

07-Feb-2018 Olin Corp. (OLN) Q4 2017 Earnings Call

CORPORATE PARTICIPANTS

Larry P. Kromidas Director-Investor Relations & Assistant Treasurer, Olin Corp.

John E. Fischer Chairman, President and Chief Executive Officer, Olin Corp.

Todd A. Slater Chief Financial Officer & Vice President, Olin Corp. James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

Pat D. Dawson Executive Vice President & President, Epoxy and International, Olin Corp.

OTHER PARTICIPANTS

Frank J. Mitsch Analyst, Wells Fargo Securities LLC

Jason A. Freuchtel Analyst, SunTrust Robinson Humphrey, Inc.

Arun Viswanathan Analyst, RBC Capital Markets LLC

Donald David Carson Analyst, Susquehanna Financial Group LLLP

Aleksey Yefremov Analyst, Nomura Instinet

Eric B. Petrie Analyst, Citigroup Global Markets, Inc. John Roberts Analyst, UBS Securities LLC

Neel Kumar Analyst, Morgan Stanley & Co. LLC

Kevin W. McCarthy Analyst, Vertical Research Partners LLC

Matthew Blair Analyst, Tudor, Pickering, Holt & Co. Securities, Inc.

Dmitry Silversteyn Analyst, Longbow Research LLC

Steve Byrne Analyst, Bank of America Merrill Lynch

MANAGEMENT DISCUSSION SECTION

Operator: Good morning, everyone, and welcome to the Olin Corporation Fourth Quarter 2017 Earnings Conference Call. All participants will be in listen-only mode. [Operator Instructions] After today's presentation, there will be an opportunity to ask questions. [Operator Instructions] Please note that this event is being recorded.

I would now like to turn the conference over to Larry Kromidas. Olin's Director of Investor Relations. Please go ahead.

Larry P. Kromidas

Director-Investor Relations & Assistant Treasurer, Olin Corp.

Thank you, William, and good morning to everyone joining our call today. Before we begin this morning, I want to remind everyone that this presentation, along with the associated slides and the question-and-answer session following our prepared remarks, will include statements regarding estimates of future performance. Please note that these are forward-looking statements and that actual results could differ materially from those projected. Some of the factors that could cause actual results to differ from our projections are described, without limitations, in the Risk Factors section of our most recent Form 10-K and in yesterday's earnings press release.

A copy of today's transcript and slides will be available on our website in the Investors section under Calendar of Events. The earnings press release and other financial data and information are available under Press Releases.

With me this morning are John Fischer, Olin's Chairman, President and Chief Executive Officer; Pat Dawson, Executive Vice President and President, Epoxy and International; Jim Varilek, Executive Vice President and President, Chlor Alkali Products and Vinyls and Services; and Todd Slater, Vice President and Chief Financial Officer.

Now, I'd like to turn the call over to John Fischer. John?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

Good morning, and thank you for joining us today. During this morning's call, I will begin by discussing our fourth quarter 2017 results. And then, I will detail our 2018 outlook followed by a more detailed discussion of each of our business segments.

Let's turn to slide 3. Our fourth quarter 2017 adjusted EBITDA of \$277.9 million represents the highest level of quarterly adjusted EBITDA generated by Olin since the acquisition of Dow's Chlorine Products businesses in October of 2015. These results include approximately \$12 million of cost associated with the lingering impact of Hurricane Harvey, primarily affecting the Epoxy business.

Full year 2017 adjusted EBITDA was \$944.1 million, which included approximately \$55 million of costs related to Hurricane Harvey, approximately \$50 million in unplanned maintenance turnaround costs and the weakest year in the Winchester business since 2012.

Our Chlor Alkali Products and Vinyls business benefited from improved market dynamics, which resulted in significantly higher caustic soda pricing both in the fourth quarter and for the full year. The domestic caustic soda contract index increased \$45 per ton in the fourth quarter and \$140 per ton during all of 2017.

Export spot prices increased over \$105 per ton in the fourth quarter of 2017 and \$260 per ton during 2017. Based on the current supply and demand conditions between 20% and 25% of our caustic soda is being exported.

In addition to higher caustic soda prices, we experienced higher chlorine and chlorine-derivatives pricing both in the fourth quarter and for the full year. While full year ethylene dichloride pricing was higher in 2017 compared to 2016, fourth quarter 2017 ethylene dichloride pricing was lower than the fourth quarter of 2016. In fact, the fourth quarter 2017 ethylene dichloride pricing was the lowest we have experienced in the last two years.

In the fourth quarter of 2017, our Epoxy segment was able to increase pricing to more than offset raw material increases, primarily benzene and propylene. During the fourth quarter, a 35 day planned maintenance outage was performed on the Epoxy assets at Stade, Germany, which reduced fourth quarter adjusted EBITDA by approximately \$16 million.

As a result of weaker commercial demand during 2017, Winchester EBITDA for the fourth quarter and full year 2017 fell short of 2016 results. The final bullet on slide 3 reflects the \$437.9 million favorable impact on our net income in the fourth quarter and for the full year of 2017 from the revaluation of our net deferred tax liabilities to account for the future impact of lower corporate taxes and other provisions of the Tax Cuts and Jobs Act of 2017.

Before going into more detail on the business segments, I would like to discuss our outlook for 2018, which is on slide 4. Looking forward to 2018, we are optimistic and encouraged by the supply and demand dynamics for both Chlor Alkali Products and Vinyls business and the Epoxy business. With these favorable supply and demand dynamics, we expect both Chlor Alkali Products and Vinyls and Epoxy earnings to improve significantly in 2018 compared with 2017.

We also expect to see improvement in Winchester during 2018, due to higher military sales and some recovery in commercial demand. We're forecasting adjusted EBITDA of \$1.25 billion, with upside opportunities and downside risks of approximately 5%. Relative to 2017, our 2018 forecast reflects higher domestic and export caustic soda pricing, higher chlorine and chlorine-derivatives pricing, incremental cost-based synergy realizations of between \$75 million and \$100 million, lower planned maintenance turnaround costs of approximately \$30 million and lower ethylene costs as a result of the September 2017 investment in cost-based ethylene. Partially offsetting these year-over-year improvements in 2018 are lower ethylene dichloride pricing, higher ethane cost, higher electricity cost, and higher Corporate and Other costs as compared to 2017.

As we look at our 2018 forecast, the largest opportunities are further improvement in caustic soda pricing, beyond the \$30 per ton domestic contract index increase for January 2018, lower hydrocarbon costs, specifically benzene and propylene in the Epoxy business, and higher than forecasted volumes in all three business segments. We believe the biggest risk to our 2018 forecast are a continuation of the EDC price level that were experienced in December and through the majority of January this year, higher hydrocarbon costs, specifically benzene and propylene in the Epoxy business, a continuation of the current natural gas prices for the balance of the year, and the unfavorable interaction between commercial volumes, prices and commodity metal and other material costs in Winchester.

We're beginning 2018 with a strong start. Last week, IHS reflected a \$30 per ton increase in the domestic caustic soda contract index. And as a result, the January 2018 month-end index price is \$170 per ton, higher than a year

ago. At the same time, the spot export index declined in January. However, the midpoint of the January 2018 spot export index is over \$200 per ton, higher than a year ago. We continue to believe the favorable industry supply and demand dynamics we began discussing two years ago for caustic soda remain in place and that Olin is well-positioned to benefit.

During 2017, the Epoxy business also experienced favorable pricing trends. The ISIS North East Asian liquid Epoxy resin index increased 61% during 2017 and further increases are expected in 2018. In addition, the Asian epichlorohydrin spot index increased 54% and further increases are expected in 2018. These indices influence global trade flows and global prices. At current levels, these prices are sufficient to offset the increases in hydrocarbon costs that have been experienced in the past few months.

In 2018, the Epoxy business has a planned 54-day maintenance turnaround at our production facility in Freeport, Texas. This maintenance turnaround was last performed six years ago. This maintenance turnaround is estimated to have an approximately \$45 million impact on first and second quarter Epoxy results. This Epoxy turnaround combined with the first quarter planned maintenance turnarounds in the Chlor Alkali Products and Vinyls is expected to result in the first quarter being Olin's weakest quarter in 2018 by a meaningful amount. Full-year 2018 maintenance turnaround expense is forecast to be approximately \$30 million lower than 2017 spending.

Now turning to the business segments, beginning with Chlor Alkali Products and Vinyls on slide 5. Fourth quarter 2017 sales of \$917.6 million increased 17% over sales in the fourth quarter of 2016. The increase reflects higher caustic soda, chlorine and chlorine-derivatives pricing.

Chlor Alkali Products and Vinyls fourth quarter 2017 adjusted EBITDA of \$250 million increased 40% or \$71 million compared to the fourth quarter of 2016. The increase in adjusted EBITDA primarily reflects an improvement in product pricing. Partially offsetting the benefits of these higher product prices was lower EDC pricing, \$3 million of residual Hurricane Harvey costs, and \$12 million of higher planned maintenance turnaround costs in the fourth quarter of 2017 compared to the fourth quarter of 2016.

Adjusted EBITDA for the full year in Chlor Alkali Products and Vinyls was \$838 million, an increase of \$195 million or 30% over 2016 levels, despite incurring \$27 million of additional costs from the effects of Hurricane Harvey.

The Chlor Alkali Products and Vinyls business is forecast to improve in the first quarter of 2018 from the first quarter of 2017, driven by improved caustic soda, chlorine and chlorine-derivatives pricing and lower ethylene costs. However, the first quarter 2018 EDC pricing is forecast to be significantly lower than the first quarter of 2017. First quarter 2018 Chlor Alkali volumes are expected to be lower than last year due to the planned maintenance turnaround activity and lower levels of inventory in 2018.

Now turning to pricing. 2017 was a positive year for pricing across the majority of the Chlor Alkali Products and Vinyls segment. Caustic prices in the Olin system increased approximately 10% in the fourth quarter of 2017 compared to the third quarter and were 35% higher than the fourth quarter of 2016 levels. These improved caustic soda prices reflect continued strength in both the domestic and export markets.

In the Olin system, year-end 2017 domestic caustic soda prices were 21% higher than year-end 2016 levels, and export prices were 65% higher than the end of 2017. We expect caustic soda prices to improve further in 2018, reflecting price increases that were announced in the last 90 days, forecasted increases in price indices and favorable contract renewals. Both chlorine and hydrochloric acid prices increased sequentially from the third quarter of 2017 to the fourth quarter of 2017. We expect pricing for these products to increase further in 2018.

Olin Corp. (OLN) Q4 2017 Earnings Call

The exception to the positive pricing story was EDC. The EDC price fell below \$100 per ton in the fourth quarter. We believe the price of caustic soda is incentivizing some Vinyls manufacturers to make EDC rather than buy it in order to generate more caustic soda and this has put pressure on EDC prices. As I said earlier, we see EDC pricing as a downside risk to our full-year 2018 outlook.

Olin continues to maintain its positive long-term view of caustic soda prices. This is summarized on slide 6. A couple of recent facts. In 2017, caustic soda exports from the United States are expected to have increased approximately 10% to a record level of approximately 3.5 million tons. Through the November, caustic soda exports increased approximately 12% year-over-year with exports to Australia increasing approximately 36% from last year's levels. At the same time, caustic soda exports from both Europe and China continue to trend down, while caustic soda imports into Europe continue to trend up. The combination of the closure of mercury-based Chlor Alkali plants in Europe and no material Chlor Alkali plants coming online in the next two to three years reinforces our view.

Let us now move on to the performance of our Epoxy segment on slide 7. Fourth quarter 2017 Epoxy sales increased by approximately 22% or \$95 million compared to fourth quarter 2016 levels, as a result of higher product pricing, partially offset by lower volumes associated with Hurricane Harvey and the planned maintenance outage at the Stade, Germany facility.

Fourth quarter 2017 Epoxy adjusted EBITDA of \$24 million increased approximately 22% compared to the fourth quarter 2016 adjusted EBITDA. In the fourth quarter of 2017, higher product prices more than offset the impact of higher raw material costs, primarily associated with benzene and propylene pricing, approximately \$16 million of higher turnaround related costs, and an approximately \$9 million negative impact from Hurricane Harvey.

As a point of reference, year-over-year benzene costs increased by 34% and propylene costs increased by 36%. As we look ahead into the first quarter of 2018, we expect Epoxy pricing will be higher sequentially and higher than during the first quarter of 2017. We also expect that raw material costs, again, primarily benzene and propylene, will be higher in the first quarter of 2018 compared to the first quarter of 2017. During the first two quarters of 2018, the business will have a planned turnaround at the Freeport, Texas production facility that will take approximately 54 days. This turnaround was last performed in 2012 and has a forecasted cost of approximately \$45 million.

As I mentioned earlier, we expect the Epoxy business to have a meaningful improvement in 2018 over 2017 results. Demand strengthened during the second half of 2017 and we expect this to continue during 2018. As a result, we also expect pricing to improve in 2018. Because of the turnaround schedule, the full benefit of these factors will be muted until the second half of the year.

Now, let's discuss maintenance turnaround schedule for 2018 on slide 8. Our Chlor Alkali Products and Vinyls turnaround schedule for 2018, which is on the left side of slide 8, is expected to be \$54 million lower than the full year 2017 costs. The majority of the spending, approximately 80%, will occur in the first half of 2018 with the spending approximately evenly split between the first and second quarters. In the first quarter, we will perform maintenance activity at both our Freeport, Texas and Plaquemine, Louisiana Chlor Alkali facilities, which will reduce chlorine and caustic production during the quarter.

On the right side of slide 8 is our projected Epoxy maintenance cost for 2018. You can see that virtually all of the \$66 million of cost will occur in the first half of the year, with 2/3 of those costs occurring in the first quarter. As I just mentioned a moment ago, maintenance activity at our Freeport, Texas production facility, which is our largest Epoxy site, will begin in the first quarter of this year and is expected to be completed in the second quarter.

The combination of the Chlor Alkali outages and the Freeport Epoxy outage will cause Olin's first quarter 2018 results to be the weakest quarterly results of the year. For the full-year 2018, overall maintenance costs are expected to be approximately \$30 million lower than 2017 levels.

Let's discuss our synergy update on slide 9. During 2017, we continued to make significant progress in the realization of synergies associated with the Dow transaction. On slide 9, we summarize both the performance to date and the updated 2018 realizations, which we expect will meet or exceed the original target of \$250 million of cost related synergies and \$100 million of revenue related synergies a year ahead of schedule.

In the cost area, we have realized significant procurement services and maintenance synergies. In the revenue area, we benefited from the expanded footprint, enabling increased sales of bleach, merchant chlorine, hydrochloric acid and caustic soda, as well as leveraged the capabilities of the Epoxy assets and the sale of epichlorohydrin and allyl chloride.

Now turning to Winchester, which is summarized on slide 10. In the fourth quarter of 2017, the Winchester business continued to experience lower year-over-year commercial sales as a result of a less favorable commercial product mix. These were partially offset by higher military sales in the quarter. The lower level of commercial demand has resulted in pressure on commercial ammunition selling prices in spite of higher commodity and other material costs.

During 2017, the price of copper increased by 21%, zinc prices increased by 19% and lead prices increased by 12%. As we look at the Winchester business in 2018, we expect both commercial and military ammunition sales to improve. We believe that customer inventory reductions in 2018 will have less impact than those that were experienced in 2017, but we expect commercial customers to buy cautiously. We also expect commodity metal costs to be higher in 2018 compared to 2017. At the moment, Olin does not believe that the price increases that have been announced by the industry are sufficient to offset commodity and other material cost headwinds.

Our overall adjusted EBITDA forecast of \$1.25 billion for 2018 assumes improvement in Winchester adjusted EBITDA compared to 2017 based on improved ammunition volumes and improved operating efficiencies. We're currently cautious about our Winchester forecast due to the high commodity and other material costs and the pricing environment.

Now turning to my final slide. During 2017, the overall volume and price trends across our chemical businesses improved. We continue to believe that we are in a multi-year up cycle in caustic soda, as evidenced by the positive pricing momentum. We have also seen positive volume and price trends in both chlorine and hydrochloric acid.

In addition, we have experienced positive volume and pricing movement in the Epoxy business. These will all contribute to a significant increase in adjusted EBITDA in 2018 compared to 2017. And the continuation of these trends beyond 2018, plus more modest turnaround schedules makes the mid-cycle adjusted EBITDA of \$1.5 billion we targeted in 2016 achievable.

Now, I'd like to turn the call over to Todd Slater. Todd?

Todd A. Slater Chief Financial Officer & Vice President, Olin Corp. Thanks, John. Let's turn to our 2018 cash flow forecast, which is on slide 12. We expect to generate \$440 million of free cash flow before dividend payments. Our expectation is that by the end of 2018, the combination of debt reduction and EBITDA growth will reduce net debt-to-EBITDA leverage ratio to the 2.5 times range.

Starting with the midpoint of our full year adjusted EBITDA forecast of \$1.25 billion on the far left of the waterfall chart, we deduct \$50 million estimated tax payments, reflecting income tax payments made to foreign jurisdictions in 2018.

We are forecasting our cash tax rate will be in the 10% to 15% range for the year. Since 2015, Olin has not been a U.S. federal tax payer because of the utilization of net operating loss carry forwards, primarily arising out of costs associated with the acquisition in 2015. Because of tax credit carry forwards, we are not expecting to be a U.S. federal tax payer in 2018.

While we continue to analyze the full impact of the Tax Cuts and Jobs Act of 2017, the cash tax benefit to Olin of the changes in tax law is expected to be minimal in 2018 due to tax credit carry forwards. We would expect the new tax law to provide cash tax benefits to Olin beginning in 2019. The new tax law is currently estimated to reduce our cash tax rates for 2019 and beyond to the 15% to 20% range. This translates into an estimated annual reduction in cash taxes of approximately \$75 million.

Column three includes the midpoint of our current forecast for capital spending of \$400 million. The \$400 million includes annual maintenance capital spending of between \$225 million and \$275 million. And the capital spending forecast also includes the investment associated with our information technology project of approximately \$100 million.

During 2017, we began a multi-year project to implement a new enterprise resource planning, manufacturing and engineering systems across the heritage Olin and the acquired Dow Chlorine Products businesses. The project includes the required information technology infrastructure.

The objective of the project is to standardize business processes with the objective of maximizing cost effectiveness, efficiency and control across our global chemical operations. The project is anticipated to be completed during 2020. When completed, we expect the IT project to provide annual cost savings of approximately \$50 million. Total capital spending for this multi-year IT project is forecast to be \$250 million and associated expenses are forecast to be \$100 million.

In 2017, we spent \$35 million of capital and \$5 million of expenses associated with this project. We are forecasting that in 2018, we will spend approximately \$100 million of capital, as I previously mentioned, and approximately \$50 million of expenses associated with this project. The IT project expenses of approximately \$50 million have been included as an add-back to our adjusted EBITDA. The add-back of these incremental expenses will continue through the completion of the IT project.

Now turning to the fourth column, we're estimating working capital to be a use of cash in 2018 of approximately \$50 million. We estimated increase in working capital is due to higher selling prices and inventory costs associated with hydrocarbons in 2018. The next column, one-time items include integration and restructuring costs of approximately \$70 million. This includes approximately \$50 million for the IT project that I just spoke about.

The next column represents the estimated interest expense. We have approximately 20% of our debt at variable interest rates after the debt refinancing that we completed in January. We are forecasting 2018 interest rates will

be higher than those we experienced in 2017. In the far right column, we are forecasting \$306 million of free cash flow after paying our normal quarterly dividends of approximately \$134 million for the year.

Next, I'll review some annual modeling and corporate assumptions in our 2018 forecast on slide 13. We are forecasting depreciation and amortization expense in 2018 will be in the \$560 million to \$570 million range, which is slightly higher than the 2017 levels. We are forecasting full-year 2018 defined benefit pension income will be approximately \$10 million lower than the 2017 levels, primarily due to higher Pension Benefit Guarantee Corporation fees associated with our domestic qualified pension plan and increased amortization of deferred pension actuarial losses.

As a reminder, defined benefit pension plan income does not contribute to cash flow. In 2017, we made \$1.7 million in pension contributions to our international defined benefit pension plans, and we expect 2018 contribution to these plans to be less than \$5 million.

We are forecasting full-year 2018 expenses for environmental investigatory and remedial activities to return to the historical level of \$15 million to \$20 million. In 2017, environmental expenses were \$8.5 million.

Full-year 2018 corporate and other costs are forecast to increase by approximately \$10 million to \$20 million, stock-based compensation and the timing of legal and litigation costs are the drivers of the increase.

Now turning back to taxes. The Tax Cuts and Jobs Act of 2017 lowers the federal tax rates for corporations from 35% to 21% and transitions the U.S. International Taxation regime from a worldwide tax system to a territorial tax system, accomplished in part by imposing a one-time tax on the deemed repatriation of undistributed earnings of non-U.S. subsidiaries.

As a result of the new tax law in the fourth quarter, Olin was required to revalue net deferred tax liabilities to account for the future impact of lower corporate tax rates and the international tax aspects of the law. This resulted in Olin recording a provisional income tax benefit of \$437.9 million in the fourth quarter.

In 2018, we believe that the book effective tax rate will be approximately 25%. The book income tax rate reflects the benefits of the new 2017 tax law, favorable book tax deductions, partially offset by foreign and state income taxes.

Finally, on Friday, January 26, Olin's board of directors declared a dividend of \$0.20 on each share of Olin common stock. The dividend is payable on March 9, 2018 to shareholders of record at the close of business on February 9, 2018. This is a 365th consecutive quarterly dividend to be paid by the company.

Operator, we are now ready to take questions.

QUESTION AND ANSWER SECTION

Operator: Thank you. We will now begin the question-and-answer session. [Operator Instructions] And our first questioner today will be from Frank Mitsch with Wells Fargo Securities. Please go ahead.

Frank J. Mitsch

Analyst, Wells Fargo Securities LLC

John, you gave a good breakdown as to why EDC has been under pressure, given that folks are using it as a loss leader to generate more caustic. I'm trying to figure out how the startup of Texas 9 has helped. There was an expectation that that would be a material help for you guys. What are you thinking about that in terms of improving your profitability in 2018 with Texas 9 up and running?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

We have said all along, depending on where ethane prices come out that the benefit from that should be on a fullyear basis \$40 million to \$50 million.

Frank J. Mitsch

Analyst, Wells Fargo Securities LLC

And John, do you think that is how 2018 – that's embedded in your \$1.25 billion EBITDA guidance?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

Yes.

Frank J. Mitsch Analyst, Wells Fargo Securities LLC

Awesome.

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

However, the ethylene is going into EDC. So, the EDC price can have the effect of overwhelming that.

Frank J. Mitsch

Analyst, Wells Fargo Securities LLC

Understood. I know there's a couple of moving pieces there. And also, just trying to understand how I think about Olin from a turnaround perspective. You spent about \$80 million in 2016. Obviously, you mentioned \$220 million in 2017 and 2018 is going to be \$30 million lower than that. Is kind of the \$200 million level what we should think about in terms of on an annual basis or is it closer to that \$80 million that you did two years ago?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I would say it's somewhere in the middle. And in my remarks where I talk – concluded, I talked about, if you look out with positive pricing trends beyond 2018, we also – I referred to more modest turnarounds. The problem we

have, Frank, is that turnarounds in Epoxy, turnarounds in a VCM reactor are out of proportion, it's high in terms of total expense and they happened to occur in 2017 and 2018.

Frank J. Mitsch

Analyst, Wells Fargo Securities LLC

Okay. All right. That's helpful. Appreciate it. Thank you.

Operator: And our next questioner today will be Jason Freuchtel with SunTrust. Please go ahead.

Jason A. Freuchtel

Analyst, SunTrust Robinson Humphrey, Inc.

To start with clarification on your guidance, does the 2018 EBITDA guidance include the price increase projections that are currently forecasted by the IHS Index?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

The only thing the guidance includes was the \$30 in January that was actually published.

Jason A. Freuchtel

Analyst, SunTrust Robinson Humphrey, Inc.

Okay, understood. And also, recently Olin's realized caustic soda price increases that have been higher than the average increase realized in the market. Is it correct to assume that the more favorable realizations are due to contracts rolling over and new negotiated pricing? And if so, are you assuming in your guidance that contracts will be re-priced at more favorable rates in 2018?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

Jason. This is Jim. Yeah. We're continuing to make progress on the contract pricing. So I mean, the assumption, it would not be incorrect to say that we're improving contracts and that's going to continue. So marked improvement in the fourth quarter as we went through contract season and you'll see that throughout the year in 2018.

Jason A. Freuchtel

Analyst, SunTrust Robinson Humphrey, Inc.

Okay, great. And can you discuss how much of your caustic sales were to the export market in 4Q 2017? And also, how close was your realized export price to the spot export price during the quarter?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I would say our exports were north of 20% of our total caustic sales. And I'm not going to address where we were relative to the spot price.

Jason A. Freuchtel Analyst, SunTrust Robinson Humphrey, Inc. Okay, and then one last one. In the \$1.5 billion mid-cycle EBITDA forecast that you've provided, do you include an estimate for maintenance cost? And also, do you foresee a possible scenario in which each of the segments could achieve mid-cycle earnings at the same time?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

The answer to the first part of that is yes, and I mentioned that as we went from 2018 forward, we saw a scenario where we would have more modest turnarounds. I'd love to see all three there at the same time, but at the moment, I'd say I don't – not 100% sure where Winchester ends up, as we look at the world right now. We're kind of cautious on that.

Jason A. Freuchtel

Analyst, SunTrust Robinson Humphrey, Inc.

Okay. But EDC and Chlor Alkali could both hit mid-cycle at the same time.

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I don't know that – I would say Chlor Alkali Products and Vinyls in total could hit it because there's always going to be some trade-off between EDC and caustic as we try to describe.

Jason A. Freuchtel

Analyst, SunTrust Robinson Humphrey, Inc.

Right. Okay, great. Thank you so much.

Operator: And our next questioner today will be Arun Viswanathan with RBC Capital Markets. Please go ahead.

Arun Viswanathan

Analyst, RBC Capital Markets LLC

Great. Thanks. I know that you guys [ph] inked (35:36) the \$30 of the industry did in January. Maybe you can just comment on the potential for further pricing. You say that could be one of the upside risk on the year. Thanks.

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

Arun, this is Jim Varilek. Yeah. We continue to believe in the fundamentals of the marketplace and there's nothing that we see that takes us off of that. Product continues to be tight in North America and Europe, because of the mercury shutdowns, and in Asia and China as well. So the fundamental premise that we've been speaking of for the last two plus years of a continuing tightening of the Chlor Alkali industry is intact and we see has [ph] legs (36:23).

Arun Viswanathan

Analyst, RBC Capital Markets LLC

Great. Thanks. And just on the cash flow, there were some moving parts there. Looks like deferred taxes was up a little bit. And then also, just want to understand why you're expecting the interest to increase year-on-year as well. Do you expect to refinance any debt this year? Thanks.

Todd A. Slater

Chief Financial Officer & Vice President, Olin Corp.

Arun, this is Todd. We did refinance debt in January. We issued \$550 million of 12-year notes at 5% interest. That was that \$550 million of proceeds was used to reduce our term loan. That would have a – currently has a negative rate arbitrage to us. The other – that would be the biggest driver as well as overall our interest rates are higher in 2018 from a variable perspective, if you look at what LIBOR has done this year expectation for 2018 versus 2017.

Arun Viswanathan

Analyst, RBC Capital Markets LLC

Great. Thanks. And just lastly, in Asia, we did see some weakness earlier in the caustic markets. I guess would you chalk that up to alumina? And do you expect alumina buyers to return to the market as we go on through the year? Thanks.

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

This is Jim. Yes, I would say for the most part that's correct. The alumina industry did shutdown for the winter season and then that should return on March 15 as those restrictions come off. So any time now we'd expect to see that demand return in China and more of the upward trends that we've seen in the past.

Arun Viswanathan

Analyst, RBC Capital Markets LLC

Great. Thanks.

Operator: And the next questioner today will be Don Carson with Susquehanna Financial. Please go ahead.

Donald David Carson

Analyst, Susquehanna Financial Group LLLP

Thank you. John, just want to get your thoughts on where the cycle goes from here. As you show on slide 11, you see mid-cycle adjusted EBITDA potential of \$1.5 billion. We're into the third year of improving caustic prices. Historically, cycles would be three to five years. Obviously, there's some positive secular changes this time around. But where do you think we are in the cycle and when do you think mid-cycle occurs?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I think as it relates to caustic pricing itself, I think we're probably very close to mid-cycle. I think that we're in a place where there's no new capacity announced, but one would think at these prices that's going to entice people and that's a couple – it takes a couple of years to impact the market.

So I would say on caustic itself, we're probably close to mid-cycle. I think if you look at where we are in everything else, chlorine has just started to move a little bit. The Epoxy business, I would say, 2017 should really represent a trough type level of earnings and that's just started to move. And obviously, I would say Winchester, we saw where Winchester was when it was at closer to peak in 2013, 2014. So I would say it's closer to trough.





Donald David Carson

Analyst, Susquehanna Financial Group LLLP

And a follow-up on your contract renegotiations. Some of your competitors seem to get quicker realization of the index. So what percentage of your contracts have you renegotiated to not only get a lower discount versus the index but also to reduce the price protection period? Where are we in that process?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I would say the average contract duration is somewhere in the three to five year range. This was the second renewal season where we're operating in an environment that was more favorable to the seller. So I would say we're probably somewhere approximately 40% to 50% of the way through that.

Donald David Carson Analyst, Susquehanna Financial Group LLLP

Thank you.

Operator: And the next questioner today will be Alex Yefremov with Nomura Instinet. Please go ahead.

Aleksey Yefremov

Analyst, Nomura Instinet

Thank you. Good morning, everyone. You incurred \$55 million of Harvey related cost this year and another \$50 million of unplanned maintenance. What is your forecast for these types of cost embedded in your guidance for 2018?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

We don't have anything embedded in there for hurricanes and we have a maintenance schedule that shows you what we're forecasting. And I think full year maintenance expense is expected to be \$30 million lower year-overyear. Epoxy will be higher. Chlor Alkali Products and Vinyls would be lower.

Aleksey Yefremov

Analyst, Nomura Instinet

So there's no budget for unplanned, so to say, outages in the guidance?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

There's a budget around what it takes to do the planned outages that always has some deviation around perfect.

Aleksey Yefremov

Analyst, Nomura Instinet

Okay. So just to think about these types of costs, the \$55 million Harvey plus \$50 million other unplanned, is it \$105 million that should be a positive bridge item for 2018?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I would say the \$55 million for Harvey should be. The \$50 million, some of which was unplanned, would have said 2017 could have been better. I think you have to look at 2018, the maintenance we're forecasting as a discrete item and make a judgment of how well we're going to perform against that, maybe I'd say it that way.

Aleksey Yefremov

Analyst, Nomura Instinet

Got it. Thank you. On Epoxy, if I just take your 4Q run rate and then flow through your maintenance schedule, I'm getting somewhere around \$50 million to \$60 million EBIT – or EBITDA improvement in 2018 versus 2017. Does this sort of the level of improvement that's in line with what's in your guidance?

Pat D. Dawson

Executive Vice President & President, Epoxy and International, Olin Corp.

Yeah, that would be pretty consistent, again, built around improved demand, improved supply demand fundamentals and the fact that there's no new capacity that's been announced coming on stream.

Aleksey Yefremov

Analyst, Nomura Instinet

Great. Thank you very much.

Operator: And our next questioner today will be Eric Petrie with Citi. Please go ahead.

Eric B. Petrie Analyst, Citigroup Global Markets, Inc. All right. Good morning, John.

John E. Fischer Chairman, President and Chief Executive Officer, Olin Corp.

Good morning.

Eric B. Petrie

Analyst, Citigroup Global Markets, Inc.

A question on Winchester, would you say that the lower profitability is more related to lower demand or higher raw materials? And when do you think these pricing initiatives will offset the higher raws?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I would say, as we look at 2018, the biggest issue is the higher raw material costs, and at the moment, as I said, the ability to get sufficient price to offset that. And I would just offer editorially, Olin has announced price increases that would be sufficient to offset what we've seen in commodity metal costs, but the market has not followed that at this point.

Eric B. Petrie Analyst, Citigroup Global Markets, Inc. Okay. And then just in terms of chlorine end uses, one of the reasons you did the Dow Chlorine Products [indiscernible] (43:49) diversify into other end uses. How much your chlorine is consumed in the EDC? And is there any opportunity to shift additional demand to HCL and bleach, et cetera?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

This is Jim. We don't really breakdown the percentages of chlorine that go to the different uses. But what I would say is, on a portfolio basis, we absolutely do look to optimize and put the chlorine where it has the highest value across the portfolio. And that's one of the benefits that we have is the ability to optimize the use of chlorine.

Eric B. Petrie

Analyst, Citigroup Global Markets, Inc.

Okay. And just to follow-up on EDC, a little bit surprised that you're still expecting lower prices as they were in fourth quarter due to the fact that you were expecting higher demand from Europe due to the mercury-based chlorine shutdown. So could you give any color on that?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

I think that what we would say is that, on a year-over-year basis, we expect to see a decline, but I would not expect to see a continuation from – at the very low levels that were experienced late in the fourth quarter and early part of January. There's a seasonal uptick and so forth. So we would expect some improvement, but on a year-over-year basis, we're still looking to see a downward year-over-year comparison.

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

And just as a point of clarification, we said in the prepared remarks that a continuation of the current prices that are being experienced in EDC is a risk to our full year guidance.

Eric B. Petrie

Analyst, Citigroup Global Markets, Inc.

Okay. Thank you.

Operator: And our next questioner today will be John Roberts with UBS. Please go ahead.

John Roberts

Analyst, UBS Securities LLC

Thanks. Todd, I just wanted to check, your cash tax rate in 2018 is 10% to 15%, and then in 2019, it goes up to 15% to 20% due to the expiration of credits partly offset by the benefit of reform. Is that the right way to think about it?

Todd A. Slater

Chief Financial Officer & Vice President, Olin Corp.

John, it is. And as we said, we think that's probably worth \$75 million of good new stuff compared to what the old law would have been, starting in 2019.

John Roberts

Analyst, UBS Securities LLC

Got it. And then, in Winchester, it sounds like once we lap the channel inventory correction that margins will still be lower than before the inventory correction. If that's true, what's the change in the supply-demand or competitive dynamics that's keeping price from recovering raw materials?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I think you would have to ask our competitors that question. I would just say editorially, we've announced price increases sufficient to recover the commodity metal cost changes we've seen. That has not been followed in the market. That is putting pressure on prices. I suppose there is a view that volume is more important than price.

John Roberts

Analyst, UBS Securities LLC

Okay. And if I could squeeze in one last one. I don't know if this is answerable. But on the EDC pricing situation, do you think that's more a function of excess ethylene or more a function of the excess chlorine from running the caustic card?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

I think it's more of a caustic dynamic than it is ethylene. You saw kind of the inverse impact where fourth quarter prices on caustic went up considerably and it put pressure on the EDC market in a seasonally low quarter.

John Roberts

Analyst, UBS Securities LLC

Okay. Thank you.

Operator: The next questioner will be Neel Kumar with Morgan Stanley. Please go ahead.

Neel Kumar

Analyst, Morgan Stanley & Co. LLC

Hi. Good morning. So, we've seen a pretty big increase in Chinese EPI prices since the middle of last year. Can you give us your thoughts on the drivers of that and whether prices will sustain given the environmental mandates in China?

Pat D. Dawson

Executive Vice President & President, Epoxy and International, Olin Corp.

Yeah. Neel, this is Pat. Yeah. There has been a dramatic rise in China both on EPI and LER and the real driver behind that, the best we can understand it, is around some of the environmental standards and just better discipline by the government on cracking down on some of those issues. And so that's been also reported throughout Chlor Alkali.

So, we think that some of these crackdowns – the question is, is that sustainable? Each month it goes by, it looks more and more sustainable. And that's why you've seen the rise that we referenced in – that John referenced in

his comments on the big spike here that we've seen in EPI. And of course, that EPI passes right through to the non-integrated liquid epoxy resin producers.

So, we believe that combination of stronger environmental regulations by the Chinese government, combined with a much tighter market for EPI and LER, will allow us to continue to see pricing improvements like you saw in the second half of last year and in the fourth quarter.

Neel Kumar

Analyst, Morgan Stanley & Co. LLC

Great. And then I just want to clarify. Are the recent improvements in your contract terms, in terms of both lower lag and a higher percentage of index cost of price changes already embedded in your \$1.25 billion guidance?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

The contract changes that were effective January 1 are embedded in our 2018 guidance.

Neel Kumar

Analyst, Morgan Stanley & Co. LLC

So also, in terms of just the terms, in terms of the lower lag and the higher realization.

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

That's correct.

Neel Kumar

Analyst, Morgan Stanley & Co. LLC

Okay, great. And then, maybe I just wanted to squeeze one last one in. In terms of the EDC prices, they seem to have rebounded recently probably as a result of the producer outage in Brazil. So do you think that these recent EDC price increases could be sustainable once the facility is back online or it seems like your guidance is assuming you're going to start to come back downwards post that facility coming back?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

Yeah. Neel, this is Jim. First of all, I think that there has been an impact because of the event in Brazil. And so we are seeing some positive movement off of the lows. And that was kind of consistent with what I said before that we will see some movement off of those lows. And we're also moving into the seasonally stronger period of time for PVC. So we would expect to see some of the movement and impacted by that event. It's hard to say that you're going to embed a one-time event into your structural cost on EDC, but it certainly can have an effect here for the next few months.

Neel Kumar Analyst, Morgan Stanley & Co. LLC

Thanks.

Operator: Our next questioner today will be Kevin McCarthy with Vertical Research Partners. Please go ahead.

Kevin W. McCarthy

Analyst, Vertical Research Partners LLC

Morning. In the month of January, there was quite a bit of talk about the effect of cold weather down south on the caustic soda market as it relates to loading and transport. So I'm wondering if you could comment on whether that has affected Olin and the degree to which you think it has affected the industry, and whether the net effect is good, bad or neutral from your point of view.

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

All right. Kevin, this is Jim. Yeah. I think it's been pretty well publicized that there was impact on the Gulf Coast and that impact is both across the Chlor Alkali industry but also customers as well. And as far as commenting is it a positive or a negative, I think what it does is that brings to light the tight situation that currently exists in the marketplace in that there are some dislocations of product and so forth and speak to the inventory levels that being low in the industry. And I think you saw that play out in the early part of the month, and everybody is recovering at this point in time and getting back into a more normal production cycles.

Kevin W. McCarthy

Analyst, Vertical Research Partners LLC

Do you think by March 31 you'll be in a position where your volumes are caught up and normalized?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

From an industry standpoint, what I think that you'll see is you'll see a lower operating rate in January, I think, when they're published here in the next week or so. And I think everybody will make an attempt to recover those [ph] lost (52:31) rate that we saw in January and February and March. To the extent that we're able to do that as an industry remains to be seen. I really can't comment. It depends how well we run and if we have any more inclement weather.

Kevin W. McCarthy

Analyst, Vertical Research Partners LLC

Okay, fair enough. And then second question, if I may, on Winchester. I think you referenced an expectation for stronger sales to the military. Obviously, the commercial side has been weak. Appreciate the notion that the business is near trough, but maybe you could provide a little bit more color on how you see the commercial versus military side playing out as 2018 progresses?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

Well, historically, we have always said that between 10% and 15% of Winchester's sales were to the military. I think this year, you're going to see that be more in the range of 25% of the sales will be to the military. And that is a combination of higher absolute military sales and a lower commercial contribution to that.

Kevin W. McCarthy Analyst, Vertical Research Partners LLC

Okay. Thank you very much.









Operator: The next questioner today will be Matthew Blair with Tudor, Pickering. Please go ahead.

Matthew Blair

Analyst, Tudor, Pickering, Holt & Co. Securities, Inc.

Hey, good morning. A lot of talk on lower EDC prices and [ph] also seeing (53:50) lower PVC prices, but it looks like chlorine has held up pretty well. Any color on this? What's supporting chlorine, given some of the derivatives are weakening here? And is it just a matter of time before chlorine pulls off? Any insights into that?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

Yeah. This is Jim. The dynamics are actually playing out as we've expected. We're seeing a good chlorine envelope pull. You heard Pat talk earlier about Epoxy being positive in terms of their demand. And we're seeing it across other industries as well, whether it'd be TiO2, HCL, bleach and polyurethanes, we're seeing very strong pull on chlorine. So we would not expect that to drop off and we'd actually expect it to see a continued positive trend.

Matthew Blair

Analyst, Tudor, Pickering, Holt & Co. Securities, Inc.

Got it. Thanks. And then, on Epoxy, could you just remind us, is there anything that would inhibit your ability to capture some of these prices that we're seeing come through both in some of the component parts like EPI and BPA, as well as just basic liquid epoxy resin margin? Do you have fixed contracts to Dow that would prevent you from capturing any price increases?

Pat D. Dawson

Executive Vice President & President, Epoxy and International, Olin Corp.

Yeah. Matthew, this is Pat. There's really no inhibition there at all that gets in the way of us capturing these prices. There's no fixed contracts of any type that we have with Dow. So, again, I think we're in a much better position here going into 2018 than we were certainly a year ago.

Matthew Blair

Analyst, Tudor, Pickering, Holt & Co. Securities, Inc.

Great. Thank you.

Operator: And our next questioner today will be Dmitry Silversteyn with Longbow Research. Please go ahead.

Dmitry Silversteyn

Analyst, Longbow Research LLC

Good morning, guys. Thanks for taking my question. First of all, I just want to understand sort of the outlook for the Chlor Alkali and Vinyls segments. You expect volumes to be down in the first quarter, but for all of 2018, you still expect volumes to be up, correct?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

We did not make a forecast of volumes in the Chlor Alkali segment for 2018 versus 2017. We just said volumes in Q1 would be down.

Dmitry Silversteyn

Analyst, Longbow Research LLC

Exactly. So, I guess my question is, is this a preview of the year, or is there something peculiar about the first quarter with the turnarounds that would cause the volumes to be down?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I think the bigger issue coming into 2017 was we had inventory on the caustic side, and coming into 2018, we did not. And that was what the comment was designed to illustrate.

Dmitry Silversteyn

Analyst, Longbow Research LLC

Got you. Okay. So you actually sold out of inventory in the first quarter on caustic, which gave you the volume which you weren't going to cap this time around. Okay. I understand. Secondly, we got chlorine pricing going up, as the previous caller mentioned. Ethylene pricing is going up. EDC pricing is going down. Did you make any money in EDC in the backend of the year and do you expect to in the first half of 2018?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

I would say, Dmitry, the way we look at it is the combination of what are we getting for our chlorine, what are we getting for our ethylene and what are we getting for our caustic. And if that is a positive number, we made money by making EDC.

Dmitry Silversteyn

Analyst, Longbow Research LLC

Got it. Okay. That makes sense. And then, just to finish up on the Chlor Alkali's. Are you seeing any more incremental closures of capacity in China due to these environmental regulation enforcements and any carryover of the mercury shutdowns in Europe that were still operating in 2017 that will not be in 2018?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

I would say that what you'll see is, in Europe specifically – this is Jim, in Europe specifically, you'll see a continuation or the full effect of the mercury shutdowns and so forth. So we're experiencing that. And I think that actually is playing out in the dynamics that we're seeing in Europe right now. In China, as Pat referred to earlier, there does appear to be teeth in these environmental laws and they are, in fact, taking action. And so I think we're going to see a continuation there of the Chinese enforcing their environmental laws and that does have an impact to the positive in terms of the market dynamics in Chlor Alkali.

Dmitry Silversteyn

Analyst, Longbow Research LLC

Got it. Got it. Okay. And switching gears on Winchester really quick. Your pricing was down, your commercial ammunition was down in the fourth quarter, but your revenues were up. And given that military is 10% to 15% of sales, was it up that strongly that it basically offset the pricing and the decline in commercial?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

Yes, it was.

Dmitry Silversteyn

Analyst, Longbow Research LLC

Okay. And was it just a matter of timing or is that something we can look forward to in 2018?

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

No. We would expect a significant increase year-over-year in military sales in Winchester in 2018 versus 2017.

Operator: And our next questioner today will be Steve Byrne with Bank of America. Please go ahead.

Steve Byrne

Analyst, Bank of America Merrill Lynch

Yes. Just wanted to drill in a little more on this issue you described about this trade-off between caustic and EDC. What is your longer term demand growth outlook for caustic and derivatives and chlorine and derivatives? And do you think that EDC will likely remain the loss leader for Chlor Alkali operations globally?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

Steve, this is Jim. I mean we're very positive on the outlook for Chlor Alkali, caustic in particular. I mean, we think, again, the fundamentals are very strong and we expect to see that for some period of time.

On the EDC side of things, it's somewhat dependent upon the demand that we see for EDC and throughout the PVC chain. It is encouraging to see GDPs and so forth being ticking up around the world and an indication of what we'll see in terms of construction industry and pull through of PVC. So to the extent that PVC continues to grow, and there is no new EDC capacity being added, over time, the fundamentals should improve on EDC as well.

Steve Byrne

Analyst, Bank of America Merrill Lynch

Okay. And is it fair to say that your capacity is constrained on moving any more chlorine molecules into other derivatives other than EDC and/or is it worth considering any derivative of EDC as an expansion?

James A. Varilek

Executive Vice President & President, Chlor Alkali Vinyls and Services, Olin Corp.

I would not - I don't think that you should consider that as a given. I think we do have flexibility as far as moving our chlorine around.

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

Especially over the longer term.







Operator: As there are no further questions, this will conclude the question-and-answer session. I would now like to turn the conference back over to John Fischer for any closing remarks.

John E. Fischer

Chairman, President and Chief Executive Officer, Olin Corp.

So, I thank everybody for joining us today and we look forward to talking to you and reviewing our first quarter results in about 90 days. Thank you.

Operator: And the conference is now concluded. Thank you for attending today's presentation. You may now disconnect.

Disclaimer

The information herein is based on sources we believe to be reliable but is not guaranteed by us and does not purport to be a complete or error-free statement or summary of the available data. As such, we do not warrant, endorse or guarantee the completeness, accuracy, integrity, or timeliness of the information. You must evaluate, and bear all risks associated with, the use of any information provided hereunder, including any reliance on the accuracy, completeness, safety or usefulness of such information. This information is not intended to be used as the primary basis of investment decisions. It should not be construed as advice designed to meet the particular investment needs of any investor. This report is published solely for information purposes, and is not to be construed as financial or other advice or as an offer to sell or the solicitation of an offer to buy any security in any state where such an offer or solicitation would be illegal. Any information expressed herein on this date is subject to change without notice. Any opinions or assertions contained in this information do not represent the opinions or beliefs of FactSet CallStreet, LLC. FactSet CallStreet, LLC, or one or more of its employees, including the writer of this report, may have a position in any of the securities discussed herein.

THE INFORMATION PROVIDED TO YOU HEREUNDER IS PROVIDED "AS IS," AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, FactSet CallStreet, LLC AND ITS LICENSORS, BUSINESS ASSOCIATES AND SUPPLIERS DISCLAIM ALL WARRANTIES WITH RESPECT TO THE SAME, EXPRESS, IMPLIED AND STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, COMPLETENESS, AND NON-INFRINGEMENT. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, NEITHER FACTSET CALLSTREET, LLC NOR ITS OFFICERS, MEMBERS, DIRECTORS, PARTNERS, AFFILIATES, BUSINESS ASSOCIATES, LICENSORS OR SUPPLIERS WILL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING WITHOUT LIMITATION DAMAGES FOR LOST PROFITS OR REVENUES, GOODWILL, WORK STOPPAGE, SECURITY BREACHES, VIRUSES, COMPUTER FAILURE OR MALFUNCTION, USE, DATA OR OTHER INTANGIBLE LOSSES OR COMMERCIAL DAMAGES, EVEN IF ANY OF SUCH PARTIES IS ADVISED OF THE POSSIBILITY OF SUCH LOSSES, ARISING UNDER OR IN CONNECTION WITH THE INFORMATION PROVIDED HEREIN OR ANY OTHER SUBJECT MATTER HEREOF.

The contents and appearance of this report are Copyrighted FactSet CallStreet, LLC 2018 CallStreet and FactSet CallStreet, LLC are trademarks and service marks of FactSet CallStreet, LLC. All other trademarks mentioned are trademarks of their respective companies. All rights reserved.