PPG

Fourth Quarter 2017 Earnings Conference Call

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CORPORATE PARTICIPANTS

Michael McGarry – *Chairman and Chief Executive Officer*

Vince Morales – *Senior Vice President and Chief Financial Officer*

John Bruno – *Director, Investor Relations*

PRESENTATION

Operator
Good afternoon, and welcome to the PPG Industries Fourth Quarter 2017 Earnings Conference Call. My name is Rocco, and I will be your conference specialist today. All participants will be in listen-only mode. Should you need assistance, please signal a conference specialist by pressing the star key followed by zero. After today's presentation, there will be an opportunity to ask questions. To ask a question, you may press star then one on your telephone keypad. To withdraw your question, please press star then two. We ask that you limit yourself to one question and a single follow-up. Please note today's event is being recorded.

I would now like to turn the conference over to John Bruno, Director, Investor Relations. Please go ahead, sir.

John Bruno
Thank you, Rocco, and good afternoon, everyone. We appreciate your continued interest in PPG and welcome you to our Fourth Quarter 2017 Financial Results Conference Call. Joining me on the call from PPG are Michael McGarry, Chairman and Chief Executive Officer, and Vince Morales, Senior Vice President and Chief Financial Officer. Our comments relate to the financial information released Thursday, January 18, 2018.

I will remind everyone that we have posted detailed commentary and accompanying presentation slides on the Investor Center of our website ppg.com. The slides are also available on the website site for this call, and provide additional support to the opening comments Michael will make shortly. Following Michael's perspective on the company's results for the quarter and for the full year and a brief financial update from Vince, we will move to a Q&A session.

Both the prepared commentary and discussion during this call may contain forward-looking statements, reflecting the company's current view of future events and their potential effect on PPG’s operating and financial performance. These statements involve uncertainties and risk, which may cause actual results to differ. The company is under no obligation to provide subsequent updates to these forward-looking statements.

This presentation also contains certain non-GAAP financial measures. The company has provided in the appendix of the presentation materials, which are available on our website, reconciliations of these non-GAAP financial measures to the most directly comparable GAAP financial measures. For additional information, please refer to PPG's filings with the SEC.

Now, let me introduce PPG's Chairman and CEO, Michael McGarry.

Michael McGarry
Thank you, John, and good afternoon, everyone. Today we reported fourth quarter and full year 2017 financial results. For the fourth quarter, our net sales were $3.7 billion, and our adjusted earnings per diluted share from continuing operations were $1.19. This represents an EPS growth rate of about 3% for the quarter and we achieved an EPS growth rate of about 4% for the year. While these figures fall short of our EPS growth rate goals, both numbers were noticeably impacted by persistent and elevated raw material inflation.

For the quarter, our reported net sales were up nearly 8%, while our sales in local currencies increased by more than 4%. Supporting the higher local currency sales were increased volumes of 3%. This quarter produced our highest quarterly growth rate since the fourth quarter of 2014. Our strong volume

growth in the fourth quarter was balanced, with at least 2% sales volume growth contribution from each region and each operating segment.

Foreign currency translation shifted from a headwind in the first half of 2017 to a tailwind in the second half of the year, as certain foreign currencies strengthened against the dollar, with fourth quarter net sales favorably impacted by approximately $150 million and pre-tax income impacted by about $12 million. For the full year, the impact was favorable by $54 million on sales, however, unfavorable by about $7 million on pre-tax earnings.

Looking at some business trends in the fourth quarter from an end market perspective, our highest volume growth rate was achieved in our industrial coatings segment with each business unit exceeding or matching respective industry growth rates.

Sales volumes in packaging coatings were up high-single-digits percentage as the adoption to our INNOVEL interior canned coating products around the world accelerated. We also continued to grow sales volumes in general industrial and specialty coatings and materials, delivering our eighth consecutive quarter of above market growth rate with positive year-over-year contributions from each region.

Automotive OEM coatings grew sales volumes by low single-digit percentage in line with the global industry automotive builds. In performance coatings, automotive refinish grew organic sales by mid-single-digit percentage supported by above market performance in the US and Europe.

Aerospace coatings finished the year strong, with solid mid-single-digit sales volume growth producing above market performance in the US and emerging regions.

Architectural EMEA sales volumes were flat and in line with market rebounding from a disappointing third quarter. We saw a strong above market growth in Northern Europe, and continued softer sales volumes in France, which aligned with the market demand.

Sales volumes in architectural coatings Americas and Asia Pacific posted mid-single-digit organic sales growth, as the US and Canada company-owned stores continued to achieve solid, mid-single-digit sales growth. Our independent dealer network, and national retail accounts were relatively flat compared to last year, which is an improvement from recent quarters' unfavorable trend in these channels.

As an update to our last quarter, our PPG Timeless product in The Home Depot has been added to more locations, and we continue to work with The Home Depot to expand this further. Our investments in the US and Canada architectural business are starting to pay dividends, and we will target to spend another $20 million on additional growth-related activities during the full year.

Sales growth in Latin America was also flat as our Mexican PPG Comex business was impacted modestly by lower sales in the beginning of the quarter, related to post-earthquake market slowdown in Mexico.

We also delivered above market growth in our Australian architectural coatings business, and overall growth in our Central America and China architectural business. Albeit a smaller business, I'm happy to report that our Central America business has continued to grow by mid-teen percentage. We have grown this business, from scratch, into a regional leader in the past several years.

Protective and marine coating sales volumes were up slightly compared to last year, with solid, protective coating sales driven by Asia, offset by moderating weakness in our aggregate marine coating sales volumes. This business has done an excellent job in aggressively managing costs during the year, to

neutralize the earnings impact of expected market-based activity level declines in marine coatings.

From a regional perspective, sales volume growth was supported by emerging regions. Asia demand growth was broad-based across many of our businesses and grew sales volumes against a very difficult comparison period. I remind you that our Asian business grew sales volumes by nearly 10% in the fourth quarter 2016.

Overall, volumes in Latin America were up mid-single-digits percentage, driven by strong volumes in industrial coatings segment, led by our outperformance in automotive OEM coatings. Volume growth also improved in Europe after a flat comparison to prior year in the third quarter 2017. Growth in this region was broad-based and in line with improving regional manufacturing and industrial production, which are typically leading indicators for broader economic recovery.

Sales volumes were up a low-single-digit percentage in the US and Canada with balanced growth from both the performance and industrial coatings segments. The general, industrial, packaging, and aerospace coatings businesses led the growth in this region, offset by lower automotive OEM coatings volume, including the decline in regional industry automotive sales.

Supplementing the company's volume growth in the quarter were acquisition-related gains from our Crown Group acquisition that was completed in early October. The Crown Group serves various customers, including many heavy-duty equipment customers. We are pleased to own the business as the heavy-duty equipment market is in the early stages of recovery.

From an earnings perspective, our fourth quarter adjusted earnings per diluted share of $1.19 improved by 3% versus the prior quarter. Our earnings were impacted by residual factors from natural disasters that happened in the third quarter. Specifically, we experienced higher costs for key raw materials that are in short supply. Additionally, our sales in Puerto Rico and PPG Comex architectural business were impacted especially during the month of October. These lingering effects from the natural disasters had a $0.05 impact on our fourth quarter EPS and a $0.10 impact on our full year 2017 EPS.

Excluding the natural disasters, our adjusted earnings per diluted share in the fourth quarter increased by 7%. Also important is that we experienced continued and elevated raw material inflation in the fourth quarter at about a mid-single-digit percentage increase from the prior year. Raw material costs tend to moderate seasonally, in the seasonally low in the fourth quarter, however, this year they continued to increase.

The main inflation driver is the continued enforcement of environmental regulations in China, which has resulted in ongoing supplier production curtailments. We do not expect this to abate in the first quarter of 2018.

Selling prices were modestly up versus the prior year, third quarter, with additional pricing secured for the first quarter 2018. We're continuing to work with our customers on further selling price initiatives focused on further offsetting this persistent inflation. We now expect the current level of raw material inflation to last well into the first half of 2018. We're working with our suppliers to mitigate the increases and have expanded our resources and efforts on raw material efficiency, as we had said after the third quarter.

These efforts are beginning to yield modest raw material efficiency benefits with more expected as we progress through the first half of 2018. In addition to selling price initiatives, we are partially mitigating raw material inflation through aggressive cost management. We were able to achieve savings from our business restructuring actions of $50 million in 2017, achieving the upper-end of our targeted range. We

also did a variety of other self-help actions, as is our heritage at PPG.

In addition earnings per share benefitted from our ongoing cash deployment actions. This includes the impact of a repurchase of $400 million of PPG stock in the fourth quarter, bringing our full year 2017 repurchase total to more than $800 million or 7 million shares. In the quarter, average diluted shares outstanding were 3% lower versus the fourth quarter of 2016.

Now, I'd like to quickly comment on our full year results from continued operations. These results do not include the divested US fiberglass business results, which was sold in the third quarter 2017. On a full year basis our sales from continuing operations were approximately $14.8 billion, more than 3% higher than prior year. Our full year sales volumes grew by more than 1% with second-half volumes growth at nearly 2%. Our adjusted earnings per diluted share was $5.87, up nearly 4% versus prior year.

We were able to grow our full year earnings despite significant disruption to the coatings industry supply chain during the year. These disruptions included a very high number of supplier force majeures in Europe, several severe natural disasters, and unexpected production curtailments in China. We accomplished this with another strong year of operational execution.

One more significant action included commercialization of new products and technologies allowing us to deliver above market growth in several of our businesses. Continued successful integration and earnings accretion from prior and current year acquisitions; delivering on previously announced restructuring program, including achievement of our savings commitments; our hallmark of improved productivity and aggressive cost-management, as exemplified by our 80 basis point reduction in our selling, general and administrative costs as a percentage of sales; and finally another reduction to our operating working capital as a percentage of sales. This year it reduced by 50 basis points, bringing the total reduction to the past three years to 260 basis points.

In addition to these operational items, we allocated more resources and investments toward growth-related opportunities and expect that this will continue to yield dividends in our organic growth rate going forward. Over the course of the year we continued to execute on our strategic objective to strengthen the company. We further optimized our business portfolio with the acquisition of The Crown Group, a leading provider of coating services, DEUTEK, a Romanian architectural coatings leader, and Futian, an automotive refinish company based in Southern China.

We also completed a multi-year portfolio transformation with the sale of our US fiberglass business, our last, remaining non-core business. We are now a 100% core paints, coatings, coating services, and specialty materials focused company. We will continue to build on our strong customer relationships and develop leading edge technology to support our customers. Our portfolio allows us to deliver strong and consistent operating cash flow, requires less capital intensity, and we expect to be more resilient to overall shifts in the economic activity.

We also continued our strong cash generation with about $1.5 billion generated from continuing operations for the year. As I mentioned earlier, one of the key enablers of this cash performance was our continuing effort to be more efficient with our working capital. In addition, consistent with our capital allocation philosophy, we continued our legacy of returning cash to shareholders with nearly $1.2 billion in share repurchases and dividends. Regarding dividends, we are proud that 2017 marked the 118th consecutive year of dividend payouts and the 65th consecutive year of annual payout increases, after a 13% increase in July 2006, I'm sorry, 46th consecutive year.

As we look forward to 2018, our expectation is for more continued positive momentum and overall global economic growth, including gradually higher growth rates in developed regions, a continued higher

growth rate in Asia Pacific, and improving growth in Latin America.

We anticipate economic growth rates to improve in the US and Canada, including modest acceleration in industrial production and GDP rates versus 2017. We believe the recently enacted US tax reform legislation may bring further growth in the US, however, there are many uncertainties including how our end-markets will be impacted.

Specific to our business, we do expect construction markets to expand in the US and Europe. We also expect better growth and housing starts over 2017. And lastly, we believe that regional automotive industry builds will be relatively flat year over year.

In Latin America, we anticipate economic expansion in Mexico and in South America we expect continuing improvement to growth rate, following a modest uptick in 2017. Growth rates in Asia are expected to remain generally consistent with 2017, with continued industrial production in China, as well as gains in Southeast Asia and India. Automotive build growth is expected to be flat to slightly down in the region, with the greatest wildcard in China, where the small engine subsidy has expired.

Economic growth in Europe is expected to continue, but remain varied by sub-region and country. Favorable end-use market trends are expected to continue particularly in automotive OEM coatings as industry build rates are expected to remain positive. Even with a more optimistic view for 2018 economic growth, we will aggressively manage all elements of our business within our control to ensure that we remain competitive regardless of economic conditions. We will continue to execute on our restructuring program, focus on reducing our overall cost structure, and we will continue to support the momentum of our recent growth-related initiatives.

As we mentioned earlier, we expect raw material inflation to persist at current levels at least for the first two quarters. We will continue to work with our customers to address the inflationary environment and expect to realize additional selling price increases in 2018.

Finally, we remain in a position of strength as we ended the year with over $1.5 billion in cash and short-term investments, which provides us with a significant financial flexibility going forward. We are committed to deploy a minimum of $2.4 billion of cash in 2018 on acquisitions and share repurchases as part of our previously communicated target, to deploy a minimum of $3.5 billion is 2017 and 2018 combined.

We continue to believe the coatings space remains a consolidating industry, and our acquisition pipeline remains active across geographies and end-use markets. We plan to continue to repurchase shares in the first quarter.

I will conclude by saying that 2017 was a solid year for PPG. We delivered adjusted EPS growth despite a plethora of supply disruptions in our industry, but we fell short of our EPS growth targets. However, we completed various strategic actions to continue to make the company stronger and more resilient in the future. We look forward to another successful year in 2018.

And now, I will turn over to Vince, who will cover some 2018 financial assumptions.

Vince Morales
Thank you, Michael, and also good afternoon, everybody. I'm just going to cover a few items that will assist folks in modeling PPG's 2018 financial results. Included in the presentation that was distributed for the meeting today was a summary of some of the financial items I'm going to cover.

First is the impact from acquisitions that we completed in 2017, the carryover impact, as well as the full year impact from the ProCoatings acquisition that we finalized earlier this month. We expect these acquisitions to have approximate sales of $125 million in 2018 until they reach their anniversary date. The margin on these sales is typically lower than the segment margin, until we're able to work through the synergy capture that is included in our estimates.

Next, we will continue to experience the impact of favorable foreign currency, as measured against the US dollar. As a result, the full year estimate that we are anticipating, based on current exchange rates, is a sales impact of about $250 [million] to $300 million, favorable, as well as about 10% of that or $25 [million] to $30 million on the bottom line of pre-tax earnings. For the first quarter, we expect the impact to be comparable to what we experienced in the fourth quarter. Again these statements represent our current assumptions and are based on current exchange rates; they'll obviously, likely change throughout the year.

As Michael referenced in his comments, we are still completing our 2016 restructuring program. We have a total full year run rate target for that program of about $125 million. We achieved about $50 million in 2017, and we anticipate another $45 [million] or $50 million incrementally in 2018.

We expect the company's pension and post-retirement benefits will be comparable to 2017, for the calendar year 2018.

And again, as Michael mentioned we expect the company's 2018 tax rate on ongoing earnings from continuing operations to be in the range of about 23% to 24%. Again the comparable rate for 2017 was 24.4%. The decrease relates primarily to the recently enacted US tax reform legislation. As noted in the press release, this is our best estimate based on what we know at the present time. That's obviously subject to updates as we receive any information with respect to updates on the legislation.

As a reminder, there's a new accounting standard in place for 2018 regarding revenue recognition. We've evaluated the new standard, and do not expect any material change to our sales, our net income. However, there will be some geographic changes on certain cost elements and sales elements, and we're estimating that'll likely lower our gross profit percentage in 2018 versus 2017 by about 50 to 100 basis points. And there will be a corresponding decrease in our selling, general, and administrative expenses of a similar amount.

Finally, Michael mentioned we are committed to meeting our previously announced cash deployment target. And again that means we will deploy $2.4 billion of cash on acquisitions and/or share repurchases in 2018. Once again, a summary of these financial estimates is included in the presentation materials. This concludes our prepared remarks.

Once again, we appreciate your interest in PPG. And now, Rocco, would you please open the line for questions?

QUESTIONS AND ANSWERS

Operator
Absolutely, sir. We will now begin the question-and-answer session. To ask a question, you may press star then one on your touchtone phone. If you are using a speakerphone, we ask that you please pick up your handset before pressing the keys. To withdraw your question, please press star then two. As a reminder, we ask that you please limit yourself to one question and a single follow-up.

Today's first question comes from John Roberts of UBS. Please go ahead.

John Roberts
Thanks, nice quarter.

Michael McGarry
Thank you, John.

John Roberts
You mentioned the new environmental regs in China affecting raw materials. Is that a broad-based issue, or are there specific raw materials that are particularly causing you some issues?

Michael McGarry
No, it's fairly broad-based, but the one that has the most amount of impact on is epoxy. As you know, we use epoxy in many of our different businesses, whether it's packaging, OEM, industrial. That will probably continue, I would say, because it's winter over there, they're especially trying to get their air better, big coal burning time for them. We don't have any insight into whether that's going to continue or not, but obviously at these levels, there's a lot of people making a lot of money, so we wouldn't be surprised if there's additional capacity added elsewhere.

But right now, we anticipate raw materials should start to moderate, but we're not perfect prognosticators on that by the middle of the year.

Vince Morales
John, if I could add, it's Vince, we've seen this all year long in China, again more rigid enforcement of existing rules and it's affected not only the epoxy that Michael mentioned, it's affected other baskets of raw materials as well. So, I'd call it more of a rolling outage or production curtailment.

John Roberts
And then if raw materials just leveled off where they are today, how much additional price do you still have to announce to your customers versus how much is just that you have to realize on price increases you've already discussed with your customers?

Michael McGarry
Well, every business in PPG, without exception, has announced price increases. And some of them in 2017 announced two, and another one in 2018. So, we'll have to look at this as we go through the year, it wouldn't surprise me that there could be additional announcements. But, we don't want to get ahead of inflation at this point, and we want to work constructively with our customers. Right now, as you know, we are net-negative, if you take raws minus pricing.

John Roberts
Thank you.

Vince Morales
Thank you, John.

Operator
And today's next question comes from Ghansham Punjabi of Robert W. Baird. Please go ahead.

Ghansham Punjabi
Hey guys, good afternoon.

Michael McGarry
Hi, Ghansham.

Ghansham Punjabi
On the 3% volume growth during the fourth quarter, how much do you think you benefitted, if at all, from a rebound in growth following the impact in 3Q from both the hurricanes and also the earthquake in Mexico?

Michael McGarry
Well, I will tell you in Mexico, October was soft. We had a little bit better November and a very good December. So, for the quarter we were actually flat. That's the flat first quarter we've ever had in Comex since we've owned it. From a sales perspective we were up because we were able to get price to offset the raws down there.

In the US, I would say it was more of a mixed bag, because as you know it depends upon the size of the house, how quickly they can get paint on the wall, once they start repairs, and so it was not a—probably we didn't benefit that much yet. We still expect to see some benefits, but we had nice mid-single-digits in our company-owned stores, and it was in all the regions. We didn't have any region that was weak from that perspective.

Vince Morales
Ghansham, this is Vince, if you compare Q3 to Q4 volume growth, the biggest accelerant was Europe. So, if you ask what the difference is, it's a recovery we're seeing in Europe. Michael alluded to it in the call, in the prepared remarks, excuse me, with respect to the industrial activity we're seeing there.

Ghansham Punjabi
Okay, that's helpful, and then just for my second question. For the industrial segment specific to the fourth quarter, was there any material mix impact during the quarter? I'm just trying to reconcile the 280 basis point decline in 4Q operating margins for the segment versus 230 basis points in 3Q and whether there was any incremental impact other than just raw material cost net of pricing.

Vince Morales
Well, if you look at that segment, Ghansham, there are seasonality pieces to that segment, including automotive. Within the automotive industry there's different seasonality by region. So, it's hard to really compare Q3 and Q4. I understand what you're trying to do, but we didn't see anything that's material that would have changed the mix other than the typical regional and seasonal differences between the quarters.

Ghansham Punjabi
Thanks, guys.

Operator
And our next question comes from Frank Mitsch of Wells Fargo. Please go ahead.

Frank Mitsch
Good afternoon, gentlemen. How are you doing today?

Michael McGarry
Fine, Frank.

Frank Mitsch

I want to broaden out the question that John asked on raw materials, you mentioned that coming out of China epoxy was the one that was concerning you. As you think about your raw materials overall, how would you rank the ones that are most problematic, so we can track that? And also, Michael, I think you mentioned that you're embarking on some raw material efficiencies. Can you provide some examples there?

Michael McGarry
Okay, so the one that after raw materials and epoxy, you have propylene, is obviously a major driver for us. And propylene is up significantly in US year over year, it's up in Europe year over year and Asia. And then you have crude, this time last year, I think crude was about $55, now it's $69 for Brent and it's $64 for WTI. So, I think that's going to flow through into solvents, so you have to watch that. So, those would be the key ones.

As far as efficiency improvements, we always are trying to optimize our formulas, Frank. So, if you think about some of the additives, some of the solvents that are in there, to the extent we can shift more of our customers from solvent-based to water-based that would be a positive. From the ability to change the formulation mix to I would say away from propylene and more toward ethylene, that's a positive for us. So, that's how we're thinking about that.

Frank Mitsch
Okay, terrific. And you mentioned on the share buyback you did $400 million in Q4, which was the highest level of the year. As I think about the $2.4 billion you have to spend over the four quarters of 2018 that would imply, absent acquisitions, $600 million a quarter. So, how are you feeling about your ability to execute mid- to large-scale acquisitions in 2018?

Michael McGarry
Well, Frank, we've already announced two small ones, so far, this year. I would tell you that we're going to continue to have acquisition opportunities. I had a person in the other day that made a verbal commitment, so that—we'll have to work our way through it. It's a family, so it doesn't always happen at the rate I would like. But, the pipeline looks good; we're going to continue to work at it. We have good visibility into these things, so when we start talking we know whether it's going to be a 2Q close or a 3Q, so we'll be able to moderate our buybacks to make sure that we're at or above the $3.5 billion that we've committed.

Frank Mitsch
All right, terrific, thank you.

Vince Morales
Thank you, Frank.

Operator
And the next question today comes from Kevin McCarthy of Vertical Research Partners. Please go ahead.

Kevin McCarthy
Good afternoon. Michael, how would you characterize your volume expectations for the company in the first half of 2018? I believe you have fewer, one less shipping day in the first quarter, and perhaps inputs and takes, as you touched upon, with regard to natural disasters. As you roll all that up, is there any reason to believe that your trajectory would be materially better or worse than the 3% in the fourth quarter?

Michael McGarry
Well I think Easter affects different businesses different ways, so that's why we wanted to put that out there on one less shipping day for Q1. We do know that the build rate for automotive in the first quarter is not significant, it's relatively flat, so you can factor that in. But, we are gaining share in a number of our other businesses, so when you think about packaging that's a business we're gaining share in. When you think about industrial, we've had four years in a row where we grew share in our industrial coatings business. Then you think about our specialty coatings and materials, we're excited with our OLED product; that has been doing very well.

And aerospace and refinish have just been very, very solid businesses and, as you know, Boeing and Airbus's backlogs are still there. I know they pushed hard to get a lot of planes out in the fourth quarter, but we still are optimistic that they're going to build more planes in '18 than they built in '17. I'm reasonably confident that it's not going to be a straight line, but we're going to have a good year.

Kevin McCarthy
If you reflect back on prior cycles for raw material inflation and selling price increases, has PPG experienced any pre-buying activity across the customer base, whereby your customers attempt to increase purchases ahead of announced increases? Is that meaningful or not meaningful? And does the answer vary by product line perhaps?

Michael McGarry
It could vary by product line, but if you think, a lot of our customers, the aerospace guys, the refinish guys, automotive—a lot of these things are just-in-time delivery, so they're not into that. The only place that you could envision that is our dealer segment, where you have an independent business man who says okay, I'm going to get ahead of the curve, I'm going to buy a little bit more. They would have to then be buying paint in the fourth quarter, a quarter early before the paint season. So that would be one area that you could see some of that.

Vince Morales
I'd say Kevin, this is Vince, and very, very, scarce that that happens, and it's not really meaningful to the company overall.

Kevin McCarthy
Excellent, thank you.

Vince Morales
Thank you.

Operator
And ladies and gentlemen, our next question comes from Bob Koort of Goldman Sachs. Please go ahead.

Chris Evans
Hello, everyone, this is Chris Evans on for Bob. You mentioned pricing across every product line of PPG. I was wondering if you could give us a sense for the scale, on average, you're targeting in '18. And then are competitors aligning with your efforts and behaving rationally to offset the raw pressures?

Vince Morales
Hi Chris, this is Vince. Again, every business and every region has a different target, depending on what's happening within those regions. We'll work with our customers on what those targets are independently. We're not going to broad brush that comment; it's not appropriate, for us or our

customers. I think the comment Michael made earlier is what you should probably think about is we're expecting minimal abatement of raw materials in the first half, we're behind the curve in terms of recovery, and our objective is to fully recover as we progress through 2018.

Chris Evans
Great. And then you mentioned a little bit on some growth spending and performance in the first quarter, and you had a program in the fourth quarter as well around $10 million. Did you spend the full $10 million? It seems like there's been a number of these programs recently. Is this going to be more sustainable or something you'll lap as you anniversary these programs?

Michael McGarry
No, we spent the money that we said we were going to spend. The $20 million I referenced was for the full year. And so, we would expect to continue do that. I think when you look at what we're trying to accomplish with growing, getting our organic growth rate up, these are investments in our business that we're going to continue to do, and we just want to let you know when we're doing them.

Vince Morales
If you look, I think we're yielding results on them, so we'll continue to measure that versus the results that we're yielding.

Chris Evans
Thanks, guys.

Michael McGarry
Thanks, Chris.

Operator
And our next question today comes from Jeff Zekauskas from JP Morgan. Please go ahead.

Jeff Zekauskas
Thanks very much. If you look at your adjusted net income and your DNA, it's about $2 billion for 2017, and your cash flow is about $1.5 billion. Can you talk about the factors that led you to not generate as much cash as you have in some years in the past?

Vince Morales
I just want to understand the question, Jeff. We had $2 billion of—

Jeff Zekauskas
In other words, if your adjusted earnings are roughly $6, and you have 250 million shares, that's about $1.5 billion, your DNA is about 450, so you add that up and you get a little bit under $2 billion, and your cash from operations was about $1.5 billion. So, what I was wondering is, was there something unusual that depressed your cash flow, such that the number wasn't closer to that $2 billion number?

Vince Morales
Well, let me try to answer your question, Jeff. I think if you look at our numbers right off of our statement, we had just over $2 billion of income, to your point we had another $460 [million] roughly of depreciation; that'd be about $2.5 billion of not exactly EBITDA, but close to that term. We did include, in our appendix I think, what we paid in cash taxes; that was just under $600 million. So that would take us down to about $1.9 billion, in terms of potential cash. If you look at our operating working capital, which is on one of our schedules, even though our percentage was down, the absolute dollars were up about $70 million, because of the growth we had in sales.

And then as we alluded to in a prior earnings call, we did have a gain on sale of the fiberglass business. So, we had to pay tax on that gain, and that's several hundred million dollars. And then there's always some minor things we would call like pension contributions, etc. So, I think if you aggregate all that up you get down to somewhere in the $1.5 billion, $1.6 billion range you were talking about.

Jeff Zekauskas
Secondly, can you talk about business conditions in Brazil? And from your point of view was the acceleration of growth in aerospace, in the fourth quarter, a one-time item, or was it more indicative of the trend going forward?

Michael McGarry
I think aerospace, that's an easy one. It's more indicative of low to mid-single-digits in aerospace. The market grew, we think, 3%. We outgrew the market. We would expect to see a similar-type performance in 2018.

As far as Brazil, we think Brazil was on the early path of a recovery. We're fortunate that we have strong businesses in Brazil, whether it's our automotive business, our industrial, our packaging, our refinish, all folks that have done very well down there. And so, we outgrew a little bit faster than Brazil. I think for 2018, we should then start to match more the growth rate down there.

So I think overall, our Latin America team did an outstanding job in 2017.

Jeff Zekauskas
Okay, great, thank you so much.

Vince Morales
Thanks, Jeff.

Operator
And our next question today comes from Vincent Andrews of Morgan Stanley. Please go ahead.

Grace
Hi this is Grace, signed on for Vincent. You mentioned the impact Chinese environmental regulation is having on raw material inflation. But on the flip side, do you get the sense that the environmental enforcement is negatively affecting the operations of your Chinese competitors? And if so, have you been able to take some of that market share?

Michael McGarry
Well from a coatings standpoint, most of the folks that we compete with are global coatings companies. And as global coatings companies they are, I would say, very responsible operators. Not only that, but generally because we're number one in all the segments there, except for architectural, I would say that a lot of those folks generally have capacity. So if they're asked to shut down for two days because of a Beijing event, or if they're asked to shut down for three days in Shanghai, they're able to make that up on other days.

So, we have not seen any indication of that, that they have been negatively impacted, but it would be a good question for you to ask them.

Grace
Okay.

Vince Morales
And Grace, if I could just intervene, I think one of the—long-term, we're supportive of good environmental enforcement. We have a whole plethora of products that we think are advantaged versus smaller players in the marketplace. And, we think for the multi-national coatings companies, once we get through this transitory inflation trend, this is a good signal for future demand, again for those who have the products that can support this environmental enforcement.

Grace
That was helpful, thank you very much.

Michael McGarry
Thanks, Grace.

Operator
And our next question today comes from Christopher Parkinson of Credit Suisse. Please go ahead.

Christopher Parkinson
Great, thank you. Out of the M&A pipeline you're currently evaluating, especially the larger targets, as a potential what you assess as the most probable, do any key themes exist? For instance, are there more affordable opportunities in a specific region, a specific focus on complementary technologies or even broadening your end market exposure? Just any assessment on how we should view that would be very helpful. Thank you.

Michael McGarry
I think, Christopher, the markets where we've been most successful is North America and Europe; those are the more mature regions. The folks in Asia, there's many things for sale there, but the multiples are not value creating to our shareholders. So eventually, one day, that'll be in our bailiwick. So, you can expect that most of these will be in the North American/European space.

And then, the other ones, the way to think about this is the markets that are the least consolidated are protective and marine, industrial and architectural, and so those would be the areas that would have more of a target rich environment, if you will.

Christopher Parkinson
That's helpful. Just as a follow up, can you just breakdown any key trends you're currently seeing in the European end markets and any potential to see some improvement in incremental margins, so anything of note on a country-by-country basis post the key elections in '17? Thank you.

Michael McGarry
Well, I think you've seen in historical past that because we have additional capacity in Europe, we don't have to add any overhead or any people to produce additional volume in Europe, so we have the highest incremental margins in Europe, which tend to be 30% to 40%. So, we're always very happy to see growth in Europe.

What we're seeing right now is the growth in the Northern European countries continues to be pretty good. France is the one area that still has not turned the corner. We see some recovery in Southern Europe. The one watch-out is the UK. Brexit, we see retail, especially in the UK, as being weak, and so we're paying close attention to that.

Christopher Parkinson

Great. Thank you very much.

Michael McGarry
Thank you, Christopher.

Operator
Our next question today comes from Dimitry Silverstein of Longbow Research. Please go ahead.

Dimitry Silverstein
Good afternoon and congratulations on a good end to the year and good results here. Just a couple of questions, if I may. You've talked about the European decorative paint business having a flat quarter, which is certainly better than the losses you've had the last couple of quarters in terms of volumes. Can you talk about what's going on there with your pricing initiatives? Are they as prevalent as they are in the US and as successful, or is there an obstacle to getting pricing up because of the more fragmented market?

Michael McGarry
No, I would actually say that the architectural European team has been one of our leaders as far as getting price up. We've been successful in the UK, the Benelux, France, Italy, Denmark, so we've had good success in, what I would call Western Europe. It's a little bit more of a challenge in Eastern Europe where it's more fragmented. We have folks that are still focused more on volume than margin recovery, but I think as people look at their year-end results, people are going to see the squeeze.

The problem in coatings, of course, is a huge percentage of your cost and manufacturing is raw materials, so you cannot ignore this. They might ignore it one or two quarters but it's staring them in the face and I think we'll see more folks get serious about recovering their margins, so I'm actually happy with the architectural European team.

Dimitry Silverstein
Okay, that's helpful. And then, just looking at the gross margins, the delta in year-over-year margins seems to be—choose to expand this year versus what you saw in the first three quarters of the year here in the fourth quarter. Is that just a function of that's where most of your raw material hit is happening, post-Harvey particularly, and not getting that seasonal decline? Or, is it a mix issue, either geographically or business-wise that's giving you a little bit more of a negative delta between gross margins on a year-over-year basis?

Vince Morales
No, Dimitry, it's the former. Typically, we do see some raw material price compression in Q4. As Michael said in the prepared remarks, we actually saw the opposite this quarter; that's why that delta opened up a little bit. Again, we think that's transitory. We do expect inflation in Q1, but we had inflation in Q1 of last year as well.

Dimitry Silverstein
Right, right. Okay. You were talking about getting more pricing in the first quarter of the year as far as making new price announcements. That is also across the board, both industrial and consumer and in performance coatings groups?

Vince Morales
Every business.

Dimitry Silverstein

Every business, alright. The magnitude, similar low to mid-single-digits, which you've done before?

Vince Morales
We're not going to talk about the magnitude. I don't think our customers want us talking about that, but every business is out trying to get price right now.

Dimitry Silverstein
Fair enough. Thank you, guys.

Vince Morales
Thank you.

Operator
Our next question today comes from David Begleiter of Deutsche Bank. Please go ahead.

David Begleiter
Thank you. Michael, what are your expectations for the upcoming US spring paint season and do you expect any impact even now or later from the recent hurricanes?

Michael McGarry
Well, I would think the hurricanes will have a positive impact. I don't think it's going to be something that you'll necessarily be able to pick out. Certainly, the Houston stores, the Florida stores are seeing some positive momentum, so I'm pleased to see that. I think when you look at the overall market for architecture in the US, we're still predicting that to be in that 2% to 3% range, probably the high end is 4%, and more of that to the company-owned stores, and less of it, of course, the dealers are the most challenged segment and then the retailers are in the middle. I would say that's not too different. We're not expecting a different trend line.

You still have the do it for me going on, that's still a significant thing, and you still have labor for the painters, whose challenge are not always having enough painters out there in the marketplace, so that is also holding back a little bit the growth rate. But overall, I would expect to see similar trends.

David Begleiter
Michael, amongst these large, big box retailers, in particular one, is there some potential gain, a price point given some recent consolidation amongst their suppliers?

Michael McGarry
Well, I think the way we always think about this, David, is you win some and you lose some in the big boxes. A lot of times they want to keep you on your toes and as you see, we won the Timeless paint and Timeless stain. That filled a gap that they had in their offering at the Home Depot. They've been extremely pleased with that, and the number of stores we're going into in '18 will be higher than '17.

You can lose some as well. As far as any particular retailer, it would probably not be appropriate for us to comment on their plans. We, obviously, are always talking to all of our large retailers about how we can improve their business.

Vince Morales
David, we think the puts and takes in a given year typically offset each other and that's what we expect in 2018 as well.

David Begleiter

Sounds good. Thank you very much.

Michael McGarry
Thank you.

Operator
Ladies and gentlemen, our next question comes from Laurence Alexander of Jefferies. Please go ahead.

Dan
Hi, guys. This is Dan [Indiscernible]. How are you?

Michael McGarry
Good. How are you?

Dan
Good. In the text, I think it's been pointed out that sometimes auto OEMs do a little rebalancing amongst their suppliers. Is that something that's occurring now or is it something that's going to be a concern in 2018?

Michael McGarry
There was a re-balancing, but it was more on a regional basis in 2016. I think we talked about that late in '15 or early '16 where we preferentially wanted more share in Asia because we viewed that as a growing market, and preferentially gave up share in the US. That has worked out very well for us. We're not aware of anything that's going to be a material change, though, in 2018. Typically, when they do these things they are apt to let them run for a few years before they make any other changes.

Dan
Okay. Thank you. And then, you mentioned a couple of times that $20 million in growth activities for architectural US. Is that promotional activities or rebates? Could you just give a little color of what that really means?

Vince Morales
There's a variety of different programs we have going on, again, targeted at growing our overall volumes, which we've seen improve for the last six or seven quarters. It's both in the home center channel as well as our store channel, so it's across the board. Again, as I mentioned earlier, we're measuring the efficiency of that spending. If we see more value in doing more, we will. If we don't feel it's returning what we'd hoped to yield off of it, we'll back off of that.

Dan
Thank you very much.

Operator
Our next question today comes from Steve Byrne of Bank of America. Please go ahead.

Steve Byrne
Yes, thank you. You have this matrix in your slide deck that shows end market volumes by geography and it looks decidedly greener, maybe even darker greener, and I assumed from your remarks, Michael, that you might say that trend is likely to continue. But, the other thing interesting about it, it also seems like your own performance showed an improvement in the quarter, less below market results on your own business and maybe a little more above market.

Would you expect these two trends to be coincident?

Michael McGarry
Well, the way I think about that, Steve, and I think we've talked about this the last two earnings calls, is that we have been leading the price up and when you lead price up, you sometimes get penalized, but we always thought we would get our share back. Because at the end of the day, when our competitors also go in and ask for price, then they get penalized, and so we'll end up getting share back. I think, what you're seeing here is some of this flowing back to PPG as other people are out there also trying to recover their margins.

So, that's the way I would think about that. I do see us continuing to innovate very well, so if you look at the businesses that are performing above market, think about refinish. We have the best water-based products out there and as that product grows around the world, think about China, what's going on right now. They're going to ask for more water-based products. We are in a great position to supply that need.

When you think about our INNOVEL coatings for packaging, and people want to take bisphenol A out of the epoxy coatings, we're in a position to deliver that. When you think about innovation in the aerospace business, whether it's the cool coatings, whether it's lightweight sealants, or whether it's the higher performing transparencies, we're delivering that. So, I think the volume growth is being supplemented by technology and we're happy to see that come through.

Steve Byrne
Would you say that the stronger that end market, the more likely it might draw higher technology or a mix shift towards maybe more your sweet spot?

Michael McGarry
Well, I think I would answer it this way. The more sophisticated the market, the more likely they value the technology. If you're in a value segment, they're not going to pay for high-priced technology. If you're in a high-performing segment, they're going to pay for technology.

Steve Byrne
Okay. Just one last one on your pipeline, you characterized it as being pretty steady, pretty full. Would you characterize anything in there as being more than a bolt-on and potentially transformational?

Michael McGarry
I would say that most of the things we're looking at are bolt-ons.

Steve Byrne
Alright. Thank you.

Michael McGarry
Thanks, Steve.

Operator
Our next question today comes from Don Carson of Susquehanna. Please go ahead.

Don Carson
Yes, I have two questions on pricing and margins. You've seen weakness in your industrial coating segment for some time. Is that across the board or is that principally in auto OEM? And given your price initiatives and some of the comparisons a year ago, when would you expect to see improved pricing in

that segment on a year-over-year basis?

Vince Morales
Don, it's Vince. We're not going to get into individual businesses because these are all big customers, as you know. We work with them individually, either globally or by region. We have seen further price improvement/price traction versus prior quarters. We expect that to continue well into 2018. Most of these folks have some price delay in their mind, at least, if not in contracts so again, I think you'll see an uptick in 2018 in this particular segment as the year progresses.

Don Carson
Okay. As you look at gross margins and adjust for this change in accounting, if you're going to have any impact from that, when would you expect to see a year-over-year improvement in gross margins? Is it not until the second half when raw material inflation moderates or given your pricing actions, do you think there's a chance for that by the time you get to the second quarter?

Vince Morales
Don, we're comfortable we're going to continue to get price, certainly, in the first half of the year if not throughout the whole year. The wild card is as I know you're acutely aware, is what happens to raw materials when you get to the April/May time period? That could be an inflection point, up or down. In 2017, unfortunately, that was an inflection point upwards, so our visibility is only 60 days or so. But the answer to your question, I think we'll be unfolding as we get into early to mid-second quarter.

Don Carson
Thank you.

Michael McGarry
Thank you.

Operator
Our next question comes from Patrick Lambert of Raymond James. Please go ahead.

Patrick Lambert
Hi, good afternoon. Thanks for taking my questions. A very simple one. I'd like to have your view on the outlook for both market protective and marine in particular in 2018, what you're seeing in terms of order books of your customers and the picture you could see evolving in 2018.

Michael McGarry
Sure, Patrick. I think the most meaningful thing is that new build deliveries in the fourth quarter are up 2%. That's the first positive new build deliveries in quite some period of time. China has been growing share at the expense of Korea, so that's another good data point for you to be aware of. But, what I always remind people is that we don't put paint on a ship until 18 months after we take orders, so the fact that we're taking higher orders now won't show up in the order book for quite some period of time.

The good news is our protective and marine business, collectively, was a net positive, so the growth in protective exceeded the growth or the decline in marine, and earnings were up year over year in that segment due to very tight cost control. So, I think that's a positive.

Patrick Lambert
So, marine in Q4 was still negative for you?

Michael McGarry

Yes.

Patrick Lambert
Okay.

Michael McGarry
And, we expect it to be negative in Q1 as well. So if you're looking for an inflection point, it'll be sometime in the back half of 2018, but we expect protective to be growing at a faster rate than it's declining, and that'll be a positive.

Patrick Lambert
Do you see oil and gas protective going up in the next year?

Michael McGarry
I think you'll see some orders placed but it's probably a little bit early for that to be out there. You're probably a couple quarters ahead of the curve.

Patrick Lambert
Thank you.

Michael McGarry
Thank you, Patrick.

Vince Morales
Thanks, Patrick.

Operator
Our next question today comes from Jim Sheehan of SunTrust Robinson Humphrey. Please go ahead.

Jim Sheehan
Can I get your thoughts on titanium dioxide prices? Do you expect the pricing of that raw material to settle down in 2018? And, when you talk about efficiencies in your raw materials, how does that pertain to TiO2 if at all?

Michael McGarry
So, we took out about 1% of our TiO2 in 2017. We expect to take out 1% to 2% in 2018. We're trying to make our formulas more efficient and still provide as good or better quality on the final corrosion protection for our customers as well as other properties. So, TiO2 pricing itself, I would say, is starting to moderate. I think you know that, in fact, the largest supplier is trying to take a different approach to the pricing, the way they go to market in that regard.

We'll have to wait and see how the other folks react, but we certainly have been watching this closely and I would think there are some small increases expected in the first half of 2018.

Jim Sheehan
Great. And then, on the 3% volume increase for the quarter, could you just describe that volume growth relative to your comments on leading on price? If you have lost some share due to leading on price, are we in a regain share mode today or are we still behind the curve on that and maybe your normalized growth rate could be a little bit better?

Vince Morales

Sure, Jim, this is Vince. You may not have heard the question earlier, but Michael answered a similar question earlier. We thought we were regaining some of the business from early in 2017 and we were proactive on pricing.

Jim Sheehan
Thank you.

Vince Morales
Thank you.

Operator
Our next question comes from Tom Narayan of RBC. Please go ahead.

Tom Narayan
Thanks for taking my question. It's a follow up, actually, on a question asked earlier on M&A. You guys had said that you're more interested in bolt-ons than a transformational acquisition. I'm just curious, is that a change in view post obviously what happened last year or was that opportunity something unique and specific that maybe you don't see in the horizon currently?

Vince Morales
No. I think what we're trying to address is what's in the target zone, what's available to us, where we have the financial capacity to do a large deal if one would present itself. That would be something we would certainly look at, but when we're looking at what we have today in the pipeline, Michael was trying to address that question of what's in the pipeline today.

Tom Narayan
Okay. Then, a couple of folks asked about the increased spending on, I think it was a Timeless product at Home Depot in 4Q. The question I have on that is the margins in the performance coating segment were actually higher, it looks like year over year, even with the raw materials pressing headwinds. I'm just curious why those margins held up as well as they did in the quarter even with that increased spending.

Vince Morales
This is Vince again. If you look, we said this many times, that if we have volume, we typically have very good incremental margins on that volume. Secondarily, we did secure additional pricing versus Q3 in that particular segment in Q4. Those are two elements that allowed us to get above margin parity year over year.

Tom Narayan
Okay. Thanks, a lot.

Operator
Today's next question comes from Kevin Hocevar of Northcoast Research. Please go ahead.

Kevin Hocevar
Hi. Good afternoon, everybody. Nice quarter.

Michael McGarry
Thanks, Kevin.

Kevin Hocevar

I'm curious, we've had a couple of years of pretty unseasonably warm winters and this year seems to be, at least so far, a little bit more normal, so I'm wondering and realizing we're not in the business here of forecasting weather but assuming a more normalized winter this year, are there any businesses that you have that have benefitted from warmer winters the last couple of years that could be impacted by a normal winter? What comes to mind are exterior paints, but I'm just kind of curious if anything would be negatively impacted if we do, ultimately, have just kind of a more normal winter than what we've had the last couple of years?

Michael McGarry
I don't think, Kevin, there's anything that's going to flip bad from the fact that we have a cold winter. Obviously, you can see the company-owned store sales dropped in the last couple of days when Houston was 15 degrees and snow, but conversely, Houston had ice and snow on the road, that means there are a lot of refinish opportunities for us. So, this is the first year that refinish might come out of the winter with a substantial backlog, so I would say it's more likely to be a positive than a negative, but it's very, very difficult to put a number on it.

Kevin Hocevar
Sure. That's interesting. Then, on your US Architectural DIY market, it looked like that was for the first time in a while, it looked like on the heat map it was neutral to volumes, which I think has been getting progressively better throughout the year. I was wondering if you have any update there on that kind of DIY dealer channel. Are things improving there or is there any benefit from a channel fill for the Timeless product lines? I wonder if you could just comment on what you're seeing in that market.

Vince Morales
Well, I think, Kevin, as you pointed out, this is the first time in 2017 we think the market is running about flat. We walked away to see what other folks, when they announced what they come out with, so this is our assumption. The caution I would throw out there is Q4 is typically a very seasonally light quarter, so I wouldn't use that as a proxy. As Michael alluded to earlier, the do-it-for-me market is certainly stronger, and so I wouldn't read anything particular or draw any trend lines from Q4. We hope it remains flat to up next year, in 2018, but we'll have to get into the paint season to make that a reality.

Kevin Hocevar
Okay, great. Thank you very much.

Vince Morales
Thanks, Kevin.

CONCLUSION

Operator
This concludes our question-and-answer session. I would like to turn the conference back over to management for any closing remarks.

John Bruno
Thank you, Rocco. This is John Bruno again. I'd like to thank everyone for their time and interest in PPG. If you have any questions, please contact me. This concludes our fourth quarter and full year 2017 earnings call.

Operator
Thank you, sir. Today's conference has now concluded, and we thank you all for attending today's presentation. You may now disconnect your lines and have a wonderful day.