

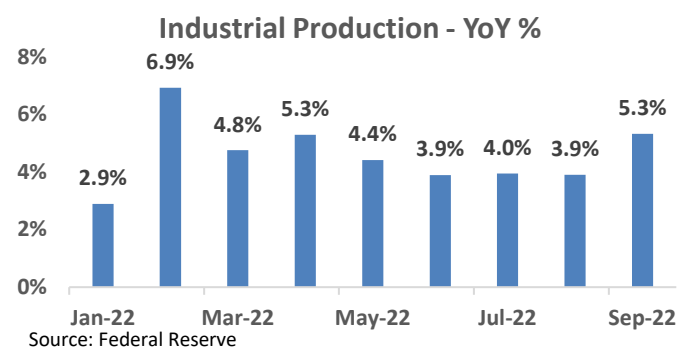
Date	Indicator	For	Estimate	Consensus*	Previous Period
24-Oct-2022	Chicago Fed Nat Activity Index	Sep	NA	NA	0.0
24-Oct-2022	S&P Global US Manufacturing PMI	Oct P	51.0	51.5	52.0
24-Oct-2022	S&P Global US Services PMI	Oct P	49.7	NA	49.3
24-Oct-2022	S&P Global US Composite PMI	Oct P	NA	NA	49.5
25-Oct-2022	FHFA Home Price Index MoM	Aug	-0.7%	-0.6%	-0.6%
25-Oct-2022	S&P CoreLogic CS 20-City MoM SA	Aug	-0.8%	-0.8%	-0.44%
25-Oct-2022	Conf. Board Consumer Confidence	Oct	105.5	105.0	108.0
25-Oct-2022	Richmond Fed Manuf. Index	Oct	-6	NA	0.0
26-Oct-2022	Advance Goods Trade Balance	Sep	-\$87.8b	-\$87.8b	-\$87.3b
26-Oct-2022	Wholesale Inventories MoM	Sep P	1.2%	1.1%	1.3%
26-Oct-2022	New Home Sales	Sep	500k	588k	685k
27-Oct-2022	GDP Annualized QoQ	3Q A	2.4%	2.2%	-0.6%
27-Oct-2022	GDP Price Index QoQ	3Q A	5.3%	5.2%	9.0%
27-Oct-2022	Durable Goods Orders	Sep P	0.6%	0.6%	-0.2%
27-Oct-2022	Initial Jobless Claims	Oct 22	220k	NA	214k
27-Oct-2022	Kansas City Fed Manf. Activity	Oct	-2	NA	1
28-Oct-2022	Employment Cost Index QoQ	3Q	1.3%	1.2%	1.3%
28-Oct-2022	Personal Income	Sep	0.3%	0.3%	0.3%
28-Oct-2022	Personal Spending	Sep	0.3%	0.4%	0.4%
28-Oct-2022	Pending Home Sales MoM	Sep	-6.0%	-5.0%	-2.0%
28-Oct-2022	U. of Mich. Sentiment	Oct F	59.6	59.5	59.8

Industrial Production Rebound Not Sustainable

The U.S manufacturing sector continues to expand against a backdrop of rapidly rising interest rates, yet the ISM Manufacturing Index dropped to just above the break-even level of 50 in September, which marks the dividing line between expansion and contraction. Based on this measure, the pace of the manufacturing expansion has slowed sharply since February and peaked way back in March of 2021.

This steady deceleration in the manufacturing expansion was the main reason analysts were caught off guard earlier this week when industrial production expanded at a healthy 0.4% in September. The consensus was for a much more moderate rebound of 0.1%. The increase was broad-based led by a 0.6% rise in mining output and a 0.4% advance in manufacturing output. The solid monthly increase drove the growth rate from a year ago up sharply to 5.3% from 3.9% in August and reversed a trend of slowing year-on-year growth since May.

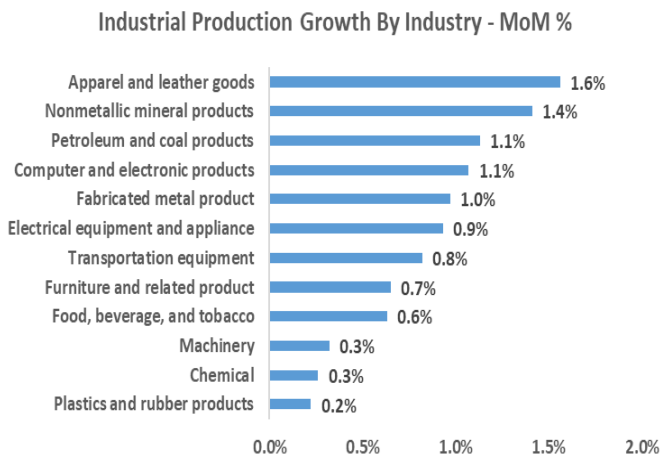
Industrial Production Growth Surged in September



Looking at the granular industry level manufacturing data reveals much of the production increase last month was driven by sectors that have been plagued by supply chain shortages - computer and electronic products (+1.1%), electrical equipment and appliances (+0.9%) and transportation equipment (+0.8%). Manufacturers are working off order backlogs that piled up over the past six months on clogged supply chains bringing overall

manufacturing supply into better balance with weakening demand. We expect this temporary surge of manufacturing production will quickly fade as order backlogs subside. The early read on October is that manufacturing activity slowed further this month. Both the Philadelphia Fed and Empire State regional PMIs for October are already in contraction territory, a strong signal that the industrial production rebound we saw last month is not sustainable in the face of continuing rate hikes, a strong dollar, and deteriorating global growth.

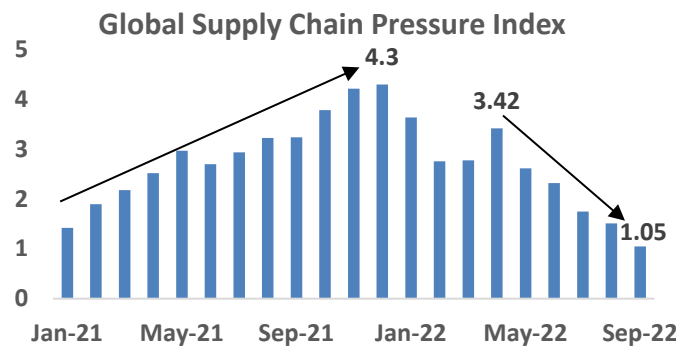
Supply Chain Constrained Industries Grew Rapidly



Source: Federal Reserve

That global supply chains pressures have eased is evident in the Federal Reserve’s Global Supply Chain Pressure Index. The index hit peak supply chain pressure at 4.3 in December 2021. Since then supply-chain pressures have steadily eased each month. The index stood at 1.05 in September which is below where it was in early 2021. Easing supply constraints are allowing manufacturers to increase production, replenish inventories, and more quickly fill new orders.

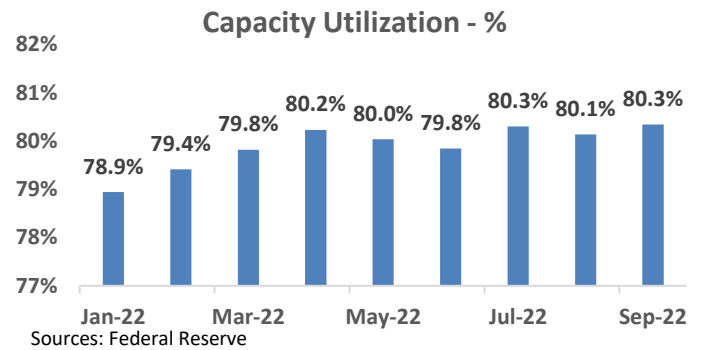
Global Supply Chain Pressures Have Eased Recently



Source: NY Federal Reserve

Manufacturing price pressures may continue to linger for a while longer, however. The capacity utilization rate – defined as the manufacturing and production capabilities that are currently being utilized – rose to 80.3% in September from 80.1% in August. The index has been at 80% or higher for five of the last six months and at 80.3% is 0.7 percentage points above its long-run average from 1971-2021. The elevated and rising utilization rate will make it more difficult to lower overall price pressures and could push the Fed to continue aggressively lifting interest rates.

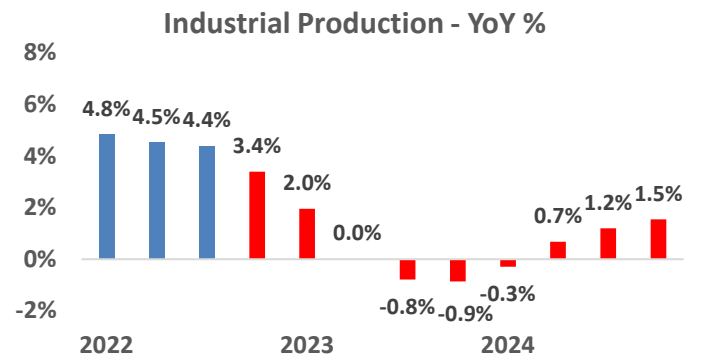
Capacity Utilization Tied For 2022 High in September



Sources: Federal Reserve

We are forecasting industrial production growth will continue to moderate and then turn negative year-on-year in 2023 as the Fed’s interest rate hikes slow consumer and business demand. Production should rebound slowly in 2024 as the Fed begins to lower rates with inflation approaching its 2.0% target. Bottom-line, don’t be fooled by the September industrial production head fake, risks to the manufacturing outlook remain firmly on the downside.

Industrial Production Growth Will Continue to Moderate



Sources: Federal Reserve, BOTW Economics

The discussions and information contained in this document are the opinions of the author should not be construed or used as a specific recommendation for the investment of assets, and is not intended as an offer, or a solicitation of an offer, to purchase or sell any security or financial instrument. Nor does the information constitute advice or an expression of the Bank’s view as to whether a particular security or financial instrument is appropriate for you or meets your financial objectives. Economic and market observations and forecasts, such as those offered by Bank of the West Economics reflect subjective judgments and assumptions, and unexpected events may occur. There can be no assurance that developments will transpire as forecasted. Nothing in this document should be interpreted to state or imply that past results are an indication of future performance.

Key Economic and Interest Rate Forecasts

Economic Data	History				Forecast								Yr/Yr % chg or Annual Avg.			
	2021.1	2021.2	2021.3	2021.4	2022.1	2022.2	2022.3	2022.4	2023.1	2023.2	2023.3	2023.4	2020	2021	2022	2023
Real GDP*	6.3	7.0	2.7	7.0	-1.6	-0.6	2.4	0.2	-0.3	-1.5	-0.2	0.6	-2.8	5.9	1.8	0.0
Personal Consumption Expenditures*	10.8	12.1	3.0	3.1	1.3	2.0	1.0	0.8	0.3	-0.8	0.5	1.2	-3.0	8.3	2.6	0.5
Non-residential Fixed Investment*	8.9	9.9	0.6	1.1	7.9	0.1	8.5	1.1	-1.3	-5.3	-0.9	-0.7	-4.9	6.4	4.0	-0.3
Private Housing Starts (000s units)	1,581	1,591	1,569	1,679	1,720	1647	1461	1400	1380	1320	1300	1280	1,395	1,605	1557	1320
Vehicle Sales (mill. Units, annualized)	16.8	16.9	13.3	12.9	14.1	13.3	13.3	13.3	13.0	12.6	12.8	13.0	14.5	15.0	13.5	12.9
Industrial Production*	3.1	6.5	3.5	4.8	4.7	5.2	2.9	0.8	-1.0	-2.6	-0.3	0.5	-7.0	4.9	4.3	0.1
Nonfarm Payroll Employment (mil.)	143.7	145.2	146.9	148.6	150.4	151.6	152.7	153.0	152.7	152.2	151.7	151.7	142.1	146.1	151.9	152.1
Unemployment rate	6.2	5.9	5.1	4.2	3.8	3.6	3.6	3.7	4.0	4.4	4.7	4.8	8.1	5.4	3.7	4.5
Consumer Price Index* (percent)	4.1	8.2	6.7	7.9	9.2	10.5	5.7	4.2	3.9	3.6	3.0	2.5	1.2	4.7	8.1	4.3
"Core" CPI* (percent)	1.4	7.8	5.3	5.6	6.5	6.6	6.4	5.5	4.5	3.9	3.2	2.7	1.7	3.6	6.2	4.7
PPI (finished goods)* (percent)	13.7	11.6	12.9	13.7	18.3	22.3	-0.6	0.5	2.0	1.6	1.7	1.8	-1.3	8.9	13.3	2.4
Trade Weighted Dollar (Fed AFE)	103.4	102.9	105.0	107.0	108.4	113.7	118.2	121.2	122.3	121.7	121.3	121.1	109.0	104.6	115.4	121.6
Crude Oil Prices -WTI (\$ per barrel)	58	66	70	76	91	104	89	87	84	81	77	76	39	67	93	80

*Quarterly Data Percent Change At Annual Rate; Annual Data Year-on-Year % Chg, or Annual Average.

Financial Data	History				Forecast								Annual Average			
	2021.1	2021.2	2021.3	2021.4	2022.1	2022.2	2022.3	2022.4	2023.1	2023.2	2023.3	2023.4	2020	2021	2022	2023
S & P 500	3,866	4,184	4,422	4,602	4,464	4,106	3,980						3,218	4,273		
Dow Jones Industrial Average	31,551	34,121	34,916	35,517	34,679	32,688	31,774						26,891	34,055		
Federal Funds Rate (effective)	0.08	0.07	0.09	0.13	0.21	0.96	2.63	3.79	4.54	4.63	4.63	4.63	0.37	0.09	1.90	4.61
Treasury-3 Month Bills (yield)	0.05	0.03	0.05	0.05	0.31	1.10	2.75	3.94	4.44	4.55	4.55	4.58	0.36	0.04	2.03	4.53
Treasury-2 Year Notes (yield)	0.13	0.17	0.22	0.50	1.46	2.72	3.38	4.42	4.47	4.56	4.57	4.58	0.39	0.26	3.00	4.55
Treasury-5 Year Notes (yield)	0.62	0.84	0.80	1.11	1.83	2.96	3.23	4.20	4.34	4.48	4.49	4.50	0.54	0.84	3.06	4.45
Treasury-10 Year Notes (yield)	1.34	1.59	1.32	1.54	1.95	2.93	3.10	3.97	4.14	4.28	4.29	4.30	0.89	1.45	2.99	4.25
Treasury-30 Year Notes (yield)	2.09	2.26	1.93	1.95	2.26	3.06	3.26	3.82	4.09	4.25	4.31	4.34	1.56	2.06	3.10	4.25
Prime Rate	3.25	3.25	3.25	3.25	3.33	4.08	5.75	6.91	7.66	7.75	7.75	7.75	3.54	3.25	5.02	7.73
SOFR Overnight Rate	0.04	0.02	0.05	0.05	0.09	0.69	2.15	3.55	4.36	4.46	4.48	4.49	0.36	0.04	1.62	4.45
SOFR 3-Mo. CME	0.02	0.05	0.06	0.09	0.34	1.32	2.84	4.04	4.59	4.68	4.68	4.69	NA	0.05	2.14	4.66
Libor 3-Mo. U.S. Dollar	0.20	0.16	0.13	0.16	0.53	1.54	3.00	4.20	4.67	4.76	4.76	4.76	0.65	0.16	2.32	4.74
Mortgage-30 Year (yield)	2.88	3.00	2.87	3.08	3.82	5.27	5.62	6.72	6.94	7.08	6.99	6.95	3.12	2.96	5.36	6.99
BAA Corporate (yield)	3.49	3.55	3.24	3.30	3.97	5.02	5.35	6.24	6.44	6.60	6.61	6.65	3.61	3.39	5.15	6.58

Source: Bank of the West Economics, Bloomberg, Federal Reserve