7-11-2023

The Manufacturing Sector Pushes Upward

Anderson Center for Economic Research

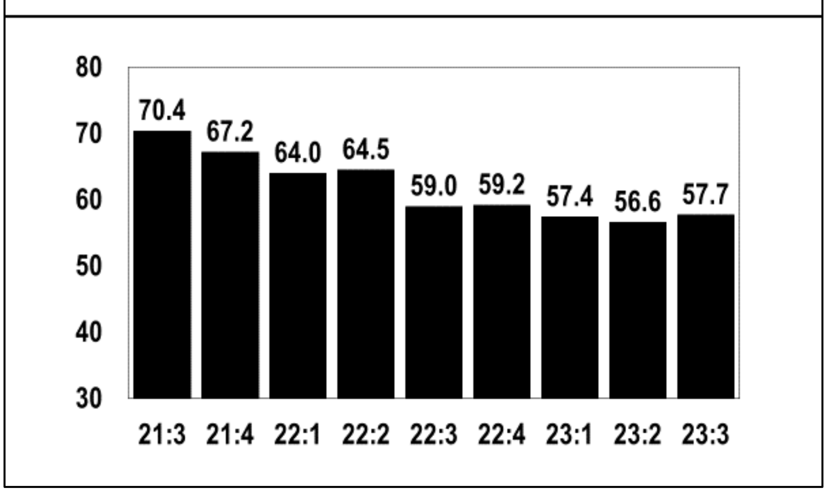
CHAPMAN UNIVERSITY

A. Gary Anderson Center for Economic Research
One University Drive, Orange, California 92866
(714) 997-6693
Chapman.edu

PRESS RELEASE

THE MANUFACTURING SECTOR INCHES UPWARD

ORANGE, CA — Based on a survey of purchasing managers, the California Composite Index, measuring overall manufacturing activity in the state, increased from 56.6 in the second quarter to 57.7 in the third quarter, indicating that the manufacturing sector is expected to grow at a higher rate in the third quarter. “Purchasing managers have seen container pricing fall dramatically at the same time that a weaker Yen has helped with lower prices. They believe that the expiration of Chinese tariffs exemptions will hurt importers if not extended by the Biden administration and are concerned about the potential increase in interest rates. They have noticed that high end products are selling well while mid-level products are being substituted by lower quality goods,” said Dr. Raymond Sfeir, director of the purchasing managers’ survey. Production is expected to grow at a higher rate in the third quarter, and commodity prices are expected to rise at a lower rate, while supplier deliveries will be faster for the first time since the fourth quarter of 2016. New orders are expected to grow at a higher rate. The high-tech sector is expected to perform better than the rest of the manufacturing sectors, making up for its performance in the second quarter.



CALIFORNIA COMPOSITE INDEX

California Manufacturing at a Glance

Composite Index	57.7	Increasing at a higher rate
Production	65.2	Increasing at the higher rate
Inventories of purchased materials	52.3	Increasing at a lower rate
Commodity prices	62.8	Rising at a lower rate
Supplier deliveries	48.3	Faster
New orders	58.8	Increasing at a higher rate
Employment	55.7	Increasing at a higher rate

Performance by Industry Group

The index for the **non-durable goods industries** increased from 58.0 in the second quarter to 58.6 in the third quarter, indicating that these industries are expanding at a higher rate. Production and employment are expected to grow at a higher rate. Commodity prices are expected to rise at a much lower rate as the index decreased from 65.3 in the second quarter to 53.8 in the third quarter.

The **high-tech industries** include the following: Computer & Electronic Products, and Aerospace Products & Parts. The high-tech industries currently employ about 379,300 employees, amounting to 28.4% of total manufacturing employment in the state. The index for the high-tech industries increased from 55.4 in the second quarter to 60.6 in the third quarter, indicating a higher growth rate in the third quarter. Production is expected to grow at a substantially higher rate. New orders and employment are expected to grow at a higher rate. Commodity prices are expected to rise at a lower rate, and supplier deliveries are expected to be faster for the first time since the third quarter of 2016. Inventories of purchased materials are expected to grow at a lower rate.

The index for the **durable goods industries other than high-tech** decreased from 56.6 in the second quarter to 55.0 in the third quarter, indicating a lower growth rate in these industries. Production, commodity prices, and new orders are expected to grow at a lower rate. Supplier deliveries are expected to be faster for the first time since the third quarter of 2019. Employment is expected to grow at a higher rate.

Comments by the Purchasing Managers

Container pricing from overseas has fallen dramatically, helping to offset other price increases. Retail buyers of our consumer products, however, have cut back Holiday 2023 buying budget slightly, due to poor Easter Seasonal Sales this year. (Food)

The potential for port disruption on the west coast coupled with rail delays could have a crippling ripple effect throughout the supply chain. (Petroleum & Coal Products)

Inflation is still hurting growth over prior as consumers continue to spend less. (Textile Mill Products)

Short on material. Need faster response from suppliers. (Apparel)

We are seeing a bit of restocking in our clients and commitments towards retail display campaigns across various retailers especially big box stores. Some clients are still having supply issues from China and even quality issues. The next three months should prove that we have been burning through inventory, and restocking will occur as well as we will roll into holiday builds. This will not be as big as last year or the year before which were enormous which is why we have so much in the inventory stream. (Paper)

The paper shortage is starting to diminish so the need to hold high levels of inventory is lessening. This is also reducing the number of custom envelopes needed to produce and inventory for customers. (Printing & Related Support Activities)

Manufacturing is slowing, but distribution is still strong. We are pushing up margins and creating more structure to manage existing business and personnel and position ourselves to add high quality staff as our industry faces huge challenges with consolidation. (Chemicals)

Business is slowing, orders are getting pushed out. Prices increases have slowed but have not stopped. Labor continues to be an issue. Second half of the year will be slow. (Plastics & Rubber Products)

It would seem we are in neutral at this point in the year not much change. Interest rates still play a big part and can adversely affect the second half of this year. An increase negatively impacts future growth pushing a potential slowdown going forward. Supply availability and pricing have stabilized, demand remains the unknown. (Wood Products)

Prices are up across the board to keep up with inflation. Our production schedule currently shows some reduction, but that could change quickly since it is still the beginning of summer which is typically a busy season for construction. (Nonmetallic Mineral Products)

Not sure how much slower, but it seems things will slow down. (Primary Metals)

With interest rates rising we expected a downturn, but with the ERC money finally trickling in, many businesses are buying capital equipment. For us the economy is still being driven by stimulus money which was allocated years ago, and it is now just coming into the businesses and government agencies who are our customers. (Fabricated Metal Products)

Even though sales are expected to be down in Q3-2023, annual sales will exceed 2022. Prices continue to be elevated, especially for stainless steel and stainless steel components which make up 85% of the equipment our company manufactures. The economy, costs and finding qualified new hires remain the biggest challenges. (Machinery)

Semiconductor onshoring in the USA is creating a positive ripple effect throughout the entire supply chain, supporting growth, stability, and technological advancement in the country's manufacturing sector. (Computer & Electronic Products)

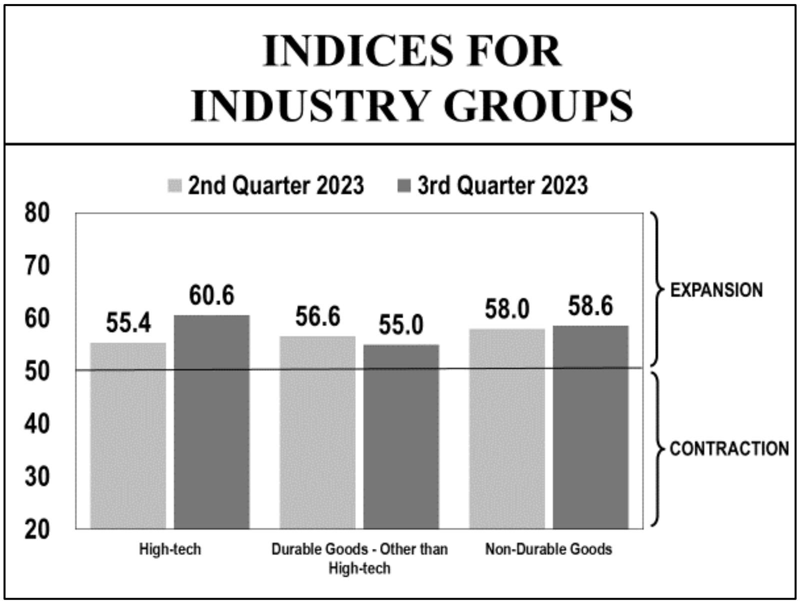
Support goods and services lead times are improving as with many raw materials. Some metals and alloys (nickels and stainless steels) are available but with longer than normal lead times. (Electrical Equipment, Appliance & Components)

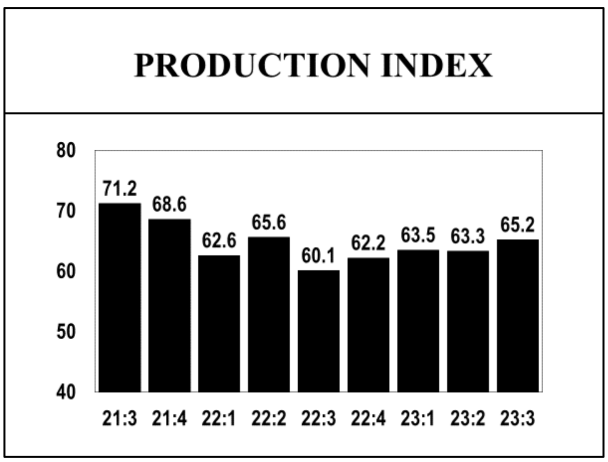
While the number of price increase announcements has decreased, increases are still occurring. Our largest supplier is having a 2% to 8% increase in zinc, ductile iron and brass, and other soft materials like buna, Teflon, etc. Price decreases have not shown up as we had hoped to see with inflation moderating, but instead price remain much higher than last year and are sticking. Freight is also another moderating cost, but still sticky in come down. While demand for our products remain good to moderate depending upon the product, we are encouraged for the future. (Transportation Equipment)

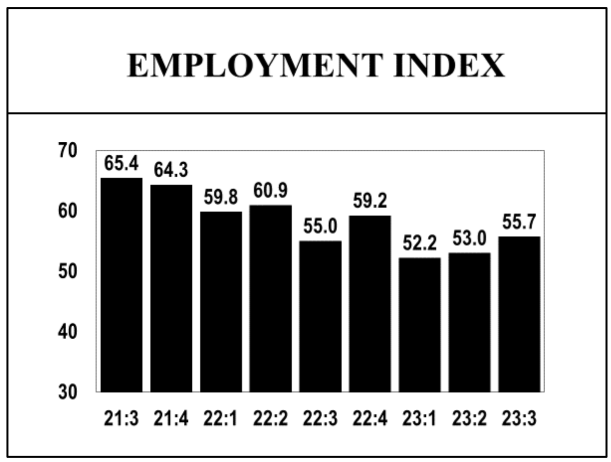
The furniture industry continues to see a lull in business...We continue to hear retailers complain about business conditions. Raw material prices have come down, suppliers are quicker to respond, employees are easier to find... all great things. (Furniture & Related Products)

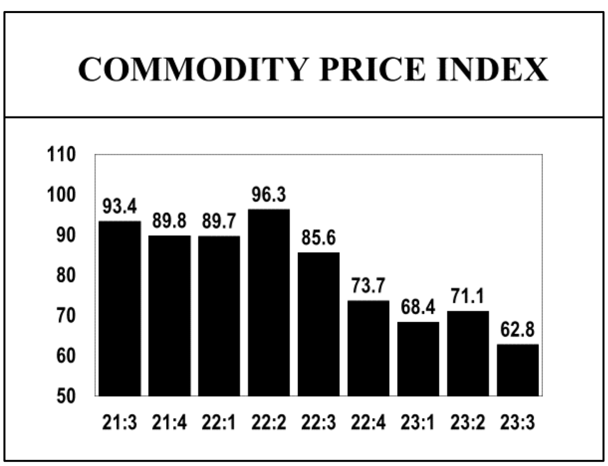
Although we've seen a stabilization in prices and deliveries of raw materials we have noticed a slowdown in existing sales. We feel that even though inflation has calmed prices to consumers due to higher wages and material cost not receding, people are beginning to have to choose where and on what they spend their income on. (Miscellaneous)

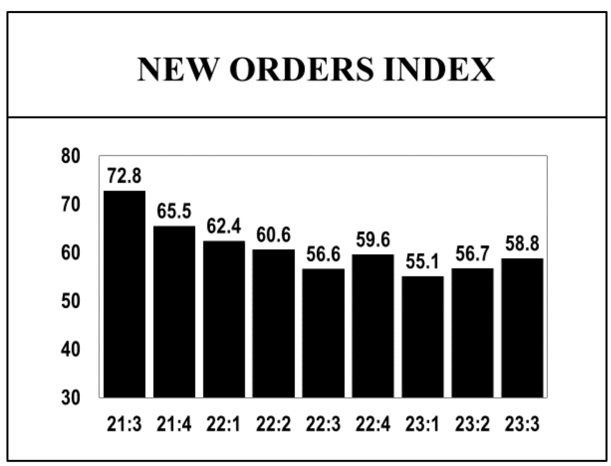
Inflation is on the rise, but with a slower speed and momentum than the first quarter, therefore, expecting to have more orders and higher production. We are cautiously optimistic for the next two quarters. (Aerospace Products & Parts)


INDICES FOR
INDUSTRY GROUPS
2nd Quarter 2023
3rd Quarter 2023
80
70
60
50
40
30
20
55.4
60.6
56.6
55.0
58.0
58.6
EXPANSION
CONTRACTION
High-tech
Durable Goods - Other than High-tech
Non-Durable Goods


PRODUCTION INDEX
80
70
60
50
40
71.2
68.6
62.6
65.6
60.1
62.2
63.5
63.3
65.2
21:3 21:4 22:1 22:2 22:3 22:4 23:1 23:2 23:3


EMPLOYMENT INDEX
70
60
50
40
30
65.4
64.3
59.8
60.9
55.0
59.2
52.2
53.0
55.7
21:3 21:4 22:1 22:2 22:3 22:4 23:1 23:2 23:3


COMMODITY PRICE INDEX
110
100
90
80
70
60
50
93.4
89.8
89.7
96.3
85.6
73.7
68.4
71.1
62.8
21:3 21:4 22:1 22:2 22:3 22:4 23:1 23:2 23:3


NEW ORDERS INDEX
80
70
60
50
40
30
72.8
65.5
62.4
60.6
56.6
59.6
55.1
56.7
58.8
21:3 21:4 22:1 22:2 22:3 22:4 23:1 23:2 23:3

Background and Methodology

The Institute for Supply Management (ISM) conducts a monthly national survey of purchasing managers and publishes the survey results in its *Report on Business*. Such a survey is not available for the state of California. Given the size of our state, and the major role its manufacturing sector plays in the national economy, the A. Gary Anderson Center for Economic Research at Chapman University launched a quarterly survey of California purchasing managers starting in the third quarter of 2002. Similar to the ISM survey, our survey tracks changes in production, employment, new orders, inventories of purchased materials, commodity prices and supplier deliveries. A seasonally adjusted index is computed for each variable except for commodity prices for which no seasonal adjustment is made. Unlike the national survey that tracks the performance of the manufacturing sector in the previous month, the Anderson Center's survey asks the participants to evaluate the expected performance in the coming quarter.

In order to have one single indicator for the performance of the state manufacturing sector, the Anderson Center has developed a Composite Index that is a weighted average of the underlying indices. A value of 50 for the Composite Index shows a general expansion of the manufacturing economy of the state and a value below 50 shows a decline. The industries are classified according to the North American Industry Classification System (NAICS).

Detailed Results of the Survey of
California Purchasing Managers' Expectations
for the Third Quarter of 2023

In its attempt to present you with a better delivery of the survey results, the A. Gary Anderson Center for Economic Research has calculated an index for every variable in the survey. The "% Better," is added to half of the "% Same," after which a seasonal factor is used to get a seasonally adjusted index for each variable (except commodity prices). A value over 50 for an index indicates growth and a value below 50 indicates a decline. If for example the index increases from 55 to 59, we say that the growth rate is higher than the previous quarter because 59 is bigger than 55. If the index remains at 55, we say that the growth rate remains the same as the previous quarter. If the index decreases from 55 to 52, we say that we still have growth but that the growth rate is lower than the previous quarter because 52 is smaller than 55. Each industry in the manufacturing sector is represented in the survey based on its employment share of total manufacturing employment in the state.

Production: The seasonally adjusted index for production is expected to increase from 63.3 in the second quarter to 65.2 in the third quarter, indicating that production is expected to increase at a higher rate in the third quarter. This is the thirteenth consecutive quarter that the production index has been above 50. Production is expected to increase most rapidly in the following industries: Food; Textile Mill Products; Paper; Printing & Related Support Activities; Petroleum & Coal Products; Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Aerospace Products & Parts; and Miscellaneous. The Electrical Equipment, Appliance & Components industry reported an expected decrease in production.

Production	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
3rd Quarter of 2023	46.3	41.0	12.6	33.7	65.2
2nd Quarter of 2023	47.5	39.0	13.5	33.9	63.3
1st Quarter of 2023	43.1	38.5	18.4	24.6	63.5
4th Quarter of 2022	37.3	42.2	20.5	16.9	62.2

Inventories of Purchased Materials: The seasonally adjusted index for inventories of purchased materials is expected to decrease from 53.8 in the second quarter to 52.3 in the third quarter, indicating that inventories of purchased materials are expected to increase at a lower rate in the third quarter. Inventories of purchased materials are expected to increase most rapidly in the following industries: Food; Primary Metals; Transportation Equipment (other than Aerospace Products & Parts); Aerospace Products & Parts; and Miscellaneous. Inventories of purchased materials are expected to decrease most rapidly in the following industries: Apparel; Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Machinery; Electrical Equipment, Appliance & Components; and Furniture & Related Products.

Inventories of Purchased Materials	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
3rd Quarter of 2023	31.5	45.0	23.5	8.0	52.3
2nd Quarter of 2023	34.1	44.0	21.9	12.2	53.8
1st Quarter of 2023	43.1	38.5	18.4	24.6	63.2
4th Quarter of 2022	31.3	41.8	26.9	4.4	55.4

Commodity Prices: The seasonally unadjusted index for commodity prices is expected to decrease from 71.1 in the second quarter to 62.8 in the third quarter, indicating that commodity prices are expected to rise at a lower rate in the third quarter of this year. Commodity prices are expected to increase most rapidly in the following industries: Printing & Related Support Activities; Petroleum & Coal Products; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Fabricated Metal Products; Machinery; Computer & Electronic Products; Electrical Equipment, Appliance & Components; Transportation Equipment (other than Aerospace Products & Parts); Aerospace Products & Parts; and Miscellaneous. Commodity prices are expected to decrease most rapidly in the following industries: Textile Mill Products; and Primary Metals.

Commodity Prices	% Higher	% Same	% Lower	Net	Index
3rd Quarter of 2023	37.4	50.9	11.7	25.6	62.8
2nd Quarter of 2023	50.3	41.7	8.1	42.2	71.1
1st Quarter of 2023	52.3	32.1	15.6	36.8	68.4
4th Quarter of 2022	60.6	26.3	13.1	47.4	73.7

Supplier Deliveries: For this variable, an index value over 50 indicates slower deliveries, and an index value under 50 indicates faster deliveries. The seasonally adjusted index for supplier deliveries is expected to decrease from 50.0 in the second quarter to 48.3 in the third quarter, indicating that supplier deliveries are expected to be faster in the third quarter. Supplier deliveries are expected to be slowest in the following industries: Printing & Related Support Activities; Fabricated Metal Products; Aerospace Products & Parts; and Miscellaneous. Supplier deliveries are expected to be fastest in the following industries: Apparel; Paper; Chemicals; Plastics & Rubber Products; Primary Metals; and Computer & Electronic Products.

Supplier Deliveries	% Slower	% Same	% Faster	Net	Seasonally Adjusted Index
3rd Quarter of 2023	14.7	66.6	18.7	-3.9	48.3
2nd Quarter of 2023	16.5	67.8	15.7	0.8	50.0
1st Quarter of 2023	25.1	59.3	15.6	9.5	55.4
4th Quarter of 2022	28.0	60.9	11.1	16.9	57.9

New Orders: The seasonally adjusted index for new orders is expected to increase from 56.7 in the second quarter to 58.8 in the third quarter, indicating that new orders are expected to increase at a higher rate in the third quarter. New orders are expected to increase most rapidly in the following industries: Food; Beverage & Tobacco; Printing & Related Support Activities; Petroleum & Coal Products; Chemicals; Primary Metals; Fabricated Metal Products; Computer & Electronic Products; Transportation Equipment (other than Aerospace Products & Parts). New orders are expected to decrease most rapidly in the following industries: Apparel; and Machinery.

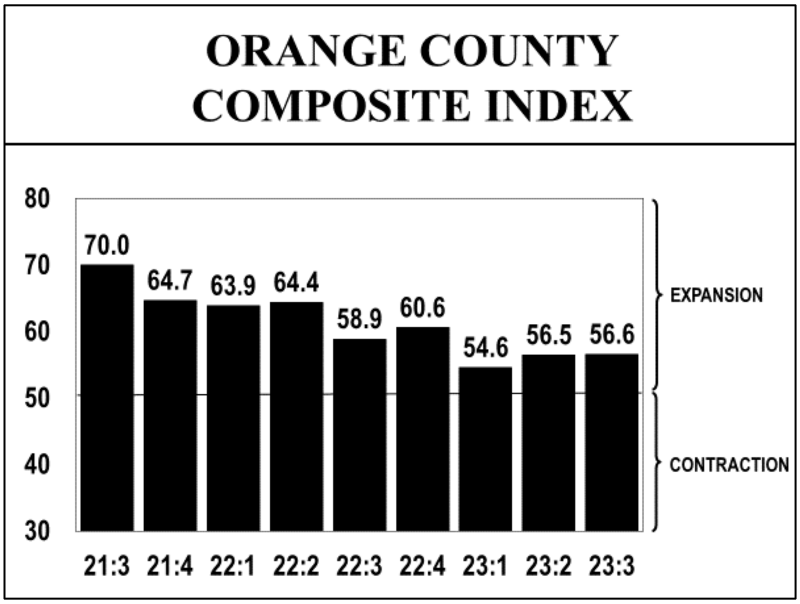
New Orders	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
3rd Quarter of 2023	39.3	41.1	19.6	19.7	58.8
2nd Quarter of 2023	38.6	42.6	18.8	19.8	56.7
1st Quarter of 2023	34.7	39.7	25.6	9.1	55.1
4th Quarter of 2022	34.7	42.6	22.6	12.1	59.6

Employment: The seasonally adjusted index for employment is expected to increase from 53.0 in the second quarter to 55.7 in the third quarter, indicating that employment in manufacturing is expected to improve in the third quarter. Employment is expected to increase most rapidly in the following industries: Food; Paper; Printing & Related Support Activities; Petroleum & Coal Products; Primary Metals; Fabricated Metal Products; Computer & Electronic Products; Transportation Equipment (other than Aerospace Products & Parts); Aerospace Products & Parts; and Miscellaneous. Employment is expected to decrease most rapidly in the following industries: Apparel; Machinery; Electrical Equipment, Appliance & Components; and Furniture & Related Products.

Employment	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
3rd Quarter of 2023	25.7	62.8	11.6	14.1	55.7
2nd Quarter of 2023	22.3	63.5	14.2	8.0	53.0
1st Quarter of 2023	22.9	57.7	19.4	3.5	52.2
4th Quarter of 2022	26.0	62.6	11.4	14.6	59.2

Orange County's Manufacturing Survey

The Orange County manufacturing sector's Composite Index barely increased from 56.5 in the second quarter to 56.6 in the third quarter, indicating that the county's manufacturing economy is expected to grow at the same rate in the third quarter as it did in the second quarter.



The seasonally adjusted index for production increased from 62.8 in the second quarter to 64.1 in the third quarter, indicating that production is expected to increase at a higher rate in the third quarter. The seasonally adjusted index for inventories of purchased materials increased from 57.9 to 60.3 indicating that inventories are expected to grow at a higher rate. The supplier deliveries index dropped from 47.4 to 46.8 indicating that deliveries will continue to be even faster in the third quarter. New orders are expected to grow at a higher rate, but employment is expected to grow at a lower rate. The seasonally unadjusted index for commodity prices is expected to decrease further from 67.4 to 61.4 indicating that commodity prices are expected to rise at the lowest rate since the second quarter of 2020.

The index for the **non-durable goods industries** decreased from 52.0 in the second quarter to 50.9 in the third quarter, indicating that these industries are expected to expand at a lower rate in the second quarter. The index for inventories of purchased materials decreased substantially from 57.7 to 45.9 indicating that inventories of purchased materials are expected to decrease in the third quarter. The index for the **high-tech industries** increased from 64.0 to 65.3, indicating that these industries are expected to expand at a higher rate. The index for new orders increased from 62.7 to 70.5 indicating that new orders will increase at a higher rate, but the index for employment decreased substantially from 71.3 to 57.6 indicating that employment is expected to take a big hit. The index for the **durable goods industries other than high-tech** decreased from 55.7 to 55.1 indicating that the durable goods industries other than high-tech are expected to expand at a lower rate. Production, inventories of purchased materials, and new orders are expected to grow at a higher rate, but employment is expected to decrease slightly.

About the Anderson Center for Economic Research

The A. Gary Anderson Center for Economic Research (ACER) was established in 1979 to provide data, facilities and support in order to encourage the faculty and students at Chapman University to engage in economic and business research of high quality, and to disseminate the results of this research to the community.

Annual Schedule of Conferences and Press Releases

JANUARY	‣ Economic Forecast Conferences for the Inland Empire ‣ California Purchasing Managers Survey
APRIL	‣ California Purchasing Managers Survey
JUNE	‣ Economic Forecast Update Conference for the U.S, California and Orange County
JULY	‣ California Purchasing Managers Survey
OCTOBER	‣ California Purchasing Managers Survey
DECEMBER	‣ Economic Forecast Conference for the U.S., California and Orange County