The Virginia Tech – U.S. Forest Service August 2018 Housing Commentary: Section II

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2018

Virginia Polytechnic Institute and State University

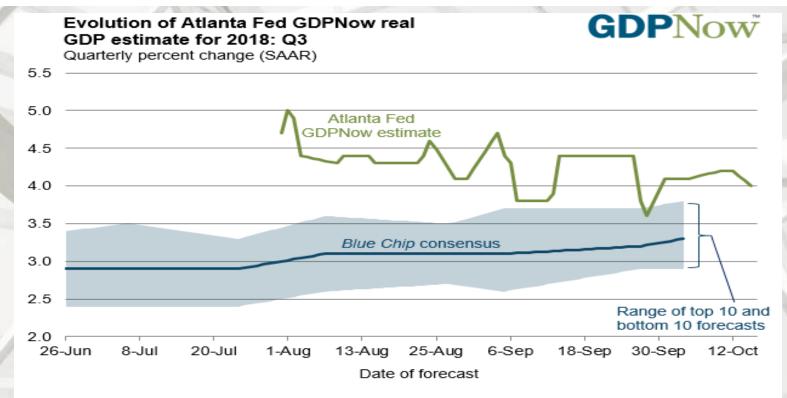
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Federal Reserve System and Private Indicators



Sources: Blue Chip Economic Indicators and Blue Chip Financial Forecasts Note: The top (bottom) 10 forecast is an average of the highest (lowest) 10 forecasts in the Blue Chip survey.

Atlanta Fed GDPNow[™] Latest forecast: 4.0 percent – October 15, 2018

"The GDPNow model estimate for real GDP growth (seasonally adjusted annual rate) in the third quarter of 2018 is **4.0 percent** on October 15, down from 4.2 percent on October 10. After this morning's retail sales report from the U.S. Census Bureau, the nowcast of third-quarter real personal consumption expenditures growth fell from 3.6 percent to 3.3 percent." – Pat Higgins, Economist, Federal Reserve Bank of Atlanta

The Federal Reserve Bank of Chicago: Midwest Economy Index

Index Points to Little Change in Midwest Economic Growth in August

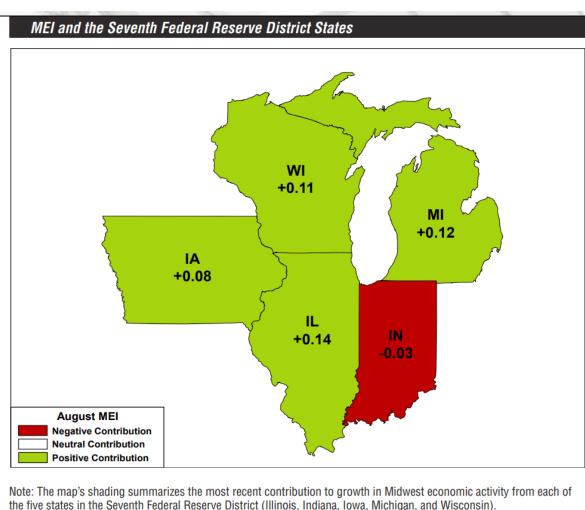
"The Midwest Economy Index (MEI) ticked down to +0.42 in August from +0.43 in July. Contributions to the August MEI from one of the four broad sectors of nonfarm business activity and two of the five Seventh Federal Reserve District states decreased from July. The relative MEI rose to +0.28 in August from +0.11 in July. Contributions to the August relative MEI from all four sectors and all five states increased from July.

The manufacturing sector's contribution to the MEI ticked up to +0.39 in August from +0.38 in July. The pace of manufacturing activity increased in Illinois and Iowa, but decreased in Indiana and Wisconsin and was unchanged in Michigan.

Manufacturing's contribution to the relative MEI moved up to +0.35 in August from +0.28 in July. The construction and mining sector contributed +0.03 to the MEI in August, up slightly from +0.02 in July. The pace of construction and mining activity was faster in Indiana, but slower in Illinois and Iowa and unchanged in Michigan and Wisconsin. The contribution from construction and mining to the relative MEI edged up to +0.07 in August from +0.04 in July.

The service sector's contribution to the MEI was unchanged at -0.06 in August. The pace of service sector activity was up in Michigan and Wisconsin, but down in Indiana and Iowa and unchanged in Illinois. The service sector's contribution to the relative MEI increased to -0.18 in August from -0.26 in July." – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

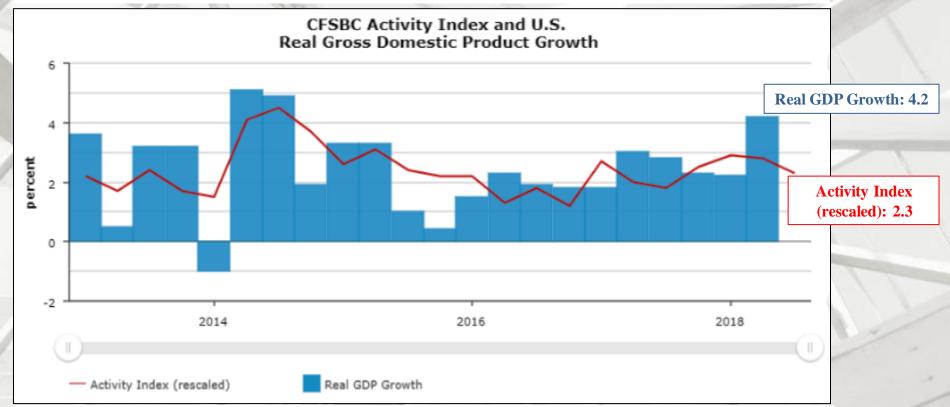
Chicago Fed: Midwest Economy Index



Index Points to Little Change in Midwest Economic Growth in August

"Consumer spending indicators made a contribution of +0.06 to the MEI in August, down from +0.09 in July. Consumer spending indicators were, on balance, down in Wisconsin, but steady in Illinois, Indiana, Iowa, and Michigan. Consumer spending's contribution to the relative MEI ticked up to +0.05 in August from +0.04 in July." – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

Chicago Fed: Survey of Business Conditions



Notes: Real gross domestic product (GDP) growth is presented at an annualized quarterly rate. The CFSBC Activity Index is converted from a biquarterly to quarterly frequency by taking the quarterly average of the available data. After averaging, the CFSBC Activity Index values are rescaled by taking the fitted values from a regression of GDP growth on the CFSBC Activity Index.– The Federal Reserve Bank of Chicago

Survey shows steady growth in July and early August

"The *Chicago Fed Survey of Business Conditions* (CFSBC) Activity Index edged down to +4 from +7, suggesting that growth in economic activity remained at a moderate pace in July and early August." – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

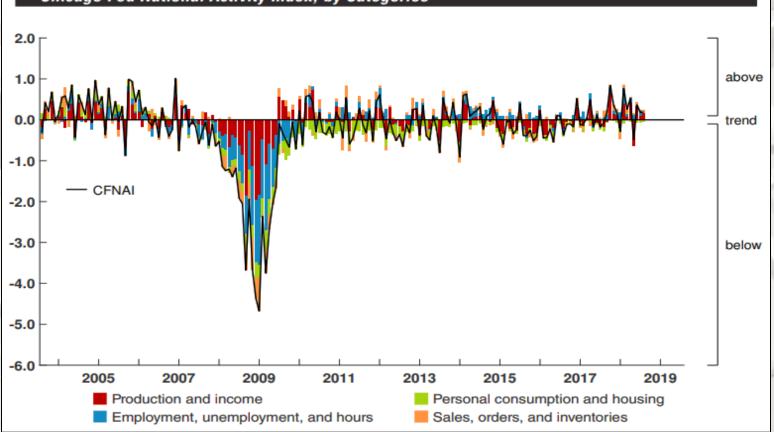
Chicago Fed: Survey of Business Conditions

Survey shows steady growth in July and early August

"... The *CFSBC Manufacturing Activity Index* increased to +11 from +4, while the CFSBC Nonmanufacturing Activity Index decreased to a neutral reading from +11.

- Respondents' outlooks for the U.S. economy for the next six to 12 months improved, and remained optimistic on balance. Respondents with optimistic outlooks highlighted good economic data, increased demand for their firms' products, and the federal tax reform. Respondents with pessimistic outlooks highlighted elevated policy uncertainty under the current U.S. presidential administration, particularly in regard to trade policy.
- The pace of current hiring picked up, while respondents' expectations for the pace of hiring over the next six to 12 months were unchanged. The current hiring index moved into positive territory, but the hiring expectations index remained negative.
- The pace of current capital spending increased, as did respondents' expectations for the pace of capital spending over the next six to 12 months. While the current capital spending index remained negative, the capital spending expectations index turned positive.
- The wage cost pressures index rose into positive territory, and the nonwage cost pressures index increased, remaining positive." – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

Chicago Fed: National Activity Index



Chicago Fed National Activity Index, by Categories

Index Points to Steady Economic Growth in August

"The Chicago Fed National Activity Index (CFNAI) was unchanged at +0.18 in August. Three of the four broad categories of indicators that make up the index increased from July, and two of the four categories made positive contributions to the index in August. The index's three-month moving average, CFNAI-MA3, rose to +0.24 in August from +0.02 in July." – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

Chicago Fed: National Activity Index

Index Points to Steady Economic Growth in August

"The CFNAI Diffusion Index, which is also a three-month moving average, increased to +0.20 in August from +0.09 in July. Forty-eight of the 85 individual indicators made positive contributions to the CFNAI in August, while 37 made negative contributions. Fifty-four indicators improved from July to August, while 30 indicators deteriorated and one was unchanged. Of the indicators that improved, 18 made negative contributions.

The contribution from production-related indicators to the CFNAI moved up to +0.16 in August from +0.10 in July. The Institute for Supply Management's Manufacturing Production Index increased to 63.3 in August from 58.5 in July. The sales, orders, and inventories category made a contribution of +0.07 to the CFNAI in August, up from +0.01 in July. The Institute for Supply Management's Manufacturing New Orders Index increased to 65.1 in August from 60.2 in July.

Employment-related indicators contributed -0.01 to the CFNAI in August, down from +0.13 in July. Civilian employment decreased by 423,000 in August after increasing by 389,000 in July. The contribution of the personal consumption and housing category to the CFNAI edged up to -0.04 in August from -0.06 in July. On balance, housing indicators improved slightly from July, pushing up the category's overall contribution in August." – Laura LaBarbera, Media Relations, The Federal Reserve Bank of Chicago

Texas Manufacturing Expansion Continues amid Increased Uncertainty

"Texas factory activity continued to expand in September, according to business executives responding to the *Texas Manufacturing Outlook Survey*. The production index, a key measure of state manufacturing conditions, dipped six points to 23.3, indicating output growth continued but at a slower pace than last month.

Other indexes of manufacturing activity also suggested slower expansion in September. The new orders index fell nine points to 14.7, its lowest reading in six months. Similarly, the growth rate of orders index slipped to 11.5, also a six-month low. The capacity utilization index retreated slightly to 21.6, while the shipments index fell five points to 20.8.

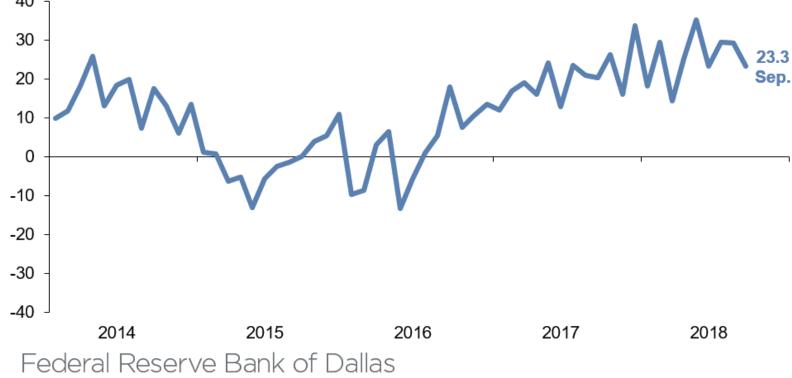
Perceptions of broader business conditions remained positive this month, although outlooks were less optimistic and uncertainty increased further. The general business activity index edged down but remained highly elevated at 28.1. The company outlook index held above average but retreated nine points to 18.2, its lowest reading in more than a year. The relatively new index measuring uncertainty regarding companies' outlooks moved up four points to a new high of 19.9.

Labor market measures suggest employment levels and work hours rose at a slower pace in September. The employment index remained positive but dropped 11 points to 17.7. One-quarter of firms noted net hiring, compared with 7 percent noting net layoffs. The hours worked index moved down to 12.7.

While price and wage pressures remained highly elevated in September, selling price increases again saw some deceleration. The raw materials prices index held fairly steady at 44.4, while the finished goods prices index edged down to 13.6. Compensation costs continued to rise at a faster clip than normal, with the wages and benefits index holding at 33.0.

Expectations regarding future business conditions remained positive in September. The indexes of future general business activity and future company outlook came in at 38.0 and 33.8, respectively. Other indexes for future manufacturing activity showed mixed movements this month but remained solidly in positive territory." – Emily Kerr, Business Economist, The Federal Reserve Bank of Dallas





Texas Service Sector Activity Strengthens

"Texas service sector activity increased in September, according to business executives responding to the *Texas Service Sector Outlook Survey*. The revenue index, a key measure of state service sector conditions, advanced from 6.5 in August to 13.0 in September.

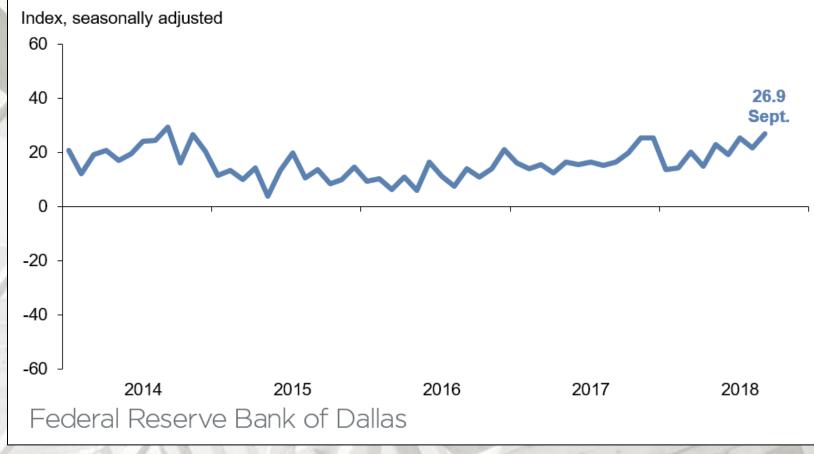
Labor market indicators reflected slower employment growth and longer workweeks this month. The employment index edged down from 5.8 to 4.4. The hours worked index rose slightly from a reading near zero to 3.1.

Perceptions of broader economic conditions reflected optimism in September. The general business activity index rebounded from -5.0 to 4.7, its first positive reading this year. The company outlook index held steady at 2.8, with 16 percent of respondents reporting that their outlook improved from last month and 14 percent noting it worsened.

Price and wage pressures increased this month. The selling prices index edged up from 2.4 to 3.9. The wages and benefits index rose slightly from 14.2 to 15.4, although the great majority of firms continued to note no change in compensation costs.

Respondents' expectations regarding future business conditions reflected more optimism in September. The index of future general business activity rose from 2.8 to 10.4. The index of future company outlook came in at a reading of 12.4, similar to August. Indexes of future service sector activity, such as future revenue and employment, also reflected more optimism this month." – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas

Texas Service Sector Outlook Survey Revenue Index



Source: https://www.dallasfed.org/research/surveys/~/media/Documents/research/surveys/tssos/2016/1609/tssos1609.pdf; 9/25/18

Retail Sales Growth Remains Solid

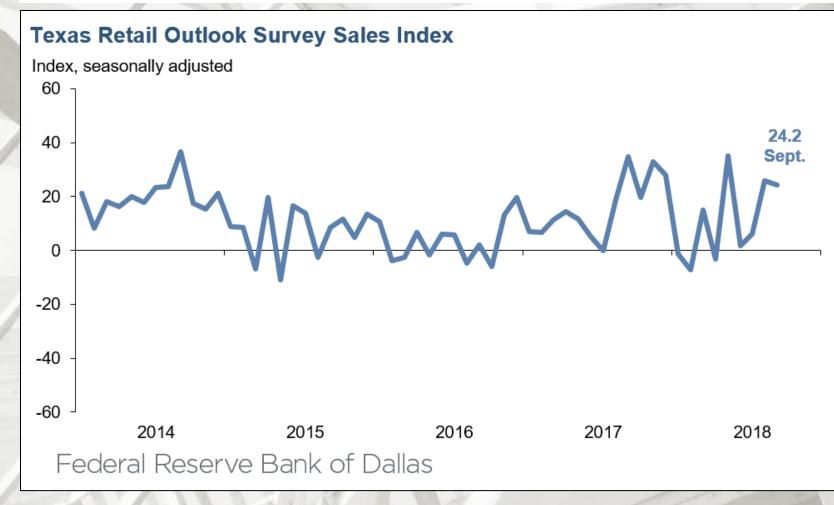
"Retail sales continued to grow in September, according to business executives responding to the *Texas Retail Outlook Survey*. The sales index dipped slightly from 25.8 in August to 24.2 in September. Growth in inventories picked up, with the inventories index rising nearly four points to a 12-month high of 22.3.

Retail employment accelerated and workweeks lengthened this month. The employment index rose from 9.8 to 17.9, its highest level since mid-2014. The hours worked index fell nearly 10 points but remained positive at 3.5.

Retailers' perceptions of broader economic conditions reflected increased optimism in September. The general business activity index rose from 13.7 to 21.2, while the company outlook index surged nearly 16 points to 22.7.

Retail price pressures increased and wage pressures eased, but both remained elevated in September. The selling prices index picked up over six points to 29.5. The wages and benefits index declined sharply but was positive at 15.0.

Retailers' perceptions of future economic conditions remained strong this month. The index of future general business activity increased from 17.6 to 20.5, while the index of future company outlook declined slightly from 24.7 to 22.1. Other indexes of future retail sector activity, such as sales and employment, saw a notable pickup compared with last month." – Amy Jordan, Assistant Economist, The Federal Reserve Bank of Dallas



The Federal Reserve Bank of Kansas City

Tenth District Manufacturing activity continued at a solid pace

"Tenth District manufacturing activity expanded at a solid pace again in September, though growth was somewhat slower than the rapid rate earlier in the year. Expectations for future growth remained positive, despite continued concerns about trade and tariffs. Price indexes mostly increased.

The month-over-month composite index was 13 in September, largely unchanged from 14 in August but down from 23 in July (Chart 1). The composite index is an average of the production, new orders, employment, supplier delivery time, and raw materials inventory indexes. Growth in factory activity was driven by durable goods plants, specifically from increases in nonmetallic minerals, metals, and electronics, while activity at nondurable goods plants slowed slightly. Month-over-month indexes were mixed compared to August, but all remained positive. The shipments and employment indexes declined, and the order backlog index dipped slightly. The production index was unchanged from last month's reading. On the other hand, the new orders for exports index increased. The finished goods inventory index edged lower while the raw materials inventory rose modestly.

Most year-over-year factory indexes increased in September. The composite index grew from 37 to 41, and new orders, employment, capital expenditures, and new orders for exports all edged higher. Additionally, the production, shipments, and order backlog indexes all rose moderately this month after a slight decline in August. The finished goods inventory index inched up and the raw materials inventory index continued to increase." – Chad Wilkerson, Vice President and Oklahoma City Branch Executive, The Federal Reserve Bank of Kansas City

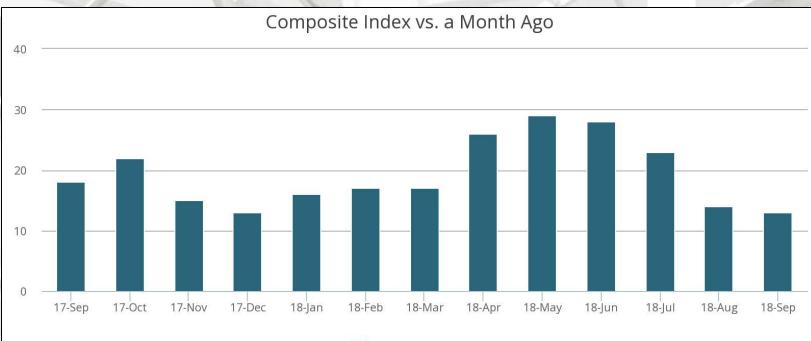
The Federal Reserve Bank of Kansas City

Tenth District Manufacturing activity continued at a solid pace

"Future factory activity expectations eased slightly, but remained favorable. The future composite index dipped from 29 to 27, and the future production, shipments, employment, and new orders indexes also edged lower. In contrast, the future capital expenditures and new orders for exports improved modestly and the future order backlog index inched higher. The future raw materials index grew from 11 to 17, while the future finished goods inventory index eased slightly.

Most price indexes increased in September. The month-over-month raw materials price index edged up from 44 to 45, while the finished goods price index dipped from 27 to 24. The year-over-year finished goods price index rose from 50 to 56, and the year-over-year raw materials price index also increased from 67 to 79. The future finished goods price index grew from 28 to 44, and the future raw materials price index expanded from 40 to 57.

This month firms were asked special questions about the impact of tariffs and recent federal tax cuts. More than 70 percent of respondents reported a slight or strong negative impact on business from tariffs. Roughly 7 percent of firms reported positive impacts from tariffs, while more than 22 percent of respondents reported no impact on business from tariffs. On tax cuts, nearly 38 percent of firms reported no savings, 31 percent reported less than five percent savings, and 18 percent of firms reported five to ten percent savings. Only 14 percent of firms reported more than ten percent savings from the most recent federal tax cuts." – Chad Wilkerson, Vice President and Oklahoma City Branch Executive, The Federal Reserve Bank of Kansas City



Composite Index

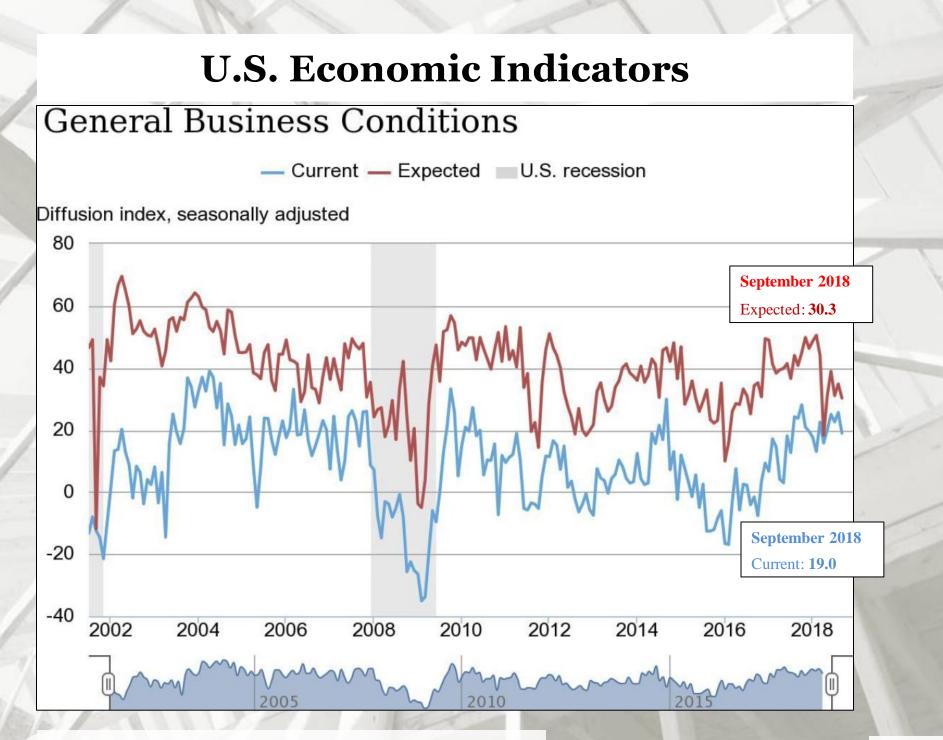
Source: https://www.kansascityfed.org/en/research/indicatorsdata/mfg/articles/2018/mfg-activity-continued-solid-09; 9/27/18

Empire State Manufacturing Survey Business Activity Remained Robust

"Business activity continued to grow at a solid clip in New York State, according to firms responding to the September 2018 *Empire State Manufacturing Survey*. The headline general business conditions index showed ongoing strength, but moved down seven points to 19.0, pointing to a slower pace of growth than last month. New orders and shipments grew moderately. Delivery times continued to lengthen, and inventories moved higher. Labor market indicators pointed to an increase in employment levels and longer workweeks. Price indexes were little changed and remained elevated, suggesting ongoing significant increases in both input prices and selling prices. Looking ahead, firms remained fairly optimistic about the six-month outlook.

Expansion Continues

Manufacturing firms in New York State reported that business activity expanded in September. The general business conditions index dipped seven points to 19.0, suggesting that while the pace of growth was slower than last month, it remained sturdy. Forty percent of respondents reported that conditions had improved over the month, while 21 percent reported that conditions had worsened. The new orders index was little changed at 16.5, and the shipments index fell eleven points to 14.3 — readings that reflected moderate growth. Unfilled orders increased, inventories climbed, and delivery times continued to lengthen." – Richard Deitz and Jason Bram, The Federal Reserve Bank of New York



Source: https://www.newyorkfed.org/survey/empire/empiresurvey_overview.html; 9/17/18

Empire State Manufacturing Survey

Employment Rises

"The index for number of employees held steady at 13.3 and the average workweek index was 11.5, indicating a modest increase in both employment levels and hours worked. Price increases remained elevated. The prices paid index held steady at 46.3, and the prices received index came in at 16.3..

Firms Remain Fairly Optimistic

Firms remained moderately optimistic about the six-month outlook, though optimism in recent months has been more temperate than earlier this year. The index for future business conditions declined five points to 30.3. The indexes for future unfilled orders and future delivery times both remained negative, suggesting that businesses expect fewer unfilled orders and shorter delivery times. Inventories were expected to hold steady, and employment levels were expected to increase in the months ahead. The capital expenditures index edged moved down seven points to 19.5, and the technology spending index fell two points to 10.6." – Richard Deitz and Jason Bram, The Federal Reserve Bank of New York

Business Leaders Survey (Services)

Growth Picks Up

"Growth in business activity in the region's service sector slowed slightly but was still fairly brisk. After reaching its highest level since 2007 in August, the headline business activity index retreated seven points to 14.9/ in August — still a fairly high level consistent with moderate growth. Just under 40 percent of respondents reported that conditions improved over the month, while 25 percent said that conditions worsened. The business climate index slipped eight points to 13.3 in August, remaining positive for an eighth consecutive month, signaling that, on balance, firms continued to view the business climate as better than normal.

Activity in the region's service sector expanded strongly, according to firms responding to the Federal Reserve Bank of New York's September 2018 *Business Leaders Survey*. The survey's headline business activity index climbed eight points to 22.5, its highest level in more than ten years. The business climate index reached a record high of 23.2, a sign that firms, on balance, regarded the business climate as better than normal. Employment levels increased modestly, and the wages index remained elevated at 43.3. The prices paid index moved down seven points to 50.0, signaling that input price increases, while still widespread, were somewhat less steep than last month, and the selling price index edged up two points to 20.1. Indexes assessing the six-month outlook suggested that firms' optimism about future conditions continued to drift lower." – Jason Bram and Richard Deitz, The Federal Reserve Bank of New York



Business Leaders Survey (Services) A Modest Increase in Employment

"The employment index edged down four points to 11.9, indicating that employment growth slowed to a modest pace. The wages index advanced three points to 43.3, reflecting ongoing significant wage gains. The prices paid index fell for a third consecutive month, but remained elevated at 50.0, a sign that input price increases remained widespread. The prices received index edged up two points to 20.1. The capital spending index climbed eleven points to 21.9, pointing to strong increases in capital spending.

Optimism about Outlook Drifts Lower

Firms remained fairly positive about the six-month outlook, though optimism continued to drift downward. The indexes for future business activity and future business climate both moved lower and remained below levels seen earlier this year. The index for future wages increased, and the index for planned capital spending came in at 24.8. "– Jason Bram and Richard Deitz, The Federal Reserve Bank of New York

The Federal Reserve Bank of New York Nowcast

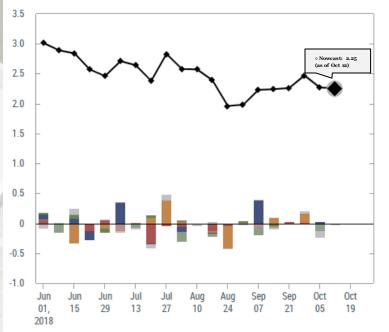
2018:Q4 | 2018:Q3 | 2018:Q2 | 2018:Q1

Last Release 11:15am EST Oct 12, 2018

◆ The New York Fed Staff Nowcast ○ Advance GDP estimate □ Latest GDP estimate

Housing and construction Manufacturing Surveys Retail and consumption Income Labor International trade Others

Percent (annual rate)



| Data Flow (Oct 12, 2018) | | | | | |
|--------------------------|---------------|------------------------------------------|--------|--------|--------------------------|
| Model Update | Release Date | Data Series | Actual | Impact | Nowcast GDP Growth |
| Oct 12 | | | | | 2.25 |
| | 8:30AM Oct 12 | Export price index | 0.00 | -0.00 | |
| | 8:30AM Oct 12 | Import price index | 0.47 | 0.01 | |
| | 8:30AM Oct 11 | CPI-U: All items less food and energy | 0.12 | -0.00 | |
| | 8:30AM Oct 11 | CPI-U: All items | 0.06 | -0.01 | |
| | 8:30AM Oct 10 | PPI: Final demand | 0.17 | 0.00 | |
| | | Data revisions | | -0.01 | |
| Oct 05 | | | | | 2.27 |

Notes: We start reporting the Nowcast for a reference quarter about one month before the quarter begins; we stop updating it about one month after the quarter closes. Colored bars reflect the impact of each broad category of data on the Nowcast; the impact of specific data releases is shown in the accompanying table.

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Source: Authors' calculations, based on data accessed through Haver Analytics.

October 12, 2018: Highlights

- "The New York Fed Staff Nowcast stands at 2.2% for 2018:Q3 and 2.8% for 2018:Q4.
- News from this week's data releases left the nowcast for both 2018:Q3 and 2018:Q4 broadly unchanged." – The Federal Reserve Bank of New York

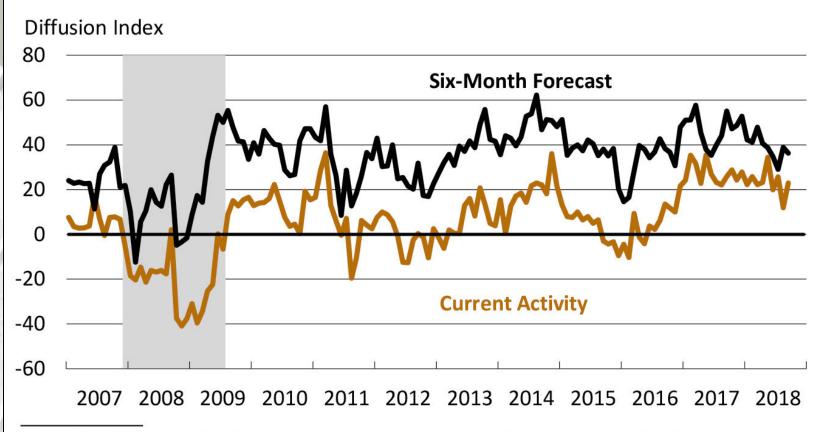
U.S. Economic Indicators The Federal Reserve Bank of Philadelphia

September 2018 Manufacturing Business Outlook Survey Current Indicators Show Improvement

"Regional manufacturing activity continued to grow in September, according to results from this month's *Manufacturing Business Outlook Survey*. The survey's broad indicators for general activity, new orders, shipments, and employment remained positive and increased from their readings in August. The survey's respondents reported diminished price pressures this month. Expectations for the next six months remained optimistic, but most broad future indicators showed some moderation.

The diffusion index for current general activity increased 11 points this month to 22.9, returning the index to near its average reading for 2018 (see Chart 1). Over 38 percent of the manufacturers reported increases in overall activity this month, while 15 percent reported decreases. The new orders index increased 12 points to 21.4. This month, 42 percent of the firms reported an increase in new orders, up from 34 percent in August. The current shipments index also improved, increasing 3 points to 19.6. The current inventories index fell 19 points this month and recorded its first negative reading in seven months. The firms, on balance, reported an increase in unfilled orders and longer delivery times." – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

Chart 1. Current and Future General Activity Indexes January 2007 to September 2018



Note: The diffusion index is computed as the percentage of respondents indicating an increase minus the percentage indicating a decrease; the data are seasonally adjusted.

September 2018 Manufacturing Business Outlook Survey

"The firms continued to report overall higher employment. Over 26 percent of the responding firms reported increases in employment this month, up from 18 percent last month, while nearly 9 percent of the firms reported decreases in employment. The current employment index increased 3 points to 17.6.

Upward Price Pressures Diminish

The survey's diffusion indexes for prices remained positive but decreased from their readings in August. On the cost side, 44 percent of the firms reported increases in the prices paid for inputs, down from 63 percent in August, and the prices paid index decreased 15 points to 39.6. With respect to prices received for firms' own manufactured goods, 25 percent of the firms reported higher prices compared with 35 percent last month. The prices received index decreased 14 points.

Six-Month Indicators Moderate Slightly

The diffusion index for future general activity edged down from a reading of 38.8 in August to 36.3 this month (see Chart 1). Nearly 53 percent of the firms expect increases in activity over the next six months, while 16 percent expect declines. The future new orders and shipments indexes decreased 3 points and 7 points, respectively. The future prices paid and received indexes decreased 11 points and 15 points, respectively. Nearly 55 percent of the firms expect price increases for purchased inputs over the next six months. Over 48 percent expect higher prices for their own manufactured goods, down from 62 percent last month. The future employment index was little changed from last month at 31.7, with almost 38 percent of the firms expecting to add workers over the next six months." – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

September 2018 Manufacturing Business Outlook Survey Most Firms Expect Higher Production During the Fourth Quarter

"In this month's special questions, the firms were asked to estimate their total production growth for the third quarter ending this month along with expected growth for the fourth quarter (see <u>Special Questions</u>). The share of firms reporting increases in third-quarter production (56 percent) was greater than the share reporting decreases (36 percent). Looking ahead to the fourth quarter, 50 percent of the firms expect an increase in production compared with the third quarter, while 27 percent of the firms expect decreases. For those firms forecasting an increase in production, 24 percent of the firms will need to hire additional workers; 24 percent will increase production through higher productivity without hiring additional workers; and 22 percent will increase work hours without hiring additional workers.

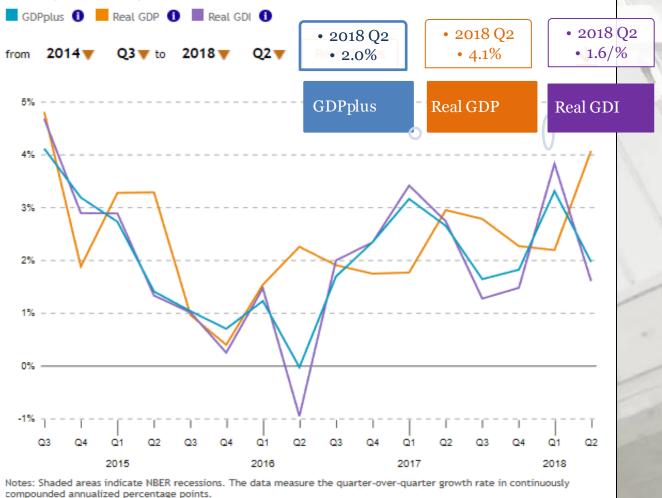
Summary

Responses to the *Manufacturing Business Outlook Survey* indicated continued growth for the region's manufacturing sector in September. The survey's broad current indicators increased from their readings last month. Looking ahead six months, the firms remain optimistic, although most future indicators moderated somewhat from their readings in August." – Mike Trebing, Senior Economic Analyst, The Federal Reserve Bank of Philadelphia

The Federal Reserve Bank of Philadelphia: GDPplus

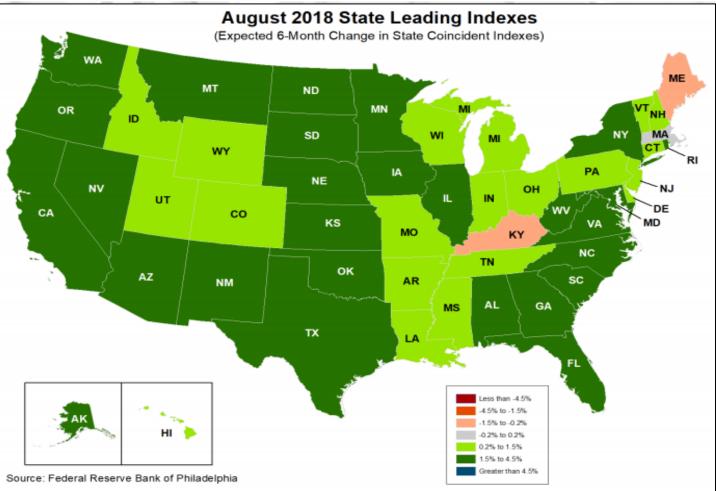
GDPplus

GDPplus: An Alternative Measure of Real U.S. Output Growth Last Updated: September 27, 2018



Sources: Bureau of Economic Analysis (BEA) and NBER via Haver Analytics. Federal Reserve Bank of Philadelphia.

The Federal Reserve Bank of Philadelphia



"The Federal Reserve Bank of Philadelphia has released the leading indexes for the 50 states for August 2018. The indexes are a six-month forecast of the state coincident indexes (also released by the Bank). Forty-seven state coincident indexes are projected to grow over the next six months, and three are expected to decrease. For comparison purposes, the Philadelphia Fed has also developed a similar leading index for its U.S. coincident index, which is projected to grow 1.3 percent over the next six months." – Daniel Mazone, Research Department, The Federal Reserve Bank of Philadelphia

Source:; https://www.philadelphiafed.org/-/media/research-and-data/regional-economy/indexes/leading/2018/LeadingIndexes/0818.pdf; 10/4/18

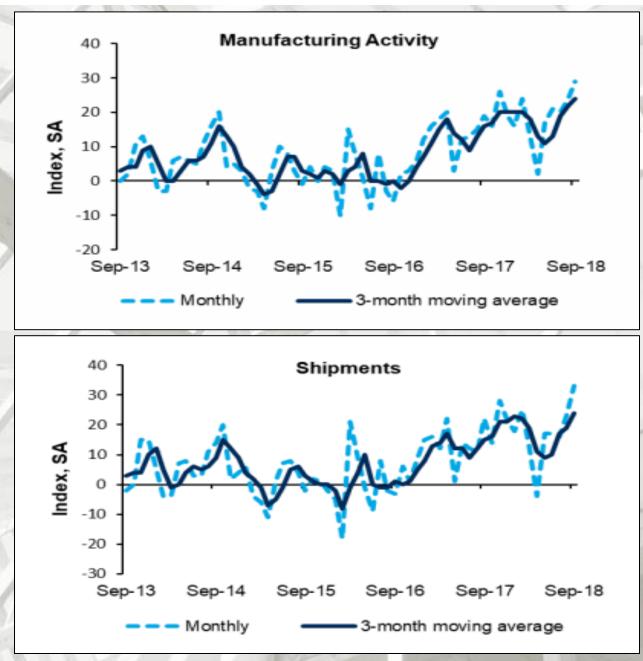
The Federal Reserve Bank of Richmond

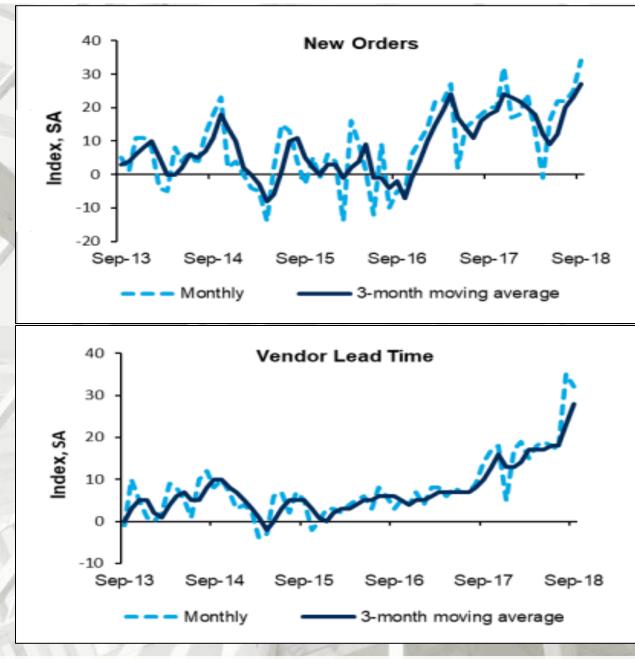
Fifth District Manufacturing Activity Was Robust in September

"Fifth District manufacturing activity was robust in September, according to results of the most recent survey from the Federal Reserve Bank of Richmond. The composite index rose from 24 in August to 29 in September, buoyed by increases in shipments and new orders, while the index of the third component, employment, dropped. Survey respondents were optimistic, expecting growth to continue in the next six months.

The employment index fell in September but remained positive, while growth in wages and the average workweek expanded. Manufacturing firms continued to struggle to find employees with the skills they needed, and they expect this difficulty to continue in the coming months.

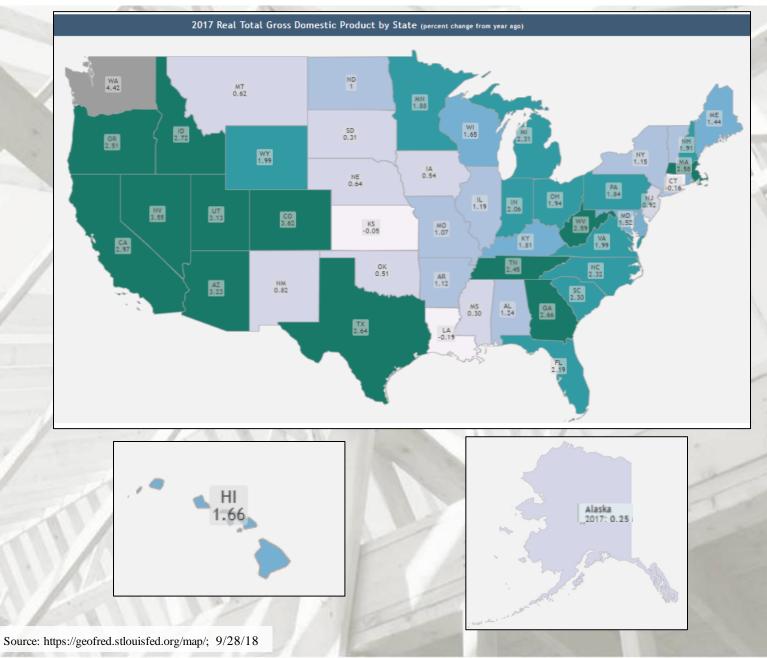
Firms reported faster growth in both prices paid and prices received in September, after price growth had slowed in August. Growth in prices paid continued to outpace growth in prices received. However, firms anticipate slowing of growth in prices paid and accelerated growth of prices received to narrow the gap in the near future." – Jeannette Plamp, Economic Analyst, The Federal Reserve Bank of Richmond







Source: https://www.richmondfed.org/research/regional_economy/surveys_of_business_conditions/manufacturing/2018/mfg_09_25_18; 9/25/18



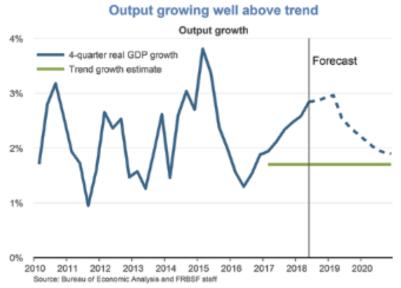
The Federal Reserve Bank of San Francisco FRBSF FedViews

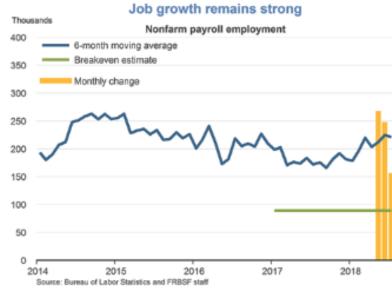
- "The second estimate of real GDP growth in the second quarter of 2018 came in at 4.2%, up 0.1 percentage point from the first estimate. Consequently, we have left our forecast for the remainder of 2018 unchanged at just under 3%. This is well above our estimate of the economy's long-run sustainable growth rate. As the effects from the federal fiscal stimulus fade and financial conditions gradually tighten, we project that growth will slow down to just under 2% by 2020.
- The Bureau of Labor Statistics reported that total nonfarm employment in August increased by 201,000 jobs, although data for June and July were revised downward by a combined 50,000 jobs. That leaves the average for the past six months at under 200,000 jobs per month. Even so, this pace of monthly job growth remains well above the breakeven level needed to keep pace with the growth of the labor force. As a result, although the unemployment rate remained at 3.9% in August, we expect that it will continue to decline further below our 4.6% estimate of the natural rate of unemployment.
- Core PCE inflation in July came in at 2%, the Federal Open Market Committee's (FOMC) target. With the economy expected to continue to grow above potential and the unemployment rate declining further from our estimate of the natural rate, we expect upward pressure on inflation in the medium term. We project that four-quarter inflation will slightly overshoot the 2% target in the next year or two." Oscar Jordà, Vice President, The Federal Reserve Bank of San Francisco

The Federal Reserve Bank of San Francisco FRBSF FedViews

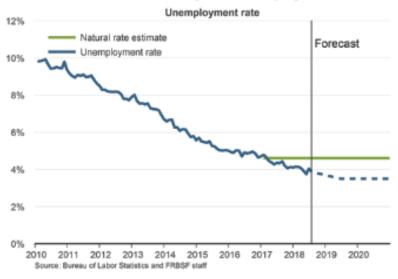
- [•] "Following the conclusion of its latest meeting on August 1, the FOMC announced its decision to maintain the target range for the federal funds rate at 1³/₄ to 2%. The Committee noted that recent economic activity has been strong and that risks to the economic outlook appear roughly balanced. The Committee expects further gradual increases in the target range for the federal funds rate.
- Interest rates have continued to edge up with the gradual removal of monetary accommodation. However, the current level of the federal funds rate stands about 75 basis points below our estimate of its long-run equilibrium level.
- A buildup of financial stress during good times is always a concern for the outlook. The more leveraged the financial system, the more exposed it is. Since World War II, and especially in the past 20 to 30 years, modern finance has given greater credit access to households, primarily in the form of mortgage borrowing.
- As credit has expanded relative to the size of the economy, banks have increasingly had to rely on wholesale funding relative to their deposit base. This is a source of fragility. Wholesale funding is highly runnable, meaning that large pools of funds can vanish overnight thereby leaving banks in search of liquidity, and making the financial system more vulnerable.
- Higher capital buffers allow banks to absorb and process losses more easily. This is
 particularly noticeable in a financial crisis: analysis of financial crises in advanced economies
 over the past one hundred fifty years shows that recoveries are visibly sped up when banks
 have more capital." Òscar Jordà, Vice President, The Federal Reserve Bank of San Francisco

Source: https://www.frbsf.org/economic-research/publications/fedviews/2018/september/september-13-2018 /; 9/13/18

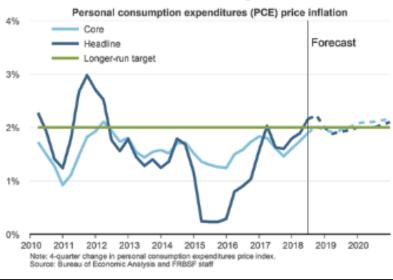


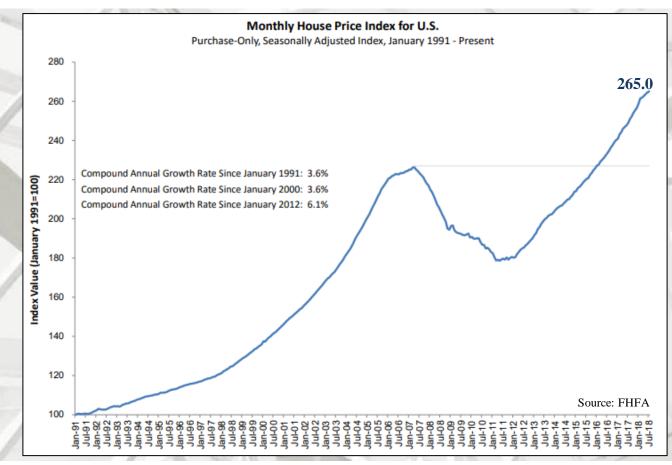


Labor market beyond full employment



Inflation at target





U.S. FHFA House Price Index FHFA House Price Index Up 0.2 Percent in July

"The FHFA House Price Index (HPI) reported a 0.2 percent increase in U.S. house prices in July from the previous month. From July 2017 to July 2018, house prices were up 6.4 percent. For the nine census divisions, seasonally adjusted monthly price changes from June 2018 to July 2018 ranged from -0.5 percent in the East South Central division to +1.1 percent in the South Atlantic division. The 12-month changes were all positive, ranging from +4.7 percent in the New England division to +8.7 percent in the Mountain division." – Stefanie Johnson and Corinne Russell, FHFA

Source: https://www.fhfa.gov/AboutUs/Reports/Pages/US-House-Price-Index-July-2018.aspx; 9/25/18

U.S. International Economic Indicators

The Federal Reserve Bank of Dallas

Mexico's 2018 Growth Outlook Revised Down Slightly

"Mexico's consensus growth forecast for 2018 worsened slightly from 2.3 percent in July to 2.1 percent in August. The 2019 forecast held steady at 2.2 percent. In addition, second-quarter gross domestic product (GDP) growth was revised down further from -0.4 percent to -0.6 percent (quarter/quarter). A drop-off in public and private investment in the second quarter contributed to the weak output growth.

More recent data are mostly positive. Mexico's monthly GDP proxy measure increased in July, as did industrial production and retail sales, and formal employment continued to expand in August at an above-average pace. On the other hand, exports were flat in July and inflation increased for the fourth month in a row. The peso strengthened some against the dollar in August.

Monthly Economic Activity Index Up in July

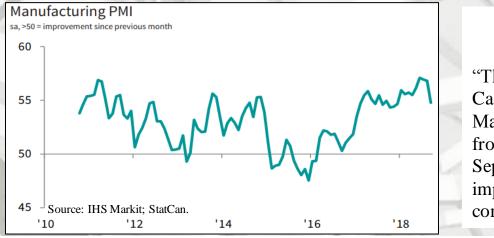
Mexico's global economic activity index, the monthly proxy for GDP, grew 0.4 percent in July after falling 0.1 percent in June. On a year-over-year basis, the activity index jumped 2.8 percent (Chart 1). Service-related activities (including trade and transportation) increased 0.3 percent in July over June. Goods-producing industries (including manufacturing, construction and utilities) ticked up 0.2 percent, and agricultural output grew 2.6 percent.

Total exports were flat in July after falling 1.3 percent in June. Oil exports declined 3.2 percent, while manufactured-goods exports ticked up 0.2 percent. As a result, three-month moving averages of oil, manufacturing and total exports have fallen for three months in a row. Detailed data on export destinations suggest the recent slowing is in non-U.S. exports. Nevertheless, total exports year to date are up 8.1 percent, with manufacturing exports up 6.2 percent and oil exports up 38 percent, compared with the same period last year. The rise in oil exports in 2017 and early 2018 stems largely from higher oil prices, not an increase in the volume of exports. ... " – Jesus Cañas, Senior Business Economist, and Benjamin Meier; Research Assistant; The Federal Reserve Bank of Dallas

U.S. International Economic Indicators



Return to TOC



Markit Canada Manufacturing PMI™

"The seasonally adjusted IHS Markit Canada Manufacturing Purchasing Managers' Index[®] (PMI[®]) dropped from 56.8 in August to 54.8 in September, to signal the slowest improvement in overall business conditions since December 2017.

Weakest improvement in manufacturing business conditions in 2018 so far

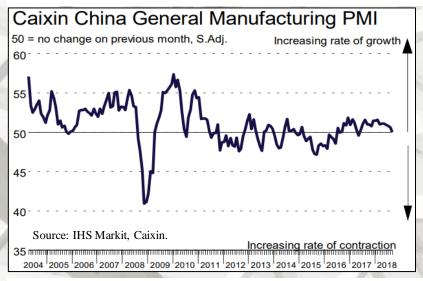
September data pointed to slower overall growth across the Canadian manufacturing sector, largely reflecting weaker rises in production volumes and incoming new work. A robust rate of job creation was maintained in September as manufacturers sought to boost operating capacity and reduce their backlogs of work. Meanwhile, longer delivery times from suppliers continued to influence purchasing strategies, as highlighted by another marked rise in stocks of inputs at manufacturing firms.

Production growth was the weakest for five months in September, which survey respondents attributed to a combination of capacity constraints and subdued demand conditions. New work expanded at the least marked pace for 11 months. Manufacturers noted that global trade frictions continued to hold back export sales growth.

Canadian manufacturers reported a loss of momentum in September as new order growth eased back to its lowest since October 2017. Survey respondents noted that global trade frictions had held back export sales and resulted in more cautious spending patterns among clients. Supply chains remained under pressure in September as vendors struggled to keep up with demand. Manufacturers' efforts to build safety stocks added to the squeeze on supply chain capacity.

The regional breakdown of data revealed that Ontario and Quebec bore the brunt of the slowdown in September. Alberta & British Columbia experienced the strongest improvement in business conditions, which suggests that greater demand from the energy sector has helped to moderate the overall slowdown in manufacturing growth." – Christian Buhagiar, President and CEO, SCMA

Source: https://www.markiteconomics.com/Public/Home/PressRelease/350b00a9b329461384f0830505d5c797; 10/1/18



Caixin China General Manufacturing PMI[™]

Operating conditions stagnate in September

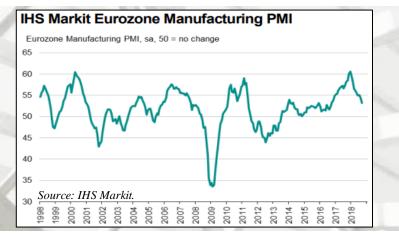
"The headline seasonally adjusted *Purchasing Managers' Index*TM (*PMI*TM) – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – fell from 50.6 in August to the neutral level of 50.0 in September. This signalled no change in the health of China's manufacturing sector following improvements in each of the prior 15 months

Chinese manufacturers signalled stagnant operating conditions at the end of the third quarter, following improvements in the prior 15 months. Production growth eased to a marginal pace, while total new work was broadly unchanged from the previous month. New export business fell at the quickest rate since early 2016. At the same time, companies continued to reduce their headcounts, while subdued demand conditions led to more cautious approaches to inventories and buying activity.

Looking ahead, firms expressed the weakest level of optimism towards the 12-month business outlook in 2018 so far. Concerns continued to mount about the ongoing global trade frictions as well as the near-term impact of strict environmental policies.

Output charges and input costs both expanded at a slower rate in September but indicated that upward pressure on industrial product prices remained. The subindex for future output, which reflects manufacturers' production outlook over the next 12 months, stayed within positive territory but fell marginally, suggesting that business expectations were shocked somehow. Stocks of finished items contracted at a milder rate, while stocks of purchased items expanded at a slower pace, pointing to slightly negative inventory behavior. The subindex for suppliers' delivery times rose noticeably, although it failed to make it into positive territory, implying an improved capital turnover among goods producers due to credit easing. Generally speaking, expansion across the manufacturing sector weakened in September, as exports increasingly dragged down performance and continued softening demand began to have an impact on companies' production. In addition, the employment situation worsened further. Downward pressure on China's economy was significant." – Dr. Zhengsheng Zhong, Director of Macroeconomic Analysis, CEBM Group

Source: https://www.markiteconomics.com/Public/Home/PressRelease/b369c6f870f444998432430d73870b6e; 9/30/18



Markit Eurozone Manufacturing PMI®

"Growth was the weakest since September 2016, however, in line with the downward trend seen since the start of the year. This was reflected by the HIS Markit Eurozone Manufacturing PMI, which slipped to 53.2, broadly unchanged on the earlier flash reading of 53.3 and down from August's 54.6.

Slowest growth of manufacturing sector for two years

September's survey of eurozone manufacturers indicated a further improvement in operating conditions, extending the current period of expansion to 63 months. By broad market group, all three sectors registered similar PMI readings that were consistent with solid growth. Consumer goods recorded the strongest increases in production, new orders and purchasing. Price pressures remained most elevated in the capital goods sector.

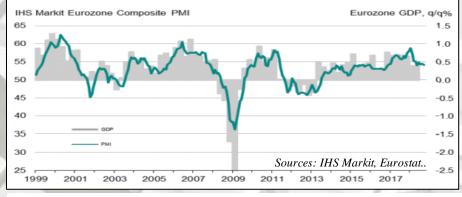
Eurozone manufacturing shifted down yet another gear at the end of the third quarter. The sector has seen booming growth at the start of the year rapidly fade to the worst performance for two years in September as production and jobs growth have slowed in response to a stalling of export trade. The survey paints the worst trade picture for over five years, with export growth having slumped sharply from a series record high in late 2017 to near-stagnation in September.

The slowdown can be linked to sluggish demand and increased risk aversion among customers, often linked to worries about trade wars and tariffs, but also ascribed to rising political uncertainty and higher prices. Forward-looking survey indicators suggest the worst is yet to come: optimism about the year ahead is close to a three-year low, inflows of new orders and input buying are the weakest for over two years and backlogs of work are dropping for the first time in over three years.

Production also continues to run ahead of order book growth, which is a key sign that output and jobs growth will be reined-in further as we move into the fourth quarter unless demand revives. Export-led slowdowns are clearly evident in Germany, France, Italy, Spain and Austria, but the weakening picture is by no means universal, with the Netherlands and Ireland being notable in continuing to report strong growth of both output and exports" – Chris Williamson, Chief Business Economist, Markit®

Source: https://www.markiteconomics.com/Public/Home/PressRelease/b3b808eb02bf46f596caf8e3b40cfe5d; 10/1/18

IHS Markit Eurozone Composite PMI



Markit Eurozone Composite PMI®

"The euro area economy expanded at its slowest rate for four months during September, according to the final **IHS Markit Eurozone PMI® Composite Output Index**. Posting 54.1, the headline index was down on August's 54.5 and slightly lower than the earlier flash estimate of 54.2.

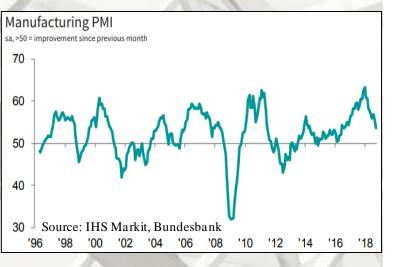
Manufacturing sector leads growth slowdown in September

September's increase in activity, which marked the sixty-third successive month of growth, masked divergent trends between the manufacturing and services economies. Whilst there was an upturn in growth in the service sector to a three-month high, manufacturing recorded its slowest rise in output since May 2016.

Context is everything: although running close to a two-year low, the disappointing September PMI remains at a relatively elevated level and signals solid growth. Comparisons with official data indicate that the survey data are equivalent to GDP rising by almost 0.5% in the third quarter. Note that the PMI data also indicate that we can expect the official growth estimates for the first half of the year to eventually be revised higher. However, the fourth quarter is unlikely to see such robust growth, as recent months have seen a clear loss of momentum in terms of both output and new order gains.

The most worrying signs come from exports. Trade flows have more or less stalled, which represents a marked contrast to the record rate of export growth seen at the end of last year. While service sector growth remained resilient in September, it would be unusual for this to be sustained in the absence of improved manufacturing growth. Similarly, while employment gains remained historically high, a steady erosion in the rate of order book growth so far this year suggest the appetite to hire will soon wane without any notable upturn in new order inflows. With business confidence about the outlook running at one of the lowest seen over the past two years, companies are clearly not expecting any such imminent turn-around in demand." – Chris Williamson, Chief Business Economist, Markit[®]

Source: https://www.markiteconomics.com/Survey/PressRelease.mvc/d8f59f9ea9c94d139936d5ea9273a94f; 10/3/18



IHS Markit/BME Germany Manufacturing PMI®

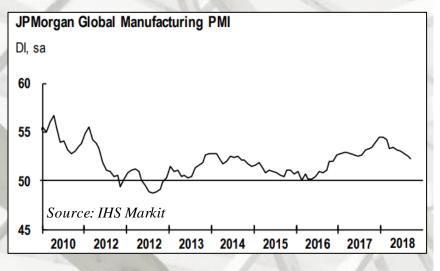
"September saw the headline IHS Markit/BME Germany Manufacturing PMI – a single-figure snapshot of the performance of the manufacturing economy – sink to a 25-month low of 53.7 from 55.9 in August. The fall in the index reflected slower growth in output, new orders and employment, as well as a reduction in the incidence of supplier delivery delays. The only positive directional influence was from stocks of purchases, which showed a marginal rebound following a slight drop in August.

Manufacturing PMI sinks to 25-month low as exports fall the most in over five years

Growth of Germany's manufacturing sector slowed in September, subdued by the steepest drop in new export orders in over five years, the latest PMI® survey data from IHS Markit showed. Production levels exhibited their smallest gain since April 2016, while business confidence towards the year-ahead outlook for output was the gloomiest for over three years.

It was inevitable that growth would naturally pull back from the high levels seen late last year, but the recent waning of exports has really taken the wind out of manufacturers' sails. The escalating US -China trade war, uncertainty surrounding Brexit negotiations and Turkey's currency crisis have all played a part. It was producers of investment goods such as machinery, transport and other equipment that led the decline in orders in September, in some cases reporting the postponement of projects.

Uncertainties in the global market have clouded the outlook, which has led to manufacturers significantly lowering their expectations of where output levels will be in a year's time. The main positive takeaway was another strong round of hiring in the goods-producing sector, which will provide further impetus to domestic demand. It's likely, however, that we'll see recruitment slow in coming months if capacity pressures continue to ease." – Phil Smith, Principal Economist, IHSMarkit[®]



JP Morgan Global Manufacturing PMI™

"The end of the third quarter saw a slowdown in the rate of expansion of the global manufacturing sector. The J.P. Morgan Global Manufacturing PMI^{TM} – a composite index 1 produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – fell to a 22-month low of 52.2 in September, down from 52.6 in August. Although the PMI has remained above the neutral 50.0 mark since March 2016, its level has now declined in each of the past five months.

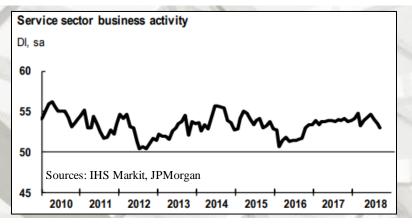
Global Manufacturing output growth at two-year low

Modest rates of expansion were signalled for the consumer, intermediate and investment goods sectors in September. PMI levels fell in the consumer and investment categories, but rose slightly in the intermediate goods industry. Growth of global manufacturing output and new orders both eased to two-year lows in September. The weaker trend in total new orders was partly driven by the first decline in global trade volumes since June 2016. The level of new export work decreased (on average) in emerging markets for the sixth straight month, while the rate of increase signalled for developed nations eased closer to the stagnation mark.

September saw a further increase in global manufacturing employment, as companies responded to higher production needs and rising backlogs of work. However, the rate of jobs growth eased to a 14-month low. Staffing levels increased in almost all of the nations covered, the exceptions being cuts in China, Brazil, Turkey and Myanmar. On the price front, rates of inflation in purchasing costs and output charges both slowed further.

September PMI data signalled a further growth slowdown in the global manufacturing sector, with rates of expansion in production and new order volumes both easing to two-year lows. The trend in new exports remained especially weak, with international trade flows declining for the first time since June 2016. Both domestic demand and export orders will need to strengthen if output growth is to regain lost traction in the coming months." – David Hensley, Global Economist, J.P. Morgan

Source: https://www.markiteconomics.com/Public/Home/PressRelease/61641e1b9699423d9a0303aff0e71822; 10/1/18



JP Morgan Global Services PMITM

"The J.P. Morgan Global Services Business Activity Index – a composite index produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – posted 53.0 in September, down from 53.5 in August. The headline index has remained above the neutral 50.0 mark for 110 consecutive months.

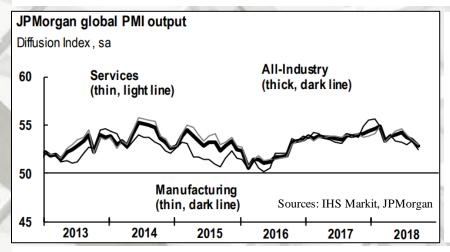
Services output growth slows despite uptick in new order inflows

September saw a further slowdown in the rate of expansion of global service sector business activity. Growth eased to a near two-year low, despite a mild uptick in the rate of increase in new work inflows.

Output rose across the business, consumer and financial services sub-sectors. The fastest rate of expansion was registered at financial service providers and the slowest in the consumer services category (although both saw growth slow since the prior survey month). The business services sub-sector saw its rate of increase hold steady at August's five-month low.

Growth of new business accelerated for the first time in three months in September, while backlogs of work also expanded and job creation was the strongest since December 2007. The increase in employment mainly reflected strong and accelerated jobs growth in the US (40-month high) and the euro area (131-month high). The trend in business optimism was less positive, however, slipping to a two-year low

Although the slower growth of global service sector activity signalled by the September PMI is disappointing, stronger new order inflows, rising backlogs of work and the steepest job creation in almost 13 years are all positive performance indicators for the months ahead. On that basis, expect services to make a firmer contribution to global GDP growth during the final quarter." – David Hensley, Global Economist, J.P. Morgan



JP Morgan Global Composite PMI™

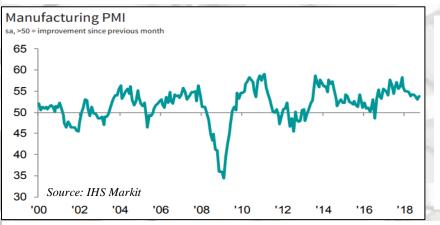
"The J.P. Morgan Global Composite Output Index – which is produced by J.P. Morgan and IHS Markit in association with ISM and IFPSM – fell to a two-year low of 52.8 in September, down from 53.4 in August. The headline index has now remained above the neutral 50.0 mark for 72 consecutive months.

Global economic growth slowed to two-year low in September

September saw a further growth slowdown in the global economy, as rates of output expansion eased in both the manufacturing and service sectors. Among the nations for which September PMI data were available, economic activity expanded in the US, the euro area, Japan, the UK and Russia. In contrast, the downturn in Brazil continued.

Worldwide manufacturing production rose at the slowest pace since September 2016, constrained by a simultaneous easing in the rate of increase in new orders. The trend in international trade was especially weak, with new export business falling for the first time in over two years. The service economy fared a little better, with business activity rising at a faster pace than manufacturing production. Output growth at service providers was nonetheless the slowest in almost two years, despite a mild strengthening in inflows of new work.

September PMI data signalled a slowdown in the rate of global economic expansion to a two-year low. Signs that output growth at service providers may recover in the coming months are positive, although the deteriorating outlook for international trade may entrench the lacklustre performance of manufacturing. A broad-based recovery in domestic and export demand is needed if global GDP growth is to recover lost momentum later in the year." – David Hensley, Global Economist, J.P. Morgan



Markit/CIPS UK Manufacturing PMI™

"The seasonally adjusted IHS Markit/CIPS Purchasing Managers' Index[®] (PMI[®]) posted 53.8 in September, following an upwardly revised figure of 53.0 in August (originally published as 52.8). The PMI has remained above the neutral 50.0 mark for 26 months

UK manufacturing growth improves at end of third quarter

The end of the third quarter saw a mild improvement in the performance of the UK manufacturing sector. Rates of expansion in output and new orders gained traction, while the trend in new export business saw a modest recovery following August's solid contraction. On the price front, rates of input cost and output charge inflation both strengthened. September data signalled a broad-based improvement in business conditions. PMI readings for the consumer, intermediate and investment goods sectors all remained in expansion territory, with stronger rates of increase signalled in the latter two industries....

September saw a mild improvement in the performance of the UK manufacturing sector. Domestic market demand strengthened, while increased orders from North America and Europe helped new export business stage a modest recovery from August's contraction. Business confidence also rose to a threemonth high. Despite these causes for short-term optimism, conditions in manufacturing are still relatively lacklustre overall. Based on its historical relationship with official ONS data, the latest survey is consistent with output expanding at only a moderate pace. Although total exports rose, exports of goods used as inputs by other manufacturers fell for the third straight month, ending the worst quarter for over three years for such exporters, suggesting that foreign companies may be sourcing less from UK-based component suppliers.

Many UK manufacturers also noted that the backdrop of Brexit and a volatile exchange rate were making any forecasting activity increasingly difficult, with uncertainty adding to reluctance to hire. Headcounts fell at larger companies for a second successive month. On the price front, both output charges and input costs rose at faster rates in September, which may exert further upward pressure on consumer prices in future." – Rob Dobson, Director & Senior Economist, IHS Markit

Private Indicators ABC Construction

ABC's Construction Backlog Indicator Hits a New High in Second Quarter of 2018

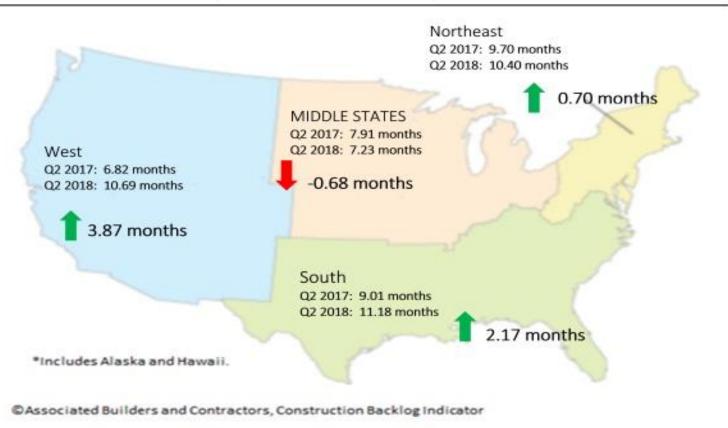
"Associated Builders and Contractors reports that its Construction Backlog Indicator expanded to a record 9.9 months during the second quarter of 2018. Backlog is up 12.2 percent from the first quarter and 14 percent compared to the same time last year.

Highlights by Region

- Backlog in the South increased by more than one month on a quarterly basis and now sits just below its all-time high established during the third quarter of 2017. Construction backlog expansion continues to be driven by the usual suspects, including rapidly expanding metropolitan areas like Dallas and Austin, Texas; Atlanta; Orlando and Tampa/St. Petersburg, Florida; Charleston, South Carolina; Nashville, Tennessee; and Raleigh-Durham, North Carolina.
- Backlog in the Northeast rose to its highest level on record. Predictably, backlog growth continues to be led by strong commercial segments in the New York, Boston, Philadelphia, Washington and Baltimore metropolitan areas. There is also growing evidence of stronger construction activity in West Virginia and western Pennsylvania.
- The exception to the general trend of growing backlog is the Middle States, where backlog is down 0.7 months on a year-over-year basis. Many factors are at work, including relatively softer employment growth in the Chicago, Detroit and St. Louis metropolitan areas. This is the part of the country that is most vulnerable to low agricultural commodity prices, which continue to restrain overall economic performance in states like Iowa and Nebraska." – Rachel O'Grady, Associated Builders and Contractors

ABC Construction

Year-over-Year CBI Map of Regions and Backlog Months Second Quarter 2017 v. Second Quarter 2018



Led by technology segments, backlog in the West continues to surge, up by an astonishing 3.9 months over the past year. Contractors in Seattle; Portland, Oregon; San Jose and Los Angeles, California; Denver; Salt Lake City; Boise, Idaho; and Phoenix can expect to remain ultra-busy for the foreseeable future, strongly suggesting that human capital shortfalls will continue to worsen." – Rachel O'Grady, Associated Builders and Contractors

Source: http://icm-tracking.meltwater.com/link.php; 9/17/18

ABC Construction

| | Months of | % Change | | Change from |
|--------------------------|-----------|--------------------------------|-------|--------------|
| Region | | from Q1 2018 | | Q2 2017 |
| Northeast | 10.40 | 9.1% | + | 0.70 months |
| South | 11.18 | 10.5% | + | 2.17 months |
| Middle States | 7.23 | -0.7% | - | -0.68 months |
| West | 10.69 | 28.3% | + | 3.87 months |
| Industry | | | | |
| Commercial/Institutional | 10.11 | 10.1% | + | 1.72 months |
| Heavy Industrial | 7.81 | 33.0% | + | 2.31 months |
| Infrastructure | 10.06 | 0.5% | + | -1.60 months |
| Company Size | | | | |
| <\$30 Million | 8.51 | 5.2% | + | 0.99 months |
| \$30-\$50 Million | 15.07 | 61.0% | + | 4.17 months |
| \$50-\$100 Million | 11.59 | 4.6% | + | 2.39 months |
| >\$100 Million | 13.48 | 66.6% | + | 2.37 months |
| >\$100 Million | | 66.6% ctors, Construction B | acklo | 2.37 mor |

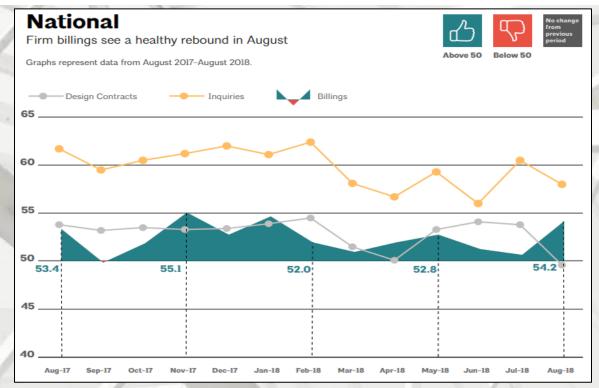
"Construction backlog has never been higher in the history of this series. While contractors collectively reported a higher backlog, it was the industrial contractor segment that had the largest increase in the second quarter. With industrial production rising and factory capacity utilization recovering, there is more demand for both improved and new industrial space. This was especially apparent among contractors in the southern United States, where backlog stands at 11.2 months and has increased 2.2 months over the past year.

The disproportionate role played by technology companies in creating economic growth is also apparent in the data. Contractors operating in tech-laden communities like San Jose, California; Seattle; Portland, Oregon; Provo/Salt Lake, Utah; and elsewhere continue to report very strong backlog. Given announcements of new, large-scale data centers and tech campuses, technology is positioned to be an ongoing driver of demand for construction services.

During the first quarter we noted that there had been a significant uptick in survey participation that could have affected our findings due to shifting participant composition. The second quarter was also characterized by elevated participation levels. It appears that higher participation is now the norm, and that the addition of survey participants has only served to render CBI a more reliable indicator." – Anirban Basu, Chief Economist, ABC Construction

Source: http://icm-tracking.meltwater.com/link.php; 9/17/18

Private Indicators American Institute of Architects (AIA)



August Architecture Billings Index Firms billings see healthy rebound in August

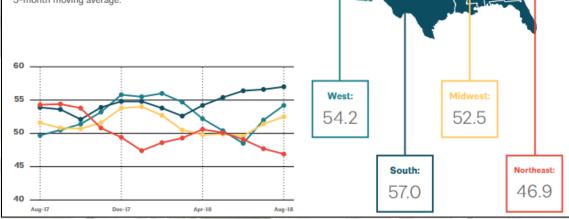
"Billings at US architecture firms saw a healthy jump in August, a positive sign as firms enter what is traditionally a seasonal slowdown. The August ABI score of 54.2 (any score above 50 signifies growth) was the second highest so far for 2018, more than two points above the average of the first seven months of the year. While project inquiries were also healthy, new design contracts coming into architecture firms saw a rare — although very modest — decline. This was the first monthly decline in new work coming into firms in almost two years." – The American Institute of Architects

Private Indicators: AIA

Regional

Firms in South report continued strength in billings; Northeast weakness lingers

Graphs represent data from August 2017–August 2018 across the four regions. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



Region

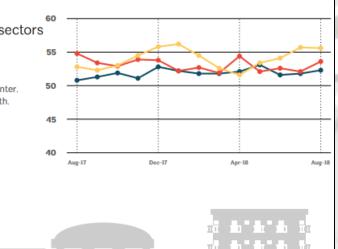
"Regional ABI scores for August continued to reflect a divergence in business conditions. Scores for firms in the South remained on their torrid pace; the ABI score at firms in this region was 57.0 for the month, and have averaged above 55 for the first eight months of the year. In contrast, the ABI score of 46.9 for firms in the Northeast reflected the steepest drop in billings so far this year. ABI scores in the Northeast have declined in six of the eight months of 2018. Firms in the Midwest and West regions reported healthy business conditions." – The American Institute of Architects

Private Indicators: AIA

Sector

Design activity for all major building sectors remains healthy

Graphs represent data from August 2017–August 2018 across the three sectors. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



Commercial/Industrial: 53.6

Sector

"Firms specializing in each of the major construction sectors also were uniformly reporting healthy conditions; the preliminary ABI score for residential firms was 55.6, 53.6 for those in the commercial/industrial sector, and 52.3 for institutional firms." – The American Institute of Architects

Dodge Data & Analytics August Construction Starts Fall 9 Percent

"The value of new construction starts in August decreased 9% from the previous month to a seasonally adjusted annual rate of \$741.9 billion, according to Dodge Data & Analytics. The August downturn for total construction starts matched the 9% decline reported for July, as activity in the latest two months pulled back after the sharp increases in May (up 14%) and June (up 10%). By major sector, weaker activity was reported in August for nonresidential building, down 19%; and residential building, down 7%. On the plus side, nonbuilding construction in August advanced 6%, reflecting a steady performance by public works as well as improvement for electric utilities following depressed activity earlier this year. During the first eight months of 2018, total construction starts on an unadjusted basis were \$540.0 billion, up 1% from a year ago. The year-to-date performance for total construction was restrained by a 45% drop for the electric utility/gas plant category. If the electric utility/gas plant category is excluded, total construction starts in this year's first eight months would be up 4% compared to the same period of 2017.

The August data produced a reading of 157 for the Dodge Index (2000=100), down from 173 in July. During the previous seven months the Dodge Index averaged 170, with this year's high of 190 reached in June while the low of 152 took place in April." – Benjamin Gorelick, Spector & Associates

Source: https://www.construction.com/news/new-construction-starts-August-slide-9-percent-aug-2018; 9/24/18

Dodge Data & Analytics

"The pace of construction starts weakened substantially in August, but remained within the range of activity witnessed so far in 2018, admittedly at the low end. For nonresidential building, the boost coming from very large projects in August was not as strong as what took place in late spring, even with the August start of such projects as a \$520 million office building in Sacramento CA and a \$500 million hospital expansion in Cincinnati OH. Accordingly, it would be too early to say that nonresidential building has already peaked and is now retreating, given the volatility that arises in the monthly data from the presence or absence of very large projects.

Market fundamentals affecting commercial building such as occupancies have yet to weaken discernibly, and funding for such institutional projects as school construction remains supportive. For residential building, multifamily housing appears to be easing back in a broad sense from the strength shown earlier in 2018, and a similar pattern could be emerging for single family housing. Even so, on a year-to-date basis, residential building continues to register growth. As for public works, it's still on an upward track, helped this year by increased construction starts for highways and environmental projects like storm sewers, while pipeline and rail transit projects are staying close to the brisk pace reported in 2017." – Robert A. Murray, Chief Economist, Dodge Data & Analytics

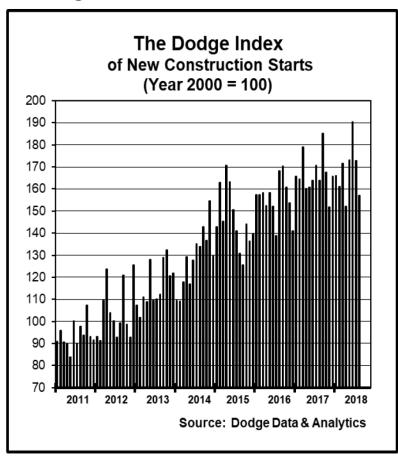
Dodge Data & Analytics

"**Residential building** in August was \$307.0 billion (annual rate), down 7%. Multifamily housing dropped 8% after holding steady in July, and the August amount was down 16% from the elevated pace reported during the first quarter of this year. There were eight multifamily projects with a construction start cost of \$100 million or more that reached groundbreaking in August, about the same as the seven such projects reported for July. The large multifamily projects in August were led by the \$363 million multifamily portion of a \$411 million mixed-use development in Los Angeles CA, a \$232 million apartment tower in Dallas TX, and a \$165 million apartment complex in Frisco TX.

The top five metropolitan areas ranked by the dollar amount of multifamily starts in August were – New York NY, Dallas-Ft. Worth TX, Los Angeles CA, Boston MA, and San Francisco CA. Metropolitan areas ranked 6 through 10 were – Atlanta GA, Washington DC, Chicago IL, Houston TX, and Minneapolis-St. Paul MN.

Single family housing in August receded 7%, slipping from the extended plateau that was present from late 2017 through July of this year, with month-to-month changes of 3% or less. By geography, single family housing showed August declines in four of the five major regions, with the West down 11%, the South Central down 8%, the South Atlantic down 6%, and the Midwest down 3%. Only the Northeast was able to post an August gain for single family housing, rising 2%." – Robert A. Murray, Chief Economist, Dodge Data & Analytics

August 2018 Construction Starts



August 2018 Construction Starts

Monthly Summary of Construction Starts Prepared by Dodge Data & Analytics

Monthly Construction Starts Seasonally Adjusted Annual Rates, in Millions of Dollars

| | August 2018 | July 2018 | % Change |
|-----------------------------|-------------|-----------|----------|
| Nonresidential Building | \$255,183 | \$316,663 | -19 |
| Residential Building | 307,028 | 330,852 | -7 |
| Nonbuilding Construction | 179,725 | 169,998 | +6 |
| Total Construction | \$741,936 | \$817,513 | -9 |

The Dodge Index

Year 2000=100, Seasonally Adjusted

Year-to-Date Construction Starts Unadjusted Totals, in Millions of Dollars

| | 8 Mos. 2018 | 8 Mos. 2017 | % Change |
|-------------------------------------------------------------|-----------------|-------------|----------|
| Nonresidential Building | \$188,934 | \$191,049 | -1 |
| Residential Building | 223,852 | 210,229 | +6 |
| Nonbuilding Construction | 127,223 | 130,875 | -3 |
| Total Construction | \$540,009 | \$532,153 | +1 |
| Total Construction, excluding electric utilities/gas plants | ng \$527,143 | \$508,597 | +4 |

Source: https://www.construction.com/news/new-construction-starts-August-slide-9-percent-aug-2018; 9/24/18



MNI Chicago Chicago Business Barometer Declines to 60.4 in September

"The MNI Chicago Business Barometer fell to a five-month low of 60.4 in September, down 3.2 points from August's 63.6.

Production and New Orders Decelerate as Barometer Slips to 5-Month Low

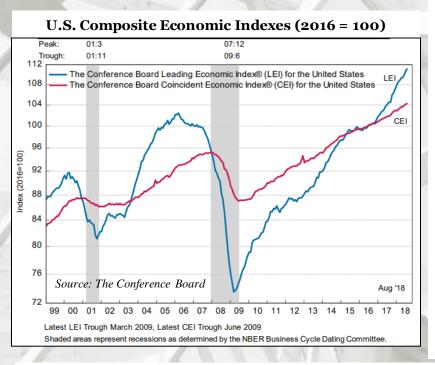
Business operations continued to improve at a solid clip, despite activity decelerating for a second straight month. Moderations in both output and new orders, alongside weaker hiring sentiment, were accountable for the Barometer's decline, offsetting slightly longer delivery times and a higher count of unfinished orders. Although down on a year-over-year basis for only the second time since January 2017, the Barometer continues to indicate strong overall business conditions, with all key measures of activity above their respective long-run levels.

Growth across Production and New Orders remained solid, despite both softening in September. Production eased to a 6-month low, while New Orders growth ran at its slowest pace in 5 months. Anecdotal evidence continued to report some firms outperforming their own forecasts, but others noted a slowdown in output and weaker demand.

The MNI Chicago Business Barometer slipped to a five-month low this month, courtesy of a softening across both Production and New Orders. That said, the survey continues to indicate robust business conditions, reflected by the best calendar quarter outturn this year in Q3. Supply-side frustrations continue to hamper firms' production lines and the majority of firms expect delivery times to lengthen further, anticipating ongoing trade disruptions to continue weighing on their supplier." – Jamie Satchi, Economist, MNI Indicators

The Conference Board Leading Economic Index[®] (LEI) for the U.S. Increased in August

The Conference Board Leading Economic Index[®] (LEI) for the U.S. increased 0.4 percent in August to 111.2 (2016 = 100), following a 0.7 percent increase in July, and a 0.5 percent increase in June. The leading economic index is now well above its previous peak (March 2006, 102.4).



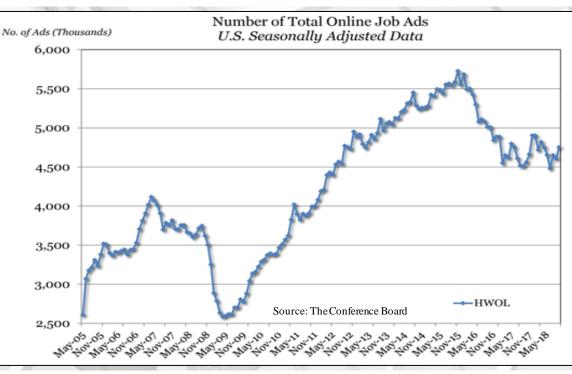
Economy Will Continue Expanding Through 2018

"The leading indicators are consistent with a solid growth scenario in the second half of 2018 and at this stage of a maturing business cycle in the US, it doesn't get much better than this. The US LEI's growth trend has moderated since the start of the year. Industrial companies that are more sensitive to the business cycle should be on the lookout for a possible moderation in economic growth in 2019. The strengths among the LEI's components were very widespread, further supporting an outlook of above 3.0 percent growth for the remainder of 2018." – Ataman Ozyildirim, Director of Business Cycles and Growth Research, The Conference Board

"The Conference Board Coincident Economic Index" (CEI) for the U.S. increased 0.2 percent in August to 104.3 (2016 = 100), following a 0.2 percent increase in July, and a 0.3 percent increase in June.

The Conference Board Lagging Economic Index[®] (LAG) for the U.S. increased 0.2 percent in August to 105.4 (2016 = 100), following a 0.2 percent decline in July and a 0.2 percent increase in June." – The Conference Board

Source: https://www.conference-board.org/data/bcicountry.cfm; 9/20/18



The Conference Board Help Wanted OnLine® (HWOL) Online Job Ads Increased 145,100 in September

- "Most states showed small gains
- Widespread gains across most occupational categories

Online advertised vacancies increased 145,100 to 4,750,300 in September, according to *The Conference Board Help Wanted OnLine®* (HWOL) Data Series. The August Supply/Demand rate stands at 1.35 unemployed workers for each advertised vacancy, with a total of 1.6 million more unemployed workers than the number of advertised vacancies. The number of unemployed workers was approximately 6.2 million in August.

In the Professional occupational category, Business and financial operations ads increased by 26,300, Business ads increased 17,100, and Healthcare practitioner ads increased by 14,900. In the Services/Production occupational category, Sales increased by 30,800, Office and administrative support increased by 22,400 and Transportation ads decreased 10,100. " – Carol Courter, The Conference Board

Equipment Leasing and Finance Association Equipment Leasing and Finance Industry Confidence Increases in September

"The Equipment Leasing & Finance Foundation (the Foundation) releases the September 2018 Monthly Confidence Index for the Equipment Finance Industry (MCI-EFI). Designed to collect leadership data, the index reports a qualitative assessment of both the prevailing business conditions and expectations for the future as reported by key executives from the \$1 trillion equipment finance sector. Overall, confidence in the equipment finance market rose in September to 65.5, up from the August index of 60.7." – Anneliese DeDiemar, Author, Equipment Leasing & Finance Association

"The summer of 2018 has been brisk with activity and funded volume has been strong. Continued economic confidence and indicators lead me to believe that this will continue in the short term, thus I am optimistic about the remainder of 2018 and the start of 2019." – David Normandin, CLFP, Managing Director, Commercial Finance Group, Hanmi Bank

"I'm optimistic about overall economic activity. The trade wars don't seem to be curbing small business capital purchases." – Quentin Cote, CLFP, President, Mintaka Financial, LLC

"I am optimistic because tax reform and deregulation are stimulating the economy. Rising rates, lease accounting rules and tariffs concern me." – James Cress, Vice President and General Manager, Stryker Flex Financial

"As we enter into the last part of the year, we expect large projects to close out and to see an increase in solar opportunities as companies look to take advantage of the 30 percent solar tax credit in 2019." – Michael Romanowski, President, Farm Credit Leasing Services Corporation

Equipment Leasing and Finance Association <u>September 2018 Survey Results:</u>

"The overall MCI-EFI is 65.5, an increase from 60.7 in August.

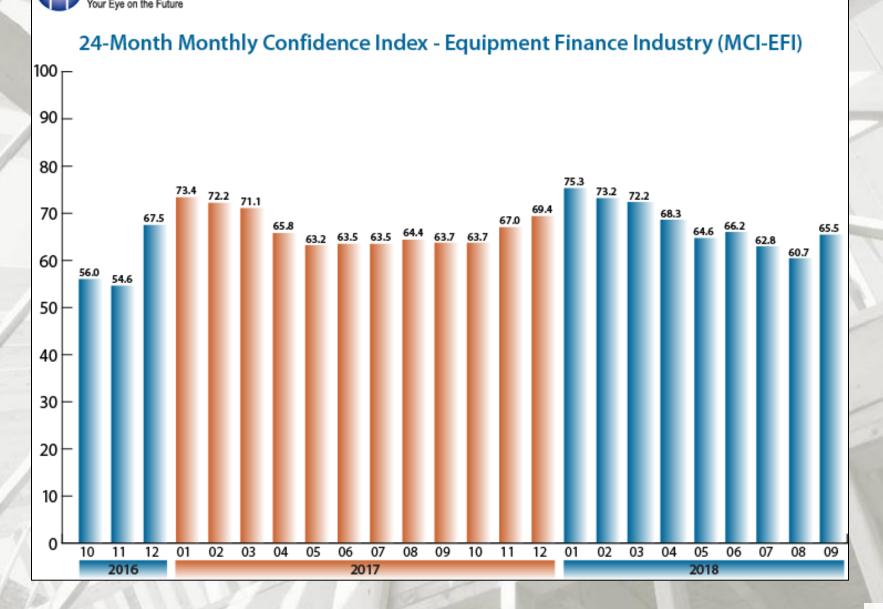
- When asked to assess their business conditions over the next four months, 17.9% of executives responding said they believe business conditions will improve over the next four months, an increase from 13.3% in August. 82.1% of respondents believe business conditions will remain the same over the next four months, an increase from 80% the previous month. None believe business conditions will worsen, a decrease from 6.7% who believed so the previous month.
- 35.7% of survey respondents believe demand for leases and loans to fund capital expenditures (capex) will increase over the next four months, an increase from 16.7% in August. 64.3% believe demand will "remain the same" during the same four-month time period, a decrease from 83.3% the previous month. None believe demand will decline, unchanged from August.
- 10.7% of the respondents expect more access to capital to fund equipment acquisitions over the next four months, down from 16.7% in August. 89.3% of executives indicate they expect the "same" access to capital to fund business, an increase from 83.3% last month. None expect "less" access to capital, unchanged from last month." – Anneliese DeDiemar, Author, Equipment Leasing & Finance Association

Equipment Leasing and Finance Association <u>September 2018 Survey Results:</u>

- "When asked, 50% of the executives report they expect to hire more employees over the next four months, an increase from 36.7% in August. 50% expect no change in headcount over the next four months, a decrease from 63.3% last month. None expect to hire fewer employees, unchanged from last month.
- 51.9% of the leadership evaluate the current U.S. economy as "excellent," up from 40% last month. 48.2% of the leadership evaluate the current U.S. economy as "fair," down from 60% in August. None evaluate it as "poor," unchanged from last month.
- 11.1% of the survey respondents believe that U.S. economic conditions will get "better" over the next six months, a decrease from 13.3% in August. 85.2% of survey respondents indicate they believe the U.S. economy will "stay the same" over the next six months, an increase from 73.3% the previous month. 3.7% believe economic conditions in the U.S. will worsen over the next six months, a decrease from 13.3% in August.
- In September, 40.7% of respondents indicate they believe their company will increase spending on business development activities during the next six months, an increase from 33.3% in August. 59.3% believe there will be "no change" in business development spending, a decrease from 66.7% the previous month. None believe there will be a decrease in spending, unchanged from last month." Anneliese DeDiemar, Author, Equipment Leasing & Finance Association

Source: https://www.elfaonline.org/news/press-room/press-releases/details/2018/09/20/equipment-leasing-and-finance-industry-confidence-increases-in-september; 9/20/18 and 100 and 1

FOUNDATION Your Eye on the Future



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Equipment Leasing and Finance Association Monthly Leasing and Finance Index: August 2018

August New Business Volume Up 14 Percent Year-over-year, 9 Percent Month-to-Month, and 5 Percent Year-to-date

"The Equipment Leasing and Finance Association's (ELFA) Monthly Leasing and Finance Index (MLFI-25), which reports economic activity from 25 companies representing a cross section of the \$1 trillion equipment finance sector, showed their overall new business volume for August was \$8.9 billion, up 14 percent year-over-year from new business volume in August 2017. Volume was up 9 percent month-to-month from \$8.2 billion in July. Year to date, cumulative new business volume was up 5 percent compared to 2017.

Receivables over 30 days were 1.90 percent, unchanged from the previous month and up from 1.50 percent the same period in 2017. Charge-offs were 0.29 percent, down from 0.31 percent the previous month, and down from 0.44 percent in the year-earlier period.

Credit approvals totaled 76.4 percent in August, up slightly from 76.2 percent in July. Total headcount for equipment finance companies was down 0.3 percent year over year. During 2017, headcount was elevated due to acquisition activity at an MLFI reporting company.

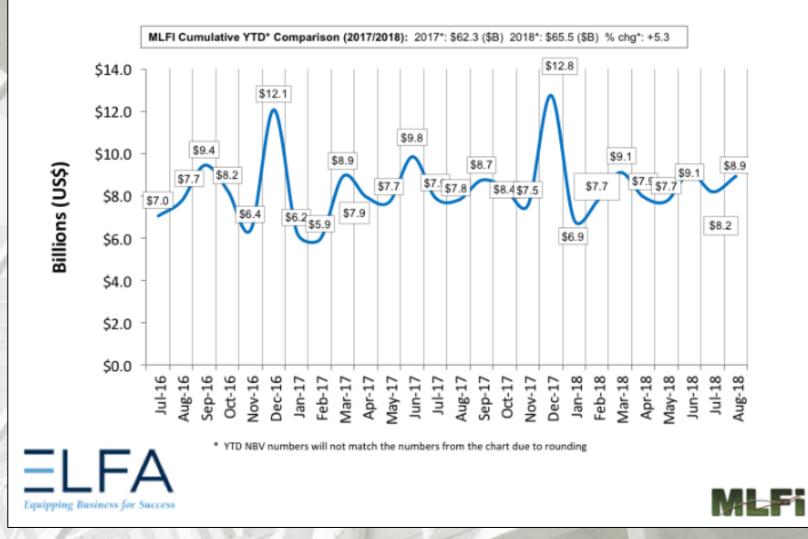
Separately, the Equipment Leasing & Finance Foundation's Monthly Confidence Index (MCI-EFI) in September is 65.5, up from the August index of 60.7." – Amy Vogt, Vice President, Communications and Marketing, ELFA

Equipment Leasing and Finance Association Monthly Leasing & Finance Index: August 2018

"Members report continued strong origination volume as the summer comes to a close. Fundamentals in the U.S. economy are favorable for capex investment by both large and small borrowers, and a number of asset classes and equipment verticals are benefiting. Steadily rising interest rates, a spate of disagreements with our trading partners and a powerful hurricane have seemingly little, to no, effect on the U.S. economy and its continued vitality." – Ralph Petta, President and CEO, ELFA

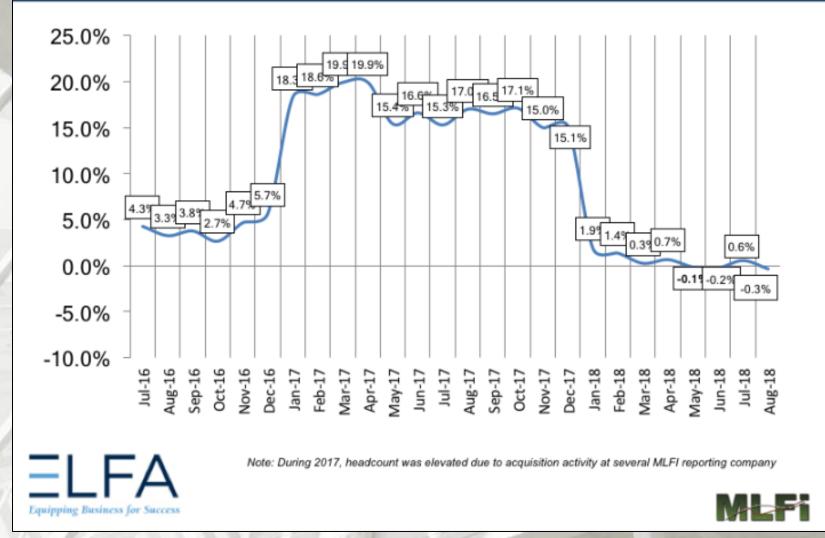
"The August MLFI shows continued broad-based volume growth. However, economic headwinds may be appearing on the horizon; we expect these to impact specific sectors uniquely and not necessarily in the same timeframe. Accordingly, at Hitachi Capital America, along with many other ELFA members, we are executing a diversified strategy and continue monitoring our clients' underlying fundamentals closely. It is our hope that the market works its way through any potential turbulence with minimal impact on both our clients and our industry." – Mark Duncan, Executive Vice President and General Manager, Commercial Finance and Corporate Development, Hitachi Capital America Corp.

MLFI-25 New Business Volume (Year-Over-Year Comparison)



Source: https://www.elfaonline.org/news/press-room/press-releases/details/2018/09/26/equipment-leasing-and-finance-association-s-survey-of-economic-activity-monthly-leasing-and-finance-index; 9/26/18

Total Number of Employees % CHG YOY



FreightWaves Freight volume declines to lowest level since April

"Freight volumes declined for the second straight day to the lowest level since early April. The outbound tender volume index (OTVI) dropped to 9,739, its lowest non-holiday induced value since April 5th when it hit 9,499. The OTVI is an index that measures volume relative to the starting period of March 1st, 2018 and has a base value of 10,000. The 9,739 indicates volumes are roughly 1.61% lower than March 1st. September daily volume averaged approximately 1.5% higher than August.

Falling volume in October is not an unusual pattern. Looking at the Cass Freight Index for shipments, an index based on invoice volumes for all freight, the last 4 of 5 years has volume flat to down sequentially off September. The lone year volume increased was 2016, which was a down year for freight and a slower year for the economy. The silver lining is the fact that in most "good" years October is down sequentially from September. It should also be noted 2018 volume is averaging 11% higher than 2017 through August.

With less volume comes lower tender rejections, as the national tender rejection index (TRI) fell 1.26 percentage points to 17 over the last 7 days. Decreasing volume means increasing capacity in most situations. Capacity needs to be available in the right areas for this to work. Currently that appears to be the case on the national level.

The volume drop has not been occurring long enough to effect spot market rates, two days does not a trend make, but it is worth noting as we enter a slower time of year for freight. Even though general volume decreases, there is typically a big surge of retail freight that occurs in early to mid-November due to the holidays creating pockets of imbalance throughout the country that lead to increases in spot rates. "– Zach Strickland, Market Analyst, FreightWaves



FreightWaves

Volume drops 6% in the first week of October: Time to panic or take a closer look

"Everyone is waiting for the downturn in the economy, and subsequently the freight market. Like a kid who knows they are eventually going to get punished for throwing a party while their parents were out of town for the weekend, history has trained us to think that all good things must come to an end with punitive effects.

After a long run of success, it is natural for anyone over age 10 to ask, when is the ball going to drop. Many of us that have been involved in trucking have a tendency to take any single negative indicator as a sign of the beginning of the end for the growth cycle. Eventually, we will be right, but is that happening now? The latest sign we see is volume dropping in the first week of October. Looking closer, you will see this is part of a natural behavioral pattern that we can predict pretty easily with the right data. " – Zach Strickland, Market Analyst, FreightWaves

FreightWaves

"At the end of September, the index was at 10105 (anything above 10,000 means that the trucking volumes have increased above their March 1, 2018 number). As of Friday, October 5th, the index was sitting at 9434, a 6% drop from the end of the third quarter.

Over the course of the year there are many seasonal movements and patterns in freight. One of the most regular we can count on is the end of month and end of quarter shipping surge and the subsequent drop in volume at the start of the quarter. Shippers and transportation companies alike make attempts to push as much recognizable revenue into every financial reporting period they can to show as much value as possible. The problem in pushing everything off their dock at once is that they have now handicapped the following period with a deficiency of freight and therefore recognizable revenue, but less obvious is the impact on capacity.

Looking at the outbound tender volume chart for the year we can see this phenomenon illustrated clearly at the beginning of April and October. The drop-off in July is disguised by the fourth of July holiday and peaking summer volume.

There is really nothing wrong with pushing orders out except for the fact they are driving spot market rates up as capacity decreases rapidly. It would make more fiscal sense in the long run for shippers to wait till the first week of the quarter to ship the freight as capacity increases, and there is less risk of having to jump to the spot market. Margins for the quarter will be higher, which investors enjoy far more than general revenue." – Zach Strickland, Market Analyst, FreightWaves

September 2018 Manufacturing ISM® Report On Business® September PMI® at 59.8%

New Orders, Production, and Employment Growing Supplier Deliveries Slowing at Slower Rate; Backlog Growing Raw Materials Inventories Growing; Customers' Inventories Too Low

Prices Increasing at Slower Rate; Exports and Imports Growing

"Economic activity in the **manufacturing sector** expanded in September, and the **overall economy** grew for the 113th consecutive month, say the nation's supply executives in the latest **Manufacturing ISM**[®] *Report On Business*[®]. The September PMI[®] registered 59.8 percent, a decrease of 1.5 percentage points from the August reading of 63.1 percent.

The New Orders Index registered 61.8 percent, a decrease of 3.3 percentage points from the August reading of 65.1 percent.

The Production Index registered 63.9 percent, a 0.6 percentage point increase compared to the August reading of 63.3 percent.

The Employment Index registered 58.8 percent, an increase of 0.3 percentage point from the August reading of 58.5 percent.

The Supplier Deliveries Index registered 61.1 percent, a 3.4-percentage point decrease from the August reading of 64.5 percent.

The Inventories Index registered 53.3 percent, a decrease of 2.1 percentage points from the August reading of 55.4 percent.

The Prices Index registered 66.9 percent in September, a 5.2-percentage point decrease from the August reading of 72.1 percent, indicating higher raw materials prices for the 31st consecutive month." – Timothy R. Fiore, CPSM, CPSD, Chair of the ISM[®] Manufacturing Business Survey Committee

Source: https://www.instituteforsupplymanagement.org/ISMReport/MfgROB.cfm?navItemNumber=31076; 10/1/18

September 2018 Manufacturing ISM® Report On Business®

"Comments from the panel reflect continued expanding business strength. Demand remains strong, with the New Orders Index at 60 percent or above for the 17th straight month, and the Customers' Inventories Index remaining low. The Backlog of Orders Index continued to expand, but at lower levels compared to the previous month . Consumption improved, with production and employment continuing to expand, at higher levels compared to August, despite shortages in labor and materials. Inputs — expressed as supplier deliveries (decreased), inventories and imports — improved compared to the previous month's activity. But continued supply chain inefficiencies led to an increased consumption of inventory and a slight expansion of imports, which adequately supported production output. Lead-time extensions, steel and aluminum disruptions, supplier labor issues, and transportation difficulties continue to limit potential, but at more manageable levels.

Export orders expanded, but four major industries are no longer contributing. Price pressure continues, but the index softened for the fourth straight month and dropped below 70 for the first time since December 2017. Demand remains robust, but employment resources and supply chains continue to struggle, but to a lesser degree. Respondents are again overwhelmingly concerned about tariff-related activity, including how reciprocal tariffs will impact company revenue and current manufacturing locations.

Of the 18 manufacturing industries, 15 reported growth in September, in the following order: Textile Mills; Miscellaneous Manufacturing; Plastics & Rubber Products; Computer & Electronic Products; Food, Beverage & Tobacco Products; Machinery; Apparel, Leather & Allied Products; Paper Products; Electrical Equipment, Appliances & Components; Chemical Products; Petroleum & Coal Products; Transportation Equipment; Furniture & Related Products; Fabricated Metal Products; and Nonmetallic Mineral Products. The only industry reporting contraction in September is Primary Metals." – Timothy R. Fiore, CPSM, CPSD, Chair of the ISM[®] Manufacturing Business Survey Committee

September 2018 Non-Manufacturing ISM® Report On Business®

September PMI® at 61.6%

Business Activity Index at 65.2%; New Orders Index at 61.6%; Employment Index at 62.4%

"Economic activity in the **non-manufacturing sector** grew in September for the 104th consecutive month, say the nation's purchasing and supply executives in the latest **Non-Manufacturing ISM**[®] **Report On Business**[®].

The NMI[®] registered 61.6 percent, which is 3.1 percentage points higher than the August reading of 58.5 percent. This represents continued growth in the non-manufacturing sector at a faster rate and is an all-time high for the NMI[®] since the inception of the composite index in 2008.

The Non-Manufacturing Business Activity Index increased to 65.2 percent, 4.5 percentage points higher than the August reading of 60.7 percent, reflecting growth for the 110th consecutive month, at a faster rate in September.

The New Orders Index registered 61.6 percent, 1.2 percentage points higher than the reading of 60.4 percent in August.

The Employment Index increased 5.7 percentage points in September to 62.4 percent from the August reading of 56.7 percent.

The Prices Index increased by 1.4 percentage points from the August reading of 62.8 percent to 64.2 percent, indicating that prices increased in September for the 31st consecutive month.

According to the NMI[®], 17 non-manufacturing industries reported growth. The non-manufacturing sector has had two consecutive months of strong growth since the 'cooling off' in July. Overall, respondents remain positive about business conditions and the current and future economy. Concerns remain about capacity, logistics and the uncertainty with global trade." – Timothy R. Fiore, CPSM, CPSD, Chair of the ISM[®] Manufacturing Business Survey Committee



Markit U.S. Manufacturing PMI™

"The seasonally adjusted IHS Markit final U.S. Manufacturing Purchasing Managers' IndexTM (PMITM) registered 55.6 in September, up from 54.7 in August. The headline figure rose to a four-month high and was well above the series trend. Although the average for the third quarter was strong overall, it signalled the softest expansion since the fourth quarter of 2017.

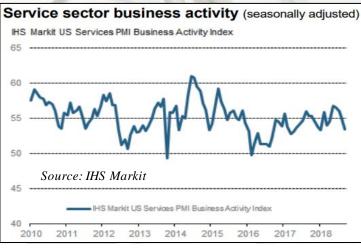
Output and new order growth gains momentum in September

September data indicated a strong improvement in operating conditions across the U.S. manufacturing sector. The overall performance was driven by sharper rises in output and new orders, though new business from abroad continued to expand at only a marginal pace. A faster increase in new orders contributed to greater capacity pressures, with backlogs accumulating at the joint-fastest rate since September 2015.

US manufacturing showed resilience in the face of storms in September, with output rising at one of the fastest rates seen so far this year. New orders growth has lifted to the highest since May and is being boosted in particular by strong domestic demand, especially in consumer markets. In contrast, export orders grew only very modestly again.

Worries about trade wars and tariffs continued to dominate, pushing business confidence in the outlook down to its lowest for a year. Tariffs, alongside higher oil prices, were meanwhile a key factor reportedly driving input costs higher. Almost two-third of all companies reporting higher input prices ascribed the increase to tariffs.

Worries about the impact of tariffs on prices also led to increased incidences of stock building, exacerbating existing supply chain delays and driving prices further higher. Raw material inventories rose at one of the steepest rates seen this side of the global financial crisis. While stock building boosts current sales at suppliers it poses downside risks to growth in future months." – Chris Williamson, Chief Economist, Markit[®]



Markit U.S. Services PMI[™]

"The seasonally adjusted final **IHS Markit U.S. Services Business Activity Index r**egistered 53.5 in September, down from 54.8 in August. The latest figure indicated the weakest growth since January, with the rate of expansion softening for the fourth month running. Nonetheless, the average for the third quarter of 2018 was strong overall. Anecdotal evidence cited greater demand, however, some clients were apprehensive due to reports of a sluggish housing market.

Service sector activity growth dips to eight-month low

September data signalled a solid expansion of business activity across the U.S. service sector, albeit with the rate of growth easing to an eight month low. A downturn in business optimism about the year ahead to the weakest since December 2017 was also recorded. Encouragingly, new orders growth regained momentum, adding to existing pressure on operating capacity. Backlogs rose for the first time since June, and job creation was the joint-fastest for over four years as firms took on more staff to meet demand. Meanwhile, output price inflation accelerated to the quickest in the series history amid a faster rise in cost burdens.

Service sector business growth has eased considerably since peaking back in May, but remains relatively solid. Some of the slowdown can be traced to capacity constraints, with new business once again rising at a steeper rate than firms were able to boost output. Combined with the manufacturing results, the September survey adds to signs that the pace of economic growth cooled to the lowest since January but continued to run close to a 3% annualised rate over the third quarter as a whole.

Firms are hiring in increasing numbers to expand capacity, with the employment index from the manufacturing and services surveys rising to a level indicative of a further non-farm payroll rise in excess of 200,000. However, despite the increase in employment, many companies are clearly still struggling to meet demand, with strong inflows of new business causing backlogs of work to accumulate across the economy at one of the fastest rates seen since 2014.

The combination of reduced spare capacity and robust domestic demand is driving prices charged for goods and services higher at a rate not seen since the global financial crisis." – Chris Williamson, Chief Economist, Markit[®]

Source: https://www.markiteconomics.com/Survey/PressRelease.mvc/b704f3ee7adb46c68a4324bd1bfaaff1; 10/3/18

National Association of Credit Management – Credit Managers' Index

September CMI Improves, Forecast Remains Unstable

"September showed another uptick in the Credit Managers' Index (CMI). This one puts the combined score as high as it has been since May and thoroughly in expansion territory. Anything over 50 qualifies as expansion, but getting past the mid-point is always welcome news as it suggests most of the economy is firing on all cylinders. NACM Economist Chris Kuehl explained further that the truth of the matter is many of these tariffs and restrictions have not yet come to pass. By most accounts they will come sooner than later, but for the time being, there is a window of opportunity to sell and buy before the restrictions are in place.

The combined score for the favorable factors hit a high point not seen since May of this year: 65.2 as compared to the previous month's 64.3 and May's 65.7. The combined score for the unfavorable factors was also an improvement, but a very small one as it went from 50.1 to 50.6. This has been the pattern for a year as the high point was reached in September of last year when it hit 51.8.

As with prior months, the real issues and concerns are showing up in the non-favorable categories. There was a slight reduction in the category of rejections of credit applications (52.2 to 51.8), which is consistent with the reduction in applications for new credit." – Adam Fusco, Associate Editor, NACM

National Association of Credit Management – Credit Managers' Index

September CMI Improves, Forecast Remains Unstable

"On the positive side, there was a significant improvement in the accounts placed for collection category as it moved from the contraction zone to expansion by the barest of margins. It moved from 49 to 50.2; narrow as this is, the point remains that it signals growth again. There was also improvement in the disputes category, but the rise from 46.4 to 47.6 did not quite get the reading out of the contraction zone. There was a similar pattern with dollar amount beyond terms, but this month's reading is very, very close to escaping contraction. It was at 48.5 and now sits at 49.9 — just a hair away from being in growth mode again. The reading for dollar amount of customer deductions remained very close to what it was last month and just shy of getting into the expansion zone (48.7 to 48.6). The filings for bankruptcies category also stayed very close to what it had been the month prior. It had been at 55.9 and it slipped a tiny bit to 55.6. Kuehl noted that throughout the year, the rate of bankruptcies has stayed in generally positive territory as companies have been able to work themselves out of the predicament they have been in.

Manufacturing Sector

From last month to this, there has been only a slight change as far as the manufacturing sector is concerned. This will be well worth watching for the next month or two. As mentioned earlier, the performance of the PMI was very strong this month and last month the CMI index for manufacturing perked up — a kind of early sign that PMI data would be strong. The combined score for the favorable factors index is the same as it was the month before — standing pat at 64.4. Kuehl explained this is one of those potential warning signs as these are the factors that tend to drive new business development. Even though the total number was the same as last month, there was still quite a bit of variability in the sub-categories. The sales reading improved quite a bit (66.5 to 68.2). He attributed this to the somewhat frantic reaction to the potential imposition of tariffs and other trade restrictions." – Adam Fusco, Associate Editor, NACM

National Association of Credit Management – Credit Managers' Index

"The less-exciting news was found in the non-favorable factors, although there were some areas of improvement and the overall index rose from 50.2 to 51.1. The rejections of credit applications slipped a bit but stayed about where it was last month. It went from 53.7 to 53.1 and is consistent with the numbers for applications for credit. The reading for accounts placed for collection went up quite a bit and escaped the contraction zone. It went from an August reading of 49.6 to one of 51.2. There was also positive movement as far as disputes are concerned, but not enough to leave contraction territory. It went from 45.8 to 48.7, so it is moving in the right direction. The dollar amount beyond terms reading also managed to escape contraction (48.4 to 50.2). This corresponds with the data from the dollar collections category. The dollar amount of customer deductions fell somewhat as it went from last month's 48.1 to 47.4 this month. There was some good news from the filings for bankruptcies category as it stayed right where it was — solidly in the middle of the 50s with a reading of 56.

Service Sector

As expected this time of year, there was quite a lot of activity in the service sector. As has been pointed out many times, this is a very diverse sector for the CMI as it has large components that do not have all that much in common. The biggest group is retail. This is their time of year as the holiday spending season gets ramped up. The second-most important component of this index is construction. In contrast to retail, this sector starts to slow down this time of year. The combined score for services returned to a more robust state with a reading of 56.4 — close to the numbers seen in June when it hit 56.8. The index of favorable factors improved quite a bit and reached 65.9 — slightly better than the numbers in May when it hit 65.8. The combined score for the non-favorable index was 50.1, just a hair better than it registered the month prior when it rested at 50. Much of the real news was in the details of the subcategories." – Adam Fusco, Associate Editor, NACM

National Association of Credit Management – Credit Managers' Index

September CMI Improves, Forecast Remains Unstable

"The latest data from the Purchasing Managers' Index (PMI) was welcoming news last month as the readings jumped into the 60s. There has been growth in term of industrial production and the overall GDP as well. The fact is the CMI is in agreement with a number of other leading indicators, which is always reassuring. This is all somewhat unexpected given the turmoil and controversy over tariffs and trade wars, but timing is everything. This was what goosed the second quarter GDP numbers up to 4.2% — lots of frantic activity designed to beat the deadlines. That motivation will fade through the remainder of the year.

This [combined score] continues to be the prime concern for the CMI data. Why are there still so many struggling operations given the overall growth of the economy and the good news that has been registered in the favorable categories? A breakdown of the favorable categories shows solid growth and numbers that are back to where they were at the start of the summer. The sales reading was 68.8, just shy of the reading in May and June. There is likely to be some of that precautionary buying registered here as companies sought to try to insulate themselves against the impact of tariffs and trade wars.

There have been more companies with questionable financial futures seeking credit, and many are not deemed a good risk right now. There is already evidence that companies with a lot of foreign trade exposure are not having an easy time of it as far as credit is concerned.

The hope is that the number of bankruptcies will remain low as the trade wars and tariff issues come home to roost. There is deep concern regarding the farm sector and all the industries that have been related to it." - Dr. Chris Kuehl, Economist, NACM

National Association of Credit Management – Credit Managers' Index

"Many companies were trying to sell as much as they could before the taxes were levied and few think this pace will be maintained much longer. Regarding the non-favorable factors, this is not comfortable territory as it would not take much to send the numbers back into contraction territory, but compared to where it has been of late, this is a decent reading.

Given all the turmoil surrounding trade issues and the mercurial behavior of the president, it might be expected this drama would be affecting the overall performance of the economy. The assessment is that the economic drivers are mostly shrugging off these issues and have been reacting to more traditional motivators. This state of calm is not likely to last, however, given the appearance of some inflation indicators and the potential impact of various trade deals, which have been on-again and off-again.

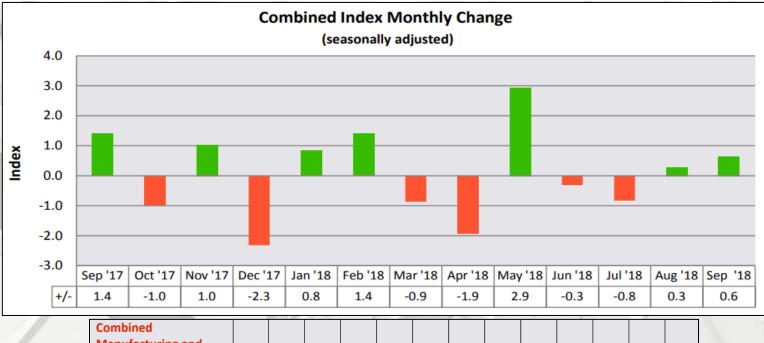
The rejections of credit applications stayed very close to previous readings (53.5 to 53.7). That is good news given that new applications went up. ...those who are applying for credit are getting approved. The accounts placed for collection reading fell a bit and is now in contraction territory. It was at 50.6 and now sits at 49.6. The last time this was in contraction territory was April when it hit 49.9. The disputes category fell deeper into contraction with a reading of 45.9/ compared to last month's 47. This is not a good sign as disputes nearly always lead to more serious issues, like collection and even bankruptcy. The dollar amount beyond terms stayed close to what it had been, with a reading of 49/.4 compared to 49/.1 in August, but at least it was an improvement. The dollar amount of customer deductions improved by quite a bit, but is still mired in the contraction zone. It was 46.9 and is now 49/.1. The filings for bankruptcies category fell back quite a bit from what it had been, moving from 59.1 to 56. These are still very good numbers and suggest that most companies are finding a way to survive.– Dr. Chris Kuehl, Economist, NACM

National Association of Credit Management – Credit Managers' Index

"The amount of credit extended also saw a small improvement from 66.1 to 66.9. The good news for this sector is it has been above 66 for seven months in a row. That means good customers are asking for some considerable amounts of credit.

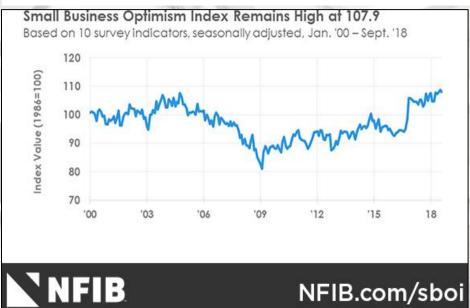
There has been a lot of drama surrounding the manufacturing sector over the last several months. Some of that volatility has been seen in the data. Not as much variability as one would expect though. The volatility seems to signal that most manufacturers are reacting to solid consumer demand from within the U.S. and outside. The worry stems from the near constant threat of new tariffs and trade disputes. The steel and aluminum tariffs are still biting hard. Then, there is the roller coaster strategy that has tariffs imposed on cars and other products one day and those restrictions being lifted the next day. In the midst of that storm, there has been some manufacturing stability. This category has been hugging the border between contraction and expansion for the past year. There is nothing to suggest this will alter any time soon."

There was some trepidation showing in retail as many companies are still planning to rely on an inventory light approach to the season. The dollar collection data looked very positive as it moved from 62.9 to 66.5. This is the time of year that retailers know they have to be current if they want to access any more credit. There was a slight decline as far as amount of credit extended as it slipped from 66.7 to 65.8, but these numbers are still very respectable and very solidly in the 60s." – Dr. Chris Kuehl, Economist, NACM



| Combined Manufacturing and | | | | | | | | | | | | | | |
|------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---|
| Service Sectors (seasonally adjusted) | Sep '17 | Oct '17 | Nov '17 | Dec '17 | Jan '18 | Feb '18 | Mar '18 | Apr '18 | May '18 | Jun '18 | Jul '18 | Aug '18 | Sep '18 | |
| Sales | 67.3 | 66.8 | 68.3 | 59.2 | 63.0 | 66.8 | 64.1 | 65.8 | 69.6 | 69.6 | 63.9 | 65.0 | 68.8 | |
| New credit applications | 60.5 | 62.8 | 63.7 | 57.3 | 59.8 | 63.3 | 62.7 | 62.2 | 63.8 | 60.5 | 61.2 | 62.5 | 61.9 | |
| Dollar collections | 60.0 | 60.2 | 63.1 | 59.1 | 58.7 | 62.9 | 59.6 | 46.7 | 62.5 | 63.2 | 61.0 | 62.6 | 62.8 | |
| Amount of credit extended | 66.3 | 65.5 | 67.8 | 61.8 | 64.3 | 66.4 | 66.2 | 66.1 | 66.8 | 66.2 | 66.1 | 66.9 | 67.1 | |
| Index of favorable factors | 63.5 | 63.8 | 65.7 | 59.4 | 61.4 | 64.9 | 63.2 | 60.2 | 65.7 | 64.9 | 63.1 | 64.3 | 65.2 | |
| Rejections of credit applications | 52.5 | 51.8 | 52.4 | 51.4 | 51.8 | 51.5 | 53.3 | 51.0 | 51.3 | 51.2 | 52.5 | 52.2 | 51.8 | |
| Accounts placed for collection | 50.3 | 49.5 | 50.5 | 49.8 | 51.7 | 49.8 | 50.4 | 48.7 | 49.0 | 51.3 | 49.9 | 49.0 | 50.2 | |
| Disputes | 51.7 | 47.6 | 48.3 | 49.7 | 49.6 | 49.6 | 47.7 | 48.0 | 48.1 | 48.3 | 47.7 | 46.4 | 47.6 | _ |
| Dollar amount beyond terms | 50.4 | 47.3 | 47.5 | 49.3 | 47.0 | 49.9 | 47.2 | 46.4 | 49.4 | 49.2 | 47.4 | 48.5 | 49.9 | |
| Dollar amount of customer deductions | 49.8 | 48.7 | 48.9 | 49.7 | 49.7 | 49.1 | 49.8 | 48.4 | 49.7 | 48.1 | 47.9 | 48.7 | 48.6 | |
| Filings for bankruptcies | 56.2 | 55.3 | 55.1 | 55.0 | 55.2 | 55.4 | 55.2 | 53.8 | 56.4 | 55.7 | 57.4 | 55.9 | 55.6 | |
| Index of unfavorable factors | 51.8 | 50.0 | 50.4 | 50.8 | 50.8 | 50.9 | 50.6 | 49.4 | 50.6 | 50.6 | 50.5 | 50.1 | 50.6 | |
| NACM Combined CMI | 56.5 | 55.5 | 56.6 | 54.2 | 55.1 | 56.5 | 55.6 | 53.7 | 56.6 | 56.3 | 55.5 | 55.8 | 56.4 | |

Source: http://web.nacm.org/CMI/PDF/CMIcurrent.pdf; 9/28/18



August 2018 Report:

"The NFIB Small Business Optimism Index continued its historic 23-month positive trend, with a reading of 107.9 in September, the third highest reading in the survey's 45-year history. In the small business half of the economy, 2018 has produced 45-year record high measures of job openings, hiring plans, actual job creation, compensation increases (actual and planned), profit growth, and inventory investment.

Small Business Optimism Continues Historic Trend

"The September 2018 survey showed:

- Actual capital spending in the past few months rose significantly.
- Average employment change per firm was solid.
- Owners bulked up inventories.
- Compensation increases set a new record.

Actual investment spending improved as prospects for the economy remain strong. Sixty percent of owners reported capital outlays, up four points from August. Of those making expenditures, 41 percent reported spending on new equipment (up two points), 26 percent acquired vehicles (up four points), and 16 percent improved or expanded facilities (down two points)." – Holly Wade, NFIB

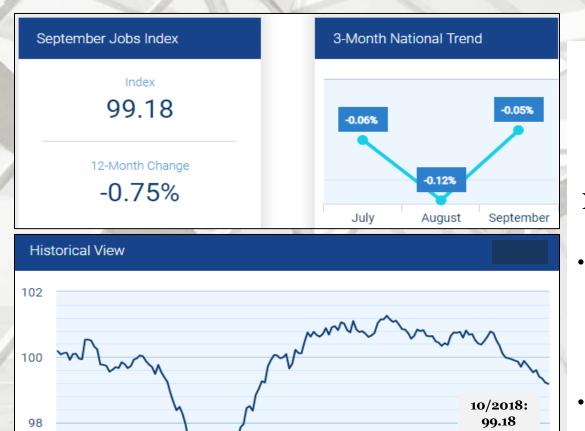
Small Business Optimism Continues Historic Trend

"This is the longest streak of small business optimism in history, evidence that tax cuts and regulatory rollbacks are paying off for the economy as a whole. Our members say that business is booming and prospects continue to look bright." – Juanita Duggan, President and CEO, NFIB

"The economy continues to deliver a spectacular performance for one so near its record length. Small business owners continue to face labor force challenges but are increasing compensation to keep up. With profits and investment remaining strong, our hope is that policymakers will stay the course and not screw around with success." – William C. Dunkelberg, Chief Economist, NFIB

"Consumer spending temporarily slowed in August, likely producing excess inventories but has picked up again which will reverse the build-up. The net percent of owners expecting higher real sales volumes rose three points to a net 29 percent of owners. Owners reporting inventory increases rose one point to a net five percent (seasonally adjusted). Strong expectations for higher real sales translate into higher expected returns on capital investments as well as a need for more employees

A record net 37 percent of owners reported raising overall compensation, as reported in last week's NFIB monthly jobs report. This surpasses the previous record of a net 35 percent in May 2018. Twenty-four percent plan to increase total compensation at their firm and six percent plan reductions. Sixty-one percent of owners reported hiring or trying to hire, with 87 percent of those reporting few or no qualified workers. Thirty-eight percent of owners reported job openings they could not fill in the current period, unchanged from last month." – Holly Wade, NFIB



The Paychex | IHS Small Business Jobs Index

National Jobs Index Highlights

- "At 99.18, the national index has slowed 0.23 percent during the past quarter and 0.75 percent during the past year.
- The national index has fallen by 1.59 percent since its recent peak in February 2017." – James Diffley, Chief Regional Economist, IHS Markit

Source: https://www.paychex.com/employment-watch/#!/jobs-index/; 10/2/18

96

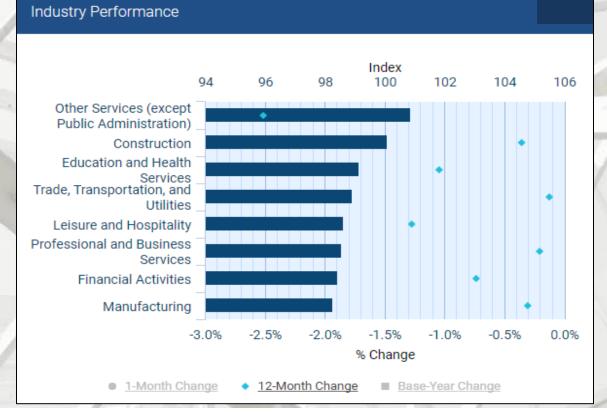
94



Note: Percentages displayed in the regional heat map reflect 1-month changes.

The Paychex | IHS Small Business Jobs Index Regional Jobs Index

- "Down in September and the most year-over-year, the Northeast and Midwest regions drove the September decline and have pulled the national index lower than the other regions during the past year.
- Aided by a steady growth rate in the Pacific and strong improvement in the Mountain division, the West region climbed into second place and is the only region to increase its pace of employment growth in 2018."– James Diffley, Chief Regional Economist, IHS Markit



The Paychex | IHS Small Business Jobs Index

Industry Highlights

- "Professional and Business Services had the weakest one-month growth rate, -0.23 percent, among industry sectors.
- Relatively unchanged during the past quarter, Construction remains in second place among industries with an index just above 100." – James Diffley, Chief Regional Economist, IHS Markit

Source: https://www.paychex.com/employment-watch/#!/jobs-index/; 10/2/18



The Paychex | IHS Small Business Wage Data National Highlights

- "Hourly earnings growth posted its first uptick in over a year, increasing to 2.33 percent.
- Weekly hours worked are up yearover-year for the 22nd consecutive month.
- At 2.65 percent, weekly earnings growth has slowed during the past year." – James Diffley, Chief Regional Economist, IHS Markit

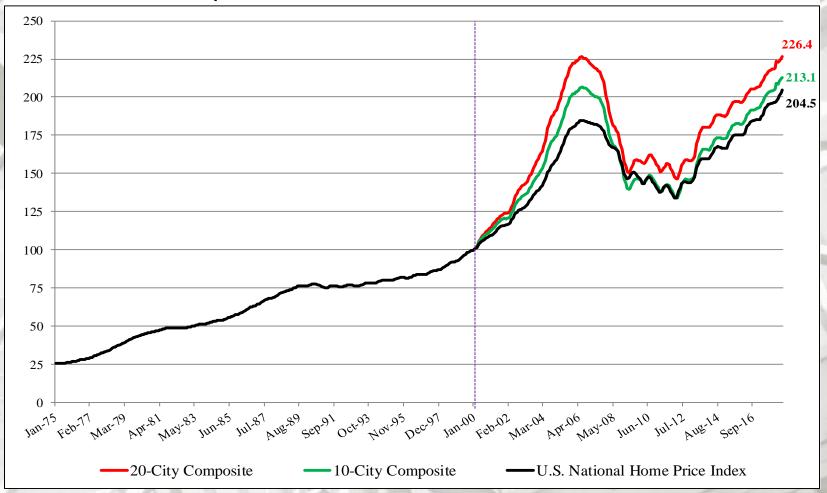
"The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 6.0% annual gain in July, down from 6.2% in the previous month. The 10-City Composite annual increase came in at 5.5%, down from 6.0% in the previous month. The 20-City Composite posted a 5.9% year-over-year gain, down from 6.4% in the previous month.

Home Price Gains Slow According to S&P CoreLogic Case-Shiller Index

"Rising homes prices are beginning to catch up with housing. Year-over-year gains and monthly seasonally adjusted increases both slowed in July for the S&P CoreLogic Case-Shiller National Index and the 10 and 20-City Composite indices. The slowing is widespread: 15 of 20 cities saw smaller monthly increases in July 2018 than in July 2017. Sales of existing single family homes have dropped each month for the last six months and are now at the level of July 2016. Housing starts rose in August due to strong gains in multifamily construction. The index of housing affordability has worsened substantially since the start of the year.

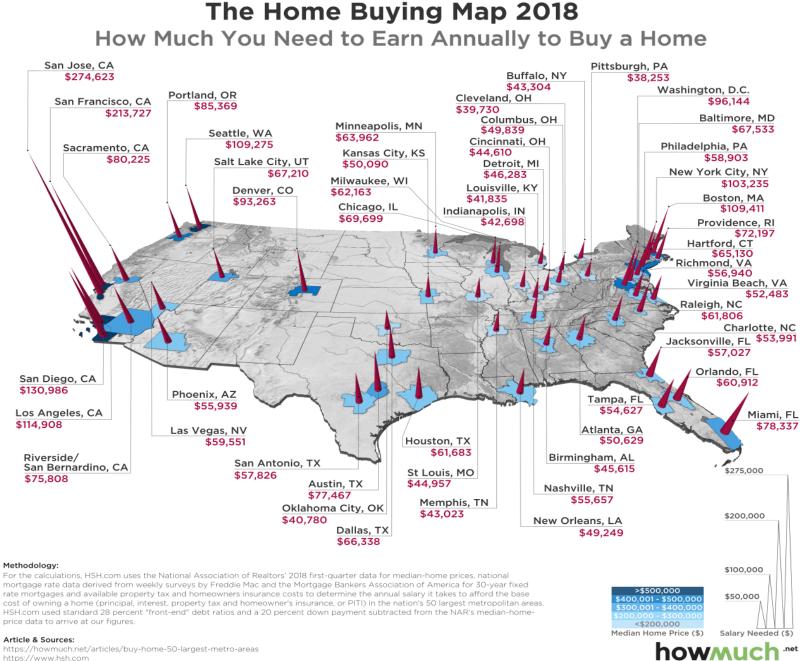
Since home prices bottomed in 2012, 12 of the 20 cities tracked by the S&P CoreLogic Case-Shiller indices have reached new highs before adjusting for inflation. The eight that remain underwater include the four cities which led the home price boom: Las Vegas, Miami, Phoenix and Tampa. All are enjoying rising prices, especially Las Vegas which currently has the largest year-over-year increases of all 20 cities. The other cities where prices are still not over their earlier peaks are Washington DC, Chicago, New York and Detroit." – David Blitzer, Managing Director and Chairman of the Index Committee, S&P Dow Jones Indices

S&P/Case-Shiller Home Price Indices



"Las Vegas, Seattle and San Francisco continued to report the highest year-over-year gains among the 20 cities. In July, Las Vegas led the way with a 13.7% year-over-year price increase, followed by Seattle with a 12.1% increase and San Francisco with a 10.8% increase. Five of the 20 cities reported greater price increases in the year ending July 2018 versus the year ending June 2018." – S&P CoreLogic

Source: https://us.spindices.com/index-family/real-estate/sp-corelogic-case-shiller; 9/25/18



https://www.hsh.com

The 8 Major Forces Shaping the Future of the Global Economy

2. The Evolution of Money

"Money is arguably one of humanity's most important inventions. From beaver pelts to gold bars, the form and function of money has constantly fluctuated throughout history.

In the modern world, the definition of money is blurrier than ever. Central banks have opted to create trillions of dollars of currency out of thin air since the financial crisis – and on the flipside, you can actually use blockchain technology to create your own competing cryptocurrency in just a few clicks.

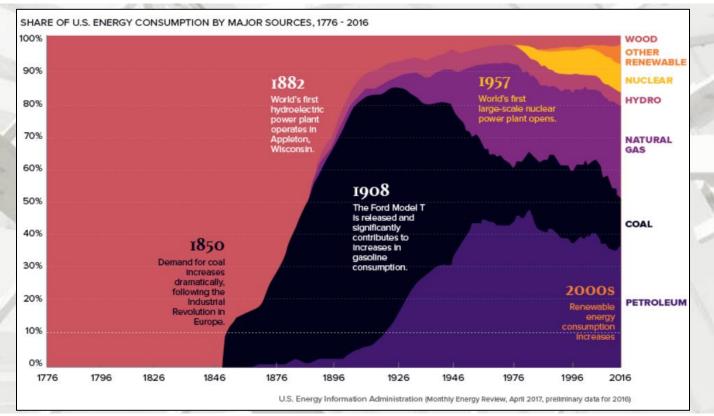
Regardless of what is money and what is not, people are borrowing record amounts of it.

The world has now amassed \$247 trillion in debt (corporations, governments, and individuals), including \$63 trillion borrowed by central governments:

In today's unusual monetary circumstances, massive debt loads are just one anomaly.

Here are other examples that illustrate the evolution of money: Venezuela has hyperinflated away almost all of its currency's value, the "War on Cash" is raging on around the world, central banks are lending out money at negative interest rates (Sweden, Japan, Switzerland, etc.), and cryptocurrencies like Bitcoin are collectively worth over \$200 billion.

How we view money – and how that perception evolves over time – is an underlying factor that influences our future." – Jeff Desjardins, Editor-in-Chief, Visual Capitalist

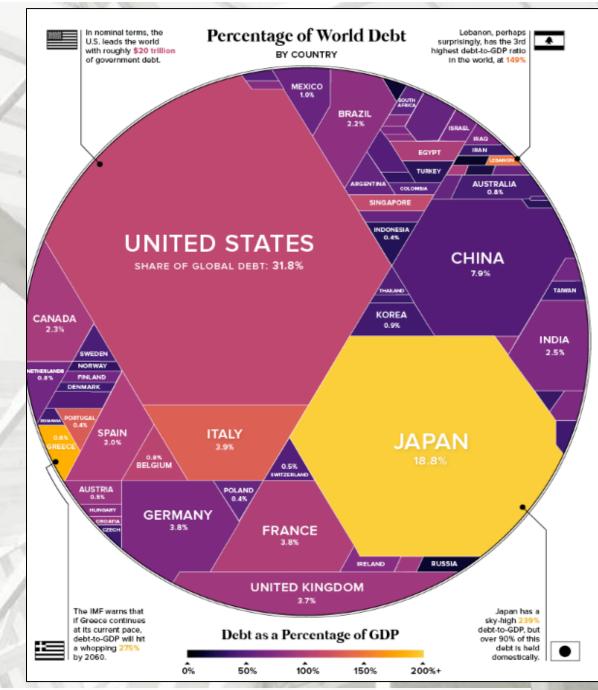


The 8 Major Forces Shaping the Future of the Global Economy 6. The Green Revolution

"It's no secret that our civilization is in the middle of a seismic shift to more sustainable energy sources. But to fully appreciate the significance of this change, you need to look at the big picture of energy over time. Above is a chart of U.S. energy consumption from 1776 until today, showing that the energy we use to power development is not permanent or static throughout history.

And with the speed at which technology now moves, expect our energy infrastructure and delivery systems to evolve at an even more blistering pace than we've experienced before." – Jeff Desjardins, Editor-in-Chief, Visual Capitalist

Source: http://www.visualcapitalist.com/the-8-major-forces-shaping-the-future-of-the-global-economy/; 10/4/18



Source: http://www.visualcapitalist.com/the-8-major-forces-shaping-the-future-of-the-global-economy/; 10/4/18

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