Sample Company

Sample Company

JANUARY 2022

Reports
ITR Economics

603.796.2500 itreconomics.com

Table of Contents

Economic Overview

Macroeconomic Growth Ahead, But At A Slowing Rate

Sample Company

Recession Unlikely During 2022-23

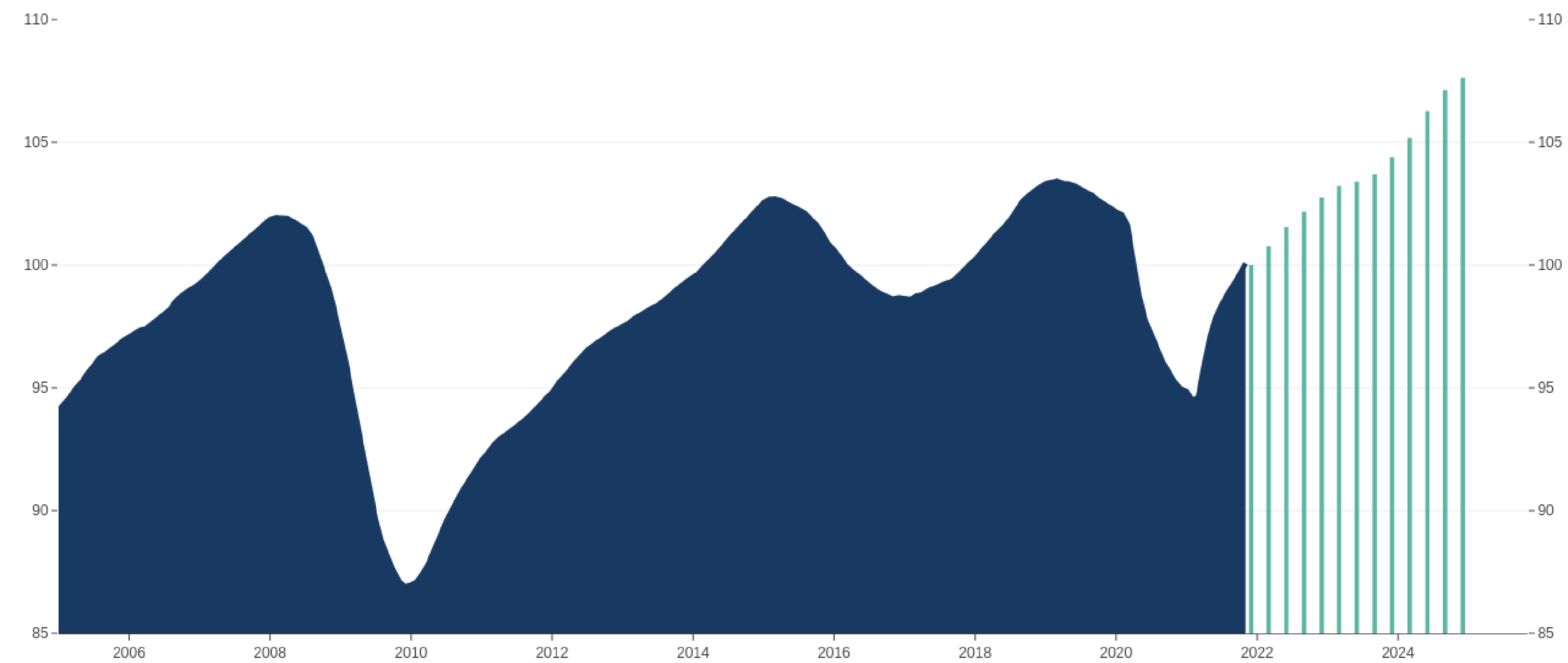
The economic tide is shifting. Breakneck recovery and rise have been the order of the day following the shutdowns of 2020. Now – with nearly all the key leading indicators we track in declining trends – slowing growth beckons.

This is the time in the business cycle when angst begins to build in the business community. The supply chain quagmire, labor shortages, and elevated inflation – not to mention the uncertainty of a pandemic – add to the pressure. Some of our economists on the speaking circuit are even hearing the words "this reminds me of 2007" from a subset of business leaders, the implication being that 2022–23 could bring a recession similar to that of 2008–09. Here at ITR Economics, however, our analysis shows we are most likely headed for what we call a “soft landing” – slowing growth, but no contraction. Consider the following:

1. A strong consumer: Savings rates only recently returned to pre-pandemic norms, and credit card debt has only recently ticked up off multi-year lows. The consumer will have savings to tap and can comfortably take on more debt. This situation is the opposite of 2007.
2. Strong businesses: Corporations are flush with cash. Again, this is the opposite of 2007.
3. Still-low interest rates: With long-term corporate debt at 2.57%, 100 basis points below the 10-year average, more stimulative effect lies ahead, even as the Federal Reserve begins tapering and discussing higher rates.
4. Backlogs: Many industries are seeing demand beyond their capacity. It's a well-stocked economic pantry that will provide for some time, even if demand falls off a bit next year as the leading indicators suggest.

US Industrial Production Index

Annual Average (12MMA)



This is not to say each and every industry and company will avoid recession this business cycle. Knowing where your markets are headed and how your business tracks with them is especially important this cycle. We strongly encourage every business to track its rates-of-change (see the Terminology & Methodology page for further details), then compare those rates-of-change to those of the industries included in this report.

Management Actions To Consider

If your business tracks closely and contemporaneously with the core segments of the US economy, there are some key management actions to consider at this juncture in the business cycle:

1. Develop a long-term plan to combat the labor shortage: We expect the tight labor market will be a defining characteristic of the economy in at least the coming years. Ensuring that your hiring, training, and retention practices, as well as your management staff, are top notch is a true competitive advantage in this business cycle.
2. Automate, automate, automate: Interest rates are low, labor costs are not, and creativity pays off. Our clients' ability to create money-saving and efficiency-enhancing solutions for seemingly un-automatable processes is a continuous source of amazement for us.
3. Develop new products or find new markets to enter in the longer term: The lower rates of growth in 2022 will give you the chance to step back and focus on long-term plans. Analyze your competitive advantages and look for compatible markets or new products you can launch in three to five years.

Don’t let the amplified emotions of the moment get the best of you or your team when it comes to planning for the future. The US economy is strong and will continue to be strong in the coming years; our long-term modeling indicates that the next recession will most likely occur around 2026. In the meantime, acting decisively in preparation for economic growth while others waver will keep you a step ahead of the competition.

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).

Sample Company Markets Dashboard

		Current		Annual Growth Rate Forecast (12/12), Year-End*		
Page Number	**Indicator**	**Growth Rate****	**Phase**	**2022****	**2023****	**2024****
4	US Industrial Production Index	5.1%	B	2.8%	1.6%	3.1%
5	US Private Sector Employment	2.4%	B	N/A	N/A	N/A
6	US Consumer Price Index	4.2%	B	5.5%	2.6%	4.3%
7	US Machinery New Orders	16.2%	B	N/A	N/A	N/A
8	US Food Production Index	2.1%	B	N/A	N/A	N/A

**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.*

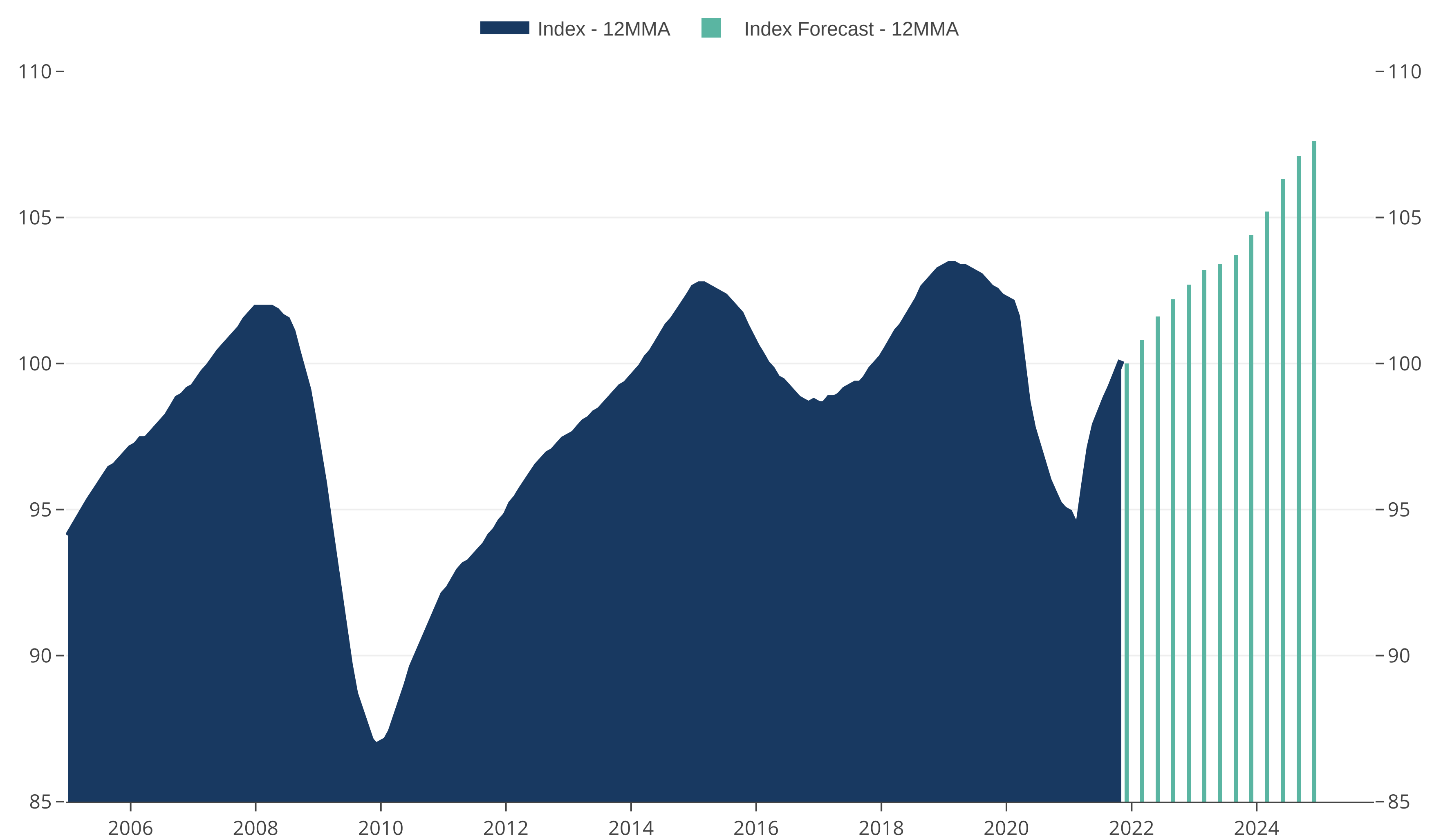
Recovery (A) **Accelerating Growth (B)** **Slowing Growth (C)** **Recession (D)**

US Industrial Production Index

Sample Company

The Industrial Sector Is Strong Moving Into 2022; Slowing Growth Is Nearing

Annual Average (12MMA)



Annual Growth Rate (12/12)

Current Phase

Phase B Accelerating Growth

Current Indicator Amplitude

- November 2021 Annual Growth Rate (12/12): 5.1%
- November 2021 Annual Average (12MMA), Index, 2017 = 100: 100.1

Industry Outlook

Year	*Annual Average (Index, 2017 = 100)*	*Annual Growth Rate*
2021	100.0	5.3%
2022	102.7	2.8%
2023	104.4	1.6%
2024	107.6	3.1%

Outlook & Supporting Evidence

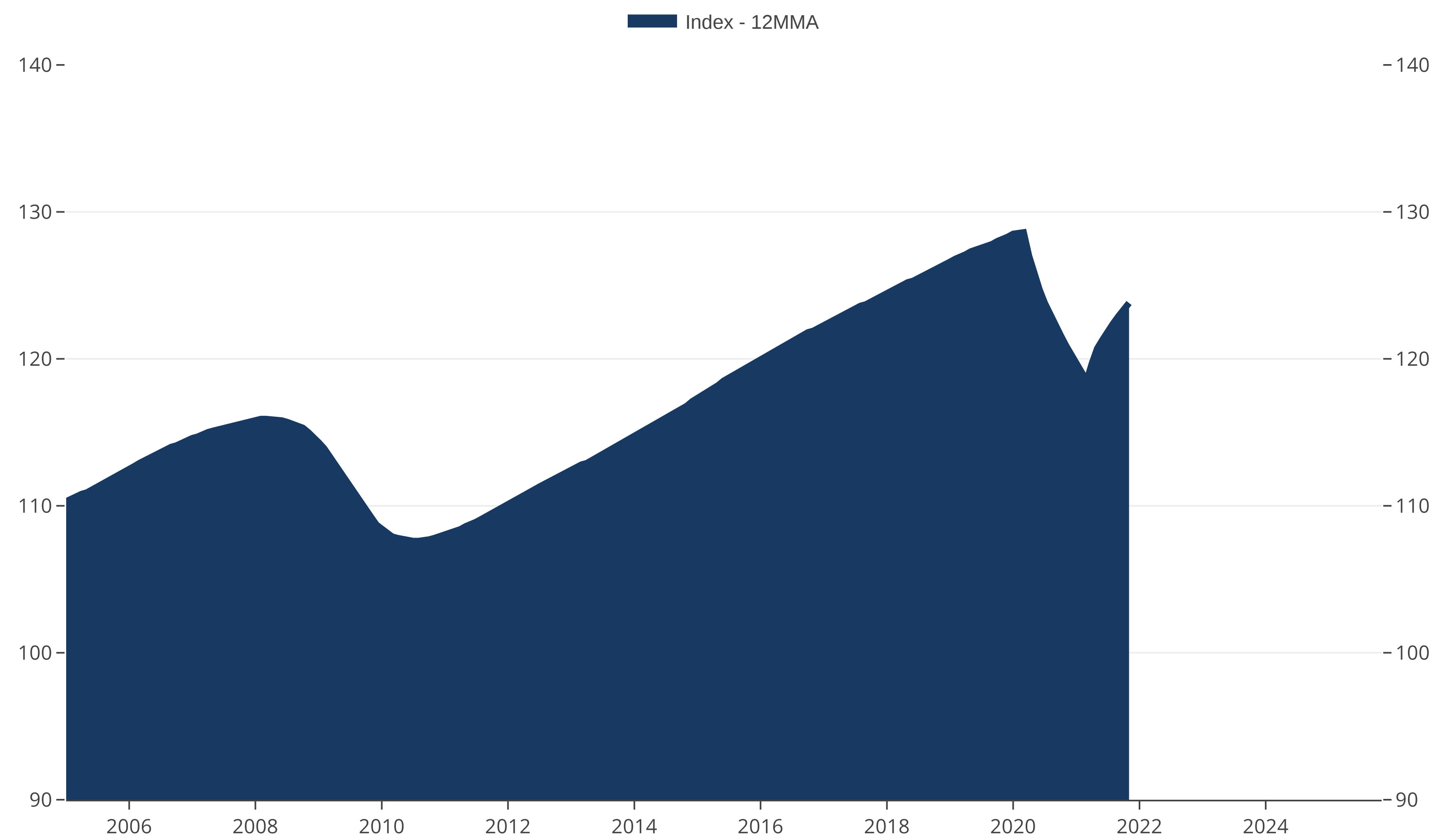
- US Industrial Production in the 12 months through November came in 5.1% above the year-ago level. Expect Phase C, Slowing Growth, to characterize Production in most of 2022–23. The next Phase B, Accelerating Growth, trend will start in late 2023 and extend into late 2024. Bolstered by robust consumer demand, the industrial sector is strong as we move into 2022, and we expect 12MMA rise through at least 2024.
- Thus far purchasers have generally been willing to absorb price increases. Producers should not expect the same degree of pricing power for the coming years, as inflation erodes purchasing power and potentially increases price sensitivity. Preserving margins should be a top priority; otherwise, inflationary pressures may render upcoming growth painful and the recession we expect around 2026 even more challenging. Focus on efficiency measures and consider adding more budget-friendly products to your mix.

US Private Sector Employment

Sample Company

Expect Slowing Growth in Employment Through Much of 2022 and 2023

Annual Average (12MMA)



Annual Growth Rate (12/12)

Current Phase

Phase B Accelerating Growth

Current Indicator Amplitude

- November 2021 Annual Growth Rate (12/12): 2.4%
- November 2021 Annual Average (12MMA), Millions of Employees: 123.8

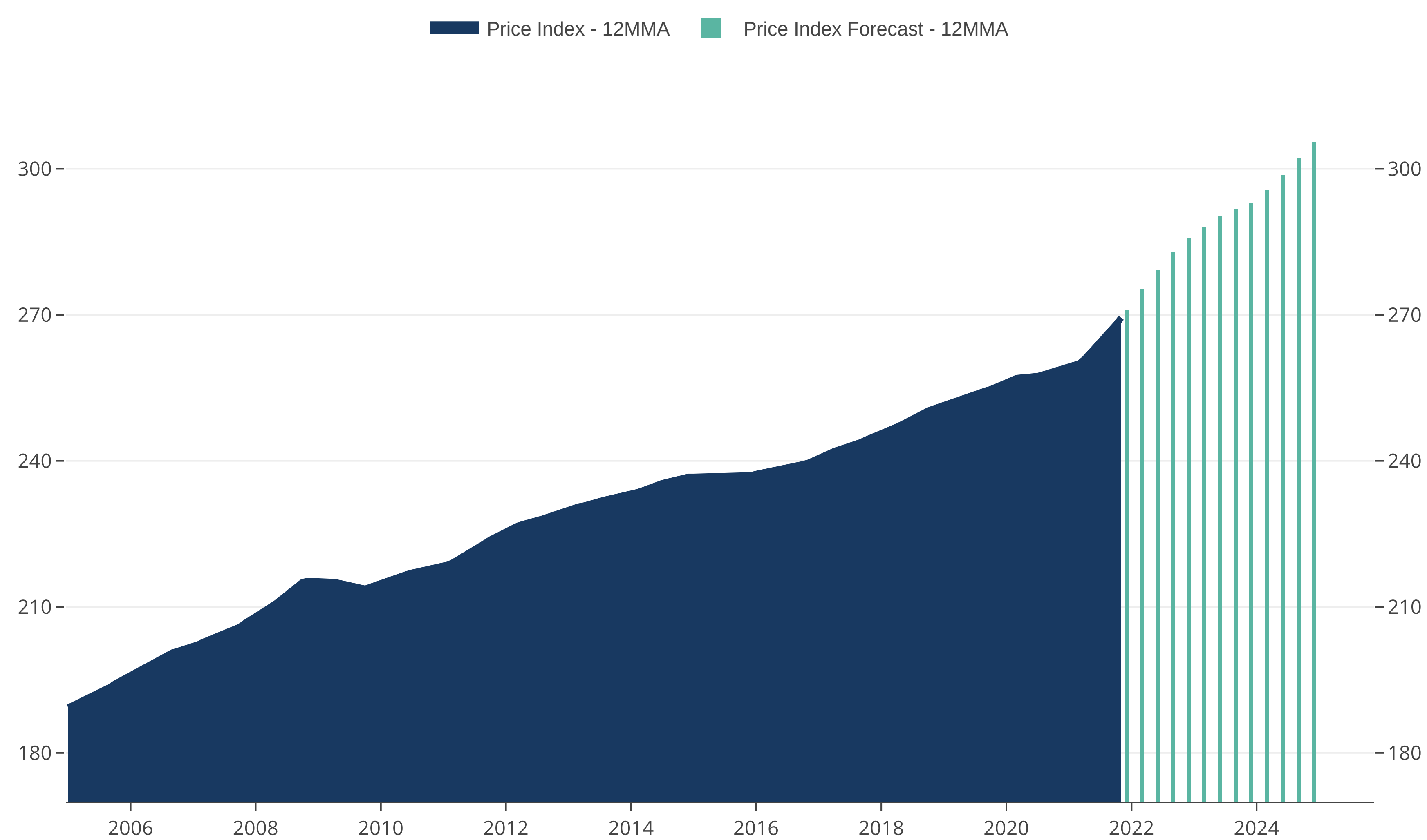
Outlook & Supporting Evidence

- After 17 months, the Employment 12MMA was trending 0.2% above the upper boundary of our forecast range. Stronger than previously forecasted results for US Real Gross Domestic Product and US Total Retail Sales over the past year and a half have culminated in the need to upgrade the Employment forecast. We raised our 12MMA expectations by 1.0% for 2022 and 1.4% for 2023 and extended the forecast to include 2024. Expect Employment to rise through at least 2024.
- Many people left the labor force in the wake of COVID-19, and it is unclear if and when many of them will return. This potential constriction poses a downside risk to the forecast. Emerging variants of the COVID virus also pose a concern, as they could result in Employment in sectors like hospitality and travel not fully recovering or in government(s) forcing business closures. We will continue to monitor these risks closely.

US Consumer Price Index

Inflation Came in at 6.8% in November, the Highest Reading in Nearly 40 Years

Annual Average (12MMA)



Annual Growth Rate (12/12)

Current Phase

Phase B Accelerating Growth

Current Indicator Amplitude

- November 2021 Annual Growth Rate (12/12): 4.2%
- November 2021 Annual Average (12MMA), Index, 1982-84 = 100: 269.4

Industry Outlook

Year	Annual Average (Index, 1982-84 = 100)	Annual Growth Rate
2021	271.0	4.7%
2022	285.7	5.5%
2023	293.0	2.6%
2024	305.5	4.3%

Outlook & Supporting Evidence

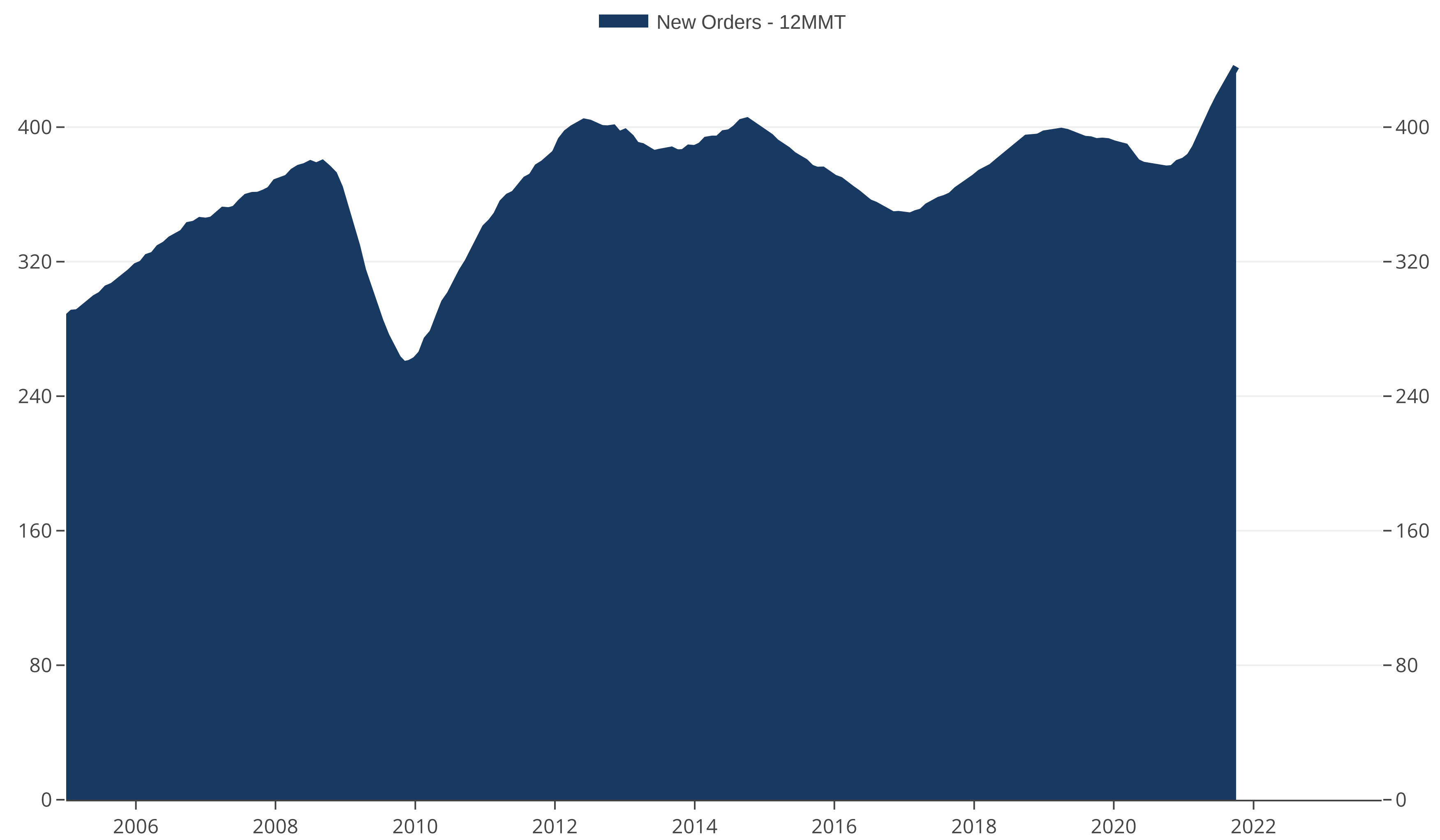
- At 6.8%, inflation was approaching a 40-year high as of November. US Consumer Prices came in within forecast range for the most recent quarter. However, October and November data indicated that inflation was on track to exceed our targets, likely due to lingering supply chain constraints as well as still-robust consumer demand. We revised our forecast upward but maintain our outlook for a 2022 predominantly characterized by disinflation.
- Expect the next few months to exhibit highly elevated inflation as producers pass their elevated input, freight, and labor costs on to the consumer. Inflation will then ease for most of 2022 and into late 2023 as softened macroeconomic demand allows for supply chain improvement and reduced pressure on both freight pricing and overall raw materials pricing trends.
- Government spending and money supply trends pose upside risks to the forecast. The US bond market, exchange rate trends, and Chinese macroeconomic data indicate downside risks.

US Machinery New Orders

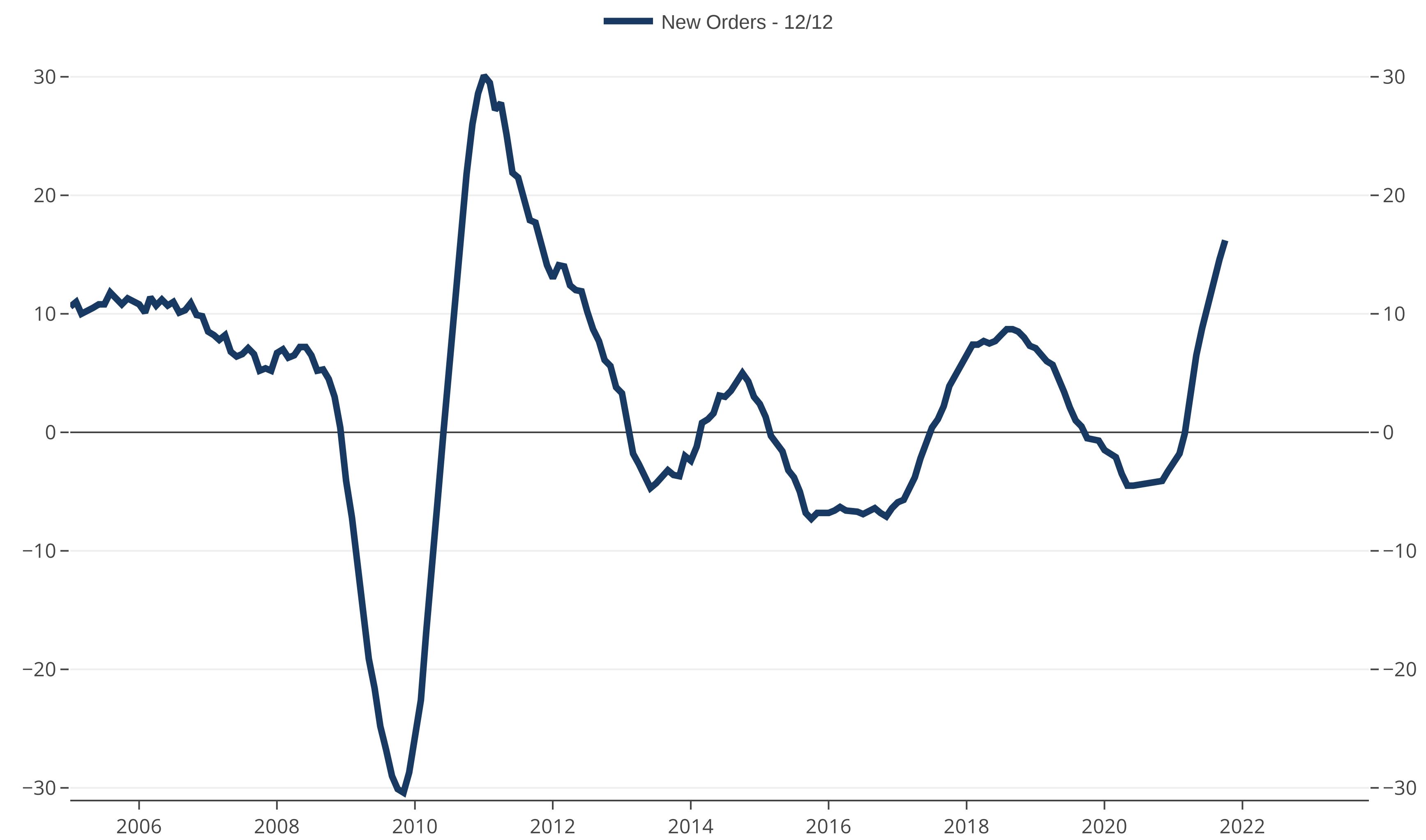
Sample Company

Leading Indicator Evidence Gives Us a Strong Degree of Confidence in Our Outlook for Phase C in 2022

Annual Total (12MMT)



Annual Growth Rate (12/12)



Current Phase

Phase B Accelerating Growth

Current Indicator Amplitude

- October 2021 Annual Growth Rate (12/12): 16.2%
- October 2021 Annual Total (12MMT), Billions of USD: $436.0

Outlook & Supporting Evidence

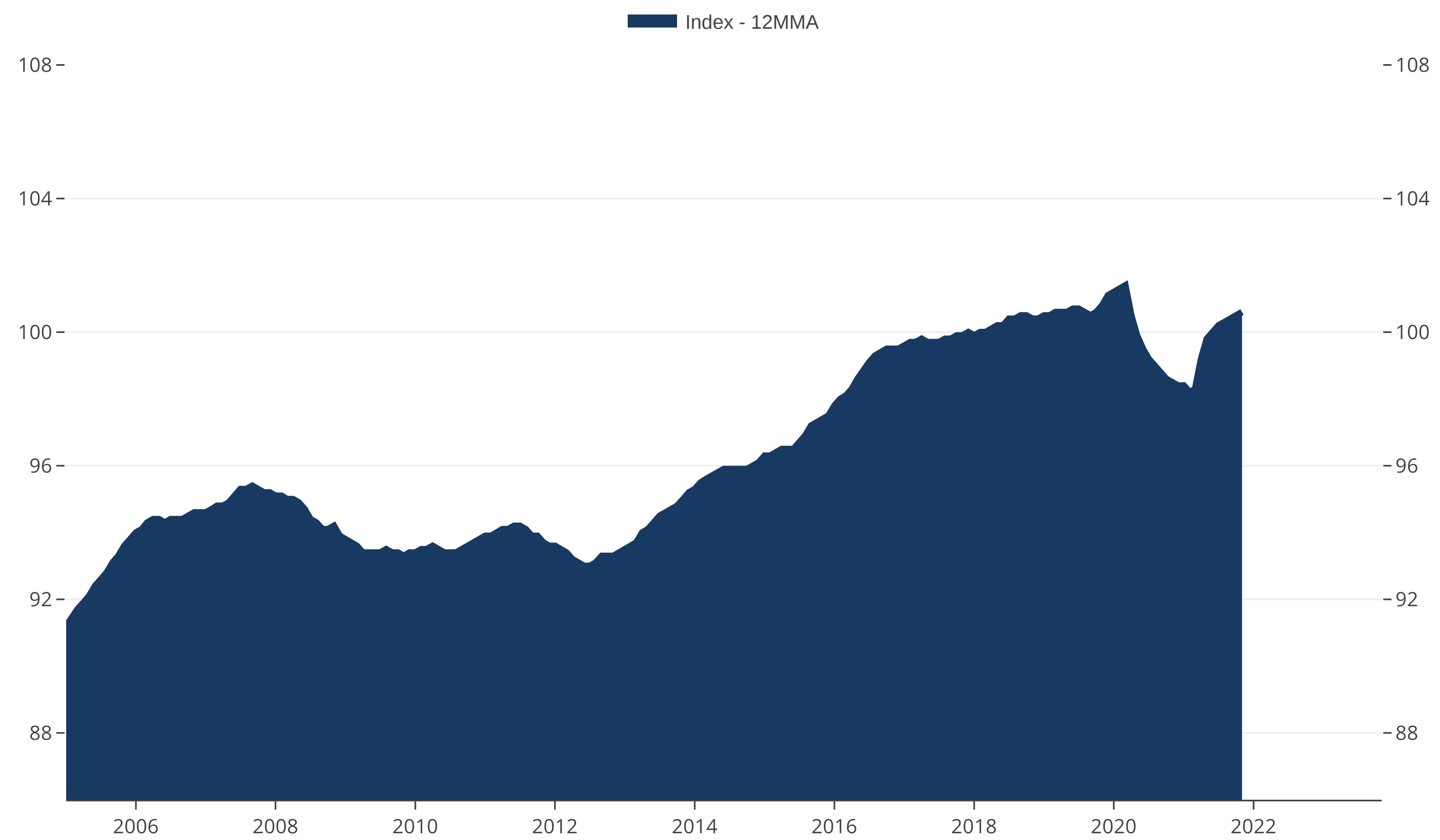
- US Machinery New Orders in the 12 months through October totaled $436.0 billion, up 16.2% from the same period one year ago. Your machinery-facing business decisions should account for a Phase C environment for the majority of 2022.
- Prices for steel scrap and copper – both important inputs for machinery – are in cyclical (rate-of-change) decline, signaling a near-term transition to the back side of the business cycle for New Orders. US Corporate Profits for Domestic Manufacturing Industries were rising at a robust pace through at least the second quarter of 2021, according to the latest available data. Some of those funds could be used for capacity or efficiency investments, making a "soft landing" (i.e., the avoidance of Phase D, Recession) likely for New Orders this cycle. On balance, the evidence gives us a high degree of confidence in our outlook for Phase C in 2022.

US Food Production Index

Sample Company

Supply Chain Hurdles Are Likely to Keep Production Near Current Levels in the Short Term

Annual Average (12MMA)



Annual Growth Rate (12/12)

Current Phase

Phase B Accelerating Growth

Current Indicator Amplitude

- November 2021 Annual Growth Rate (12/12): 2.1%
- November 2021 Annual Average (12MMA), Index, 2017 = 100: 100.6

Outlook & Supporting Evidence

- The US Food Production 12MMA in November was 2.1% above the year-ago level. The Production 12MMA will likely remain relatively flat, or even decline mildly, in the near term.
- Food manufacturers are currently facing supply chain hurdles, particularly shortages of packaging materials and labor. These factors, which impact their ability to keep pace with demand, will keep Production near current levels into mid-2022. We expect Production to then rise as supply chain woes begin to ease. Record-high US Corporate Profits for Food, Beverage, and Tobacco Industries are a positive sign for the industry, as profits could be reinvested to increase production capacity and increase automation. Elevated profits may also attract new entrants to the market, boding well for longer term rise.

US Leading Indicators

Sample Company

Indicator	Direction 1Q22	2Q22	3Q22
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

The majority of the key leading indicators we track signal an early-2022 business cycle peak for US Industrial Production, as forecasted.

Four of the five leading indicators shown here signal slowing rise is probable for industrial sector activity in 2Q22.

Ascent in the ITR Retail Sales Leading Indicator™ illustrates the overall strong health of the consumer, consistent with our no-recession expectation for the US economy this business cycle.

While our system of leading indicators suggests that business cycle decline will characterize the economy in 2022, our analysis suggests many segments of the economy will post slowing growth but avoid outright contraction. Scrupulously evaluate your supply chain to ensure you are as prepared as possible for rising activity in 2022.

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).

US Consumer Price Index

Consumer price index (CPI) for all urban consumers in the United States. CPI measures the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care. Changes in the CPI are used to assess price changes associated with the cost of living. Often used as a statistic for identifying periods of inflation or deflation. Source: Bureau of Labor Statistics. Index, 1982-84 = 100, NSA. US city average, for all items.

US Food Production Index

Industries in the US Food Manufacturing subsector transform livestock and agricultural products into products for intermediate or final consumption. The industry groups are distinguished by the raw materials (generally of animal or vegetable origin) processed into food products. The food products manufactured in these establishments are typically sold to wholesalers or retailers for distribution to consumers. Source: FRB. NAICS Code: 311. Index, 2017 = 100, NSA.

US Private Sector Employment

Total private sector, nonfarm employment in the United States. The private sector is the part of the economy that is run by private individuals or groups, usually as a means of enterprise for profit, and is not controlled by the State (areas of the economy controlled by the state being referred to as the public sector). Source: Bureau of Labor Statistics. Measured in millions of employees, 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.

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

