Weekly Chemistry and Economic Trends

ACC Economics & Statistics
11 December 2015

Macroeconomic Status

Our running tab of positive indicators for the macroeconomic status was 13 out of 20 this week. Thus, we continue to post a green banner.

Consumer Credit ▲0.5%; ▲6.4% Y/Y
Small Business Optimism ▼ 1.3 points to 94.8
Retail Sales ▲0.2%; ▲1.4% Y/Y
Wholesale Trade –flat–; ▼ 3.7% Y/Y
Import Prices ▼ 0.4%; ▼ 9.4% Y/Y
Producer Prices ▲ 0.3%; ▼ 1.1% Y/Y
World Semiconductor Sales ▲ 1.9%; ▼ 2.5%; Y/Y
OECD CLI+6 ▲ 0.1%; ▲ 2.8% Y/Y

The economic reports this week were mixed at best. Consumers dialed back their credit card use in October, but this may have been temporary as the latest retail sales report indicates. Sales at the wholesale level were flat and inventories barely moved. Import and producer prices remain weak. Moreover, small business optimism faded as expectations for an improving economy weakened.

Turning overseas, OECD CLIs point to stable growth momentum in Canada and Japan as well as in the Euro area as a whole. The CLIs for the United Kingdom and the United States show a loss of growth momentum, albeit from relatively high levels. Amongst the major emerging economies, tentative signs of stabilization are emerging in China as well as in Brazil, while firming growth is anticipated in India. In Russia the outlook continues to be for weak growth momentum. The decline in oil prices over the last 18 months has reflected oversupply but weak demand unfortunately is playing a role. Commodity prices are often good coincident indicators of economic activity.

Business of Chemistry Status

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

Oil ▼ $39.12 (Thursday)
Natural Gas ▼ $1.91 (Thursday)
Railcar Loadings ▲ 5,774 from a week ago; ▲ 0.1% Y/Y (13-week moving average)
New Chemical Investment ▲ $158 billion; 261 projects

Turning to chemistry, our current list of chemical industry projects totals 261 projects, representing cumulative capital investments totaling $158 billion in the U.S. Fully 64% of this is foreign direct investment. Sales of chemicals at the wholesale level slipped in October following a gain the previous month. Inventories edged lower but as sales fell faster than inventories, the inventories-to-sales ratio rose to 1.23, up from 1.10 a year ago. Recent trends in railcar loadings show anemic activity.

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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, the 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 monthly. To receive a copy of the list by email, send an email to heather_rose@americanchemistry.com

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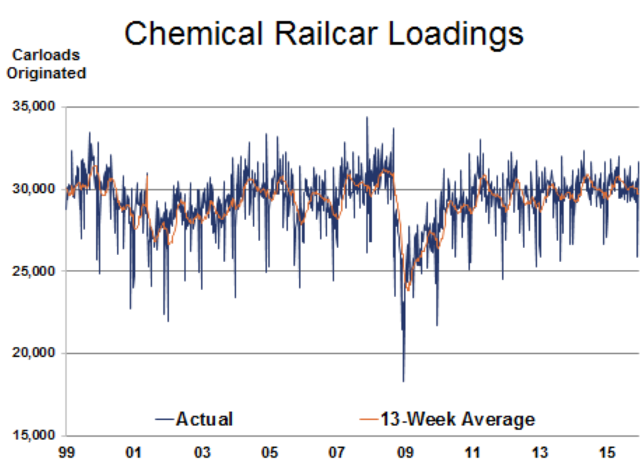
CHEMICAL RAILCAR LOADINGS

The railcar loadings data are the best 'real time' indicator of chemical industry activity. According to the Association of American Railroads, for the week ending 5 December (week 48), railcar loadings of chemicals (blue line) rose 5,774 from last week – more than making up for the drop over Thanksgiving week - to 31,693 railcars. Loadings down slightly (0.1%) Y/Y, up 0.4% YTD, and have been on the rise for 6 of the last 13 weeks. The 13-week moving average, which is used to smooth out irregularities, is up 0.1% Y/Y.

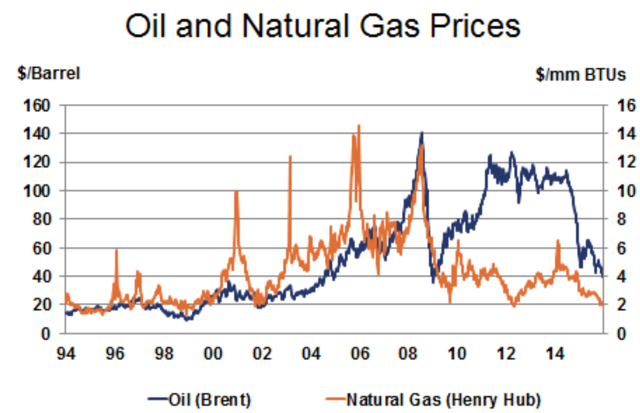


Source: Association of American Railroads

ENERGY

Natural gas inventories fell by 76 BCF during the week ending 4 December according to the Energy Information Administration (EIA). The above average withdrawal lowered inventories to 3,880 BCF, 15.3% above this time last year and 6.5% above the five-year average. Inventories remain above the five-year historical range.

With continued strong supply and a weak global economy, **oil prices** fell to $39.12 per barrel yesterday (Thursday). A year ago, oil was $63.32 per barrel. Thus, recent prices represent a 38.2% Y/Y decline. With mild weather in much of the nation, **natural gas prices** (the benchmark Henry Hub), closed at $1.91 per million BTUs on Thursday, down from $2.14 last Thursday. A year ago, the price was $3.65 per million BTUs. Thus, recent prices represent a 47.7% Y/Y decline.

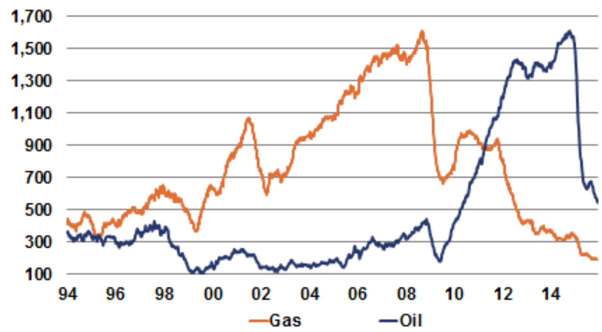


Source: Energy Information Administration

At 20.5, the ratio of oil prices to natural gas improved from 19.6 a week ago. One year ago, the ratio was 17.3. 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.

According to Baker-Hughes, for the week ending 4 December the North American **natural gas rig count** rose by three to 192 rigs. One year ago the rig count was 344 rigs. During the same week, the **oil rig count** fell by 10 to 545 rigs. One year ago the rig count was 1,575 rigs.

Oil and Natural Gas Rig Count

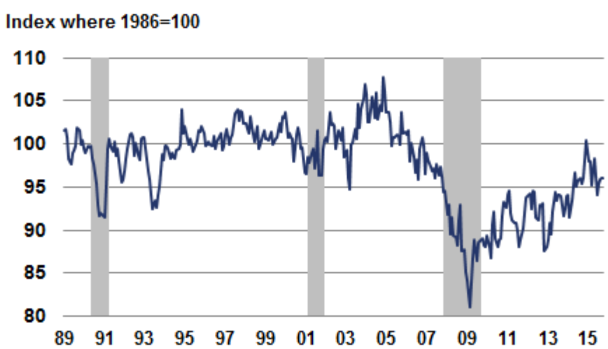


Source: Baker-Hughes

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.

Consumers dialed back their credit card use during October according to the Federal Reserve. While total non-mortgage **consumer debt** rose by 0.5% (a 5.5% annual rate), the increase was driven primarily by the accumulation of non-revolving debt (i.e., car loans, student loans, etc.). Revolving debt (i.e., credit cards) was nearly flat following a surge in September. Compared to a year ago, debt was up 6.4% Y/Y.

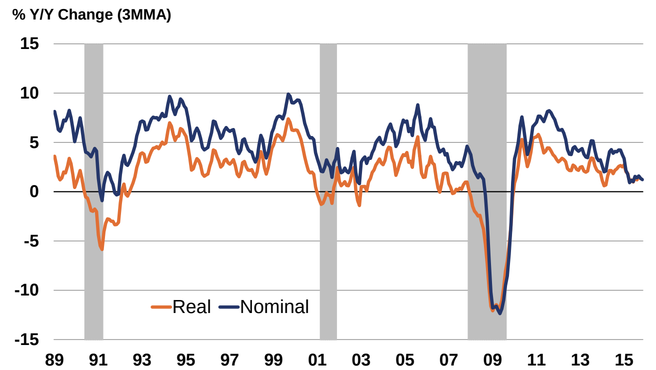
Small Business Optimism



Source: National Federation of Independent Businesses

The National Federation of Small Business (NFIB) reported that its index of **Small Business Optimism** fell 1.3 points in November to 94.8. This follows three stagnant months. Expectations for an improving economy weakened and the net percentage of respondents with increasing inventories fell, suggesting that inventory liquidation will weigh on economic growth this quarter. The net percentage of respondents planning to increase employee compensation rose to 20%, the highest since 2001 and suggesting a tightening job market.

Retail Sales

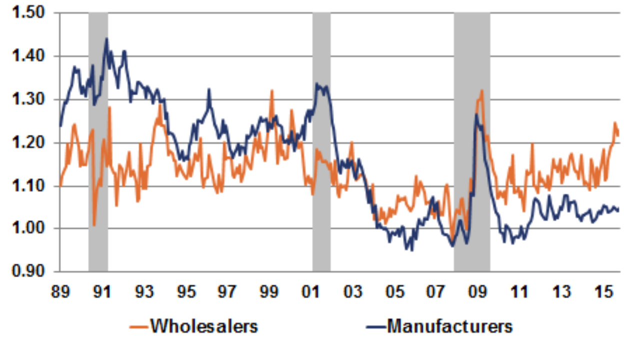


Source: Census Bureau Note: excludes food service and drinking place sales

The holiday spending season got off to a good start in November, according to the Census Bureau. **Retail sales** grew by 0.2%, slightly lower than expected, but excluding declining sales of motor vehicles and parts, retail sales were up by 0.4%. With few exceptions (building materials, furniture, and gas station sales), sales were higher in other categories. Strong gains were posted in clothing stores, sports & hobby stores, general merchandise stores, and nonstore retailers (which includes online retail platforms). Restaurant sales also continued to post strong gains. Compared to a year ago, headline retail sales were up 1.4% Y/Y. This suggests some momentum in consumer spending going into the end of the year.

Sales at the wholesale level flattened out in October according to the Census Bureau. **Wholesale trade** was essentially unchanged following a 0.5% gain in September. Inventories, however, edged lower by 0.1%, following a 0.2% increase in September. As a result, the inventories-to-sales ratio remained steady at 1.31, up from 1.22 a year ago. Compared to last year, inventories were up 3.6% Y/Y while sales were off 3.7% Y/Y. The imbalance remains.

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

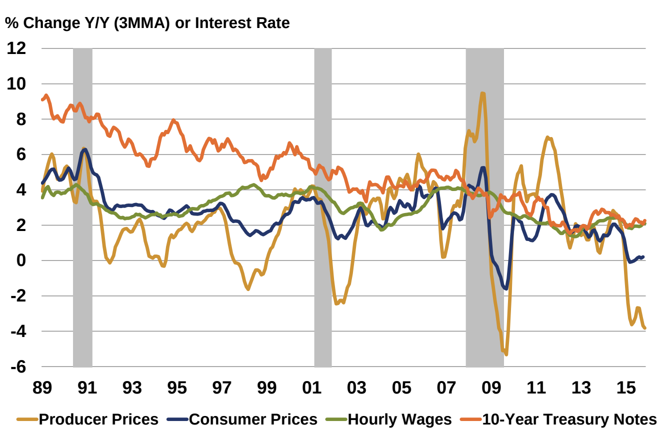


Source: Bureau of the Census

Turning to chemistry, sales of chemicals at the wholesale level slipped by 1.3% in October following a 0.4% gain the previous month. Inventories edged lower by 0.1% following a 2.0% decline in September. As sales fell faster than inventories, the inventories-to-sales ratio rose to 1.23, up from 1.10 a year ago.

The Bureau of Labor Statistics (BLS) reported that **import prices** fell 0.4% in November following a 0.3% decline in October. A large 2.5% decrease in imported fuel prices drove the November decline in overall import prices. Lower prices for nonfuel industrial supplies and materials; foods, feeds, and beverages; capital goods; and automotive vehicles all factored into a decline in non-fuel import prices. U.S. export prices declined 0.6% in November, after a 0.2% decrease the previous month. *Import prices for chemistry fell 0.3% during November. With higher fertilizer prices and stable imported pharmaceutical prices, there was weakness in inorganic, organic and other chemistry. During November, export prices for all chemistry fell 0.4%, with a gain in pharmaceutical prices offset by weakness elsewhere. Import prices were off 4.4% Y/Y and export prices were off 5.3% Y/Y.*

Inflation and Interest Rates



Source: Bureau of Labor Statistics, Federal Reserve

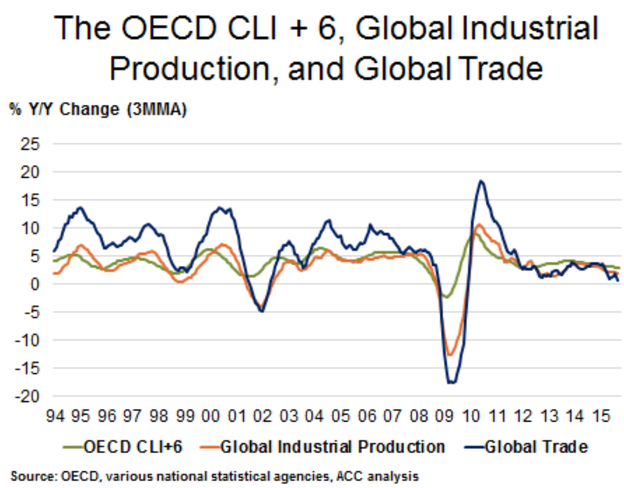
Higher prices for services pushed headline **producer prices** up during November, according to the Bureau of Labor Statistics. Producer prices for final demand rose 0.3%, following a 0.4% decline in October. Prices for final demand goods eased by 0.1% as lower energy prices were partially offset by higher prices for foods (including eggs and melons). Excluding the volatile food and energy components, core producer prices were lower by 0.1% and have not risen since June. Compared to a year ago, core producer prices were ahead by 0.4% Y/Y while headline final demand prices were down 1.1% Y/Y, the 10th consecutive Y/Y decline.

Producer Prices (% change Y/Y using 3MMA*)	Aug 15	Sep 15	Oct 15	Nov 15
Feedstocks	-50.2	-54.0	-54.0	-53.0
Total Chemistry	-1.3	-1.9	-2.2	-2.2
Pharmaceuticals	7.8	7.5	7.1	7.1
Total Chemistry, excl. Pharma.	-6.8	-7.5	-7.8	-7.8
Agricultural Chemicals	-2.1	-1.9	-2.3	-2.6
Consumer Products	0.6	0.4	0.3	0.3
Basic & Specialty Chemicals	-5.7	-6.3	-6.5	-6.7
Basic Chemicals	-7.2	-8.0	-8.2	-8.3
Inorganic Chemicals	0.3	-1.4	-1.8	-1.9
Petrochemicals & Organic Chemicals	-10.2	-10.1	-9.4	-9.1
Plastic Resins	-8.5	-10.5	-12.3	-13.3
Synthetic Rubber	-11.7	-11.6	-11.9	-12.0
Manufactured Fibers	-5.5	-5.9	-6.3	-6.2
Specialty Chemicals	-0.7	-0.7	-1.0	-1.3
Coatings	-1.1	-1.3	-1.5	-1.7
Other Specialties	-0.5	-0.5	-0.7	-1.1

Source: Bureau of Labor Statistics, ACC analysis

Turning to the business of chemistry, overall prices fell 0.2% in November. This follows a 0.2% decline in October and a 0.9% decline in in September. During November, prices for pharmaceuticals rose 0.2% and, as a result, prices for other chemistry (excluding pharmaceuticals) fell 0.4%. This follows a 0.6% decline in October and a 1.2% decline in September. During November, prices for basic chemicals fell 0.6% with weakness across-the-board in inorganic chemicals, petrochemicals & organic chemicals, plastic resins, synthetic rubber, and manufactured fibers. Specialty chemical prices were flat as were agricultural chemical and consumer products prices. Compared to last year, headline chemistry prices were off 2.2% Y/Y on a 3MMA basis. Basic chemical prices were off 8.3% Y/Y. Bulk petrochemical and organics were off 9.1% Y/Y and inorganic chemicals were off 1.9% Y/Y. Plastic resins prices were off 13.3% Y/Y, synthetic rubber prices were off 12.0% Y/Y and manufactured fibers were off 6.2% Y/Y. Specialty chemical prices were off 1.3% Y/Y compared to a year ago.

The Semiconductor Industry Association (SIA) reported that **global semiconductor sales** increased 1.9% to $29.0 billion in October. Regionally, sales were up compared to last month in the Americas (+3.9%), China (+1.6%), Europe (+1.2%), Japan (+0.4%), and Asia Pacific/All Other (+1.7%). Compared to a year ago, sales increased 5.7% Y/Y in China but decreased in Asia Pacific/All Other (-2.4% Y/Y), the Americas (-5.6% Y/Y), Europe (-9.4% Y/Y) and Japan (-10.5% Y/Y). This report suggests signs of stabilization and an expectation that semiconductor sales will increase in the near term. THE SIA released its fall forecast and now expects global sales to advance just 0.2% this year, and grow 1.4% in 2016 and then accelerate to a 3.1% gain in 2017. *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.*



The Organization for Economic Co-operation and Development (OECD) released its **composite leading indicator** (CLI) for October and the data points to stable growth momentum is anticipated in Canada and Japan as well as in the Euro area as a whole. The CLIs for the United Kingdom and the United States show a loss of growth momentum, albeit from relatively high levels. Amongst the major emerging economies, tentative signs of stabilization are emerging in China as well as in Brazil, while firming growth is anticipated in India. In Russia the outlook continues to be for weak growth momentum. The CLIs are designed to anticipate turning points in economic activity relative to trend, show signs of a moderating growth outlook in most major economies. The CLI for the OECD+6 is a good leading indicator for global economic activity as it includes major emerging economies. The CLI+6 rose 0.1% in October and up 2.8% Y/Y on a 3MMA basis. The year-earlier comparisons have softened since early-2014.

NEXT WEEK

Economic reports released next week include business inventories, consumer prices, housing starts, building permits, industrial production, capacity utilization, Philly Fed survey, and the index of leading economic indicators.

UPCOMING EVENTS OF INTEREST

"The Chemical Industry Outlook and the Role of M&A"
Joseph L. Coote (Managing Director, Alvarez & Marsal, Inc.)
Société de Chemie Industrielle
16 December, 2015
Yale Club of New York
www.societe.org

FOR MORE INFORMATION

For ACC members, our section of the members-only extranet, MemberExchange, contains a plethora of data, economic analyses, presentations, outlooks, weekly economic updates, and much more. You can access frequently updated data files (which provide the most recent and historical data for the business of chemistry - including trade data) as well as the economic data that enable you to track worldwide industry trends, follow developments as they unfold and gain insight into the long-term outlook. These include the indicators covered in this weekly report. To request access to the site, go to: https://memberexchange.americanchemistry.com, and select "Economics and Statistics," and complete the registration process.

In addition to this weekly newsletter, ACC offers monthly, semi-annual and annual economic data publications that enable users to track worldwide industry trends, follow developments as they unfold and gain insight into the long-term outlook. These products contain comprehensive statistics and analyses that cover worldwide production, trade, shipments, inventories, price indices, energy, employment, investment, R&D, EH&S, financial performance measures, macroeconomic data, plus MUCH more. To order, call 301-617-7824 or visit ACC online at http://americanchemistry.com/thestore.

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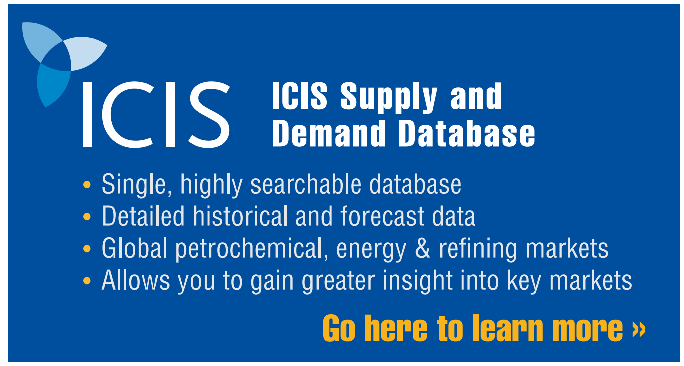
Note on the color codes: The banner colors represent observations about the current conditions in the overall economy and the business of chemistry. For the overall economy we keep a running tab of 20 indicators. The banner color for the macroeconomic section is determined as follows:

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).

ECON & STATS DEPARTMENT RESOURCES



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