Good afternoon and welcome to our conference call. For your information we have posted our interim report of the conference call presentation on our website and we assume you have read our Safe Harbor statement.

I would now like to directly hand over to Patrick Thomas.

Thank you very much, Ronald, and good afternoon to everybody. We clearly had another strong quarter delivering on our promises. We continue to grow above GDP and we are able to translate this growth with a positive volume leverage into a strong bottom-line development.

Despite the current uncertainties in the market, Covestro’s fundamentals continue to improve. As a consequence, we are able to upgrade our guidance.

We also completely paid back our Bayer loans, another important step to reach our full independence.

In quarter two 2016, we achieved another strong quarter with a core volume growth of 7.7% year on year. Adjusted EBITDA improved 9% year on year despite a high comparison basis. This was above our guidance of just coming close to previous year’s level helped by a strong finish in TDI and in polycarbonates.

We were able to deliver a net income increase of 51% year on year due to stable D&A and financial expenses and a slightly declining tax rate.
On the chart on page five, I would like to focus on our ability to grow above GDP. In the first half of 2016 we were able to achieve a core volume growth of 8.1% year on year. The strong growth is driven by three factors.

Firstly, our markets continue to grow structurally above global GDP as we substitute steel and other metals, glass, leather and other materials. Secondly, we were able to gain market shares by driving the innovations in our markets. As an example, this quarter we opened up a new polyol plant where we use carbon dioxide as an alternative to petrochemical feedstock and thus a more environmentally friendly feedstock. Thirdly, we have underutilized assets, which allow us to benefit from any production problems our competitors may have.

Our strong core volume growth was broad-based and driven by all regions and by all industries. In China we were even able to accelerate growth slightly to 15% year on year after 13% in quarter one. The US witnessed the expected slowdown compared to quarter one 2016 but our growth remains well above GDP development.

Growth in Germany slightly accelerated but is still one of our weaker spots. As a side remark, Brazil turned around in quarter two with the first growth seen now for almost 10 declining quarters. Please note that we report Latin America as part of our EMLA region.

Covestro generated an EBITDA margin of 18% in the first half of 2016 even taking into account the usual seasonality. With an expected lower margin in the second half of 2016, it is clear that we should report a very solid margin for the full year. However, we do not assume this is a peak margin level and there are three reasons for this. Firstly, we generate almost half of our earnings in resilient businesses where we assume a relatively steady development. Secondly, our cyclical businesses operate roughly at mid-cycle margin levels. As we highlighted several times before, we assume the supply and demand balance will continue to improve at least until the end of this decade due to limited new plants coming on stream. Thirdly, as the oil price crashed, we had to swallow a sales reduction of almost 20% since 2014. However, our margin per ton was not affected by the lower top-line. As a consequence, we benefited from a mathematically improving margin.

I now would like to hand over to Frank for some financial insights.

Frank Lutz - Covestro AG - CFO

Thank you, Patrick. And also good afternoon from my side.

The strong core volume growth in kilotons translated into a sales benefit in euro terms of EUR146 million or 4.5% year on year. The difference between core volume growth and sales volume growth was driven by declining sales in our non-core business. This decline is structural as we plan to sell less intermediates externally and use these products internally to develop our downstream business. We assume that the 3 percentage point gap shown in Q2 will accompany us for the next quarters.

Selling prices declined more or less in line with raw material prices. We also had a negative effect from exchange rates mainly driven by the Chinese renminbi, the Mexican peso and Brazilian real.

Our volume leverage represented the main earnings driver in Q2 of 2016. This is in line with our strategy to sweat our assets. Our cash margin slightly declined year-on-year mainly driven by a higher comparison basis. A quarter on quarter comparison shows even a slightly improving cash margin mainly driven by TDI.

In Q2 2016, we also benefited from lower maintenance costs. However, for the full year, we expect a similar level as in 2015. This means our costs for turnarounds are on a very normal level. We had a slightly negative burden from foreign exchange mainly driven by translational effects.

In Q2 2016, we were able to increase our earnings despite lower sales. This demonstrates once again that the current topline volatility does not affect our ability to generate profits. The adjusted EBITDA increased by 18%, the sixth quarter with a year-on-year improvement.
In PUR, we could significantly increase our core volumes. This is the second quarter in a row of achieving almost a double-digit growth rate. We believe that this is driven by a solid underlying market development and market share gains. We do not assume that our markets have seen any significant restocking. To the contrary, we see currently some very tight markets like TDI where inventories are down.

The margin further improved in the second quarter of 2016. However, we are still operating below mid-cycle levels. The previously described mathematical effect on the reported EBITDA margin is most pronounced in PUR. Selling prices declined due to lower raw material cost by more than 20% since 2014 which enhanced margins.

Polycarbonates generated another strong year-on-year volume growth of 8.5% in the second quarter of 2016 despite a challenging basis. The EBITDA margin stayed on the high level achieved in Q1 of 2016. Given the typical seasonality, we assume a weaker margin in the second half, especially in Q4. However, this is now the sixth quarter with year-on-year improving earnings. We assume that this is driven by a favorable supply demand balance but also by mix improvements due to an above average growth with innovative and high margin programs. We are currently ramping up our third 100 kiloton polycarbonates production line in China. We have also announced that we plan to start up our fourth 100 kiloton line beginning of 2017. This expansion is well timed if we need more capacity in order to fulfill the growing demand for our customers.

In CAS, the phase out of a trading product will burden core volume growth by around 5 percentage points in 2018. However, we continue to assume that our underlying business will achieve a mid-single digit core volume growth in 2016. In the second quarter, our margin slightly declined sequentially due to increasing raw material costs.

The dynamic business development caused some higher working capital needs especially due to higher receivables. The cash tax rate increased to around 35% in the first half year. We also expect the cash tax rate of around 35% for the full year. In the second quarter, we paid out the accruals for the short-term incentive program called STI. During the remaining year, we will build again STI related provisions for fiscal year 2016.

So far, our capital expenditure is significantly below our budget for 2016. We will partly catch up in the second half year. However, some projects are now expected to shift into 2017. As a consequence, we lower our CapEx guidance to around EUR450 million for 2016.

The highlight of the quarter from a financial perspective was clearly that we paid back our loans of EUR810 million to Bayer. With this payment we will have no financial liabilities any longer to Bayer besides some normal business-related obligations. As a consequence, our cash of more than EUR1 billion end of Q1 2016 was reduced to just EUR152 million at the end of this quarter. We intend to fill up our cash pool again to normal levels during the second half of 2016.

Overall, our investment case remains unchanged. We are committed to deliver strong organic volume growth which should support a solid earnings and cash flow generation. Based on our robust financial profile, we plan to pay an attractive dividend.
Despite the continued limited visibility and the high uncertainties, we remain committed to deliver on our guidance.

Thank you very much for listening to this presentation and we are now open for your questions.

QUESTIONS AND ANSWERS

Operator
(Operator Instructions). Martin Roediger.

Martin Roediger - Kepler Cheuvreux - Analyst

Hi, this is Martin Roediger, Kepler Cheuvreux. Two questions, both on TDI. First, the supply and demand in TDI seems to tighten as we speak. What do you hear in the market about the temporary outages by your competitors in general and BASF’s start-up of its new 300Hkt TDI plant in particular?

Second question is related to page 9 of your hand out, the EBITDA bridge in the presentation. You show the positive volume leverage effect for EBITDA was due to MDI and polycarbonates. On page 11, you say that the core volume growth in polyurethanes was driven by both MDI and TDI, that implies the volume growth in TDI did not really contribute to the earnings growth at group level. However, Frank, you mentioned in your speech a minute ago that the cash margin has improved in Q2 mainly due to TDI, so I don’t understand why TDI did not improve earnings but has improved cash margin.

Patrick Thomas - Covestro AG - Chairman and CEO

Okay, Martin. Thank you very much for your questions. I will take the first one and Frank will take the second one; he is just checking his margin development chart so that he can answer you accurately.

Yes, supply and demand became surprisingly tight on TDI as a result of outages that occurred on many plants. In fact, the force majeure that we declared in America had a pretty limited impact: a very small number of thousands of tons were affected there. Other outages occurred in some of the very high cost facilities in Asia and particularly in China. This is an effect which may be due to the aging of some of the assets and the fact that they have been running at very, very low maintenance spend because looking at our cost curve, they are losing cash as they operate.

So this is a phenomenon we have seen before in other sectors where the older assets are being cost-cut, or in cost-cutting mode as much as possible, and when you go into cost-cutting mode then you do end up with higher unreliability. So this may be a feature that will continue, we shall see but I think at one point in time if you include the delayed BASF start-up, 25% of TDI capacity was actually off-line.

BASF I think are reporting tomorrow so we may get enough data on TDI in Ludwigshafen then. All we know is that certainly they have suffered some delay in the start up. We will listen tomorrow with interest as well.

Frank, do you want to talk a little bit about the financials?

Frank Lutz - Covestro AG - CFO

I think, Martin, the confusion comes from the fact that we are talking about year-on-year comparison on the one hand and quarter-on-quarter comparison on the other hand. When we look on the year-on-year, that is what the EBITDA bridge shows on page 9, then the positive volume leverage predominantly comes from MDI and polycarbonates. On page 11, we showed the developments within PUR and of course within PUR, MDI and TDI grow the volume but from a Covestro perspective, if you do the year-on-year comparison, the two predominant drivers were MDI and PCS.
When you then talk about the cash margin improvement that we saw in TDI, that is a quarter-on-quarter comparison. There we saw a slight improvement. However on a year-on-year comparison basis, we are of course still way below where we used to be a year ago.

Martin Roediger - Kepler Cheuvreux - Analyst
Thank you.

Operator
Andrew Benson, Citigroup.

Andrew Benson - Citigroup - Analyst
Yes, actually, Andrew Benson, Citigroup, here. Frank, on the debt reduction you say you want to get back to down to 1.5 times but with a higher level of pension provisions. So is this going to affect the dividends, affect anything else that you now plan? like a more prudent financial deposition to offset the higher provisioning for pension liabilities?

Secondly, what sort of level of profitability do you believe that the three key products would have to sustain in order to provoke a reinvestment phase? Can you shed any light in your crystal ball as to how long things are likely to have to remain good before they become zeros and trigger you or someone to do something?

Just to get back on TDI, you mentioned that 25% was off-line. What do you think the position is now because I have seen that Ludwigshafen is now working. So do you think that the third quarter will see a marked change in supply demand balance in TDI relative to the first half? Thanks.

Patrick Thomas - Covestro AG - Chairman and CEO
Thank you very much, Andrew. I am sorry you didn’t manage to get pole position this time but there is always next time. Frank, do you want to talk a little bit about pension liabilities and then the impact on debt reduction?

Frank Lutz - Covestro AG - CFO
Sure. First of all, I think the most important message even the increasing pension liabilities will not change our dividend policy. We still feel comfortable with the current situation. We look at it as a pure mathematical exercise. Reduced interest rates drive pension liabilities. We all know that at some point in time, once interest rates might increase again, then pension liabilities will go down. Therefore that is not going to change our cash needs during the course of the year.

I think we are now at about 2.3 times EBITDA. The goal over the next year is to reach 1.5 times. I think we are fully on track, we are actually a bit ahead of our initial plan so I don’t feel worried about the increasing pension liabilities and therefore we will keep our dividend policy as communicated.

Patrick Thomas - Covestro AG - Chairman and CEO
Thanks, Frank. In terms of levels of profitability, I think it is probably best to answer this in a sort of general way. If I look at polyurethanes, the current margin levels were well below reinvestment economics today and we have to move some way before we will move to reinvestment levels. And knowing what cost curves looked like, then I would say that is true for the industry. We actually then look at the situation with TDI and sort of roll across into your third question assuming that the plant in Ludwigshafen is getting there now and starting to operate.
What we are really doing with TDI at the moment is we are bumping along the bottom. This is not a turnaround in TDI that we have seen this year. This is just being some noise caused by operational difficulties around the world in a number of plants which happened to coincide. My thesis earlier was that that may happen more often in TDI because of the reduced spending on maintenance and so on that may be occurring with some of our competitors. But I think if you look at the major players who are fully committed who are well positioned on the cost curve, then they can withstand this and we will stay the course in TDI.

So I think maybe in the third quarter we will see TDI moderate slightly in terms of the supply-demand balance and I still think when you look at the major changes that have to occur, we have still got the Dow Sadara plant around the corner, we've still got the Fujian plant in China somewhere around the corner and eventually Wanhua Chemicals out in 2019.

So I think TDI still has a couple of years really before this cycle turns and we start to see some real pricing power. But this I think has been true of TDI for quite a long time. It has always been one of the most volatile factors but on average it returns margins above MDI so that is where we are with TDI and I think that is where we will be in the third quarter and maybe in the fourth quarter with the BASF plant running flat out we may see a different effect but we are not seeing that at the moment.

There have been a huge number of changes and if you just look at the TDI capacity chart we have for 2016, there was actually a reduction in capacity of 4.8% which was structurally taking place. That was based upon assuming that BASF got 150,000 tons out of their plant just to give you a fix for how we look at the numbers.

Andrew Benson - Citigroup - Analyst

Just a second. When you talked about the well-off on the polyurethanes in terms of reinvestment levels, obviously polycarbonates are doing quite well. I mean any sense how close you are to reinvestment in polycarbonates?

Patrick Thomas - Covestro AG - Chairman and CEO

Sorry, I didn’t talk about polycarbonates. That was my omission, I’m sorry. Yes, polycarbonate of course is in a very visible situation as well so what we are seeing in polycarbonates is an addition rate in capacity of around 3% to 4% and a market growth rate of 4% to 5%. At these sort of margins then clearly it is attractive but there is a lead time before investment can take place. And if you look at who has got the ability to put capacity into the market, then principally at the moment it is us with our two new lines. And if you look towards the turn-of-the-century, then it is actually SABIC who have got that with their joint venture plant in China. So I think those are the two market leaders.

If you are talking about a new player coming in, then we do see some smaller players but we also see some of the others being less committed to polycarbonates than we have seen in the past and we certainly see some signs that some of the Japanese players may actually be ready to close facilities. I think when you look at the margins we generate, it is a combination not just of supply and demand but also positions on cost curve. So there are some fundamentally different margins being built by different players and I think that is a very important thing to think about when others are looking at this business right now.

Andrew Benson - Citigroup - Analyst

Thanks very much.

Operator

Mr. Walsh.
Paul Walsh - Morgan Stanley - Analyst

Thanks very much. Good afternoon. It is Paul Walsh from Morgan Stanley. Hi Patrick, Frank, Ronald. Three relatively short questions. Patrick, just first on the guidance I am just trying to figure out how much of a slowdown you are already seeing or the extent to which you are baking conservatism into the second half guidance of flat EBITDA year-on-year particularly in light of your comments that July is reasonably okay? Just some additional color around that because of course you had the outage in Shanghai or the turnaround rather in the fourth quarter. I know you've got Baytown this year but it is not as big. So fundamentally that volume growth you have been seeing in the first half, are you already seeing signs of a slowdown which is behind some of the cautionary guidance implied for the second half or not?

Secondly, in terms of some of the margin uplift story, you demarked some stuff in CAS. Optical Media has shrunk within polycarbonates. Are those developments now easing as we move into the fourth quarter? Is there still more to come there?

And finally just on CapEx and pension top ups, you obviously cut CapEx this year. Can you tell us what we should be expecting next year, year after? And on pension top ups, clearly low discount rates, higher pension fund deficit, any risk of increased top up payments? Thank you.

Patrick Thomas - Covestro AG - Chairman and CEO

So hi, Paul. Thank you very much for your question. I think if I just return to guidance then I will emphasize the word at least. I supposed I actually said at least level of last year. And I think there is some room for a number of factors to kick in. So there is a whole number of moving parts there which is why I am guiding at least. There is nothing that I am seeing fundamentally which is taking us off in a conservative direction at all. I think that was not the aim, I just wanted to give a clear guidance based on last year.

And if you do your math, you will end up with a number of which I think is an improved number and who knows, we may end up slightly better than that.

If we talk about the optical days of storage, phase out, that is kind of done. There isn't anything else similar to that in the polycarbonates arena. There is a part of the optical data storage business which is remarkably resilient but is relatively low margin.

And then in our CAS area, we don't have any other items where we expect to change the portfolio right now. This was a piece of trading business which the producer of the material decided to take back into their portfolio. So I think that is fairly straightforward. On CapEx guidance for next year, Frank.

Frank Lutz - Covestro AG - CFO

Yes, Paul, on CapEx, we see some shifts from 2016 to 2017. However, overall I do not expect our CapEx figure in 2017 to deviate significantly from our guidance which is EUR500 to EUR550 million in 2017. I think we should stay on track here. I think what you see overall is that we have more spending discipline on CapEx as well and some of the projects that we looked at in the past, we no further pursue because they don't promise the kind of return rates that we expect so therefore we might also see some structural decline in CapEx overall.

From a pension perspective, no need to worry in terms of top ups. About EUR1800 million of the pension liabilities come from Germany where we do not have a legal liability or a legal necessity to pay any top ups. What we might do during the course of the second half is that we start funding some of our pension liabilities out of the cash flow that we generate, but that is still up for decision-making.

Paul Walsh - Morgan Stanley - Analyst

I had just one quick follow-up on polycarbonates. What are your utilization rates at the moment? Is that something you are prepared to shed some light on because if you keep growing at these types of rates, I am just wondering at what point you hit a bit of a ceiling.
Patrick Thomas - Covestro AG - Chairman and CEO

Well, we never declare our own or capacity rates. I think I would look at it in a slightly different way. What we are doing with our capacity is we are trying to maintain margins above 20% for the next few years. That is based upon our supply understanding so what we think is going to be added and our ability to continue to innovate in this market space. We are seeing quite a few parts of that business change. So if I just give you an example.

In the world of electronics where we have always seen good strong growth, I think everybody is aware that mobile phones and laptops are becoming less prominent as the drivers of growth but they are rather being replaced by what people are referring to as the Internet of Things. These are the things that are now driving that business and these are things like network devices. If you have seen the new AirPort Extreme that has come out of Apple, that is a polycarbonate big box. It is a very sophisticated networking device. Because everybody has got network connected fitness devices, healthcare devices, domestic appliances and now Internet connected whether it is refrigerators, washing machines, all sort of devices, 3-D gaming equipment, new gaming equipment, and other wearables. This is the new growth segment of devices connected largely by wireless and Bluetooth into networks. And that is actually quite a big market for our polycarbonates business and it is sort of change in profile of business which is driving it quite nicely. And that sort of level of innovation we see driving us about 7% growth. So what we are trying to do is manage these as I say to try and maintain the margins in that arena.

Paul Walsh - Morgan Stanley - Analyst

That is very clear, Patrick. Thanks.

Operator

Mr. Mackey

Peter Mackey - Exane BNP Paribas - Analyst

Peter Mackey here from Exane BNP Paribas. I just wanted to clarify a few little numbers and then come back to a question on CAS. But could you do the usual quantification of the styrene contribution this quarter, please? And perhaps you mentioned that the Baytown force majeure was just a few thousand tons. But I think previously you had indicated a sort of high single-digit EBITDA impact. Is that accurate or have you got some more clarification there?

I wonder if I can just push, you are acknowledging that the TDI pricing balance in second quarter is obviously not consistent with the real fundamentals in the TDI market. Would you put the Q2 versus Q1 polyurethanes development, i.e., the additional 14 million, 15 million EBITDA down to that TDI impact or is there another way you could quantify that unusual strength in TDI?

And on CAS, I just wanted to press you a little bit. I think in recent months you talked about perhaps coming under a little bit of pressure from some of your customers particularly in the big coatings players to pass on lower input costs. So it doesn't feel as if you have been under that pressure particularly so far. Are you seeing any evidence of that during Q2? Are you expecting any more of that in the second half? Thanks very much.

Patrick Thomas - Covestro AG - Chairman and CEO

Okay, thank you very much for your good questions there, Peter. So on styrene, I think the best way of doing it otherwise are going to get into a styrene numbers game every call is to sort of give a picture for what we see now with styrene. I think we seem to have reached a new stable level on an annual basis with styrene. Styrene is clearly volatile, month to month, quarter to quarter, but I think structurally for whatever reason in styrene, and as I have said before, I'm not a world expert in styrene. There are plenty of other people who understand styrene way better than I do. It just occurs to me that we have now reached a new level.
So I don’t think you should be looking for quarter-to-quarter deviations. The full-year effect will be pretty much similar I think this year as it was last year. So I think that is probably what’s happened in terms of styrene.

On the Baytown force majeure, Frank?

Frank Lutz - Covestro AG - CFO
Yes, you said it, we had an impact of a high single-digit EBITDA loss due to the force majeure in Baytown, so rather negligible.

Patrick Thomas - Covestro AG - Chairman and CEO
Then on TDI strength within the polyurethane portfolio in quarter two, I think your assumption is perfectly valid. I think that is probably a very good way of looking at it.

In CAS, yes, we signaled that we would be probably under pressure in quarter two. The pressure hasn’t been quite as much as we would have expected and some of that is due to contract durations and contractor arrangements. I still think there is some opportunity for us to come under greater pressure.

But I also look at the value chain all the way through from the coatings, raw materials to the coatings companies and they are also enjoying in general, most of our customer seem to be enjoying higher margins as well. So the pressure passes and coming to bear as strongly as we might have forecasted.

Peter Mackey - Exane BNP Paribas - Analyst
I just want to check, you are not actually seeing -- I mean you say you got some protection from contracts, you haven’t already started negotiations from a lower pricing point for whenever those contracts roll off? It sounds as if that pressure has just eased a bit.

Patrick Thomas - Covestro AG - Chairman and CEO
Yes, I think I would say the pressure has eased and yes, I think we are seeing it is not a major factor. It is not a big deal at the moment.

Peter Mackey - Exane BNP Paribas - Analyst
Thank you.

Operator
Mr. Grueten.

Lutz Grueten - Commerzbank - Analyst
Lutz Grueten, Commerzbank. Thank you for taking my two questions. The one is also on cost related to talking about the pace out of the trading product. Could you give more background on that and you might also be able to quantify these impacts. And the second one is on the core volume growth in the second quarter also one specific month which was specifically strong or weak and were there trends from April to June just to get a bit of grip here on the core volume growth for the quarter. Thank you.
Patrick Thomas - Covestro AG - Chairman and CEO
Okay, Lutz, I hand over to Herr Lutz to answer those questions.

Frank Lutz - Covestro AG - CFO
On your first question regarding the CAS trading product, we were selling the trading product for one of our competitors until the end of last year. And that contract expired and that will have for the full year of 2016 a volume effect of about 5%. So whenever you look at our volume growth in order to do a year-on-year comparison like for like, you need to add 5% manually on the growth and the profitability impact is slightly less because margins were lower.

Patrick Thomas - Covestro AG - Chairman and CEO
And Lutz, on the core volume growth I would take it as fairly study and equal. There was not a particular pattern month by month, it was well spread through the quarter. Very stable.

Lutz Grueten - Commerzbank - Analyst
Perfect. Thanks.

Operator
Mr. Spengler.

Peter Spengler - DZ Bank - Analyst
Good afternoon, gentlemen. Thank you for taking my question. You generously added EBITDA guidance to your usual set of key figures. Can we expect EBITDA guidance in the future as well or after Q2 in general?

Patrick Thomas - Covestro AG - Chairman and CEO
Okay, Peter. Yes, I think the latter is the answer. I think we will generally probably start to give full-year EBITDA guidance at the end of quarter two.

Frank Lutz - Covestro AG - CFO
But we continue to give EBITDA guidance on a quarterly basis as we have already done after Q1.

Peter Spengler - DZ Bank - Analyst
Okay, thanks.

Operator
Mr. Mayer.
Markus Mayer - Baader-Helvea Equity Research - Analyst

Good afternoon, gentlemen. Markus Mayer, Baader-Helvea. Two questions remaining. Firstly, I know you have a low UK exposure but has the visibility or the volatility changed after the Brexit event? Secondly, on the raw material tailwind you had so far, there is roughly 22 million to 23 million per quarter. Do you expect this to change during the third quarter or the second half or have you already started to then renegotiate the price for your products and therefore can keep this momentum? Thanks.

Patrick Thomas - Covestro AG - Chairman and CEO

Thank you very much for your questions, Markus. Despite my personal disappointment in Brexit as a Brit not living in Europe UK, yes, Brexit is starting to become a little bit clearer in terms of what this means. 2% of our sales are in the UK. They are denominated in euros so we have no GDP exposure, no UK pound exposure. That is because there are really no competitor that we have in the UK.

I think from the point of view of the automotive industry and that is probably the one that perhaps I would see as having the biggest impact, the UK as you know imports about 90% of their light vehicles of which 80% come from Europe and of which 30% come from Germany. So this is a fairly obvious zone where I believe that in Europe there may be some impact on the automotive market.

I think if we look at Brexit in terms of the construction industry which is obviously the other zone that I would be concerned about for this business particularly non-residential, so office buildings and commercial buildings. There may of course be some impact there but I could argue that if people are moving staff, then they are going to move location and the offices that may not be built in the UK may well be built elsewhere in Europe. So I think it might be a zero-sum game there and we are building regulations what they are. It is a very similar pattern in terms of demand for us because construction is a very regional business. So that is probably my best view on Brexit.

Markus Mayer - Baader-Helvea Equity Research - Analyst

But the visibility and volatility have not changed since then?

Patrick Thomas - Covestro AG - Chairman and CEO

No, a lot of the UK-based companies we supply - I will just give you one example purely off the top of my head - supply Dyson with a lot of materials for their highly innovative devices and 99% of their manufacturing is in Southeast Asia. So from our point of view, we see no change in their order profile or their demand patterns there. I think these devices are selling regardless of Brexit.

Markus Mayer - Baader-Helvea Equity Research - Analyst

Okay, perfect.
First, a financial one. The cash tax rate has increased I think about 50% if I use PVT versus 20%, 30% last year. Could you give us some outlook for the second part of the year? Are we going to go back to a similar level of last year and any impact, anything that drove this cash tax rate a bit higher than expected, that was question number one.

Question number two: again going back to Peter's question about the impact of temporary shutdowns for measure elsewhere. If I understood correctly, you said that the difference in PUR EBITDA between Q1 and Q2 is a good proxy for how much you benefited in your estimate of TDI and all those shutdowns were made at spot prices. Adjusted that with the Chinese price, which you completed in Q2, is that part of your equation too or the price impact was not that much on these extra volumes you got?

Question number three: - if you could look at mixed signals in terms of light vehicles development globally, could you share your views on how it will develop for the second part of this year geographically and also local versus global OEM trends as you see it, Patrick? Thanks.

Patrick Thomas - Covestro AG - Chairman and CEO

Okay, thank you very much for your questions, Patrick. Can I ask Frank the cash tax rate answer to the cash tax rate question.

Frank Lutz - Covestro AG - CFO

Patrick, in terms of cash tax rate, the comparison with the first half 2015 does unfortunately not really work because at that point we were still part of the Bayer Group and not all the taxes that we had to pay at this time actually had a cash effect. Some of them were taken out of our equity at that time because we were part of as I said the cash pooling and also the overall Bayer Group. So therefore the cash tax rate in the first half of 2016 was slightly higher than our effective tax rate also because we made tax prepayments that will not occur in the second half of 2016.

Our guidance in terms of cash tax rate is around 35% for 2016 and for the effective tax rate, the guidance is slightly below 30%, so slightly better than in 2015.

Patrick Lambert - Raymond James Euro Equities - Analyst

And as of PVT, right?

Frank Lutz - Covestro AG - CFO

Yes, exactly. Yes.

Patrick Thomas - Covestro AG - Chairman and CEO

Thank you very much, Frank. To your second question, Patrick, the polyurethane improvement quarter one to quarter two I think is a good proxy for the impact of TDI. Clearly there were a lot of other moving parts going on in there but I think that is probably the easiest answer to the question.

I don't want to get into too much more detail about what has been going on in TDI because to be honest, it is a short-term effect. It is driven by operational factors and it doesn't really change the longer-term cycle which we are waiting to see where TDI should rise back up in terms of pricing power over the next two years.

Light vehicle development, very good question. I think I partly answered it for Europe when I talked about the major risk there is really Brexit and what that might do in terms of UK car demand and the impact that could have on European producers.
I think in NAFTA, we've got a very different picture, very strong demand, mostly driven by the use of OEM incentive plans. I would say we at a historic peak in terms of light vehicles in the US. These incentive plans are all of these deals where you get free insurance, free delivery, free maintenance, free financing, all of these other incentives for the OEM and that is certainly driving the American car position.

In China, a slightly different situation. So pretty solid production. Now one of the biggest car producing nations in the world if not the biggest. They have had in place through to the end of this year tax incentives to buy domestically produced locally branded small vehicles. That tax incentive comes to an end at the end of this year as far as I am aware, so there could be some trickle-down in terms of demand into 2017.

There is a subsegment within that market which is about 2.5% of the car market in China which is the totally electric vehicle market and that is currently growing at about 125% a year from what we can see. So this is double the size of the market a year type of growth rate. We like it because it needs a lot of our material. So you need very lightweight vehicles, you need insulation in the vehicle because you don't want to waste factory power in heating or cooling and the crash system in the car must be non-metal otherwise you cause factory fires which are even more frightening than a gasoline fire.

So I think that is sort of the light vehicle picture in China.

I think the overall trend with light vehicles for us we see growth beyond the traditional growth in the cars as people strive to lightweight the vehicles even more and we see another trend which is where the car companies in China are trying to get ready for export. The Chinese companies have been exporting already to Africa and now to the Middle East, now to Southern Europe and to match the competitive market, they are going for high-quality coatings and we are certainly seeing in our CAS business, in our coatings business the Chinese automotive industry starting to want to use similar systems to the ones that are used by the majors in Europe and America. So that is another driver.

So quality of cars are going up in the light-vehicle space, that helps us. The light weighting challenge continues and that helps our business growth.

Patrick Lambert - Raymond James Euro Equities - Analyst

Thank you.

Operator

Mr. Swoboda.

Thomas Swoboda - Societe Generale - Analyst

Thomas Swoboda from Soc Gen. Three quick questions please. On TDI, I was just wondering if you could share with us whether you see any pre-marketing activities for the new volumes either from BASF Lufdwigshafen or Sadara in the market? That is the first one.

The second, on MDI at the time of the IPO, we have been discussing that your utilization rates in MDI are somehow below the market’s utilization rate. And I am just wondering whether you have been able to now close this utilization gap or this is still something which is to come?

Thirdly, very quickly, the mandatory plant shutdowns around the G20 Summit in China, do you expect any production constraints at your sites?

Patrick Thomas - Covestro AG - Chairman and CEO

So let me take the easy one first. So that the G20 impact on us is minimal so the G20 meets in Hangzhou which means the local chemical site that is impacted the most is Ningbo and they will shut down for 14 days. That is roughly 4% of annual production and in that site some of our competitors
were affected so Wanhua will have 1.2 million tons of MDI capacity there that will be shut down. They have 110,000 tons of polyols and there is also a propylene oxide facility there, which will have to be shut down.

Our main site is in Shanghai, Caojing, and this site is not affected by this order at all. So that is the answer on G20. So if anything there might actually be a positive effect but I would say that period of time most people would be able to manage with stock.

On TDI pre-marketing, I can’t really give an answer for competitive reasons. I think the plants have to find their own way into the market and I don’t really have the intelligence to hand if you like that I can share that would give you a picture on that. I think that would be a little bit difficult.

In MDI utilization, what we are seeing going out until 2020 is a growth rate on the demand side of about 4% to 5%. Just to give you a fix on that, quarter one was actually above 7% on MDI in terms of global growth, so we are taking a position of 4% to 5% across the period from 2015 to 2020. In the same period, the visible supply additions are running at 2.6%, so we are clearly seeing a tightening that is developing during that period. It is not a smooth spread so there is an addition which comes in which peaks in 2017, then drops almost to zero in 2018, then goes back up to about 2% in 2019 and in 2020, it is about zero.

So it is not an even distribution of addition rate. But if you take the averages, that is probably the case. Our utilization rate is pretty much catching up by the end of 2016. So what I was looking at before is the industry as a whole, now for us, we were able to increase the utilization rate and that is actually the effect you are seeing in the EBITDA. We are actually driving core volume growth there, utilizing the assets and that is what drives the bottom line.

**Thomas Swoboda - Societe Generale - Analyst**

This is very helpful and I understand that you are not willing to talk about the other plants. Thank you very much.

**Operator**

Mr. Rafaisz.

**Patrick Rafaisz - UBS - Analyst**

Patrick Rafaisz, UBS. Just one question remaining around the maintenance shutdowns. Can you talk a bit more about how that impacted your cost the second also compared to the second quarter last year and how we should think about that in the next quarters? Thank you.

**Patrick Thomas - Covestro AG - Chairman and CEO**

Thank you very much, Patrick. Maintenance shutdowns, let me just find the right page. So if we look at quarter two in the charts, we have shown an other items line which reflects the lower maintenance costs that we experience during quarter two. So that is in the chart 9 in the pack that is online.

You can see there the total effect in other items is 27 million, and some part of that, a major part actually was reduced shutdown effects. If we look at what we've got ahead of us in terms of turnarounds, then we'd have quite a program in Baytown in quarter four which will affect all of our businesses there. We actually have to replace the steam supply mains on the site which has now reached the end of their life so that is a low risk turnaround from that point of view.

We expect a financial burden from that versus quarter three but the year-on-year earnings effect is expected to be a positive because if you look at the very large Caojing shutdown we took in quarter four 2015 which had a negative impact of about EUR50 million on earnings then this is
probably significantly less than that. So in terms of balance, you shouldn’t see a huge effect year-on-year, a positive effect but not massive. Does that make sense?

Patrick Rafaisz - UBS - Analyst
Yes, makes sense.

Operator
Mr. Koehler, there are no further questions at this time. Please continue with any other points you wish to raise.

Ronald Koehler - Covestro AG - Head of IR
So thank you all for participating and your interesting questions and I’m looking forward to meeting you during the quarter or at latest talk to you again in the next Q3 conference call. Thank you. Bye.