MarketBriefing

2017 Issue 8 News from the month of July 2017

BOSCH
Invented for life

Bosch
Dremel
RotoZip
Vermont American
CST/berger
freud
Sia

U.S. Economy pages 2-4

Consumer Confidence Rises to 121.1
Consumer Spending Rises 0.1%
Consumer Prices Unchanged
Unemployment Drops to 4.3%
Durable Goods Orders Rise 6.5%
Chicago PMI Drops
Wholesale Prices Rise 0.1%
Q2 GDP Rises 2.6%

Housing & Construction pages 4-5

Housing Starts Rise 8.3%
- NE 83.7%, MW 22.0%, W 1.6%, S −3.8%
- Single-family starts 6.3%

Building Permits Rise 7.4%
- NE −13.9%, MW 19.7%, W 9.9%, S 6.9%
- Single-family permits 4.1%

New-Home Sales Rise 0.8%
- NE unchanged, MW 10.0%, W 12.5%, S −6.1%

Existing Home Sales Drop 1.8%
- NE −2.6%, MW 3.1%, W −0.8%, S −4.7%
- Single-family sales −2.0%

Builder Confidence Drops to 64
Mortgage Rates Rise Slightly

Power Tool Industry pages 5-6

Stanley Black & Decker
- Q2 revenue rises 10%; Tools & Storage sales up 17%
- From their Q2 conference call with analysts

Trimble
- From the William Blair Growth Conference

Retail pages 6-10

Retail Sales Fall 0.2%
Favorite Home Improvement Retailers

The Home Depot
- Acquires Compact Power Equipment

Lowe's
- Maintenance Supply Headquarters impact

Walmart
- Upgraded based on competitiveness with Amazon
- Proposes policy actions to boost manufacturing

Sears
- Starts selling Kenmore on Amazon
- Suitors for Sears Canada

Ace Hardware
- Extra Mile promise

True Value
- Explores options, considers a sale

W.W. Grainger
- Q2 sales rise 2%; U.S. sales rise 1%

Amazon
- Q2 sales rise 24.8%
- Prime Day sets new record
- Hosts huge job fair

Market Trends pages 10-13

3D Printer Creates Building
Drones in Construction
Pop Up Building
Boomers Still Rule
Economic Recovery Uneven
Worldwide Ecommerce Sales Growth
Millennial Spending Habits
Insights about Artificial Intelligence
Retailers to Increase Use of AI

Robert Bosch Tool Corporation
1800 W Central Rd
Mount Prospect, IL
60056 USA
www.boschtools.com

U.S. ECONOMY

EXCHANGE RATES JULY 31, 2017

Euro	1 Euro = $1.173	$1.00 = 0.852 Euros
Canadian Dollar	1 CAD = $0.802	$1.00 = 1.246 CAD
Japanese Yen	1 Yen = $0.009	$1.00 = 110.598 Yen
Chinese Yuan	1 Yuan = $0.149	$1.00 = 6.729 Yuan
Mexican Peso	1 Peso = $0.056	$1.00 = 17.802 Pesos

MARKET WATCH JULY 31, 2017

DOW	21,891	2.5%
NASDAQ	6,348	3.4%
S&P 500	2,470	1.9%

All three indexes posted gains for the month, with the DOW closing at a new record high on the 31st. The markets shrugged off the latest rounds of upheaval in the Trump administration as well as concerns over North Korea, focusing instead on good corporate earnings and solid GDP. The DOW rose 2.5% in July to close at 21,891, the tech-heavy NASDAQ rose 3.4% to close at 6,348 and the S&P, the index most closely followed by economists, rose 1.9% for the month, closing at 2,470.

CONSUMER CONFIDENCE RISES TO 121.1

The New York-based Conference Board's Consumer Confidence Index rose to 121.1 in July after June's reading was revised to show a slight decline to 117.3. The Present Situation Index continued to climb, rising to a 16-year high of 147.8 from a downwardly revised 143.9. The Expectations Index rose to 103.3 from a downwardly revised 99.6 in June. The Expectations Index is typically the most volatile of all the components. The Conference Board said that most consumers expect the economic expansion to continue into the second half of the year. Economists say a level of 90 indicates that the economy is on solid footing and a level of 100 or more indicates growth. Analysts caution that the real driver behind consumer spending is income growth and that labor market trends are a more accurate predictor of consumer behavior.

CONSUMER SPENDING RISES 0.1%

Consumer spending inched up 0.1% in June after rising an upwardly revised 0.2% in May. It was the weakest showing since spending increased a similar 0.1% in February. The personal consumption expenditures index (PCE) was flat in June after falling 0.1% in May and was up 1.4% year over year. It was the smallest 12-month gain since last September and showed that inflation is continuing to fall farther from the Fed's target of 2%. Income growth slowed because of declines in dividend and interest payments and other investment income. The key category of wages and salaries actually rose a solid 0.4% in June, reflecting strong employment growth during the month. The personal savings rate slipped to 3.8% of after-tax income, down from 3.9% in May. Consumer spending is closely watched by economists because it accounts for 70% of U.S. economic activity.

CONSUMER PRICES UNCHANGED

The Consumer Price Index (CPI) was unchanged in June after falling 0.1% in May. The CPI was up 1.9% from June 2016, the third consecutive month in which year-over-year gains have eased. Core inflation, which excludes food and energy, rose 0.1% for the third consecutive month and was up 1.6% year over year. Core inflation has consistently been below the Fed's target of 2%. Fed Chairman Janet Yellen told Congress that the Fed believes that the recent lower readings on inflation are partly the result of a few unusual reductions in certain categories of prices.

UNEMPLOYMENT FALLS TO 4.3%

The unemployment rate fell to a 16-year low of 4.3% in July and the economy added 209,000 new jobs, above expectations of 180,000. It was the second consecutive month of robust job growth and underscored the resilience of the economy. However, growth in paychecks remains stubbornly slow. Average hourly pay rose 2.5% from July 2016, well below the 3.5% to 4% rate that is typical when the unemployment rate is this low. Hiring in construction has averaged 9,000 per month over the past three months. Fed Chair Janet Yellen has said that the economy needs to create just under 100,000 jobs a month to keep up with growth in the working-age population. Fed Chair Janet Yellen has said that the economy needs to create just under 100,000 jobs a month to keep up with growth in the working-age population.

DURABLE GOODS ORDERS JUMP 6.5%

Durable goods orders jumped 6.5% in June after falling 1.1% in May. The big jump was primarily due to civilian aircraft orders more than doubling from May. Orders for machinery and primary and fabricated metals were also all positive. Shipments of non-defense capital goods excluding aircraft, which factor into GDP, rose 0.2%, slightly below expectations. Orders of core capital goods fell 0.1% in June, but figures for May were revised up to a 0.7% increase from the 0.2% initially reported. The durable goods report is often both volatile and subject to sharp revisions.

CHICAGO PMI DROPS TO 58.9

The Chicago Purchasing Managers' Index (PMI) dropped to 58.9 in July after surging to 65.7 in June, ending five consecutive monthly increases in the index. Despite the retreat, all components remained above their respective 12-month averages. New Orders fell by 11.6 points to 60.3, the lowest level since February. Production fell 6.9 points to 60.8, the lowest level since April. Order Backlogs dropped 4.9 points from June's 23-year high to 57.9 in July. Prices Paid rose 3.4 points to 60.9, the highest level in three months. MNI Indicators said that despite the retreat, key indicators remain high and point to robust business confidence. More than 70% of PMI panelists answering the month's special question reported that they had increased employees' wages over the past year.

WHOLESALE PRICES RISE 0.1%

The Producer Price Index (PPI) rose 0.1% in June after remaining flat in May and was up 2.0% over the past twelve months. Energy prices fell 0.5% in June, reflecting lower costs of natural gas and gasoline, as crude oil prices have headed down. Core inflation, which excludes volatile food, energy and trade services prices, rose 0.2% in June after falling 0.1% in May and was up 2.0% from May 2016. The PPI for inputs to construction was up 3.2% year over year. Analysts note that prices further back in the pipeline are mixed and expect inflation to remain tame for the foreseeable future.

Q2 GDP RISES 2.6%

GDP grew 2.6% in the second quarter, slightly below expectations of 2.7% growth, but up substantially from 1.4% growth in the first quarter, according to the Commerce Department's first estimate. Consumer spending rose 2.8% for the quarter, an improvement from 1.9% in the first quarter. Consumers spent more on both goods and services, a possible reflection of improving consumer confidence and a more positive outlook for the economy. Business spending remained strong, with corporate spending on nonresidential fixed investment rising 5.2%. Although a decline from the first quarter's 7.2%, it was still one of the best readings since 2014. U.S. exports expanded faster than imports, so trade made a small contribution to growth. Government spending rose, led by a big jump in federal military spending. State and local government spending fell. Spending on home building and improvements was the biggest drag on GDP for the quarter, with residential fixed investment falling 6.8%, the sharpest decline since 2010. A small decline in business inventories shaved 0.02% off GDP. Inflation eased, with the price index for personal consumption expenditures (PCE), the Fed's preferred inflation gauge, rising 0.3%. Core prices, which exclude volatile food and energy costs, rose 0.9%.

JOB OPENINGS FALL

The number of job openings fell by 301,000 in May after rising to the second-highest level on record in April, which was revised down slightly to 5.97 million from 6.04 million, according to the latest Jobs Openings and Labor Turnover Survey (JOLTS). Every industry except arts & entertainment saw hiring increase in May. Quits rose across all industries and the quits rate returned to its cycle-high of 2.2% after falling in April. Coupled with increased hiring across almost all sectors, the broad-based increase in the quits rate should indicate wage gains ahead. For most of JOLTS history, the number of hires has exceeded the number of job openings, but since January 2015 this relationship has reversed, with job openings outnumbering hires in most months. A rising quits rate generally leads to faster wage growth. The JOLTS report is one of Fed Chair Janet Yellen's preferred economic indicators.

FED LEAVES INTEREST RATES UNCHANGED

The Federal Reserve kept interest rates unchanged in a range of 1.0% to 1.25% when the Open Market Committee met in July. The Fed expects to start winding down its massive holdings of bonds "relatively soon," which is a sign of confidence in the U.S. economy. Looking ahead, the FOMC sees inflation remaining somewhat below 2% in the near term, but eventually stabilizing around 2%.

HOUSING & CONSTRUCTION

HOUSING STARTS RISE 8.3%

Housing starts rose 8.3% in June to a seasonally adjusted annual rate of 1.22 million units after falling to 1.09 million units in May, breaking a string of three consecutive monthly declines in starts. **Single-family starts bounced back, rising 6.3%** to a seasonally adjusted annual rate of 849,000 units after dropping to 799,000 units in May. Multifamily starts also recovered, rising 13.3% to 366,000 units after falling to 289,000 units in May. **Regional starts were mixed.** Starts rose 87.3% in the Northeast, 22.0% in the Midwest and 1.6% in the West. Starts fell 3.8% in the South, the nation's largest housing market. Wells Fargo noted that the increase in starts was widely expected and that the decline in starts in May was due to unusual seasonal factors that have now played themselves out.

BUILDING PERMITS RISE 7.4%

Building permits rose 7.4% in June to a seasonally adjusted annual rate of 1.25 million units after falling to 1.17 million units in May. **Single-family permits rose 4.1%** to 811,000 units and multifamily permits jumped 13.9% to 443,000 units. **Regional permit issuance was mixed.** Permits rose 19.7% in the Midwest, 9.9% in the West and 6.9% in the South. Permits fell 13.9% in the Northeast.

NEW-HOME SALES RISE 0.8%

Sales of newly built, single-family homes rose 0.8% in June to a seasonally adjusted annual rate of 610,000 units from a downwardly revised reading in May. New home sales have risen 11% so far this year. NAHB expects further gains throughout the remainder of the year as the labor market continues to strengthen. The inventory of new homes for sale rose slightly to 272,000 in June, a 5.4-month supply at the current sales pace, up slightly from a 5.3-month supply in May. Sales continue to be held back by shortages in inventory, lots and labor and rising costs for building materials. **Regional sales were mixed.** New home sales rose 12.5% in the West and 10.0% in the Midwest. Sales were unchanged in the Northeast and fell 6.1% in the South. The median price of a new home fell 4.2% in June, reflecting a shift toward lower priced homes and an increase in first-time buyers. Sales of new homes are tabulated when contracts are signed and are considered a more timely barometer of the housing market than purchases of previously-owned homes, which are calculated when a contract closes.

EXISTING HOME SALES DROP 1.8%

Existing home sales dropped 1.8% in June to a seasonally adjusted annual rate of 5.52 million from 5.62 million in May. Sales were 0.7% above June 2016. **Single-family home sales fell 2.0% in June** to a seasonally adjusted annual rate of 4.88 million from 4.98 million in May but remained 0.6% above the pace a year ago. Total housing inventory at the end of June dropped 0.5% to 1.96 million existing homes available for sale, 7.1% below a year ago. Inventory has now fallen year over year for 25 consecutive months. Unsold inventory is at a 4.3-month supply at the current sales pace, down from 4.6 months a year ago. **Regional sales were mixed.** Sales rose 3.1% in the Midwest. Sales fell 2.6% in the Northeast, 4.7% in the South and 0.8% in the West. Homes are selling very quickly, with the typical listing on the market for just 28 days. Low supplies, affordability and tight credit have kept the percentage of first-time buyers around 32%, down from 35% in 2016.

BUILDER CONFIDENCE DROPS TO 64

Builder confidence fell two points to 64 after falling to a downwardly revised score of 67 in June, according to the HMI (National Association of Home Builders/Wells Fargo Housing Market Index). Despite the second consecutive monthly decline, the HMI remains firmly in positive territory. All three HMI components posted losses in June but two out of three remained at healthy levels. The component gauging current sales conditions fell two points to 70, the index charting sales expectations in the next six months dropped two points to 73 and the component measuring buyer traffic fell one point to 48; it was the only component below 50, the level that indicates improving confidence. The three-month moving averages for regional HMI scores were mixed, with the Northeast rising one point to 47, while the West and Midwest each fell one point, to 75 and 66, respectively. The South dropped three points to 67. Builders are growing increasingly concerned over rising prices for building materials, particularly lumber. Lumber prices are up around 17% from the recent cycle low registered in late June. Consumer interest in the new-home market remains strong, according to the NAHB.

MORTGAGE RATES RISE SLIGHTLY

The 30-year mortgage rate rose to 3.92% at the end of July after rising to 3.88% at the end of June. In July of last year 30-year rates averaged 3.48%. Mortgage rates have been volatile of late, swinging along with yields on the 10-Year Treasury Bond.

POWER TOOL INDUSTRY

STANLEY BLACK & DECKER

Q2 revenue rose 10% to $3.2 billion. Net sales rose 17% in the Tools & Storage segment, and organic growth in Tools & Storage was 8%. Their recent acquisitions of Newell Tools and the Craftsman brand added 7 points of revenue growth.

From their Q2 Conference Call with Analysts:

Their Tools business is greatly exceeding their expectations, and the integration of Newell Tools and Craftsman is going well.

Tools & Storage revenues were up 17% in the quarter, due to 8% organic growth and an 11-point contribution from acquisitions, partially offset by 2 points of pressure from the combined impact of currency and divestitures.

Each Tools & Storage region posted organic growth in the quarter, with North America leading the way with 9% organic growth. There was high single-digit growth in their U.S. industrial and commercial channels and low double-digit growth within U.S. retail, which includes ecommerce.

North American POS data was up in the mid-single digits, which was very strong because it was being comped against mid-teen POS growth from Q2 2016.

The power tools and equipment group was up 10%, led by professional power tools as well as contributions from the outdoor and home products segment. Within the Tools & Storage SBUs, all lines were positive for the quarter. Tools & Storage also benefitted from new product innovation, including FlexVolt and strong commercial execution.

FlexVolt sales were approximately $60 million for the quarter. Based on year-to-date results and planned second half FlexVolt product launches they believe they will approach $300 million in revenue from FlexVolt in 2017. When factoring in cannibalization, that represents $200 million of SB&D revenue or $100 million of growth compared to 2016. FlexVolt margins will be a little bit lower than line average throughout this year. They expect that dynamic to change as volume increases and they have less promotional activity.

They noted there has been no answer in the market to FlexVolt yet. They are building an install base, which lays the foundation for future growth and expansion. They believe that sooner or later a competitor will come out with a similar product.

Hand tools, accessories and storage organization delivered 5% growth on new product introductions and benefitted from strong performance in the North American industrial end markets, led by the Mac Tools business.

The Lennox and Irwin teams are excited to be part of a larger and highly committed tool business. Their commercial teams are in the process of building plants to support revenue synergies.

For Craftsman, they are working to develop commercial strategies and are confident they will achieve approximately $100 million a year in incremental annual revenue growth for the foreseeable future. They are planning for a mid-2018 launch of Craftsman outside of Sears. They have started a new distribution center in Charlotte, North Carolina and are aggressively moving supply and customer fulfillment into the new facility to support the Craftsman business.

They didn't want to go into too much detail about their Craftsman plans, but said that they are designing a complete and comprehensive product line that spans all categories that will be a high-quality, high-value line and will incorporate some of the best attributes of their high-value products from across all their brands into the designs. Customer discussions are going very well and interest is very high. They will make some decisions about how they expect to go to market from a channel perspective in the late third or early fourth quarter.

They expect to improve their working capital turns in the second half of the year, from 7.1 to 9 times by the end of the year.

They are anticipating a combined commodity inflation and FX headwind of about $100 to $105 million. Currency pressures have fallen since the first quarter but they are seeing increased pressures in commodities, particularly steel and some purchased components.

They are starting to get more heavily into industry 4.0, which involves creating smart factories and then embellishing them with robotics and 3D printing. They are not yet at the robotics and 3D printing phases, but are definitely making a lot of progress in making the factories more data-driven in real time, and are seeing above average productivity.

TRIMBLE

From the William Blair Growth Conference:

They have organic top line growth of more than 6.5%. They have divested themselves of seven smaller businesses with the last year and a half.

They have been very active over the past few years in Building Information Modeling (BIM). This is not about design, it's about steel models that actually represent detail down to the level of an anchor bolt for accuracy. They work with the high-value trade in the vertical construction industry.

Both the building and infrastructure segments are underserved and underpenetrated by technology; they look for markets where they can deliver a value proposition that drives productivity. They described construction as a very unproductive industry. About 80% of projects are late, and between 20% and 40% are over budget. They believe they have the technology that can challenge the industry. They manage more than 11 million models and components in their solutions.

They have two joint ventures with Caterpillar and one with Hilti. In North America more than 10,000 surveyors and mapping firms use their technology.

RETAIL

RETAIL SALES FALL 0.2%

Retail sales fell 0.2% in June after dropping 0.3% in May. It was the first back-to-back sales decline since last July and August. Overall retail sales for the first six months were up 3.9% compared to the first six months of 2016. Much of the decline came from dropping gasoline sales, but grocery, restaurants and department store sales were also down. Core retail sales, which exclude auto sales, gas and building materials, and factor into GDP, fell 0.1% in June after being flat in May. Sales at building materials and garden equipment and supplies dealers rose 0.5% in June after declining a downwardly revised 0.6% in May. Sales at non-store retailers, which include internet sales as well as catalog sales, rose 0.4% in June after rising 0.8% in May and were up 9.2% year over year. Retail sales account for one-third of all consumer spending, with services making up the other two-thirds.

FAVORITE HOME IMPROVEMENT RETAILERS

Ace Hardware earned the top spot with a composite loyalty score of 63% in a recent study by Market Force Information that polled more than 7,800 consumers. Menards ranked second with a score of 63%, followed by Lowe's (55%) and The Home Depot (51%). In order to be included in the category, a traditional home improvement brand must have been selected by 100 or more respondents representing 2% or more of the total. Based on that criteria, only Ace, Menards, Lowe's and The Home Depot qualified. Market Force also looked at how the top brands fared in operational and product attributes that matter most to consumers. Ace Hardware ranked first in most categories, with particularly strong marks for ease of finding merchandise, staff service and knowledge and speedy checkouts. Menards scored highest for merchandise variety and value. Lowe's earned the top spot for parking availability. The Home Depot ranked last in all service categories, as well as in cleanliness and value. The research revealed that 60% of respondents considered themselves DIY Enthusiasts, who purchased the materials and products themselves and completed their own home improvement projects. Approximately 22% fell into the "do it for me" group that purchases materials and products but outsources labor. Other findings:

Most Popular App: Home Depot, with 45% using it, followed by Lowe's, Walmart, Ikea and Menards. Apps were used by 18% of consumers. Almost all (93%) users said the app was helpful.

Loyalty Programs: one-fifth reported participating in a loyalty program, with Ace's program the most popular, with 67% participation. Lowe's was second, (21%), followed by Menards (11%) and The Home Depot (8%).
Credit cards: Nineteen percent had a home improvement store-branded credit card, with Lowe's (25%) the most popular, followed by The Home Depot (21%), Menards (7%) and Ace (3%).

THE HOME DEPOT

THD will acquire Compact Power Equipment for $265 million. Compact Power, a Home Depot commercial partner, has provided compact equipment rentals at more than 1,000 North American Home Depot locations since 2009 Home Depot is also an equipment maintenance customer of Compact Power. Craig Menear, CEO of THD, said that the acquisition would enable them to offer Pros enhanced equipment and tool rentals. Pros account for about 40% of The Home Depot's sales. The deal is expected to close during the fiscal second quarter, which ends July 31.

LOWE'S

Lowe's recently announced completion of their $512 million acquisition of Maintenance Supply Headquarters will strengthen their appeal to Pros and make them more competitive with rival The Home Depot, according to a recent analysis in *Forbes* magazine. MSH is a leading distributor of maintenance, repair, and operations products to the multifamily housing industry. MSH operates in 29 geographic areas through 13 distribution centers and offers more than 5,300 products and value added services for maintaining multifamily housing properties.

WALMART

Retail stocks took a beating after Amazon announced it was acquiring Whole Foods. But analysts upgraded Walmart, saying they are well positioned to handle increased technology and ecommerce spending as well as handle Amazon's push into groceries and other consumables. Goldman Sachs analyst Matt Fassler said that Walmart has visibly improved in-store execution, tightened inventory and kept pace with retail momentum after years of lagging behind.

Walmart proposed 10 policy actions to boost U.S. manufacturing and help recapture $300 billion of the $650 billion in consumer goods currently imported. WM said barriers to manufacturing growth include a lack of available and qualified workers and financing to support U.S. manufacturers, complex regulations that create high compliance costs and legal risks and the need for an overhaul of the U.S. tax system and trade deals. Walmart's proposals include building vocational training programs, reducing costs for private industry to train workers, rebranding U.S. manufacturing to attract workers and drive demand for domestic products, encouraging component production to close supply chain gaps and promoting manufacturing clusters through public-private cooperation. Other proposals include eliminating federal overlap in manufacturing regulations, creating flexible compliance requirements for small business, creating a globally competitive tax environment and expanding tax deductions to foster manufacturing investments.

SEARS

Sears announced they will start selling Kenmore home appliances on Amazon and integrate the brand's smart gadgets with Amazon's Alexa digital assistant. While investors applauded the move, retail analysts said it was another blow for struggling Sears retail stores as well as the newly launched Sears Appliance and Mattress stores.

Rumors are flying that a buyer or buyers is interested in Sears Canada, which filed for bankruptcy June 22 and has until October 25 to complete all transactions. The short time frame suggests that an outside investors' group may be interested, according to analysts. While Amazon has been suggested as a potential suitor, retail analysts say that too much of Sears' portfolio would not appeal to Amazon, and acquiring Sears Canada for their distribution network would be logistically complex. More than 20 potential bidders have reportedly expressed interest. Sears Canada's two largest shareholders are Sears CEO Eddie Lampert and hedge fund manager Bruce Berkowitz.

ACE HARDWARE

Ace Hardware announced its Extra Mile Promise, a guarantee that Ace has the expert advice and supplies needed to help consumers successfully tackle any paint project with just one trip to the store. Ace is promising free delivery to customers who need more supplies to finish their paint project than are in stock. CEO John Venhuizen said that there is a misperception that Ace stores don't have a full range of products and consumers might have to go elsewhere to get everything they needed. The Extra Mile Promise comes after the J.D. Power 2017 U.S. Home Improvement Retailer Satisfaction Study ranked Ace highest in customer satisfaction for the 11th consecutive year.

TRUE VALUE

True Value is considering a sale and exploring strategic options, according to numerous news reports. Bloomberg says that they could be valued at $800 million. Several private equity firms are purported to be involved. True Value, headed up by CEO John Hartman, is doing well, with revenue of $1.51 billion in 2016, up more than 1% from 2015.

W.W. GRAINGER

Q2 sales rose 2% to $2.6 billion, in line with expectations. Sales were driven by an increase of 7% from volume, partially offset by declines of 3% in price, 1% from foreign exchange and 1% from the timing of the Easter holiday.

Sales for the U.S. rose 1%, driven by a 5% increase in volume and a 1% increase in intercompany sales, partially offset by a 4% drop in price and a 1% decline from the timing of the Easter holiday. Sales to customers in the Retail and Natural Resources end markets were the top performers in the quarter.

Sales for the Canada segment dropped 3% in U.S. dollars and rose 2% in local currency. The 2% increase consisted of a 2% growth in volume and a 2% benefit from the favorable comparison related to the Alberta wildfires in 2016, partially offset by a 1% decline from lower price and a 1% decline from the timing of the Easter holiday.

Grainger confirmed their 2017 sales growth estimate of 1% to 4% growth.

Senior Vice President and CFO Ron Jadin will be retiring at the end of the year. He's been with Grainger since 1998 and has been CFO since 2008. Grainger is launching an external search for a successor.

AMAZON

Q2 net sales rose 24.8% to $37.96 billion. Excluding the $502 million unfavorable impact from year-over-year changes in foreign currency exchange rates throughout the quarter, net sales increased 26% compared to the second quarter of 2016. Amazon expects third quarter growth between 20% and 28%.

Amazon's third annual Prime Day event was the biggest day ever for Amazon, with sales easily surpassing Black Friday and Cyber Monday. The most popular purchase over the 30-hour event was Amazon's Echo Dot mini-speaker, which was 30% off. The larger device, Echo, was also very popular, as were Fire tablets and Kindle e-book readers. Amazon reportedly looks at Echo and Echo dot as ways to get a toehold for their Alexa automated voice assistant to become more connected to shoppers, who can use it to buy more from Amazon, among many other things.

As is typical, Prime Day also produced a bumper crop of new Prime Members who pay $99 a year for free two-day shipping as well as music and video streaming. According to Amazon, 50% more Prime members made purchases on Prime Day than did so last year. In addition, small independent merchants sold 40 million items during Prime Day, twice as many as last year.

According to *PC Magazine,* the number of Amazon Prime members has increased 35% in the past year, from 63 million U.S. members at the end of June 2016 to 85 million today. Consumer Intelligence Research Partners (CIRP), estimates that 63% of U.S.-based Amazon customers are currently Prime members. The Prime free-shipping promise breaks down one of the primary barriers to ordering online, as there is no minimum purchase required.

Amazon is reportedly ramping up efforts to introduce a rival to Best Buy's Geek Squad. Amazon has hired teams over the past several months to help customers set up smart-home products. Services include free Alexa consultations and smart-home product installation inside customers' homes (for a fee). Services are currently available in seven West Coast markets: Seattle, Portland, San Francisco, San Diego, Los Angeles, San Jose and Orange County. A preferred qualification is work experience with Best Buy's Geek Squad. Lack of experience and know-how on the part of consumers is one of the biggest barriers to the growth of the smart-home product segment.

Amazon and Dish Network are reportedly in serious discussions, although neither company will comment. Amazon CEO Jeff Bezos and Dish CEO Charlie Ergen have spent a lot of time together over the past year, and Dish spent $6.2 billion dollars on wireless airwaves in April, leading to speculation they were working towards a merger with a wireless carrier. However, the Bezos and Ergen discussions could indicate there is potential for Dish to use their airwaves to provide support for Amazon's Internet of Things (IoT) services and devices, as well as partner on drone deliveries and stream Prime TV on Dish. Dish is legally required to build at least a bare bones network in order to comply with the government deadline of March 2020 for utilizing their airwaves.

Amazon will host what they called the nation's largest job fair in early August, opening 10 fulfillment centers across the U.S. for candidates to tour, learn about working at Amazon and see the jobs in person. Amazon has more than 50,000 jobs to fill across the U.S. for their fulfillment network. They are promising highly competitive wages, good benefits and the chance to go back to school through Amazon's Career Choice program.

Mike George retired as Amazon's vice president of Echo and Alexa. He'd been with Amazon more than 20 years. Tom Taylor will take over as vice president. He's been with Amazon for 17 years, most recently as a senior vice president in charge of Amazon Payments and Fulfillment by Amazon. Alexa is one of Amazon's fastest-growing businesses. Amazon sold seven times as many Echo devices on the most recent Prime Day as it did last year.

MARKET TRENDS

3D PRINTER CREATES BUILDING

A drone research building in Dubai is being built entirely by 3D printers in Singapore, and 3D printers are also being used to lay brick. According to Bob Wilson, Executive Director of AGC in Mississippi, with a 3D printer, you can build a wall in about a third of the time, and it is more accurate than a wall built by the best mason.

DRONES IN CONSTRUCTION

Drones can now perform dangerous operations that people used to have to do, such as hanging off the side of a building to do an inspection. The use of drones can eliminate a lot of safety concerns. They can also be used to check for leaks and cracks in walls, sewers and tunnels. Using drones instead of humans also cuts insurance costs. In addition, high-powered cameras can look behind walls to locate sewers, electrical lines and cabling without having to drill into buildings.

POP UP BUILDING

Ten Fold Engineering, a housing startup based in the UK, has created self-deploying buildings that can pop up in just eight minutes at the push of a button. The rooms fold out like an accordion, using a counterbalance system. Once the home folds out, the parts just need to be secured with an electric drill. The company says each building measures approximately 689-square-feet, and could have a variety of uses, from medical clinics to offices to camping shelters.

BOOMERS STILL RULE

Baby Boomers are still making up an oversized share of consumer spending, despite all the marketing focus on understanding millennials. In the first quarter, Americans 55 and older accounted for 41.6% of consumer spending, up from 41.2% in the fourth quarter of last year and 33.5% in early 2007, according to the Commerce Department and Moody's data. Add in spending by 53-and 54-year-olds and you have about half of all consumption. Boomers also have a higher level of discretionary spending. NPD Group says that big brands assume advertising targeted at millennials will also attract boomers trying to turn back the hands of time, but that fails to take into account the fact that older adults have different needs and distinctive spending patterns. Boomers buy fewer cars, less clothing and fewer electronics, but spend much more on services, including health care, travel and entertainment. The 90.7 million Americans 55 and older make up 28% of the population today. In 2000, the 59.3 million people in that age group comprised just 21% of U.S. residents. In addition, 38.7% of all 55-and-older Americans are employed, a share that has risen steadily from 30% in 1997. The median income of households headed by 65-to 74-year-olds rose from $31,670 in 2005 to $47,432 in 2015. Median net worth excluding home equity rose from $51,026 in 2005 to $66,047 in 2013.

ECONOMIC RECOVERY UNEVEN

Arizona, Connecticut, Mississippi, Nevada and Wyoming still have not regained their levels of GDP from before the financial crisis, more than five years after the country as a whole hit that milestone. Eight states remain below prerecession levels of employment. And in 15 states home prices have not fully recovered. In Nevada, 12.4% of homes with mortgages are still underwater. Other states with significant percentages of homes with negative equity include Florida, Illinois, New Jersey and Connecticut, according to CoreLogic. Analysts say the recession was longer and deeper in these states, and it will take longer for them to recover.

WORLDWIDE ECOMMERCE SALES GROW BY DOUBLE DIGITS

Ecommerce sales will increase 23.2% in 2017 and, for the first time, account for one-tenth of total retail sales, according to the most recent estimates from eMarketer, despite the fact that estimates for worldwide retail sales for 2016 through 2021 were slightly reduced due to foreign currencies' weak exchange rates relative to the US dollar. The retail ecommerce market, which includes products and services ordered via the internet over any device, will total $2.290 trillion in 2017.

Total retail sales will reach $22.737 trillion by the end of this year, up 5.8% from 2016, according to eMarketer, which includes sales across all retail channels in its estimates for overall retail. This includes sales from ecommerce retailers and transactions that occur over C2C platforms such as eBay and other auction sites, and sales by motor vehicle and parts dealers and by gas stations. Travel, event ticket and restaurant sales are excluded from eMarketer's forecast of retail and retail ecommerce.

Over 1.66 billion internet users ages 14 and older will purchase at least one item via any digital channel this year, up 9.4% from 2016. It's the first time growth will slip below 10%, but represents 60.2% of internet users and 26.8% of the global population.

Roughly one-quarter of digital buyers worldwide reside in North America and Western Europe. More than half of the world's digital buyers reside in the Asia-Pacific region this year. Approximately 61.7% of Asia-Pacific's internet users and 28.5% of its population will make a purchase digitally this year. With room for growth, Asia-Pacific's digital buyer audience will increase 13.2% in 2017 and continue to expand by double-digit percentages annually through 2019, accounting for the fastest rate of growth by region worldwide.

MILLENNIAL SPENDING HABITS

A recent study of millennials by GenForward found that more than one in four of those ages 18 to 34 say that they spend more than they earn. Black and Asian respondents were slightly more likely to spend more than they made, at 29% and 26% of respondents, respectively. Comparatively, 24% of Hispanics and whites each reported falling into this category. However, 45% of whites and 42% of Asians spend less than they make, as do about a third of both black and Hispanic millennials. In a Q1 2017 survey by IRI, 89% of millennials said they buy private-label brands in order to save; nearly as many respondents also tried lower-priced brands and nearly half downloaded coupons from digital deal sites.

INSIGHTS ABOUT ARTIFICIAL INTELLIGENCE

An artificial intelligence (AI) researcher at Michigan State University, Dr. Arend Hintze, recently published a paper about the future of AI, and what researchers respect and also fear about this rapidly developing technology. Dr. Hintze says that as AI designs get more and more complex and computer processors get even faster, the skills of AI devices will improve, which will lead humans to give them even more responsibility. Right now we are still in the beginning states of evolving machines that can do simple navigation tasks, make simple decisions or recall a finite amount of data. But soon there will be machines that can execute more complex tasks and have much better general intelligence. The ultimate goal is to create human-level intelligence. Which says begs the question—how do we insure that we don't create a super-intelligent generation of AI devices that no longer need humans at all? He suggests that one way is to use evolution to influence the ethics of the AI systems we create, setting up virtual environments that give evolutionary advantages to machines that demonstrate kindness, honesty and empathy, ensuring that we don't create a generation of ruthless, single-minded machines intent on wiping us out.

RETAILERS TO INCREASE USE OF AI

Retailers will rely more on technologies such as live chat, Facebook Messenger and Amazon's Alexa for customer service, according to a new research study from Linc and Brand Garage. According to the study, 87% of the 100 senior level marketing and ecommerce executives surveyed plan to increase their use of AI to serve customers going forward, even though only 7.7% have already incorporated AI as a regular part of customer service. According to the Internet Trends 2017 Report, 82% of customers stopped doing business with a company after a bad experience. At the same time, 55% of retailers report that customer service costs are rising. Rapidly rising customer expectations are causing retailers to examine how best to answer a wide range of questions quickly and correctly. To that end, 68% of retailers plan to use AI to route customer service requests, 68% will use it to help track packages, 43.5% will use AI for product suggestions and 42% want AI to handle returns and exchanges. AI will also be used to answer pre-purchase questions (39%) and for marketing (38%).