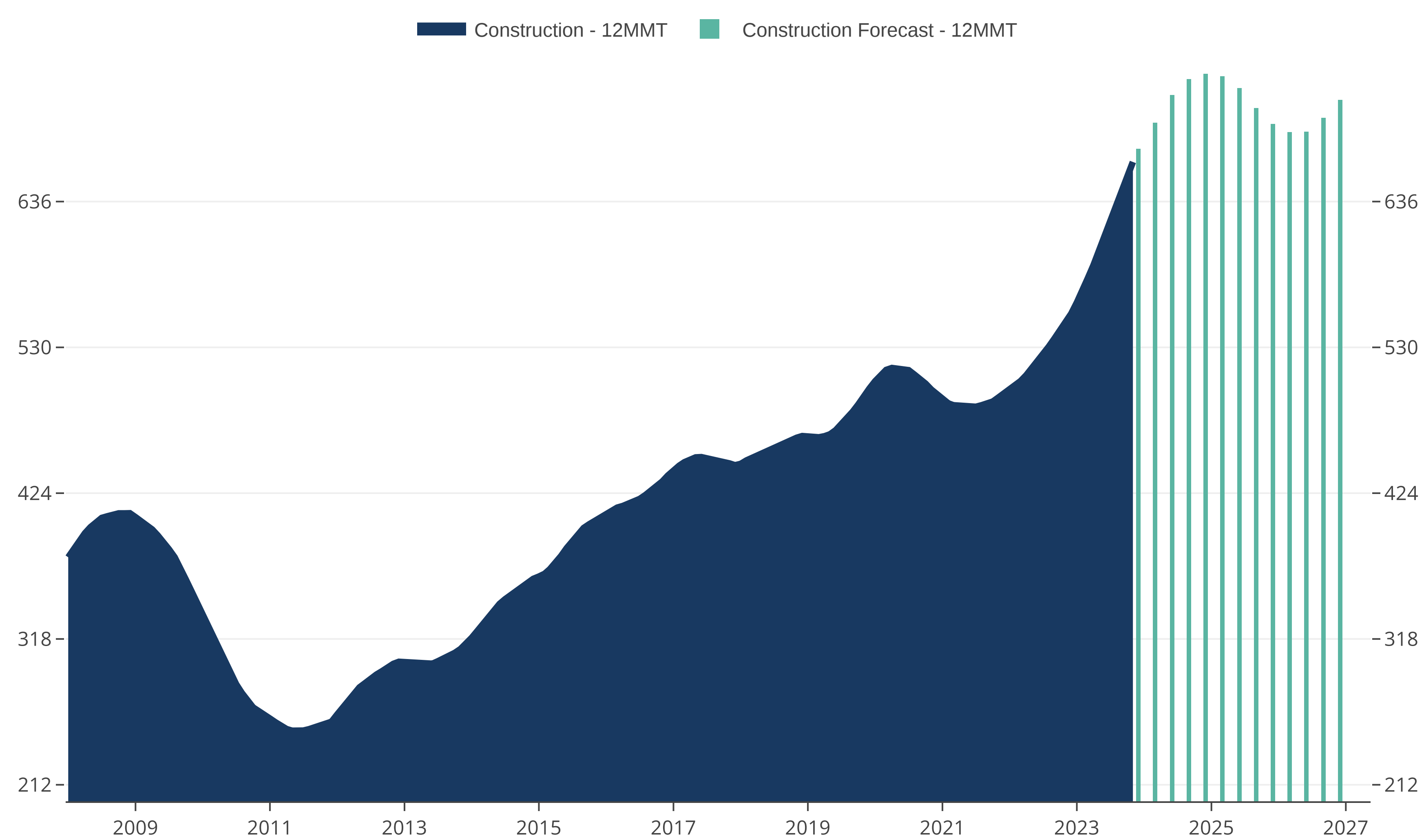
Outlook & Supporting Evidence

- Annual US Medical Equipment and Supplies Production in November was 2.2% above the year-ago level. Annual Production will trend relatively flat in the near term but will transition to general decline in the first half of this year. Decline will extend into late 2024 but will remain mild, dropping about 1% from peak to trough.
- The medical industry is likely to experience a mild correction following pandemic-fueled rise in recent years and subsequent profitability challenges. While essential services will carry on, elective procedures may be delayed as economic conditions become more challenging and consumers cut back on spending. On the flip side, reshoring and recent movements in the US dollar exchange rate will likely benefit domestic production, suggesting that decline will likely be relatively mild.
- Production rise will resume in 2025 and persist for the majority of 2026. This market may be an area of opportunity, as decline will be relatively mild this cycle.

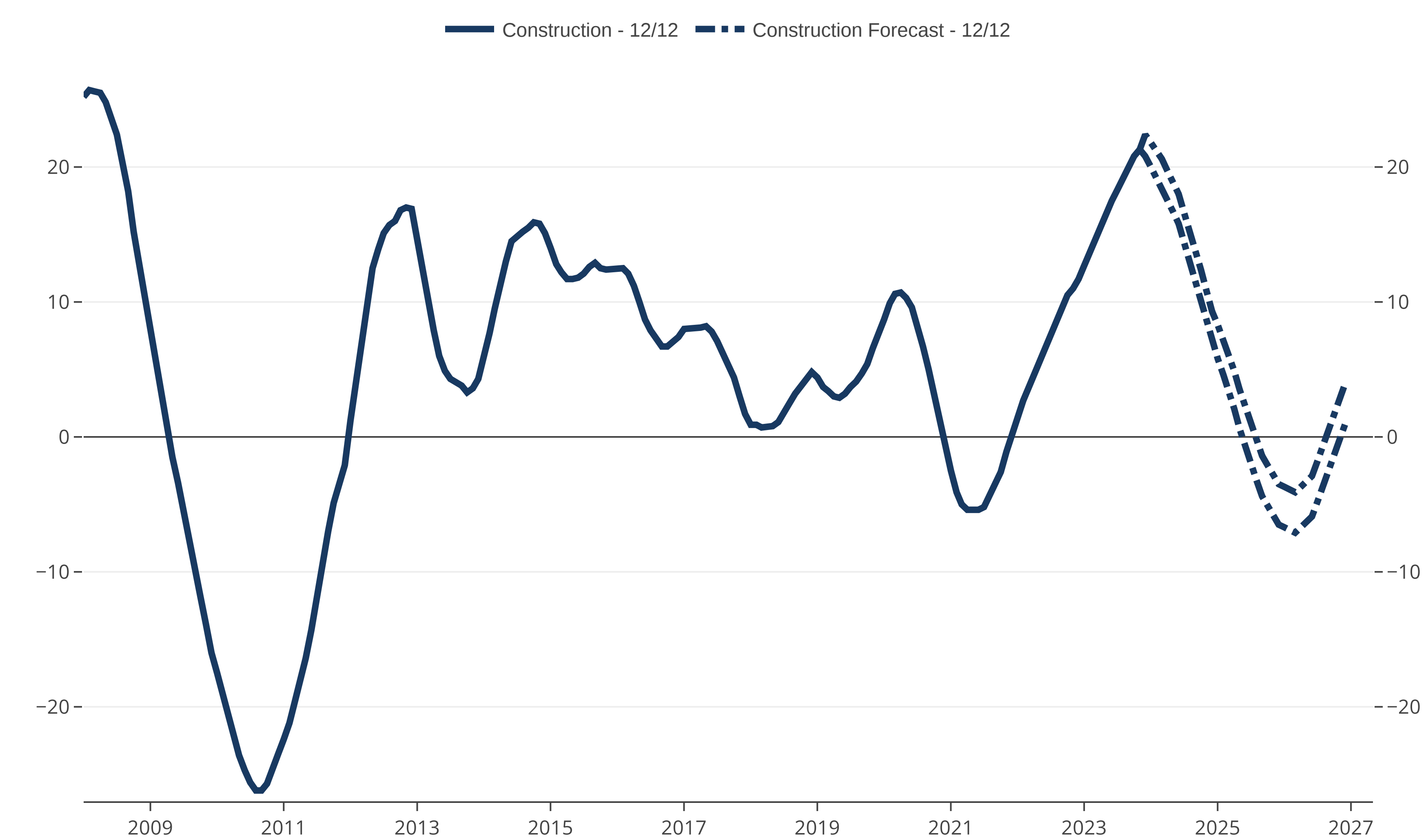
US Private Nonresidential Construction

Expect Record Highs Through 2024; Tougher Economic Conditions Will Cause Decline in 2025

Annual Total (12MMT)



Annual Growth Rate (12/12)



Current Phase

Phase B Accelerating Growth

Current Indicator Amplitude

- November 2023 Annual Growth Rate (12/12): 21.3%
- November 2023 Annual Total (12MMT), Billions of USD: $664.8

Industry Outlook

Year	Annual Growth Rate
2023	21.6%
2024	8.1%
2025	-5.0%
2026	2.5%

Outlook & Supporting Evidence

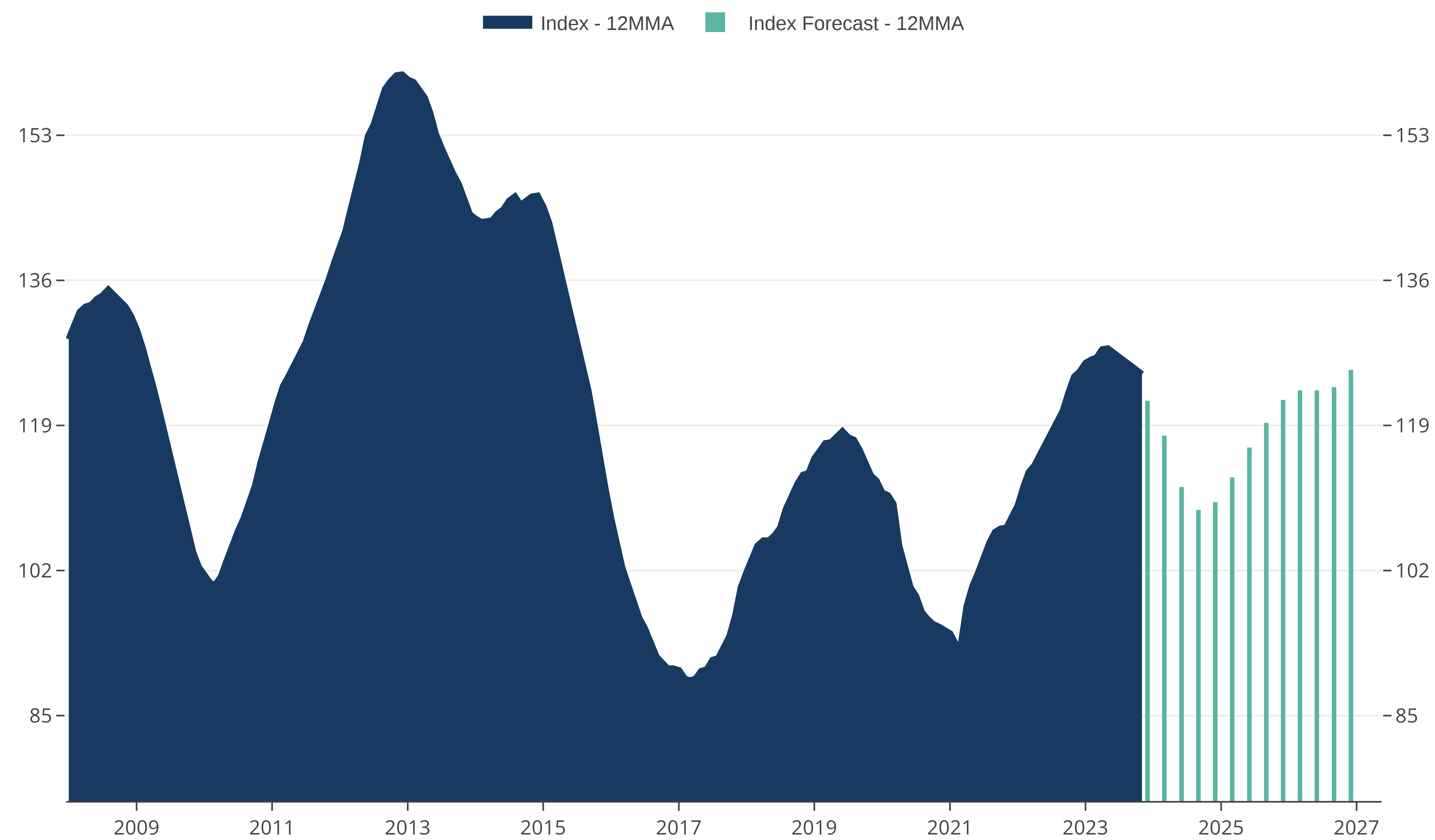
- US Private Nonresidential Construction in the 12 months through November totaled a record high of $664.8 billion, up 21.3% from one year prior. The annual growth rate is nearing a peak; we expect a transition to Phase C, Slowing Growth, in the near term.
- Construction is benefiting from a variety of government bills passed in 2021-2022; namely the infrastructure, CHIPS, and inflation reduction acts, and the cost of building is also being boosted by rising labor costs. Record highs in annual Construction will extend through 2024, though the pace of rise will slow as tightening credit and lending standards begin to fully impact commercial real estate construction and land development projects. Activity that was planned prior to and in response to COVID-19 is nearing completion, and businesses looking forward are hesitant to continue expanding. Waning business and industrial activity alongside uncertainty about the future will be reflected in lower Construction spending in 2025 and early 2026.
- The US Commercial and Industrial Sector Architecture Billings Index confirms reduced interest in new nonresidential construction projects, which will contribute to slowing growth and then decline in Construction spending.
- We expect macroeconomic conditions to improve in 2025, but this will not be reflected in put-in-place Construction until 2026, given the typical lag between changes in economic activity and nonresidential building.

Consulting

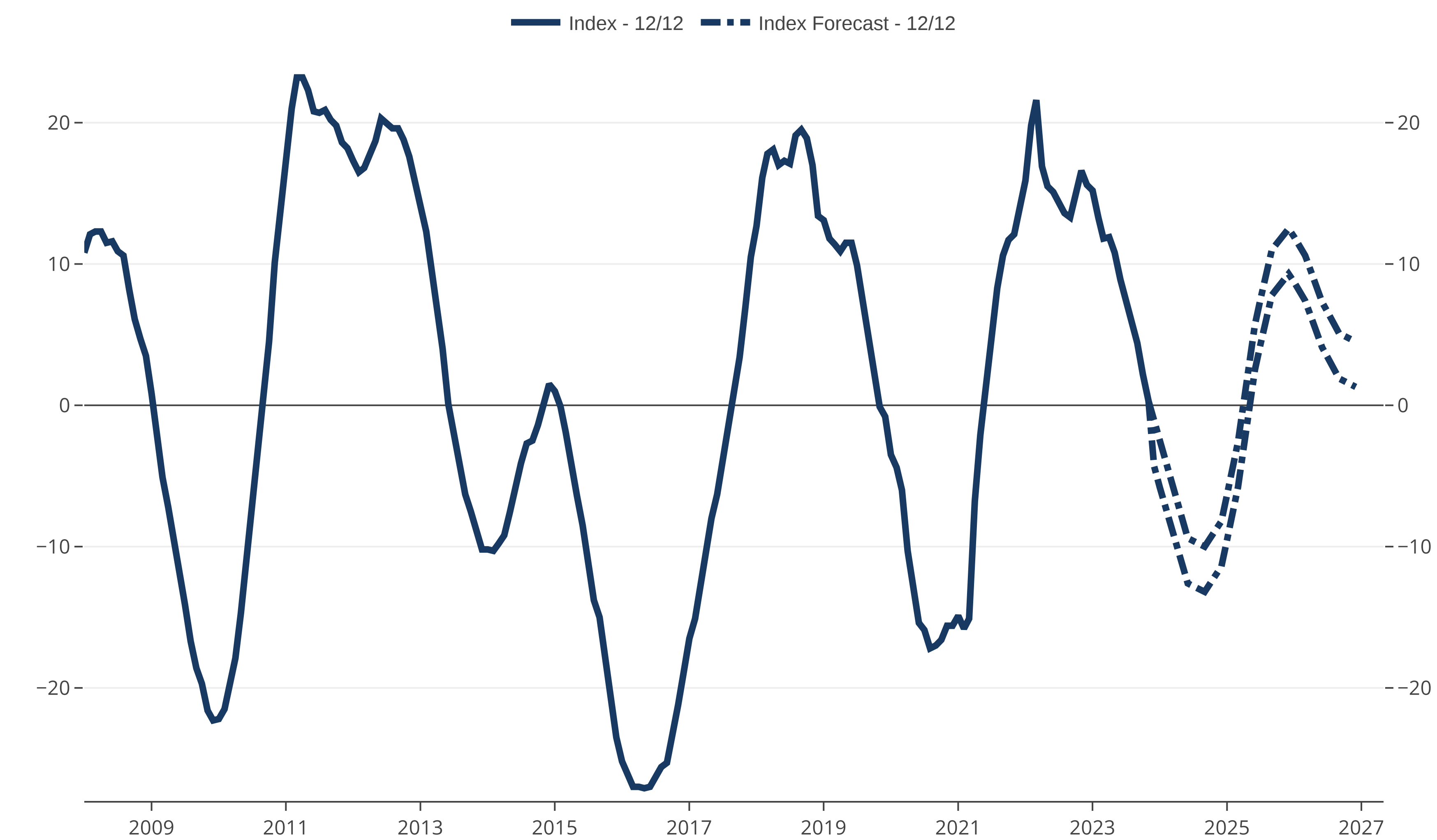
US Agriculture, Construction and Mining Machinery Production Index

Decline to Persist in 2024 Given Cautious Business Investment; Expect Rise in 2025 and 2026

Annual Average (12MMA)



Annual Growth Rate (12/12)



Current Phase

Phase C
Slowing Growth

Current Indicator Amplitude

- November 2023 Annual Growth Rate (12/12): 0.3%
- November 2023 Annual Average (12MMA), 2017=100: 125.0

Industry Outlook

Year	*Annual Growth Rate*
2023	-2.7%
2024	-9.8%
2025	10.9%
2026	2.9%

Outlook & Supporting Evidence

- US Agriculture, Construction and Mining Machinery Production in the 12 months through November was roughly even with the year-ago level. Annual Production is declining off a May 2023 peak. We expect decline will persist into late 2024. The low will be around 13% below the current level.
- All three components will feel downside pressure in 2024, as high borrowing costs and tightening credit standards limit some businesses' ability and willingness to invest in machinery.
- The US Machinery, Equipment, and Supplies Wholesale Sales to Inventory Ratio has declined steeply in recent quarters. Distributors facing excess inventories will also put downside pressure on Production in the coming quarters.
- We expect rise in annual Production will resume by the start of 2025 and extend through at least year-end 2026 as downside pressures dissipate and the macroeconomy gains momentum. Production will end that period roughly even with current levels.

ITR ECONOMICS

US Leading Indicators

Indicator	Direction 1Q24	2Q24	3Q24
ITR LEADING INDICATOR™	🟢	🟢	N/A
ITR RETAIL SALES LEADING INDICATOR™	🔴	🔴	🔴
US OECD LEADING INDICATOR	🟢	🟢	N/A
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

- General ascent in the ITR Leading Indicator™ stalled in November, suggesting the upcoming recovery could be choppy and sluggish for the industrial sector.

- The US ISM PMI (Purchasing Managers Index) monthly rate-of-change rose in November. The historic relationship between the Index and US Industrial Production would suggest that Industrial Production could begin recovering as early as 2Q24. However, our analysis of the PMI components in conjunction with the preponderance of economic evidence, including a still-inverted yield curve, suggests industrial activity will decline through 2024.

- The US Total Industry Capacity Utilization Rate ticked up in November, but the overall trend for the Utilization Rate is still negative. The overarching trend in the Rate 1/12 suggests US Industrial Production 12/12 decline into at least mid-2024, in line with the forecast.

Many indicators point to decline in industrial activity in the quarters ahead. Sustained inversion of the yield curve remains a downside risk, and we foresee consumer weakness on the horizon. Evaluate your cash position periodically as we head into a mild macroeconomic recession, and lead with optimism, as downturns are temporary.

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, not seasonally adjusted (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, not seasonally adjusted (NSA).

US Total Retail Sales

Total retail sales in the United States, including motor vehicles and parts, furniture and home furnishings, electronics and appliances, building materials and garden supplies, food and beverages, health and personal care products, gasoline stations, clothing, and other miscellaneous goods. Includes store and non-store retail sales. Non-store retailers include those that sell via television commercials, catalogs, the internet, etc. Source: US Census Bureau. Measured in trillions of dollars, not seasonally adjusted (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, not seasonally adjusted (NSA).

US Agriculture, Construction and Mining Machinery Production Index

Agriculture, construction, and mining machinery manufacturing. Includes farm machinery and equipment, powered mowing equipment and other powered home lawn and garden equipment; construction machinery, surface mining machinery, and logging equipment; oil and gas field and underground mining machinery and equipment. Source: Federal Reserve Board (FRB). Index, 2017 = 100, not seasonally adjusted (NSA).

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

