

ISM-Houston Business Report

October 2020



ISM—Houston, Inc.

Analysis and report by **Ross Harvison, CPSM**
Chair of the ISM-Houston Business Survey Committee

(Houston, Texas) – According to Houston area supply chain executives, overall economic activity in Houston expanded in October for the fifth month led by improving expansion in non-manufacturing activities. Manufacturing activities contracted at a very slow pace again this month.

The Houston Purchasing Managers Index fell a modest 0.2 points to 53.2 during the month. Two of the three underlying indicators that have a strong direct correlation with the economy, sales/new orders and lead times, continue to point to strong expansion. The third, employment, is still giving a weak signal for contraction. The sales/new orders index rose 1.7 points in October to 60.9. The lead times index fell 1.3 points to 54.2. The employment index fell an additional 1.5 points to 47.2. The underlying indicator that has the strongest inverse correlation with economic activity, finished goods inventory, fell 1.5 points this month to 48.1, maintaining a modest expansion signal.

The three-month forecast for the Houston PMI fell 1.1 points to 53.0. This was driven by weakening production, prices paid, and lead times indices offset modestly by strengthening in the sales/new orders index. These indices have a strong direct correlation with economic activity at the three-month forecast horizon.

On an industry specific basis, construction joined wholesale trade, accommodations and foods services, and health care reporting expansion. Durable goods manufacturing reported contraction. All other sectors reported near neutral. The three-month forecast predicts modest improvement for all sectors depending on the severity of the COVID-19 pandemic.

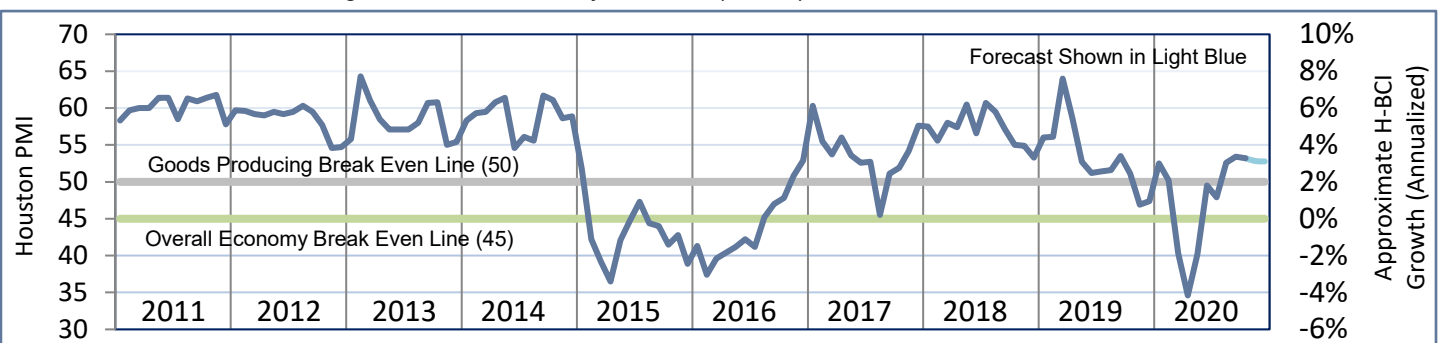
Indices at a Glance

Index	Oct	Sep	Change	Track	Rate	Trend*
Houston Overall PMI - Current	53.2	53.4	-0.2	Expanding	Slower	3
Houston Overall PMI - 3M Forecast	53.0	54.1	-1.1	Expanding	Slower	5
Sales/New Orders	60.9	59.2	1.7	Rising	Faster	5
Production	50.4	53.3	-2.9	Rising	Slower	5
Employment	47.2	48.7	-1.5	Falling	Faster	9
Purchases	50.5	50.5	0.0	Rising	Slower	2
Prices Paid	50.4	51.5	-1.1	Rising	Slower	2
Lead Times	54.2	55.5	-1.3	Rising	Slower	7
Purchased Inventory	52.8	51.2	1.6	Rising	Faster	2
Finished Goods Inventory	48.1	49.6	-1.5	Falling	Faster	2
Overall Houston Economy				Expanding	Slower	5

* Number of months on current track

Houston PMI Trend

Overall economic activity in Houston expanded in October. HPMI readings over 50 generally indicate goods producing industry expansion; readings below 50 show contraction. An HPMI above 45 generally correlates with expansion of the Houston-The Woodlands-Sugar Land Business Cycle Index (H-BCI).



Commodities Reported to have Notable Price Changes or to be in Short Supply

Up in Price: Hypodermic needles; bulk and containerized ocean freight; copper wire and cable; chemicals, ethane, propane, butane, propylene oxide and derivatives, butadiene, acetone; rhodium for catalysts

Down in Price: PPE supplies (masks and gloves); jet fuel; natural gas; heat exchangers, alloy and carbon steel pipe, pumps, compressors, fabricated structural steel, electrical equipment; lumber; contract and direct hire professional staff

In Short Supply: Hypodermic needles and syringes, nitrile gloves; corrugated boxes; propylene glycol and derivatives

What Our Respondents Are Saying

Oil and Gas Exploration, and Key Support Services:

- US and Texas rig counts rose marginally again this month
- Exploration company bankruptcies and consolidations are accelerating
- *This sector improved modestly during the month with all indicators other than purchases reported near neutral; the purchases index showed a significant rise*

Construction:

- Lumber prices continue to moderate, but are still well above the previous three year average
- *This sector reported modest expansion overall again this month; new home construction continues to show strength; the sales and lead times indices came in above neutral; the employment and purchases indices reported as contracting*

Durable Goods Manufacturing:

- This month saw a drop off in orders
- Manufacturing for the energy industry is a difficult business to be in: we have had layoffs and reduced hours of operation, we buy only what we need to serve our customers, we are in a position to spring back but need to see an increase in domestic or international sales for this to happen
- *This sector continues to report weakness with all indices except lead times and prices paid noted as contracting*

Non-durable Goods Manufacturing:

- Demand is very low due to COVID and the continued market recession
- *This sector report near neutral again this month; the sales and prices paid indices reported modest expansion while all other indices came in near neutral*

Transportation:

- Airport passenger traffic increased again this month but is well below the normal levels of the last few years
- Port traffic YTD is lower than last year
- *This sector reported modest expansion this month with airport traffic continuing to point to growth while midstream operations noted significant weakness; the employment index continues to show expansion*

Financial Services and Real-estate:

- New home sales and starts continue to be strong
- *This sector reported modestly above neutral overall again this month with the sales index pointing to expansion*

Professional Services:

- Many capital projects slated for final investment decision in 2020 have been delayed or deferred with only a few cancelled; the expectation is for these projects to begin moving forward mid-2021 through 2022
- Low oil prices and demand, and the looming US presidential election have O&G companies in hold mode relative to hiring and capital spending
- Continued layoffs in all sectors of the O&G industry have created an abundance of talent on the job market with very few job openings available
- Job seekers tired of the instability of the O&G industry are aggressively pursuing opportunities in the technology and alternative energy sectors, both of which are in growth mode
- The energy industry continues to reduce cost via personnel reductions and this is putting more people in market than job opportunities exist
- Prices for either hourly contract or direct hire are trending down
- *This sector rose modestly to neutral; the sales index showed strength while the employment, purchases, and prices paid indices reported below neutral*

What Our Respondents Are Saying (Continued)

Health Care:

- There has been a significant increase in flu vaccine administration that is causing a disruption in the supply chain for hypodermic needles and syringes; this is also greatly affecting Hospitals across the country
- Given the increase in COVID-19 cases we are beginning to see an increase in usage of PPE supplies
- *This sector reported continued strength with sales, purchases, and lead times all pointing to expansion; the employment and prices paid indices returned to neutral during the month*

Accommodations and Food Services:

- *This sector continues to report expansion from the very low performance noted earlier in the year*

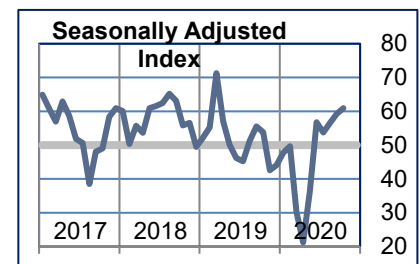
Trend of Underlying Indicators

The Houston PMI is based on diffusion indices for eight underlying indicators. The net value of each indicator is simply the percentage of respondents who cite a positive shift from the previous month minus the percentage who cite a negative shift. The diffusion index is calculated based on the percent of respondents reporting higher results plus one-half of those responding the same with a seasonal adjustment based on an X13 ARIMA forecast. Values above 50 for Sales/New Orders, Production, Employment, Prices Paid, and Lead Times generally point towards expansion and values below 50 signal contraction. Note that the Prices Paid Index may not follow this trend late in an economic expansion. The Inventory measures have an inverse correlation at most forecast horizons, meaning that values below 50 point to expansion and values above point to contraction. The Purchases index is inversely correlated with economic activity at the three-month forecast horizon.

Sales/New Orders Index

The sales/new orders index rose modestly this month. Construction, wholesale trade, accommodations and food services, professional services, real estate, and health care all showed expansion. Durable goods manufacturing showed contraction.

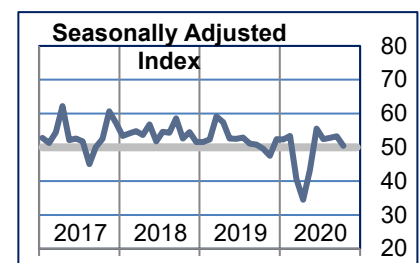
	Higher	Same	Lower	Net	Index
May/20	18%	40%	42%	-24%	36.4
Jun/20	36%	39%	25%	11%	56.8
Jul/20	18%	72%	10%	8%	53.7
Aug/20	20%	74%	6%	14%	56.5
Sep/20	26%	69%	5%	21%	59.2
Oct/20	25%	67%	8%	17%	60.9



Production Index

The production index fell to near neutral with durable goods manufacturing reporting further weakening. All other goods producing industries reported near neutral.

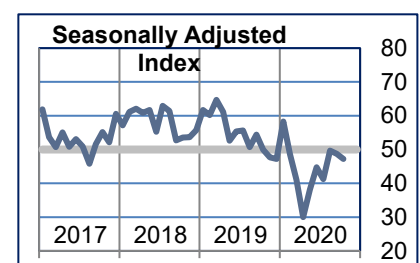
	Higher	Same	Lower	Net	Index
May/20	6%	75%	19%	-13%	43.2
Jun/20	14%	80%	6%	8%	55.5
Jul/20	9%	88%	3%	6%	52.4
Aug/20	10%	85%	5%	5%	52.8
Sep/20	10%	87%	3%	7%	53.3
Oct/20	6%	88%	6%	0%	50.4



Employment Index

The employment index indicated additional modest contraction. Construction, durable goods manufacturing, and professional services reported further contraction in this indicator. All other sectors reported this index near neutral.

	Higher	Same	Lower	Net	Index
May/20	2%	74%	24%	-22%	38.1
Jun/20	7%	79%	14%	-7%	44.8
Jul/20	2%	78%	20%	-18%	41.3
Aug/20	9%	78%	13%	-4%	49.7
Sep/20	9%	79%	12%	-3%	48.7
Oct/20	4%	84%	12%	-8%	47.2



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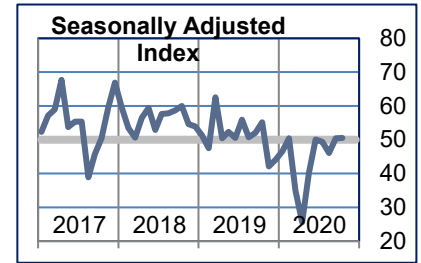


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Purchases Index

The purchases index remained close to neutral. Oil & gas, wholesale trade, and health care reported higher purchases while construction, durable good manufacturing, transportation, and professional services reported lower purchases.

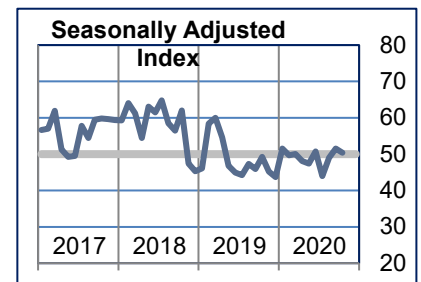
	Higher	Same	Lower	Net	Index
May/20	13%	53%	34%	-21%	40.2
Jun/20	12%	74%	14%	-2%	50.1
Jul/20	7%	84%	9%	-2%	49.4
Aug/20	6%	83%	11%	-5%	46.1
Sep/20	15%	75%	10%	5%	50.5
Oct/20	13%	74%	13%	0%	50.5



Prices Paid Index

The prices paid index fell modestly staying above neutral. Manufacturing and wholesale trade reported this index as rising while professional services reported it as falling. All other sectors reported near neutral.

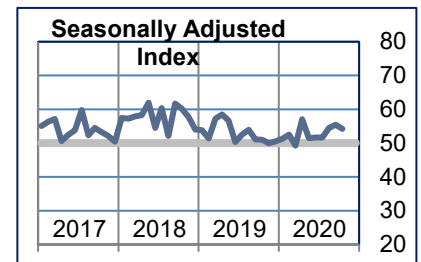
	Higher	Same	Lower	Net	Index
May/20	11%	74%	15%	-4%	47.4
Jun/20	12%	74%	14%	-2%	50.7
Jul/20	8%	72%	20%	-12%	44.0
Aug/20	8%	80%	12%	-4%	49.0
Sep/20	11%	80%	9%	2%	51.5
Oct/20	11%	82%	7%	4%	50.4



Lead Times Index

The lead times index fell, but continues to indicate increasing lead times overall. Manufacturing and health care reported this index as significantly higher. All other sectors reported near neutral.

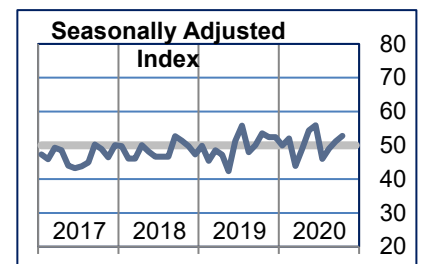
	Higher	Same	Lower	Net	Index
May/20	16%	75%	9%	7%	51.5
Jun/20	9%	84%	7%	2%	51.7
Jul/20	4%	94%	2%	2%	51.7
Aug/20	12%	85%	3%	9%	54.5
Sep/20	13%	86%	1%	12%	55.5
Oct/20	7%	93%	0%	7%	54.2



Purchased Inventory Index

The purchased goods inventory index rose modestly with a large increase reported by wholesale trade. Construction and durable goods manufacturing reported this index as falling. All other sectors came in near neutral.

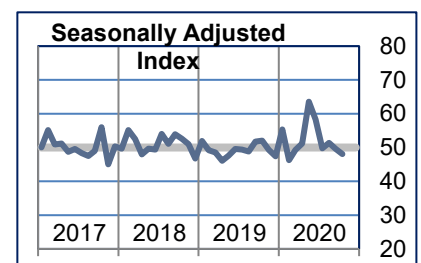
	Higher	Same	Lower	Net	Index
May/20	20%	71%	9%	11%	54.4
Jun/20	15%	82%	3%	12%	55.9
Jul/20	1%	91%	8%	-7%	46.0
Aug/20	2%	93%	5%	-3%	49.0
Sep/20	6%	88%	6%	0%	51.2
Oct/20	9%	84%	7%	2%	52.8



Finished Goods Inventory Index

The finished goods inventory index fell this month. Manufacturing reported falling finished goods inventories. Wholesale trade and midstream operations reported them as rising. All other sectors reported near neutral.

	Higher	Same	Lower	Net	Index
May/20	30%	67%	3%	27%	63.6
Jun/20	15%	84%	1%	14%	58.3
Jul/20	5%	90%	5%	0%	49.8
Aug/20	6%	93%	1%	5%	51.4
Sep/20	5%	87%	8%	-3%	49.6
Oct/20	6%	83%	11%	-5%	48.1



Houston PMI Calculation Methods

The Houston Purchasing Managers Index has been included as an integral part of the ISM-Houston Business Report since the Houston chapter of the Institute for Supply Management started publication of this document in January 1995. The report and index are published monthly as the primary deliverables from a survey of Houston area Supply Chain leaders regarding the status of key activities believed to provide insight into the strength of the economy. The respondents come from diverse organizations including construction, energy, engineering, health care, durable and non-durable goods manufacturing, financial and business services, wholesale and retail trade, and utilities related companies.

The Houston Purchasing Managers Index is determined from diffusion indices of the eight indicators of economic activity covered by the ISM-Houston Business Survey and Report. These underlying indicators are sales or new orders, production, employment, purchases, prices paid for major purchases, lead times from sellers, purchased materials inventory (raw materials and supplies), and finished goods inventories. The respondents to the survey report the direction of each these activities as either up, the same or down in comparison to the previous month. An index for each of these areas is then calculated by subtracting the percentage of respondents that sight a negative shift from the percentage that sight a positive shift. For indicators that are positively correlated with economic growth, this results in an underlying index that points to expansion when it is above zero. Indicators that are negatively correlated with growth point to expansion when they are below zero.

The final Houston PMI is calculated by applying optimal regression factors to each of the eight underlying indicators noted above. These regression factors are determined using standard regression techniques comparing these underlying indicators to the Houston-The Woodlands-Sugar Land Business Cycle Index (Houston BCI), which is reported on a monthly basis by the Federal Reserve Bank of Dallas. This top-level index is converted to a 0 to 100 scale to match that of the national Purchasing Managers Index® (PMI®) which is published monthly by the Institute for Supply Management® (ISM®). Readings over 50 for the HPMI generally indicate manufacturing expansion in the Houston in the near term and readings below 50 show coming manufacturing contraction.

It is important to note that the manufacturing breakeven HPMI does not equate to the breakeven point for the overall Houston economy. ISM-Houston periodically reviews the capability of its correlations and adjusts the regression factors when appropriate. The most recent revision occurred as a result of a review undertaken during the third quarter of 2018, which determined that changes in the Houston economy over the last decade have shifted the intercept of the correlation, causing a neutral Houston PMI to no longer align with a neutral Houston BCI. A Houston PMI of 45 points now equates to a neutral Houston economy as measured by the Houston BCI. A similar offset between the National PMI and the National economy has existed for some time.

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