

Macroeconomic Status

Our running tab of positive indicators for the macroeconomic status fell to 11 out of 20 this week. Thus, we are posting a yellow banner.

Non-Farm Payrolls ▲295,000
Unemployment Rate ▼ to 5.5%
Consumer Spending ▼0.2%; ▲3.4% Y/Y (real)
Personal Income ▲0.3%; ▲4.2% Y/Y (real DPI)
Trade Deficit ▼\$3.8 billion to \$41.8 billion
Construction Spending ▼1.1%; ▲1.8% Y/Y
Light Vehicle Sales ▼ to a 16.2 million unit pace
Global Semiconductor Sales ▼2.0%; ▲8.7% Y/Y
ISM PMI (Mfg.) ▼0.6 points to 52.9 (still expanding)
ISM Non-Mfg. ▲0.2 points to 56.9
JP Morgan Global PMI ▲0.3 points to 52.0
Factory Orders ▼0.2%; ▼4.9% Y/Y

The economic reports this week were mixed as winter storms dampened economic activity in the northeast and Midwest. The bright spot was the larger than expected gain in payroll employment. Over the past year, the economy has gained 3.3 million jobs, the fastest pace of job growth in two decades. Wage growth has been slow, however. Consumer incomes increased and households eased their spending during January. The latter includes the effect of lower gasoline bills. Vehicle sales were lower, but remain at a solid pace. Construction spending also fell, though weather is partly to blame.

In addition, the purchasing manager surveys indicate that both the manufacturing sector and the services sectors continued to expand in February. The U.S. trade deficit narrowed in January. Both imports and exports fell. Turning overseas, the global manufacturing sector seems to be strengthening.

Turning to chemistry, railcar loadings were higher and the ISM reported that the chemical industry expanded in February. This was supported by gains in employment and hours worked during the month. Shipments of chemicals, excluding pharmaceuticals, were lower, however. Inventories were flat.

Business of Chemistry Status

For the business of chemistry, the indicators bring to mind a yellow banner for basic and specialty chemicals.

Oil ▼\$61.11 (Thursday)
Natural Gas ▲\$3.27 (Thursday)
Railcar Loadings ▲1,307 from a week ago; ▲2.2% Y/Y (13-week moving average)
Chemical Equity Performance ▲6.8%; ▲5.6% YTD

Construction spending on chemical projects continued to advance and was up sharply from a year ago. ACC's current list of chemical industry projects totals 225 projects, representing cumulative capital investments totaling \$137.6 billion in the U.S. Over half (60%) of this is foreign direct investment.

CONTENTS

Chemical Industry Investment	2
Chemical Railcar Loadings	2
Chemical Equity Performance	2
Energy	2
Beige Book	3
Indicators in Detail	3
Next Week	8
Upcoming Events of Interest	8
For More Information	9
Contributors	9

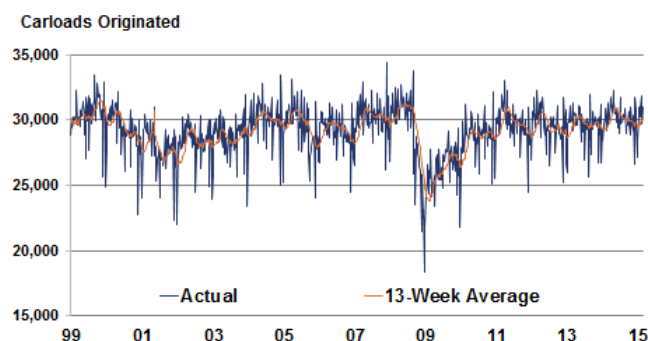
CHEMICAL INDUSTRY INVESTMENT

Natural gas from shale has huge potential for the U.S., helping revive American manufacturing and potentially creating hundreds of thousands of jobs. After years of highly volatile natural gas prices, the new economics of shale gas create a competitive advantage for U.S. manufacturers, leading to greater investment, job creation, and industry and economic growth. Due to growth in shale gas production, there has been and continues to be a significant increase in capital investment by chemical and other manufacturing industries, with the possibility of hundreds of billions in new domestic investments, which will drive new business and job growth. ACC maintains a list of shale-related chemical projects announcements and updates it weekly. *Our current list of chemical industry projects totals 225 projects, representing cumulative capital investments totaling \$137.6 billion in the U.S. Fully 60% of this is foreign direct investment.*

CHEMICAL RAILCAR LOADINGS

According to the Association of American Railroads (AAR), for the week ending 28 February (week 8), railcar loadings of polymers and basic chemicals (blue line) rose by 1,307 to 31,018 railcars. Compared to the same week last year, loadings were down 0.8% Y/Y and were up 3.0% YTD. Loadings have been on the rise for 7 of the last 13 weeks.

Chemical Railcar Loadings



Source: Association of American Railroads

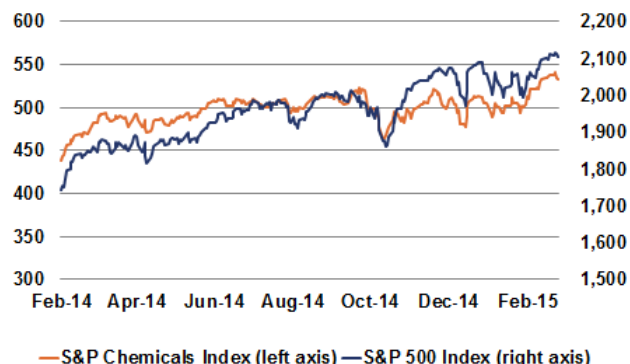
The railcar loadings data are the best 'real time' indicator of industry — especially basic chemicals and polymers — activity. Because the data are fairly erratic, we employ a moving average to smooth out seasonal irregularities. The 13-week moving average of railcar loadings is up 2.2% Y/Y, indicating improving activity.

CHEMICAL EQUITY PERFORMANCE

The S&P 500 index rose by 5.5% during February. The S&P index for chemical companies also rose, by 6.8%. Equity prices are often a good indicator of future activity and represent one component of the leading economic

indicators. The S&P chemicals index was up 5.6% from the beginning of the year. By comparison, the S&P 500 index was up 2.2% from the start of the year.

Equity Performance

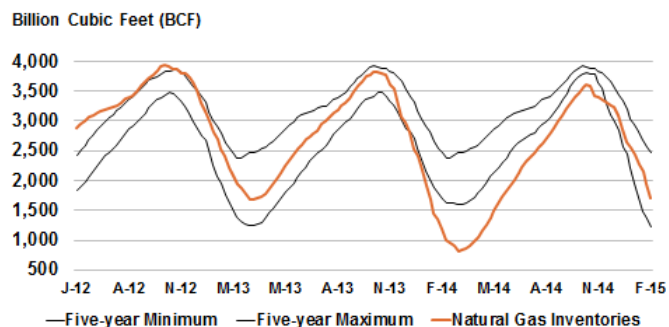


Source: Standard and Poor's

ENERGY

The Energy Information Administration (EIA) reported a 228 billion cubic feet (BCF) withdrawal in **natural gas inventories** during the week ending 27 February, more than double the typical build for this week. Stocks were 40.4% higher than last year at this time but 7.7% below the five-year average. At 1,710 BCF, total gas inventories remain well within the five-year historical range.

Natural Gas Inventories



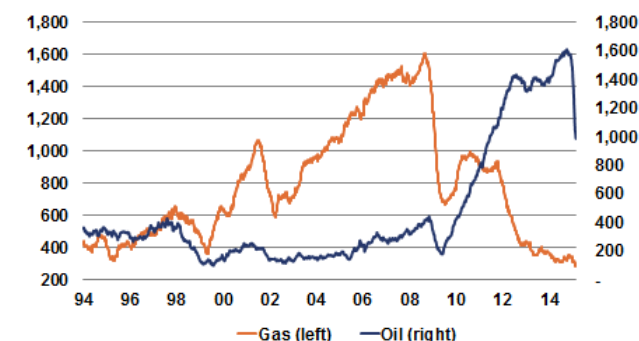
Source: Energy Information Administration

With US oil inventories at an 80-year high, **oil prices** moved lower to \$61.11 per barrel yesterday (Thursday). A year ago, oil was \$108.15 per barrel. Thus, recent prices represent a 43.5% Y/Y decline. A large inventory draw and a late season cold spell pushed **natural gas prices** (based on the benchmark Henry Hub) up to \$3.27 per million BTUs on Thursday, up from \$3.21 last Thursday. A year ago, the price was \$6.46 per million BTUs. Thus, recent prices represent a 49.4% Y/Y decline.

At 18.7, the ratio of oil prices to natural gas was down from 19.1 a week ago. One year ago, the ratio was 16.7.

As a rough rule of thumb, when the ratio is above 7, the competitiveness of Gulf Coast-based petrochemicals and derivatives vis-à-vis other major producing regions is enhanced. We've been above 7 for several years. In the US, nearly 90% of ethylene, for example, is derived from natural gas liquids while in Western Europe, over 85% is derived from naphtha, gas oil and other light distillate oil-based products. Historically, other factors (co-product prices, exchange rates, capacity utilization, etc.) have played a role in competitiveness as well. The current ratio is favorable for US competitiveness and exports of petrochemicals, plastics and other derivatives.

Oil and Natural Gas Rig Count



According to Baker-Hughes, for the week ending 27 February the U.S. **natural gas rig count** fell by nine to 280 rigs. One year ago the rig count was 335 rigs. During the same week, the **oil rig count** fell by 33 to 986 rigs. One year ago the rig count was 1,430 rigs. The last time this was below 1,000 was in June 2011 at the start of the unconventional oil boom. The oil rig count is off 39% from its peak while the gas rig count is off 13% from its peak.

BEIGE BOOK

The Federal Reserve collects anecdotal reports from each of the 12 District banks about economic conditions in their region. This compendium of reports is assembled and disseminated in the *Beige Book*. The Federal Reserve Board reports indicate that economic activity continued to expand across most regions and sectors from early January through mid-February. Consumer spending rose in most Districts, and contacts were generally optimistic about near-term sales. Travel and tourism also increased in the reporting Districts. Payrolls remained stable or expanded across the Districts, and contacts noted employment gains in a broad range of sectors. Wage pressures remained moderate and were limited largely to workers in skilled occupations.

Manufacturing generally posted gains across the Districts, although at varying rates. The Atlanta District noted that manufacturing rebounded during the current reporting period following a modest slowdown in Decem-

ber. According to contacts in the Chicago and San Francisco manufacturing rose moderately, while contacts in New York noted modest gains. Contacts in Kansas City indicated slow growth, contacts in Philadelphia reported slight increases, and contacts in Dallas noted flat to positive growth. Reports from contacts in Cleveland District were mixed, while contacts in Richmond noted that activity weakened. Manufacturers in Boston, Cleveland, and Richmond reported positive outlooks. In contrast, New York District contacts have grown less optimistic about the near-term outlook.

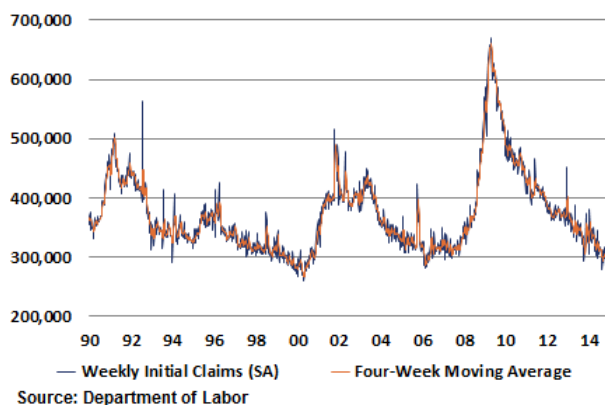
Turning to chemicals, Gulf Coast chemical producers (Dallas District) reported declining export demand. Utilization rates, while still high, decreased slightly. Contacts said low oil prices have reduced production growth expectations, resulting in some midstream construction projects being delayed. They also reported reduced wage pressure, particularly for downstream construction workers. Chemical manufacturers in St. Louis announced plans to hire additional employees and expand operations.

The *Beige Book* report is of importance to the business of chemistry as it provides insight into trends in key end-use customer industries as well as the industry itself. Searches of the text of the *Beige Book* can easily identify reports on end-use customer industries. (See www.federalreserve.gov for more details.)

INDICATORS IN DETAIL

Note that economic statistics tend to be somewhat erratic in nature. Seasonality often plays a role and one must be careful in placing too much emphasis on a single month's figures. Analysts often use a three-month moving average or employ Y/Y comparisons to deal with the volatility.

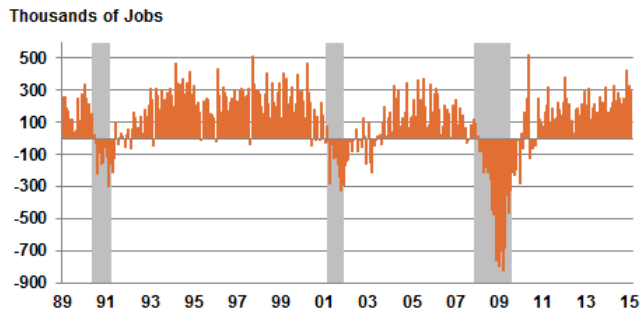
Initial Claims for Unemployment Insurance



The Department of Labor reported that **initial claims** for unemployment insurance rose by 7,000 to 320,000 during the week ending 28 February. The four-week moving

average was 304,750, an increase of 10,250 from the previous week.

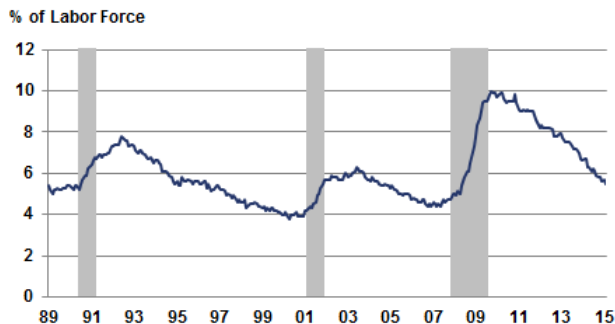
Change in Payroll Employment



Source: Bureau of Labor Statistics

The Bureau of Labor Statistics reported that **payroll employment** continued to expand at a healthy pace in February, adding 295,000 jobs in February. This was ahead of expectations and followed a revised 239,000 gain in January. The gains were broad based with manufacturing up by 8,000. There were declines in mining and petroleum products manufacturing (reflecting fallout from lower oil prices). Average hourly wages, however, remained flat and were up 1.6% Y/Y, a declining comparison. Weekly hours were also flat.

Unemployment Rate

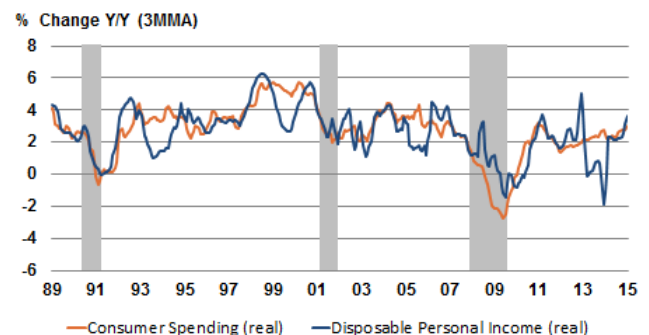


Source: Bureau of Labor Statistics

The BLS also reported that the **unemployment rate** fell from 5.7% in January to 5.5% in February, the lowest level since mid-2008. The decline, however, reflected a decline in the labor force as much as a gain in employment, as measured by the household survey. The participation rate retreated to 62.8%. This measure of the percentage of the population working or available to work has fallen since the beginning of the recession. Retirements and workers discouraged by a difficult labor market explain much of the decline, but labor market improvements have yet to reverse the trend, suggesting there may be other factors at work. This has implications for long run economic growth.

Turning to chemistry, total employment rose by 2,700 to 811,300 in February. Compared to a year ago, the industry has 14,300 (+1.8%) more workers on its payrolls. February's gain was driven by an increase in production and nonsupervisory workers which rose by 5,700 to the highest level since early-2008. Employment of non-supervisory and nonproduction workers fell by 3,000. Average hourly wages were lower by 0.5% Y/Y. The average workweek edged higher to 43.1 hours. Thus, total hours worked was up 1.4% from January and up 4.2% from a year ago. Even allowing for typical productivity improvements, this suggests higher production during the month. This is consistent with the ISM report.

Consumer Spending and Disposable Personal Income



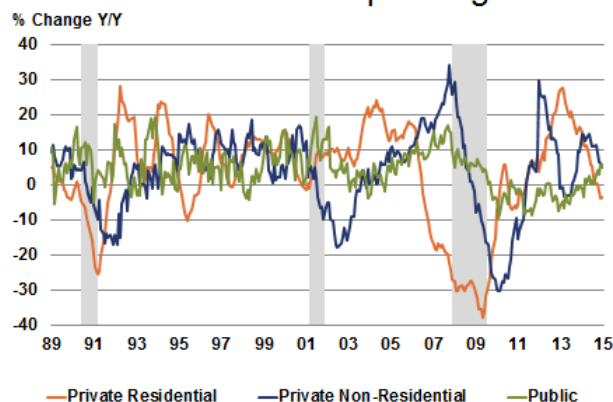
Source: Bureau of Economic Analysis

The Bureau of Economic Analysis reported that **personal income** (the ability to spend) rose by 0.3% in January. Real disposable personal income (accounting for taxes and inflation) rose by 0.9%. **Consumer spending**, however, fell 0.2% as consumers elected to divert more of their growing incomes to savings. The savings rate rose to 5.5%, up from 5.0% in December. Consumers spent considerably less on nondurable goods, a category that includes gasoline, but also cut back moderately on spending in durable goods. Spending on services continued to grow. The price index for consumer spending was down 0.5% (+0.2% Y/Y). Excluding food and energy, prices were up 0.1% (+1.3% Y/Y). *This consumer spending indicator (actually personal consumption expenditures in stats-speak) is important to the business of chemistry in that some \$183 billion in chemistry is directly associated with consumer spending. Included are 25+ billion pounds of plastic resins in packaging and 20+ billion pounds of resins used in other goods.*

The Census Bureau reported that **construction spending** edged lower by 1.1% to a \$971.4 billion pace in January. This followed a gain in December. An unusually harsh winter in the Northeast likely contributed to some of the decline in construction activity. New spending on private residential projects rose by 0.6%, but was off 3.4% Y/Y. Private nonresidential construction spending slipped by 1.6%, but was ahead by 4.8% Y/Y. Declines

were broad based in most sub-segments with manufacturing being the exception, along with investment in new communications structures. Publicly funded construction also fell, by 2.6% with broad declines except in road construction. Compared to a year ago, overall construction spending was up 1.8%. *This report is of significance to the business of chemistry because on average, the construction sector directly purchases \$8 in chemistry for every \$1,000 worth of output. Indirectly, it purchases more than twice that as increasing construction spending generates sales of chemistry products through purchases of supplies such as plastics pipe, architectural coatings, vinyl siding and construction products, carpet, sealants, concrete additives, etc. More than \$32 billion in chemistry products goes into construction each year. Among plastic resins, PVC is most tied to building and construction. A useful indicator we use is the Y/Y change in real (i.e., inflation-adjusted) new orders for construction materials and supplies.*

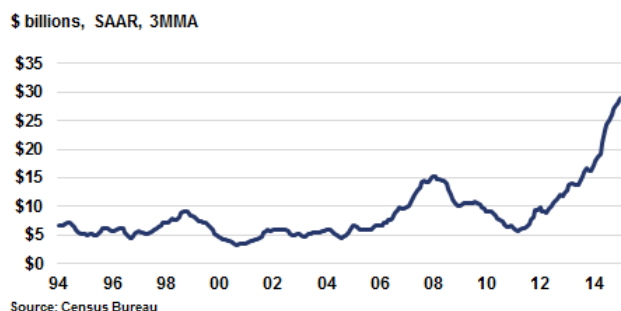
Construction Spending



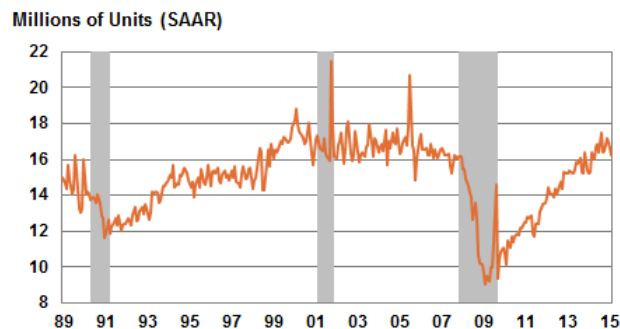
Source: Bureau of the Census

Turning to chemistry, spending on chemical manufacturing projects rose by 11.9% in January to a \$30.7 billion pace. Compared to a year ago, spending was up by 57.6%. This reflects the massive investment in new chemical manufacturing capacity motivated by the U.S. shale gas advantage.

Chemical Industry Construction Spending



Light Vehicle Sales



Source: Bureau of Economic Analysis

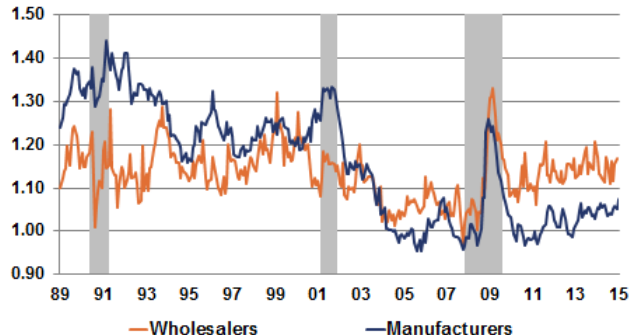
The automobile companies reported that **light vehicle sales** slipped from a 16.7 million-unit pace in January to a 16.2 million-unit pace in February. This was well below expectations but, reflects severe winter weather across much of the nation that kept prospective buyers out of showrooms. Sales of cars weakened the most while trucks and sport-utility vehicles fared better. Compared to the year before, sales at General Motors, Fiat Chrysler, Toyota, Honda and Nissan were up while sales at Ford Motor were off. Lower gasoline prices suggest that consumers continue to favor heavier vehicles. Improving consumer fundamentals (job and income gains, low cost of credit etc.) along with purchases delayed by the weather suggest that sales should rebound in March. That said, consumers appear to be increasingly using long-term loans (of seven years) or leases to offset the higher sales prices. *This sector is important to the business of chemistry because a typical vehicle contains \$3,481 of chemistry (chemical products and chemical processing). Included, for example, are antifreeze and other fluids, catalysts, plastic dashboards and other components, rubber tires and hoses, upholstery fibers, coatings and adhesives. Virtually every component of a light vehicle, from the front bumper to the rear taillights features some chemistry. The latest data indicate that polymer use is 336 pounds per vehicle. More details are available in our annual Chemistry and Light Vehicle report.*

The Census Bureau reported that the nation's **trade deficit** narrowed by \$3.8 billion to \$41.8 billion. Both imports and exports fell in January. Lower exports of industrial supplies and materials (driven by drop in value of fuel oil and other petroleum products exports) led the decline in goods exports. At the same time, imports of industrial supplies and materials also fell (largely driven by \$ 4.5 billion decline in crude oil imports). The U.S. ran a surplus with Central and South America but posted deficits with China, the EU (half of which was in trade with Germany), Japan, Mexico, South Korea, OPEC, and Canada. An effect on U.S. trade from the higher value of the dollar will likely kick in over the coming months and lead to higher deficits as U.S. exports become relatively more expensive. *On an SITC basis, chemicals exports were*

flat and imports were down 4.6% in January. As a result, the monthly trade deficit improved slightly to \$966 million.

The Census Bureau reported that **factory orders** were down 0.2% during the first month of the year to \$470.0 billion. This was the sixth consecutive decline in new orders and reflects a softening of manufacturing activity. New orders were off 4.9% Y/Y. Durable goods orders were up with gains in civilian aircraft, machinery, computers and electronics. The gain in durable orders was offset by declining orders of nondurable goods which includes petroleum products whose prices continued to drop in January. New orders for nondefense capital goods excluding aircraft rose by 0.5% and were up 0.4% Y/Y. Unfilled orders (a measure of the manufacturing pipeline) also slipped by 0.2%. Manufacturers' **shipments** fell for a third straight month, down 2.0%, with broad based declines across many segments. Inventories also fell, by 0.4% following a similar decline in December and flat growth in November. Compared to a year ago, shipments were off 4.1% Y/Y while inventories were up 1.9% Y/Y. The inventories-to-sales ratio rose from 1.34 in December to 1.36 in January. A year ago, it was 1.30, so inventories appear to be accumulating.

Chemical (excluding Pharmaceuticals)
Wholesaler and Manufacturer
Inventory-to-Shipments Ratio



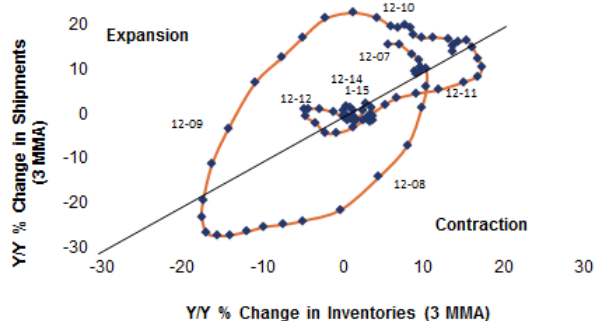
Source: Bureau of the Census

Turning to the business of chemistry, shipments of chemicals were off 1.3% in January following a 0.6% gain in December. Pharmaceutical shipments were up 1.3% in January. As a result, shipments of chemicals excluding pharmaceuticals were down 2.1% to \$46.93 billion in January. Chemical shipments were down 3.1% Y/Y (excluding pharmaceuticals, they were 1.8% lower). Shipments of agricultural chemicals, coatings and adhesives were all lower. Inventories of chemicals were down 0.6% in January to \$81.1 billion. Inventories of pharmaceuticals were off 1.4% during January. Excluding pharmaceuticals, chemical inventories were hardly changed at \$50.4 billion. Inventories of chemicals were essentially unchanged from a year ago. Excluding pharmaceuticals, chemicals inventories were flat. The inventory-to-shipments ratio for chemicals excluding pharmaceuticals

rose to 1.07. While trending higher, this ratio still remains relatively low.

The next chart shows the relationship between shipments and inventories for chemicals, excluding pharmaceuticals, over time. It compares a Y/Y change using a three-month moving average (3MMA) to smooth out volatility. This type of chart is used to illustrate inventory cycles. In this case, it is used to compare the Y/Y growth in shipments and inventories for chemicals (excluding pharmaceuticals) for the December 2007 (start of the recession) through January 2015 period. In a perfect world where inventories and shipments are matched, the shape of the line would be fairly symmetric, a balance of centrifugal and centripetal forces. That is, growth in inventories would parallel that of growth in shipments. This is illustrated by the 45° blue line, which represents a balanced norm. In this perfect world, growth or shrinkage of both would move in tandem, with sufficient inventories to meet rising demand and vice versa. Deviations or volatility represent another name for a mismatch of sales and inventories, with a subsequent and hopefully, very short cycle of correction. This is particularly the case should the line connecting Y/Y growth for both variables shift toward the right. This would indicate a build-up of inventories without the similar gain in shipments.

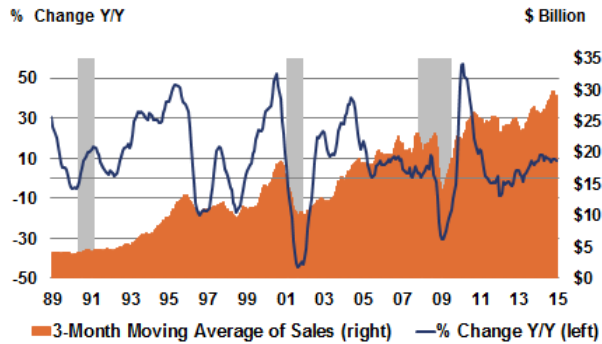
Inventory Cycle for Chemicals
(excluding Pharmaceuticals)



Source: Census Bureau, ACC analysis

The chart provides a fairly simple yet good visual aide for evaluating the stages of the inventory cycle. In this particular chart the data are presented on a monthly basis, using a 3MMA. This makes the chart easier to read and using monthly data instead of quarterly allows easier identification of turning points. It can also be adapted to actual chemical and polymer products. The most recent data indicate that for the industry as a whole (excluding pharmaceuticals) inventories expanded to a 0.7% Y/Y gain (up from a 0.5% Y/Y gain the prior month) on a 3MMA basis. Inventories outpaced shipments which were off 1.3% Y/Y on a 3MMA basis. The gap between inventories growth and shipments growth expanded to 1.9 percentage points in January, suggesting that the balance is moving away from normal.

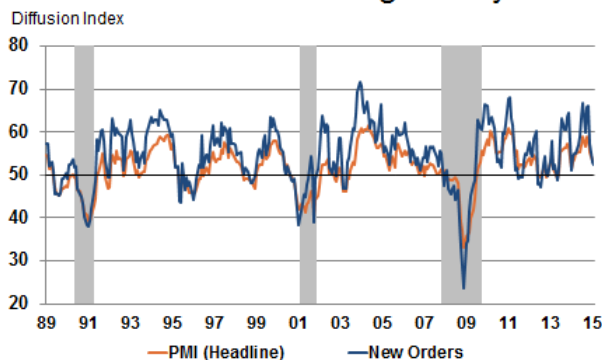
Worldwide Semiconductor Sales



Source: Semiconductor Industries Association

The Semiconductor Industry Association (SIA) reported that, although **global semiconductor sales** slipped 2.0% to \$28.5 billion for the month of January, it was still the industry's highest-ever January total and an increase of 8.7% Y/Y. Sales in the Americas were up 16.4% Y/Y, leading all regional markets. Sales in the Asia Pacific region were up 10.7% Y/Y but down in Europe (-0.2% Y/Y) and Japan (-8.0% Y/Y). Compared to December, sales during January were weak in all regions but this reflects normal seasonal patterns. After a record 2014, the global semiconductor industry is off to a good start in 2015. Global sales have increased on a year-earlier comparison for 21 consecutive months and remain strong across most regions and product categories. (See www.sia-online.org for more details.) In the United States, electronic chemicals represents an \$14.6 billion market for cleaners, developers, dopants, encapsulants, etchants, photoresists, specialty polymers, strippers, and other products. These chemicals are essential materials and enablers used in the manufacture of semiconductor. Globally, this is a \$60 billion market for chemistry.

ISM Manufacturing Survey



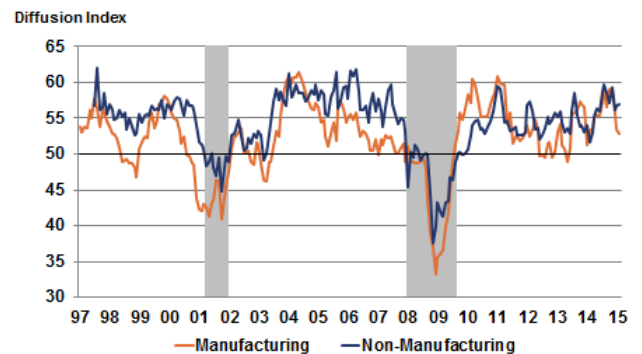
Source: Institute for Supply Management

The Institute for Supply Management (ISM) reported that manufacturing activity expanded in February for the 26th consecutive month but at a pace slower than that in the 2nd half of 2014. The headline **ISM purchasing managers index (PMI)** decreased 0.6 points to 52.9 in Febru-

ary. (With this type of diffusion index, a reading above 50 indicates expanding business activity, while a reading below 50 signals contraction.) The production index fell 2.8 points to 53.7, a still modest pace. But important for future production, the new orders index fell 0.4 points to 52.5, also a modest pace. The index for inventories, however, rose by 1.5 points (to 52.5) and suggests that inventories are accumulating. Respondents feel their customers' inventories are too low. The backlog of orders jumped (by 5.5 points) to 51.5, an expanding trend. The prices paid index was stable at 35.0 in February, indicating further contraction of prices. Employment expanded at a slower pace in February, falling 2.7 points to 51.4. Of the 18 manufacturing industries, 12 reported growth. Three contracted and apparently three were flat. Overall, the report suggests an industrial sector that is growing but at a very modest pace. (See www.ism.ws for more details.)

Turning to the business of chemistry, the details in the ISM manufacturing report indicate that the chemical industry was one of the industries that expanded in February. Production expanded as did new orders, which is good for future production. At the same time, however, the backlog of orders, appeared to be stable. Export orders contracted and imports expanded. Inventories were lower during the month and slower supplier deliveries were noted. Customer inventories were deemed "too high". Employment contracted during the month. One chemical industry respondent noted that it's "kind of a mixed bag right now. Some product demand up, some down, basically flat." This ISM report is of significance to the business of chemistry because on average, the goods sectors purchase \$43 worth of chemistry for every \$1,000 worth of output (or revenues). In contrast, the services sectors purchase only \$11 for every \$1,000 worth of output. As a result, production of basic industrial chemicals and specialties tends to track this PMI fairly well.

ISM Manufacturing and Non-Manufacturing Indices

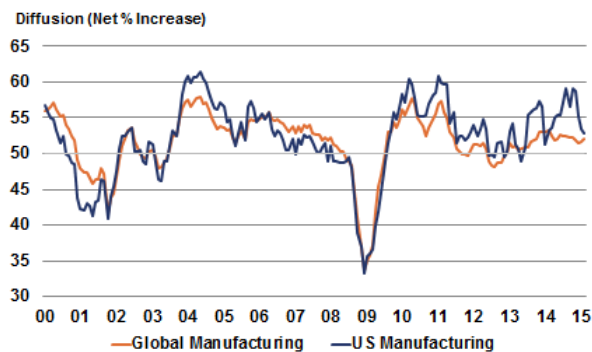


Source: Institute for Supply Management

Separately, the ISM reported that its **nonmanufacturing PMI** rose by 0.2 points to 56.9, indicating growth at a faster rate in the services sector. February's reading in-

icates that this segment of the economy has expanded for five straight years. Business activity, new orders, and employment in the services sector all continued to expand however, business activity and new orders both did so at a slower pace. Likely including the effect of port strikes, slower supplier deliveries were noted. Inventories grew and at a faster pace. Backlog of orders grew as well. Input prices continued to fall though at a slower pace.

ISM Manufacturing PMI (USA) and JP Morgan Global Manufacturing PMI



Source: Institute for Supply Management, JP Morgan

The **JPMorgan Global Manufacturing PMI** signaled steady progress by the global manufacturing sector during February, with the PMI rising 0.3 points to 52.0. (As with the ISM PMI, a reading above 50 indicates expanding business activity, while a reading below 50 signals contraction.) Rates of expansion in production were higher in February but remained below the long-run average. The expansion of new orders remained in place, but neither accelerated nor slowed. Selling prices and input prices continued to contract but at a slower pace. The U.S. PMI continued to signal modest growth and the pace of expansion indicated remains well below last year's highs. The U.S. remains the driver of the global manufacturing upturn. The Canadian manufacturing sector contracted for the first time in two years but Mexican manufacturing featured another solid gain. Brazil reported a contraction. The Euro Area and United Kingdom are seeing growth but deteriorations in business conditions were reported for Russia. Growth was noted for Asia with mild expansions in Japan, China, India, South Korea and Taiwan. The global PMI continues to signal gains in manufacturing output on the order of 4% or so.

NEXT WEEK

Economic reports released next week include wholesale trade, import prices, retail sales, business inventories, producer prices, and consumer debt.

UPCOMING EVENTS OF INTEREST

"Hard Truths, Difficult Choices"
NABE Economic Policy Choices
8-10 March 2015
Capital Hilton
Washington, DC
www.nabe.com

"Writing Skills for Business Economists and Analysts"
11 March 2015
National Association for Business Economics (NABE)
Capital Hilton
Washington, DC
www.nabe.com

"Communication and Presentation Skills for Business Economists and Analysts"
12-13 March 2015
National Association for Business Economics (NABE)
Capital Hilton
Washington, DC
www.nabe.com

"M&A Panel: Experiences and Market Perspectives"
Brian Buchert (Church & Dwight),
Nirmalya Maity (Cabot Corporation)
Société de Chimie Industrielle Luncheon
18 March 2015
Yale Club of New York
www.societe.org

"Argus DeWitt Petrochemical Summit"
23-25 March 2015
Houston, TX
www.argusmedia.com

"Applied Econometrics"
National Association for Business Economics (NABE)
23-26 March 2015
Federal Reserve Bank of New York
NY, NY
www.nabe.com

Propane to Propylene Markets Summit
31 March – 1 April
Houston, TX
www.propane-propylene-markets.com

"Big Data Analytics at Work: New Tools for Corporate and Industry Economics"
4th Annual NABE Industry Conference
16-17 June 2015
Federal Reserve Bank of Boston
Boston, MA
www.nabe.com

PET Value Chain North America
18-19 June 2015
Charlotte, NC
www.icisconference.com/petnorthamerica

FOR MORE INFORMATION

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Note on the color codes: The banner colors represent observations about the current conditions in the overall economy and the business of chemistry. For the overall economy we keep a running tab of 20 indicators. The banner color for the macroeconomic section is determined as follows:

*Green – 13 or more positives
Yellow – between 8 and 12 positives
Red – 7 or fewer positives*

For the chemical industry, there are fewer indicators available. As a result we rely upon judgment whether production in the industry (defined as chemicals excluding pharmaceuticals) has increased or decreased three consecutive months).

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